

SELF-STUDY REPORT

1. Profile of the Affiliated/Constituent College

1. Name and Address of the College:

Name:	SHAHEED BHAGAT SINGH STATE TECHNICAL CAMPUS		
Address:	NH-95, MOHA ROAD, FEROZEPUR (PUNJAB)		
City:	Pin:152004	State:PUNJAB	
Website:	www.sbstc.ac.in		

2. For Communication:

Designation	Name	Telephone with STD code	Mobile	Fax	Email
Principal	Dr. T.S.Sidhu	O:01632-242138 R:082880-12001	82880 12001	01632- 242138	tssidhu@rediff mail.com
VicePrincipal		O: R:			
Steering Committee Co-ordinator		O: R:			

3. Status of the Institution:

Affiliated College

4. Type of Institution:

- a. **By Gender**
Co-education
- b. **By Shift**
Regular

5. Is it recognized minority institution?

No

If yes specify the minority status (Religious/linguistic/anyother) and provide documentary evidence.

6. Sources of funding:

Government
Grant-in-aid
Self-financing
Anyother

7. a. **Date of establishment of the college:** april, 1994(dd/mm/yyyy)
- b. **University to which the college is affiliated/or which governs the college (if it is a constituent college)**

Punjab Technical University, Jalandhar

c. Details of UGC recognition:

Under Section	Date,Month&Year (dd-mm-yyyy)	Remarks(Ifany)
i.2(f)	07/01/2014	
ii.12(B)	Applied For	

(Enclose the Certificate of recognitionu/s2(f) and 12(B) of the UGCAct)

Ph. 23236351, 23232701, 23237721
23234116, 23235733, 23232317
23236735, 23239437, 23239627

Extension No. 413 (CPP-I Colleges)
UGC Website: www.ugc.ac.in

F. No. 8-295/2013 (CPP-I/C)

The Registrar,
Punjab Technical University
Jalandhar
Punjab



ज्ञान-विज्ञान विमुक्तये
SPEED POST

विश्वविद्यालय अनुदान आयोग
बहादुरशाह जफर मार्ग
नई दिल्ली-110 002
UNIVERSITY GRANTS COMMISSION
BAHADURSHAH ZAFAR MARG
NEW DELHI-110 002

Diary No. 10
Date 13 Jan 14
SBSSTC Ferozpur

December, 2013
January

7 JAN 2014

Sub: - Recognition of College under Section 2 (f) of the UGC Act, 1956.

Sir,

I am directed to refer to the letter no. SBS/FZR/3034 dated 30-08-2013 received from the Principal, Shaheed Bhagat Singh State Technical Campus, Moga Road (NH - 95), Ferozpur - 152 004, Punjab on the above subject and to say that it is noted that the College is **un-aided/self-financing** and **temporary** affiliated to **Punjab Technical University, Jalandhar**. I am further to say that the name of the following College has been included in the list of Colleges prepared under Section 2 (f) of the UGC Act, 1956 under the head **Non-Government** Colleges teaching upto **Master's Degree**:-

Name of the College	Year of Establishment	Remarks
Shaheed Bhagat Singh State Technical Campus, Moga Road (NH - 95), Ferozpur - 152 004, Punjab.	1995	The college does not fulfill the requirement of permanent affiliation. Therefore, the college is not eligible to receive Central assistance under Section 12 (B) of the UGC Act, 1956.

The Indemnity Bond and the other supporting documents submitted in respect of the above College have been accepted by the University Grants Commission.

Yours faithfully,

(Ajay Kumar)
Education Officer

Copy to:-

- ✓ The Principal, Shaheed Bhagat Singh State Technical Campus, Moga Road (NH - 95), Ferozpur - 152 004, Punjab.
- The Secretary, Government of India, Ministry of Human Resource Development, Department of Secondary Education & Higher Education, Shastri Bhavan, New Delhi - 110 001.
- The Special Secretary (Higher Education), Government of Punjab, Room No. 408, 4th Floor, Mini Secretariat, Chandigarh - 160 009.
- The Joint Secretary, UGC, Northern Regional College Bureau (NRCB), 35, Ferozeshah Road, New Delhi - 110 001.
- Publication Officer, (UGC-Website), New Delhi.
- Section Officer (F.D.-III Section) U.G.C., New Delhi.
- Guard file.

1. Dr. Rakesh K. Sharma, DA(A)
2. Dr. Tjeji, TEOIP (Coordinator)
3. Dr. Anjali, DA

13/01/14

(Sunita Khanna)
Section Officer

**d. Details of recognition/approval by statutory/regulatory bodies other than UGC
(AICTE,NCTE,MCI,DCI,PCI,RCI etc.)**

UnderSection/ clause	Recognition/Approval details Institution/Department Programme	Day,Month and Year (dd-mm-yyyy)	Validity	Re m ar
i.AICTE(Regulations 2012 notified by the Council vide notification number F-No.37-3/Legal/2012 dated 27/09/2012 and norms standards	F.No. North-West/1-2016385775/2014/EOA SHAHEED BHAGAT SINGH State Technical Campus / Engineering STATE TECHNICAL CAMPUS/All Engg. ,MCA,MBA,Diploma Programme	04-06-2014	2014-2015	
ii.				
iii.				
iv.				

The recognition/approval letter is available on college web site

8. Does the affiliating university Act provide for conferment to autonomy (as recognized by the UGC), on its affiliated colleges?

Yes

If yes, has the College applied for availing the autonomous status?

Yes

9. Is the college recognized

a. by UGC as a College with Potential for Excellence (CPE)?

No

If yes, date of recognition:.....(dd/mm/yyyy)

b. for its performance by any other government agency?

No

If yes, Name of the agency.....and

Date of recognition:.....(dd/mm/yyyy)

10. Location of the campus and area in sq.mts:

Location*	Rural and Border Area (Indo-Pak Border)
Campus area in sq.mts.	98.2 ACERS
Built up area in sq.mts.	41961 Sq. Meter

(*Urban, Semi-urban, Rural, Tribal, Hilly Area, Any others specify)

11. Facilities available on the campus (Tick the available facility and provide numbers or other details at appropriate places) or in case the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covered under the agreement.

- Auditorium/seminar complex with infrastructural facilities

- Sports facilities

- * play ground YES

- * swimming pool In-process

- * gymnasium YES

- Hostel

*Boys' hostel

i. Number of hostels : 04

ii. Number of inmates: 1100

iii. Facilities (mention available facilities)

- Guest Room
- T.V. room with DTH Connection.
- Common room for indoor Games like Table-tennis, Chess, Carom.
- Fully Wi Fi Connected hotel.
- Magazines and newspapers
- Computer with internet facilities in Common Room
- Lush green parks in each hostel.
- Fully furnished mess with fly tracker
- RO treated drinking water
- Gymnasium

***Girls' hostel**

- i. **Number of hostels: 2**
- ii. **Number of inmates: 276**
- iii. **Facilities**
 - Basket Ball Court
 - Two Badminton Courts
 - Guest Room and Common Room
 - T.V. room with DTH Connection.
 - Residence for warden
 - Indoor Games like Table-tennis, Chess, Carom.
 - Computer with internet facilities in Common Room
 - Fully Wi Fi Connected hotel.
 - Lush green parks in each hostel.
 - Fully furnished mess with fly tracker

- RO treated drinking water
- Gymanisum

* Working women’s hostel: NA

- Number of in mates
- Facilities(mention available facilities)

● Residential facilities for teaching and non-teaching staff(give numbers available—cadrewise)

- Director Residence
- A-Type Houses (1800 Sq.ft)- 08Nos
- B-Type Houses (1300 Sq.ft)- 16 Nos
- C-Type Houses (1000 Sq.ft)- 24 Nos
- D-Type Houses (750 Sq.ft)- 12 Nos
- E-Type Houses (600 Sq.ft)- 24 Nos
- F-Type Houses (450 Sq.ft)-36 Nos

– Cafeteria—YES

● Healthcentre—YES

Firstaid, Inpatient, Outpatient, Emergency care facility, Ambulance: Yes

.....Health centre staff–

Qualified doctor	Fulltime	Part-time	<input type="checkbox"/>
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Qualified Nurse	Fulltime	Part-time	<input type="checkbox"/>
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- Facilities like banking, postoffice, book shops YES
- Transport facilities to cater to the needs of students and staffYES
- Animal house NO Not required
- Biological waste disposal YES
- Generator or other facility for management/regulation of electricity and voltage YES

- Solid waste management facility YES
- Waste water management YES
- Water harvesting YES

12. Details of programmes offered by the college (Give data for current academic year)

Sl. No.	Programme Level	Name of the Programme/ Course	Duration	Entry Qualification	Medium of instruction	Sanctioned/ approved Student strength	No. of students admitted
	Under-Graduate	B.TECH BCA	4YEAR	10+2	Eng.	600 60	575
	Post-Graduate	M.TECH MCA MBA	2YEAR 3YEAR 2YEAR	B.TECH	Eng	179 60 60	79
	Integrated Programmes PG						
	Ph.D.	Ph.D	03-05Years	P.G Degree	Eng		120
	M.Phil.						
	Certificate courses	DIPLOMA	3YEAR	Matric	Eng	350	213
	UG Diploma						
	PG Diploma						
	Any Other (specify and provide details)	10+2	02 years	Matric	Eng	50+50	43+45

13. Does the college offer self-financed Programmes?

No

If yes ,how many?

14. New programmes introduced in the college during the last five years if any?

Yes		No		Number	07
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15. List the departments : (respond if applicable only and do not list facilities like Library , Physical Education as departments, unless they are also offering academic degree awarding programmes. Similarly, do not list the departments offering common compulsory subjects for all the programmes Like English, region all languages etc.)

Faculty	Departments (eg. Physics, Botany, History etc.)	UG	PG	Research
Science	Applied Sciences and humanities	No	No	Yes
Arts	Applied Sciences and Humanities	No	No	Yes
Commerce				
Management	Department of Management	No	Yes	Yes
Computer Applications	Department of Comp. App.	Yes	Yes	Yes
Engineering	1. Dept. of Mechanical Engg. 2. Dept. of Chemical Engg. 3. Dept. of Comp. Sc. & Engg. 4. Dept. of Electrical Engg. 5. Dept. of Elect. Comm. Engg. 6. Dept. of Civil Engg.	Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes No

16. Number of Programmes offered under (Programme means a degree course like BA, BSc, MA, M.Com...)

a. Yearly System: No

b. semester system:

14 (7 UG+ 7PG)

17. Number of Programmes with

a. Choice Based Credit System Nil

b. Inter/Multi disciplinary Approach 06

c. Any other (specify and provide details)

6. Does the college offer UG and/or PG programmes in Teacher Education?

No

If yes,

a. Year of Introduction of the programme(s)..... (dd/mm/yyyy)

and number of batches that completed the programme b.

NCTE recognition details (if applicable)

Notification No.:.....Date:

.....(dd/mm/yyyy)

Validity:.....

c. Is the institution opting for assessment and accreditation of Teacher Education Programmes separately?

Yes No

19. Does the college offer UG or PG programme in Physical Education?

No

If yes,

a. Year of Introduction of the programme(s).....(dd/mm/yyyy)

and number of batches that completed the programme b.

NCTE recognition details (if applicable)

Notification No.:.....Date:

.....(dd/mm/yyyy)

Validity:.....

c. Is the institution opting for assessment and accreditation of Physical Education Programmes separately?

No

20. Number of teaching and non-teaching positions in the Institution

Positions	Teaching faculty						Non-teaching staff		Technical staff	
	Professor		Associate Professor		Assistant Professor		*M	*F	*M	*F
	*M	*F	*M	*F	*M	*F	*M	*F	*M	*F
Sanctioned by the UGC/University/ State Government <i>Recruited</i>	12	03	17	05	57	47	39	06	70	05
<i>Yet to recruit</i>										
Sanctioned by the Management/ society or other authorized bodies <i>Recruited</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
<i>Yet to recruit</i>										

*M-Male *F-Female

21. Qualifications of the teaching staff:

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.							
Ph.D.	12	03	08	01	02		26
M.Phil.					01	01	02
PG			09	04	24	08	45
Temporary teachers							
Ph.D.							
M.Phil.							
PG					22	32	54
Part-time teachers							
Ph.D.							
M.Phil.							
PG					08	06	14

22. Number of Visiting Faculty/Guest Faculty engaged with the College.

Nil

23. Furnish the number of the students admitted to the college during the last four academic years.

Categories	2009-2010		2010-2011		2011-2012		2012-13	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	71	19	87	19	104	19	58	31
ST								
OBC								
General	348	123	369	137	357	125	339	112
Others(Fee waiver+LEET))T	22+65	16+18	14+66	07+23	17+89	04+15	16+20	05+4

24. Details on students enrollment in the college during the current academic year:

Type of students	UG	PG	M.Phil.	Ph.D.	Total
Students from the same State where the college is located	291	74	nil	120	485
Students from other states of India	284	05	Nil		289
NRI students	Nil		Nil	nil	
Foreign students	Nil		Nil	nil	
Total	575	79		120	774

25. Drop out rate in UG and PG (average of the last two batches) UG

PG NIL

The dropout rate is nil because our affiliating university PTU, Jalandhar follows 'carry on' system

26. Unit Cost of Education

(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)

- | | |
|-----------|----------------------|
| (a) | including the salary |
| component | Rs.100000.00 |
| (b) | excluding the salary |
| component | Rs.30000.00 |

27. Does the college offer any programmes in distance education mode (DEP)?

No

If yes,

a) Is it a registered centre for offering distance education programmes of another University

Yes

No

b) Name of the University which has granted such registration.

c) Number of programmes offered

d) Programmes carry the recognition of the Distance Education Council.

Yes

No

28. Provide Teacher-student ratio for each of the programme/course offered

01:15

29. Is the college applying for

Accreditation: Cycle1 Cycle2 Cycle3 Cycle4

Re-Assessment:

(Cycle1 refers to first accreditation and Cycle 2, Cycle 3 and Cycle4 refer to re-assessment accreditation)

Yes, For Cycle 01

30. Date of accreditation* (applicable for Cycle2, Cycle3, Cycle4 and re-assessment only)

Cycle1:.....(dd/mm/yyyy)

Accreditation Outcome/Result.....Cycle2:

.....(dd/mm/yyyy) AccreditationOutcome/Result.....Cycle3:.....

(dd/mm/yyyy) AccreditationOutcome/Result.....

**Kindly enclose copy of accreditation certificate (s) and peer teamer port (s) asan annexure.*

Not Applicable

31. Number of working day sduring the last academic year.

192 days

32. Number of teaching days during the last academic year

154 days

33. Date of establishment of Internal Quality Assurance Cell (IQAC) IQAC

15.01.2014

34. Details regarding submission of Annual Quality Assurance Reports (AQAR)to NAAC.

AQAR (i)(dd/mm/yyyy)

AQAR(ii).....(dd/mm/yyyy)

AQAR(iii).....(dd/mm/yyyy)

AQAR (iv)(dd/mm/yyyy)

Not Applicable

35. Any other relevant data (not covered above) the college would like to include. (Do Not include explanatory/descriptive information)

2.Criteria-wise Inputs

CRITERION1: CURRICULAR ASPECTS

1.1 Curriculum Planning and Implementation

1.1.1 State the vision, mission and objectives of the institution, and describe how these are communicated to the students, teachers, staff and other stake holders.

Vision

To be identified as preferred destination for professional studies responsive to industrial and societal needs of the country.

Mission

- Development of technically competent manpower with requisite analytical, theoretical and managerial skill and practical exposure.
- All round development of students, staff and faculty by providing conducive environment and infrastructure for learning, skill development and research.
- Imbibing versatility, adaptability and yearning for excellence amongst students with highest ethical values as their inner strength.

HOW THEY ARE COMMUNICATED TO THE STUDENTS, TEACHERS, STAFF AND OTHER STAKEHOLDERS

1. Through Display Boards at all important locations in the Institute Buildings
2. Web-site
3. College Information Brochures

1.1.2 How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and substantiate through specific example(s).

[A] A course file is maintained for each subject comprising of following documents:

- Day wise Teaching Plan for the whole course curriculum to be covered in the semester.
- Planning of weekly Assignments and Tutorial sheets to be given to the students

- Teaching Material
 - Academic calendar showing the schedule of academic support activities of the semester
- [B] Curriculum is divided into three parts. After completion of each part MSTs are conducted.
- [C] Students are given assignments and tutorials as per the plan contained in the course file

1.1.3 What type of support (procedural and practical) do the teachers receive from the University and/or institution) for effectively translating the curriculum and improving teaching practices?

- [A] Institute has provided a well stocked library and e-resources for facilitating its teachers to effectively implement the curriculum.
- [B] Smart class rooms are available in the enabling teachers to deliver lectures through ppts and other multimedia means.
- [C] Wi-fi and dedicated internet facilities are provided in the laboratories, faculty offices as well as in the library. It enhances their potential for effectively translating the curriculum and improving teaching practices.
- [D] Wi-fi and dedicated internet facilities are also provided in the each residence in the campus for providing academic support to teachers round the clock.
- [E] Institute regularly sponsors its faculty for FDPs to improve their skills in their respective fields.
- [F] Institute has provided EDU-SAT facility for effectively and efficiently delivering the course contents.
- [G] Institute has also given individual laptop to each faculty member.

1.1.4 Specify the initiative taken up or contribution made by the institution for effective curriculum delivery and transaction on the Curriculum provided by the affiliating University or other Statutory agency.

- [A] A number of workshops comprising of senior faculty members of the institute as well as faculty members from other institutes especially from IITs, NITs etc. are conducted for effectively preparing the course plan of individual curriculum.

[B] Faculty development and orientation programmes are organised in the institute from time to time for the junior faculty for effective curriculum delivery of the different courses.

[C] Institute conducts three MSTs for monitoring the delivery of course curriculum.

1.1.5 How does the institution network and interact with beneficiaries such as industry, research bodies and the university in effective operationalisation of the curriculum?

1. The chairman of BOG is an Industrialist who directly provides his inputs
2. There are representatives of Industry, university and eminent educationists as members of the governing body.
3. The institute has signed MOUs with many industries.
4. Institute has started the practice of offering its students value added courses recommended by the employing industries
5. Eminent personalities from reputed companies are invited to the institute for delivering lectures and interaction with the students.
6. Eminent professors from foreign institutions conduct workshop every year for the faculty members and students.
7. Students are sent to six month training in the final year of their degree programme to various Industries to provide them the practical exposure for practical implementation of theoretical concepts.
8. Institute has got number of projects from AICTE, DST and other research organizations which help the students to carry out their minor and major projects.
9. Our institution has different collaborations with National & Foreign Universities which helps the students and faculties for their higher studies and research.

1.1.6 What are the contributions of the institution and /or its staff members to the development of the curriculum by the University?(number of staff members/departments represented on the Board of Studies , student feed back ,teacher feed back, stake holder feed back provided, specific suggestions etc.

1. This institute is an affiliated Institute of Punjab Technical University Jalandhar and therefore we have to follow the curriculum designed by the affiliating university. However many faculty members are members of University Board of Study, which administers the framing of curriculum and all related issues.

Number of Departments Represented on the Board of Studies	03
Number of Staff Members on Board of Studies	04
Student Feedback taken for Curriculum Development	Yes
Teacher Feedback taken for Curriculum Development	Yes
Stakeholder Feedback taken for Curriculum Development	Yes

2. The institute regularly interacts with various stakeholders such as Industry, Alumni, Parents, Faculty, Students etc. And their feedbacks are taken into consideration and accordingly conveyed to the board of studies of affiliating universities.
3. In addition to the prescribed experiments, various additional experiments are designed and conducted at the institutional level to enhance the skills of the students.

1.1.7 Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating university) by it ? If 'yes', give details on the process ('Needs Assessment', design, development and planning) and the courses for which the curriculum has been developed.

Yes.

- [A] As the institute often have interaction with Industry, alumni and other stakeholders, therefore based on their feedbacks the existing course contents are reviewed and assessed at the departments' level. Consequently, as per the requirements each department of the Institute offers additional value added courses to fill up the gap.

[B] Recently, on the feedback of Infosys five new value added courses have been added in the course curriculum of Computer Science and Engineering.

1.1.8 How does institution analyze/ensure that the stated objectives of curriculum are achieved in the course of implementation?

- A. The institute conducts three MSTs to measure the performance of the students in the respective subjects.
- B. Students are given minor projects related to the course contents to check their theoretical and practical knowledge.
- C. Assignments and Tutorial Sheets are given to the students regularly as per course plan
- D. Student Feed Back is taken twice in each semester.

1.2 Academic Flexibility

1.2.1 Specifying the goal and objectives give details of the certificate/diploma/skill development courses etc. , offered by the institution.

To provide conducive environment for all round development of the students the institute offers various integrated courses such as 10+2 and three year Engineering Diploma Programme. The meritorious students after 10+2 are encouraged to enroll for B.Tech. Programmes. Similarly, students after three year Diploma are directly admitted in Second year.

1.2.2 Does the institution offer programmes that facilitate twinning/dual degree? If 'yes', give details.

No. Institute does not offer twinning or dual degree courses

1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic ability, progression to higher studies and improved potential for employability. Issues may cover the following and beyond:

- Range of Core/Elective options offered by the University and

those opted by the college

- Choice Based Credit System and range of subject options
- Courses offered in modular form
- Credittransfer and accumulation facility
- Lateral and vertical mobility within and across programmes and courses
- Enrichment courses

1. Institute allows lateral admissions to 2nd year of B.Tech and MCA courses.
2. It offers a range of enrichment courses called Value Added Courses.
3. From Semester I to IV, the students are offered common courses. From semester V to VIII, the students are offered nearly 20% elective courses.
4. For all round development of the students, open electives are offered which can be opted by the students of all the branches.

1.2.4 **Does the institution offer self-financed programmes? If 'yes', list the main and indicate how they differ from other programmes, with reference to admission, curriculum, fee structure, teacher qualification, salary etc.**

No

1.2.5 **Does the college provide additional skill oriented programmes, relevant to regional and global employment markets? If 'yes' provide details of such programme and the beneficiaries.**

- A. Yes, five new value added courses have been added in the curriculum of Computer Science and Engineering based on the feedback from INFOSYS.
- B. Students from V semester onwards are also imparted with soft skill training to improve their communication and interpersonal skills.

1.2.6 **Does the University provide for the flexibility of combining the conventional face-to-face and Distance Mode of Education for students to choose the courses/combination of the choice? If**

'yes', how does the institution take advantage of such provision for the benefit of students?

No

1.3 Curriculum Enrichment

1.3.1 Describe the efforts made by the institution to supplement the University's Curriculum to ensure that the academic programme and Institution's goal and objective are integrated?

In order to integrate the goals and objectives of the institution with university Curriculum, following supplementary efforts are being made by the institution:

- A. Content beyond syllabus has been added in the curriculum of each subject.
- B. The faculty members are encouraged to attend refresher courses, faculty development programmes to enhance their knowledge and skills.
- C. Students are sent to six months training to bridge the gap between theoretical knowledge and practical skills.

1.3.2 What are the efforts made by the institution to enrich and organize the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market?

- A. In hand practical training is given to the students of all disciplines in the central workshop of the institute.
- B. Basic courses on information technology and environment are offered to students of students of all the disciplines.
- C. The faculty is encouraged to teach beyond the contents of the syllabus to enhance the experience.
- D. The institute has six different societies which reinforce the knowledge of students by conduct of technical events related to their fields.
- E. Value added courses based on industry feedback are being taught.

1.3.3 Enumerate the efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICTetc., into the curriculum?

The efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental education, Human Rights, ICT etc are as follows:

- A. The institution has a Women's Grievance Cell to take care of the various sensitive issues regarding the Women's right and security. The Cell consists of senior lady faculty and staff members of the institute.
- B. The institute regularly conducts seminar/lecture series on human values and moral/ethical practices.
- C. In the university curriculum following special courses have been added for all the students to impart human values, environmental education, Computer skills amongst others:
 - i) Human values
 - ii) Environmental sciences
 - iii) Fundamental of Computer Programming & Information Technology

1.3.4 What are the various value-added courses/enrichment programmes offered to ensure holistic development to students?

- § **Moral and ethical values**
- § **Employable and life skills**
- § **Better care eroptions**
- § **community orientation**

- A. The following value added courses are being taught to the students:
 - a. Mobile Application Development
 - b. Business Intelligence
 - c. Essentials of Information Technology
 - d. Web Technology
 - e. Essentials of Management
 - f. Industrial Engineering

- B. Regular classes on values and ethics are conducted. Eminent speakers are called to speak on different social issues.
- C. Soft skills classes for third year and final year students are regularly conducted.
- D. The Industry-Institute-Interaction Cell (IIIC) regularly conducts workshops and lectures in collaboration with industry personnels.

1.3.5 Citing a few examples enumerate on the extent to which the feedback from stake holders in enriching the curriculum?

- A. Feedback from Alumni: Regular feedback is taken from the alumni and various suggestions are incorporated in improving the knowledge and skills of the students.
- B. Existing Students Feedback: In each semester, feedback is taken twice from each student. The concerned faculty is apprised with the feedback and corrective actions are taken.
- C. Feedback from Employers: The feedback forms are regularly sent to the current employers and their feedback is utilized for providing feedback to university for revision of curriculum.
- D. Board of Governors (BOG): Regular BoG meetings are held in the Institute and many advises and suggestions are discussed and accepted.

1.3.6 How does the institution monitor and evaluate the quality of its enrichment programmes?

The institute monitors and evaluates the quality of its enrichment programs through:

- i) Student feedback
- ii) Regular MSTs
- iii) Alumni feedback
- iv) Student minor and major projects

1.4 Feedback System

1.4.1 What are the contributions of the institution in the design and development of the curriculum prepared by the University?

The institute is affiliated to Punjab Technical University, Jalandhar. Therefore there is no direct role of the institute in the design and development of the curriculum. However, many faculty members are members of University Board of Studies, which administers the framing of curriculum and all related issues. Moreover, the feedback taken from the various institute stakeholders is continuously sent to the members of the university Board of studies.

1.4.2 Is there a formal mechanism to obtain feed back from students and stake holders on Curriculum? If 'yes', how is it communicated to the University and made use internally for curriculumen richment and introducing changes/new programmes?

Yes, a formal mechanism to obtain feedback from students and stakeholders on curriculum is in place.

- A. Feedbak from the students is taken twice in each semester. After analyzing the feedback, it is communicated to the concerened faculty and teaching learning gaps are identified. These gaps are communicated to the university.
- B. Feedback from the various stakeholders such as alumni, parents, employers is obtained at regular intervals to aces the curriculum gaps. The suggestions/changes/ upgradations in the curriculum are conveyed to the University for Necessary Action.

1.4.3 How many new programmes/courses were introduced by the institution during the last four years? What was the rationale for introducing new courses/programmes?)

Any other relevant information regarding curricular aspects which the college would like to include.

Courses started in last four years

- B.Tech. Civil Engineering
- M.Tech in Computer Science and Engineering
- M.Tech in Electronics and Communication Engineering
- M.Tech in Mechanical Engineering

Rationale:

1. Demand of the Civil Engineering Graduates due to huge thrust of Governments on Infrastructure development, Growth in Reality sector and commissioning of large number of Hydal and thermal power projects.
2. No Institute in this backward area of Punjab is offering this course
3. PG courses were started to motivate the students for higher education to enhance the R & D activities
4. To develop the skills and knowledge of students in specialised areas.

CRITERION II: TEACHING-LEARNING AND EVALUATION

2.1 Student Enrollment and Profile

2.1.1 How does the college ensure publicity and transparency in the admission process?

The admission to all B. Tech. courses is conducted in two phases.

Phase I. In first phase the admissions are based on JE entrance test examination and are conducted through online common counseling by PTU Jalandhar. Publicity of phase 1 is carried out by the university itself through advertisements in all leading English newspapers across India and website etc.

Phase II. After completion of phase I, the leftover seats are filled through direct counseling held by institute in the campus. These admissions are also based on merit of JEE main test. For direct counseling, advertisements are published in at least 3 leading newspapers and the institute website.

2.1.2 Explain in detail the criteria adopted and process of admission (Ex. (i) merit (ii) common admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other)

To various programmes of the Institution.

The admission is made through online centralized counselling conducted by Punjab Technical University Jalandhar based on the ranking of test conducted by national agency JEE mains/GATE

2.1.3 Give the minimum and maximum percentage of marks for admission at entry level for each of the programmes offered by the college and provide a comparison with other colleges of the affiliating university within the city/district.

Course Name	SBSSTC		DRTC		FCET		AIET	
	Min	Max	Min	Max	Min	Max	Min	Max
ME				10+2		10+2		10+2
CSE	115957	1127342		10+2		10+2		10+2
EE	75019	1179622		10+2		10+2		10+2
CE	70644	10+2(10+2		10+2		10+2

		52.2%)						
ECE	101553	10+2(50.3%)		10+2		10+2		10+2
CHE	138991	10+2(55%)		10+2		10+2		10+2
MBA	73.8%	46.9%						
MCA	78.07%	56.1%						

2.1.4 Is the reamechanism in the institution to review the admission process and student profiles annually? If 'yes' what is the out come of suchan effort and how has it contributed to the improvement of the process?

Yes there is a mechanism to review the admission process. There is aadmission committee composed of professor and Asstt. Professor.The procedure is being followed by the institute from the last 14 years and we have evolved it into a flawless procedure. During review of admission that is conduct by university, no discrepancy has been found till date.

2.1.5 Reflecting on the strategies adopted to increase/improveaccess for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion

- * SC/ST
- * OBC
- * Women
- * Differentlyabled
- * Economicallyweakersections
- * Minoritycommunity
- * Anyother

The institute follow the reservation policy of Punjab Govt. which is in synchronization with commitment todiversityand integrity of the nation.

S N	85% Category	% Reservation
1	Scheduled Castes / Scheduled Tribes	25
2	Backward Classes	5
3	(a) Border Area	2
	(b) Backward Area	2
4	Sportspersons	2
5	Children / Grand Children of Freedom Fighters	1

6	Disabled Persons	
	(a) Blind	1
	(b) Deaf & Dumb	1
	(c) Other Handicapped	1
7	Defence / Ex-servicemen	2
8	Para-military Personnel	2
9	Victims of terrorist violence(1984 riots)	2
10	Tsunami victims	1
11	General	53
15% Category		
1	General	70
2	SC / ST	25
3	Backward	5

In addition to this 5% addition seats are reserved for economically weaker students (EWS).

2.1.6 **Provide the following details for various programmes offered by the institution during the last four years and comment on the trends. i.e. reasons for increase/decrease and actions initiated for improvement.**

Programmes	Year	Numberof applications	Numberof students admitted	Demand Ratio
B.Tech CSE	2011		151	
	2012		148	
	2013		110	
	2014		114	
B.Tech ECE	2011		112	
	2012		113	
	2013		65	
	2014		41	
	2015		148	
B.Tech ME	2011		151	
	2012		186	
	2013		74	
	2014		73	
	2015		75	

B.Tech EE	2014		61		
			73		
	2011		76		
			75		
	2012		126		
			35		
	2013		35		
			36		
	2014		18		
	B.Tech CE	2011			
		2012			
		2013			
2014					
B.Tech CHE	2011				
	2012				
	2013				
	2014				
M.Tech CSE	2013				
	2014	18			
		18			
	2013	17			
	M.Tech ECE	2014	18		
	MCA	2011	54		
	MCA	2012	17		
	MCA	2013	25		
	MCA	2014	27		
	MBA	2011	23		
	MBA	2012	13		
	MBA	2013	13		
	MBA	2014	17		

BCA	2011	52		
BCA	2012	54		
BCA	2013	35		
BCA	2014	31		
Bsc(IT)	2011	14		
Bsc(IT)	2012	09		
Bsc(IT)	2013	07		
Ploy Wing				
1 Diploma CE	(2012)			
2 Diploma CE(2013)	2013	36		
3 Diploma CE(2014)	2014	25		
4 Diploma ECE(2012)	2012	49		
5 Diploma ECE(2013)	2013	30		
6 Diploma ECE(2014)	2014	35		
7 Diploma EE(2012)	2012	39		
8 Diploma EE(2013)	2013	59		
9 Diploma EE(2014)	2014	43		
10 Diploma ME(2012)	2012	135		
11 Diploma ME(2013)	2013	149		
12 Diploma ME(2014)	2014	109		

improve the intake/admission, various committees are constituted at institute level to visit the nearby schools and colleges to make them aware regarding the strength of the institute and benefits of the courses being run in the institute and so as to motivate them to join the institute.

2.2 Catering to Student Diversity

2.2.1 How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard?

- (1) Seats are reserved for differently abled students as per policy of govt. of Punjab
- (2) To cater to the specific needs of differently abled students, each building of the college has been provided with ramp at the entry of the building. Separate toilets are also provided to them.

2.2.2 **Does the institution assess the students' needs in terms of knowledge and skills before the commencement of the programme? If 'yes', give details on the process.**

Yes, the students are admitted based on the test JEE conducted by national agencies.

2.2.3 **What are the strategies adopted by the institution to bridge the knowledge gap of the enrolled students (Bridge/Remedial/ Add-on/Enrichment Courses, etc.) to enable them to cope with the programme of their choice?**

To bridge the knowledge gap of the enrolled students, the institute adopted the following strategies.

- a) Conduct remedial classes.
- b) Offer additional courses on soft skills and personality development.
- c) Offered IT and technology enriched courses recommended by employers/industries
- d) Offered additional value added courses.

2.2.4 **How does the college sensitize its staff and students on issues such as gender, inclusion, environment etc.?**

To sensitize its staff and students on issues such as gender inclusion environment etc. following practices are carried out:

- a) A common course on environment science is offered in first year for all the branches.
- b) A course on Human and Moral Values is taught to all the students.
- c) The institute offers platform like NSS, NCC and Ecofriendly society to all the students (boys & girls) for practicing work towards these issues.
- d) In addition to this, the institute has established vivakanand society for staff and students.

2.2.5 **How does the institution identify and respond to special educational/learning needs of advanced learners?**

- a) Keeping in view the needs of advanced learner, the institute offers PhD in science & humanities and Engineering.
- b) The institute is giving seed grants to students for carrying out research and development activities.
- c) The institute allows them to participate in various workshops to develop their skills in different areas of study.
- d) The students are motivated and sponsored to present the research

papers in the conferences.

- 2.2.6 **How does the institute collect, analyze and use the data and information on the academic performance (through the programme duration) of the students at risk of drop out (students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc. Who may discontinue their studies if some sort of support is not provided)?**

The dropout rate is nil because our affiliating university PTU, Jalandhar follows 'carryon' system. However, we conduct remedial classes for weaker students free of costs.

2.3 Teaching-Learning Process

- 2.3.1 **How does the college plan and organize the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blue print, etc.)**

- a) **An Academic Calendar** is published every year showing the schedule of different curricular, co-curricular and extra curricular activities to be carried out during the semester.
- b) The academic calendar of the college is planned at the beginning of each academic year by the committee of Director, Dean Academic and faculty incharge.
- c) Teaching and evaluation schedules are finalized by Dean Academics on the basis of PTU, Jalandhar.
- d) Teaching plan of each course is prepared by each teacher as a part of courses file.

- 2.3.2 **How does IQAC contribute to improve the teaching-learning process?**

- a) IQAC committee ensure the implementation of feed back mechanism for the improvement of teaching learning process.
- b) Faculty advisor for a group of 30 students is appointed to address their grievances.
- c) The committee also finalises the courses of remedial classes on the basis of result of students.
- d) It also recommends value added courses in coordination with Training and Placement Officer.

- 2.3.3 **How is learning made more student-centric? Give details on the support structures and systems available for teachers to develop skills like interactive learning, collaborative learning and independent learning**

among the students?

- a) Seminars, quizzes, group discussion and seminars are conducted to enhance the ability of the students to enhance their employability.
- b) Collaborative learning is promoted through projects, lab work, workshop, and industrial training modules.
- c) To promote independent learning, institute has provided facilities like central library , computer centre with 34 MBPS internet connectivity & campus wide WI-FY network.

2.3.4 How does the institution nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators?

- a) To promote creativity, critical thinking & scientific temper among the students, the institute has following mechanism.
- b) The college has ISTE students chapter, SECA (Society for Extra curricular activities)
- c) Six Department wise Technical Societies are existing to enhance the practical knowledge and latest development through various activities.
- d) ISTE student Chapter organize Techno-opus every year, where national level competitions on technical activities are organized such as project competitions, paper presentations in the students conference etc etc.

2.3.5 What are the technologies and facilities available and used by the faculty for effective teaching? Eg: Virtual laboratories, e-learning-resources from National Programme on Technology Enhanced Learning (NPTEL) and National Mission on Education through Information and Communication Technology (NME-ICT), open educational resources, mobile education, etc.

- a) The institute has smart class rooms well equipped with internet connectivity, computer MMPS & PA system
- b) Subscription of e-journals accessible from every corner of the Campus
- c) Institute has EDU-SAT facility for effectively and efficiently delivering the course contents.

2.3.6 How are the students and faculty exposed to advanced level of knowledge and skills (blended learning, expert lectures, seminars, workshops etc.)?

- a) Different departments organize conferences (national, international),

faculty development programmes, Expert Lectures.

- b) Faculty is deputed to visit the institute and universities to provide them exposure of international standard of education.

2.3.7 Detail (process and the number of students\benefitted) on the academic, personal and psycho-social support and guidance services (professional counseling/mentoring/academic advise) provided to students?

- a) College has a chief counselor for providing personal & psycho-social support for the students.
- b) Faculty advisors are appointed for a group of 30 students for their academic grievances.
- c) Training and Placement Officer provide them training and placement guidance.
- d) A career guidance cell is constituted under the guidance of TPO for professional counseling.

2.3.8 Provide details of innovative teaching approaches/methods adopted by the faculty during the last four years? What are the efforts made by the institution to encourage the faculty to adopt new and innovative approaches and the impact of such innovative practices on student learning?

- a) Multimedia teaching aids are used by the faculty for effectively and efficiently teaching to students.
- b) Dedicated and WiFi internet facilities are available in the the class rooms, hostels and office of faculty for online delivering the assignments and tutorials to students.
- c) The students get latest knowledge as these facilities enabled the teachers to explain the latest topics & concepts illustratively.

2.3.9 How are library resources used to augment the teaching- learning process?

- a) In addition to text-books, library is equipped with reference books for the use of faculty.
- b) Library is subscribed for E-journals and E-books for preparing the lecture effectively and efficiently.
- c) Latest magazines on innovative technology are subscribed in the library for the use of faculty.

2.3.10 Does the institution face any challenges incompleting the curriculum with in the planned time frame and calendar? If 'yes', elaborate on the challenges encountered and the institutional approaches to over come these.

- a) No, Usually curriculum is completed within the working days prescribed by the university.
- b) However, extra classes are conducted sometimes in case any faculty member could not complete the curriculum in the stipulated time prescribed by the University.

2.3.11 How does the institute monitor and evaluate the quality of teaching learning?

- a) There MST's/Assignments/Tutorial sheets and internal Viva-voce Exam are conducted to evaluate the performance of students.
- b) Minor projects are given to the students to check their theoretical knowledge.
- c) Feed-back forms are filled in by the students at the end of semester for assessment of teachers.

2.4 Teacher Quality

2.4.1 Provide the following details and elaborate on the strategies adopted by the college in planning and management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing requirements of the curriculum

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent Teachers							
D.Sc/D.Litt.	-	-	-	-	-	-	-
Ph.D.	12	03	08	01	02	-	26
M.Phil.	-	-	-	-	01	01	02
PG	-	-	09	04	24	08	45
Temporary Teachers							
Ph.D.	-	-	-	-	-	-	-
M.Phil.	-	-	-	-	-	-	-
PG	-	-	-	-	22	32	54
Pursuing PG							
Part-Time Teachers							
Ph.D.	-	-	-	-	-	-	-
M.Phil.	-	-	-	-	-	-	-
PG	-	-	-	-	08	06	14

The following strategies are adopted by the institute in planning and management of its human resource to meet the changing requirements of the curriculum:

- a) Efforts are made for all round development of the faculty by providing them conducive environment for teaching and research activities.
- b) Faculty is sponsored for higher study with full pay and study allowance equal to one fourth of his/her basic pay.
- c) Research grant up to Rs. 3 lacs is given to each faculty members for carrying out research in their areas of interest.
- d) Faculty is recruited from time to time as per the requirement.

2.4.2 How does the institution cope with the growing demand/scarcity of qualified senior faculty to teach new programmes/modern areas (emerging areas) of study being introduced (Biotechnology, IT, Bio informaticsetc.)? Provide details on the efforts made by the institution in this direction and the outcome during the last three years.

- a) Teachers are sponsored to participate in FDP's, Seminars, conferences, workshops etc. in India & abroad.
- b) Faculty members are sponsored by the institute for perusing higher studies (M.Tech, Ph.D., Post Doctorate) in prestigious institutes.
- c) The benefits of Career Advance Scheme (CAS) is given to faculty in order to retain them in the institute.

2.4.3 Providing details on staff development programmes during the last four years elaborate on the strategies adopted by the institution in enhancing the teacher quality.

- a) Nomination to staff development programmes

Academic Staff Development Programmes	Number of faculty nominated
Refresher courses	6
HRD programmes	5
Orientation programmes	1
Staff training conducted by the university	27
Staff training conducted by other institutions	72
Summer/winter schools, workshops, etc.	71

- b) Faculty Training programmes organized by the institution to

empower and enable the use of various tools and technology for improved teaching-learning

Sr No:	Faculty Training programmes organized by CSE Deptt	Sponsored by
1	Intelligent Computational Techniques	AICTE
2	Nature Inspired Computational Intelligence	AICTE
3	New Computing and Emerging Technologies in ICT	TEQIP-II
4	Cloud Computing	TEQIP-II
5	Intelligent Computational Techniques	AICTE
6	Nature Inspired Computational Intelligence	AICTE
7	Development of Wirelessly Computer Controlled Sensing Robots	TEQIP-II
8	Digital Image, Video & Medical Image Processing	TEQIP-II
9	Recent Trends in Optical & Wireless Communication Systems	TEQIP-II
10	Photonics	TEQIP-II
11	Multi Criterion Optimization Tools In Research	AICTE
12	Research Methodology- Tools And Techniques	TEQIP-II
13	Soft Skills For Technical Teachers	TEQIP-II
14	Role Of Industrial Engineering And Design In Present Scenario	TEQIP-II
15	Strengthening Industry Institute Interaction	TEQIP-II
16	Futuristic Materials	TEQIP-II
17	Managerial Skills	TEQIP-II
18	Recent Trends in Polymers, Composites & Their Engineering Applications	TEQIP-II
19	PLC	TEQIP II
20	Modelling and simulation in Advanced Matlab Enviroment	TEQIP II
21	A National Level One Week Short Term Course on Engineering Materials under TEQIP (Phase-II) during December 17-	TEQIP-II

	21, 2012. (National /TEQIP)	
22	A National Level One Week Short Term Course on “Soft Skills for Technical Teachers under TEQIP (Phase-II) during September 2 - 6, 2013. (National /TEQIP)	TEQIP-II
23	A National Level Two Week Short Term Course on “Analytical Techniques for detection of Environmental Pollutants” from December 16-27, 2013 at SBS STC, Ferozpur. (National/TEQIP).	TEQIP-II

- ✓ Teaching learning methods/approaches
- ✓ Handling new curriculum
- ✓ Content/knowledge management
- ✓ Selection, development and use of enrichment materials
- ✓ Assessment
 - ✓ Crosscutting issues
- ✓ Audio Visual Aids/multimedia
 - ✓ OER's
- ✓ Teaching learning material development, selection and use

c) Percentage of faculty

- * invited as resource persons in Workshops/Seminars/ Conferences organized by external professional agencies

24.39%

- * participated in external Workshops / Seminars / Conferences recognized by national/ international professional bodies

56.09%

- * presented papers in Workshops/Seminars/Conferences conducted or recognized by professional agencies

47.96%

2.4.4 **What policies/systems are in place to recharge teachers? (eg: providing research grants, study leave, support for research and academic publications teaching experience in other national institutions and specialized programmes industrial engagement etc.)**

- a) Research Grant: Post Graduate teachers are given seed grant up to Rs. 25000/- to initiate research activity. Doctorate level teacher are given research grant up to Rs. 1.5 lac per annum to initial the research work in their areas of interest..
- b) Study Leave: - The institute provides the study leave upto 3 years with full salary + 20% as per the institute by laws.
- c) The institute sponsors participation/presentation of one paper in international conferences once in three years.

2.4.5 Give the number of faculty who received awards/recognition at the state, national and international level for excellence in teaching during the last four years. Enunciate how the institutional culture and environment contributed to such performance/achievement of the faculty.

Nil

2.4.6 Has the institution introduced evaluation of teachers by the students and external Peers? If yes, how is the evaluation used for improving the quality of the teaching-learning process?

YES, The feed-back forms filled by the students are evaluated by a committee and the corresponding feed-back is shared by HOD with the respective teacher for his/her information and improvements.

2.5 Evaluation Process and Reforms

2.5.1 How does the institution ensure that the stakeholders of the institution especially students and faculty are aware of the evaluation processes?

- a) Evaluation process is mentioned in institute Brochure.
- b) Office of Dean Academics displays notices on notice board from time to time.
- c) Evaluation process is displayed on the institute web-site.
- d) Parents- teacher-student meet held in every semester

2.5.2 What are the major evaluation reforms of the university that the institution has adopted and what are the reforms initiated by the institution on its own?

- a) All academic record is sent to University through on-line system.

- b) Attendance and sessional marks are also sent to affiliating university through on-line system.
- c) Institute has implemented ERP solution for effectively and efficiently managing the academic record of students.

2.5.3 How does the institution ensure effective implementation of the evaluation reforms of the university and those initiated by the institution on its own?

- a) Training is given to faculty and staff for effective implementation of the evaluation reforms of the university.
- b) Faculty and staff members are motivated to achieve this objective.
- c) Affiliating university also conduct orientation courses and workshops on academic reforms from time to time.

2.5.4 Provide details on the formative and summative assessment approaches adapted to measure student achievement. Cite a few examples which have positively impacted the system.

- a) During class hours students get assignments from teachers related to their class works. assignments are evaluated and students are given internal assessment (10 marks).
- b) Two Tutorials of one hour per week are conducted for a group of 30 students. Tutorial sheets are provided to the students.
- c) Three Mid Semester exams are conducted to evaluate the academic performance of the students. According to internal assessment are given (24 marks)
- d) Students are encouraged to attend the classes regularly and internal assessment (6 Marks) are given based on attendance
- e) Students are encouraged to take part in extra-curricular activities and technical events (ISTE). like G.D, Mock interviews/tests, paper presentations, projects etc.
- f) Industrial visits are organized at department level to give the industrial exposure to students and Industrial Training of two months and six months is mandatory as per PTU curricula

2.5.5 Detail on the significant improvements made in ensuring rigor and transparency in the internal assessment during the last four years and weightages assigned for the overall development of students

(weightage for behavioral aspects, independent learning, communication skills etc.

- a) Implemented the system of declaring MST results within one week of its conduct and displaying it on the notice board.
- b) Faculty members have started the process of showing the “Evaluated copies of answer sheets to the students.
- c) The result of MST are also posted at institute website..
- d) General fitness marks are awarded based on the performance of students in communication skills, NSS, NCC, Sports and extra curricular activities.

2.5.6 What are the graduate attribute specified by the college/affiliating university? How does the college ensure the attainment of these by the students?

The college has adopted graduate attributes specified by NBA as listed below:

1. Engineering Knowledge: Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
2. Problem Analysis: Identify, formulate, research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
3. Design/ Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations.
4. Conduct investigations of complex problems using research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of information to provide valid conclusions.
5. Modern Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. The Engineer and Society: Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice.

7. Environment and Sustainability: Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.
8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.
9. Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings.
10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations and give and receive clear instructions.
11. Project Management and Finance: Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. Life-long Learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

2.5.7 What are the mechanisms for redressal of grievances with reference to evaluation both at the college and University level?

- a) Redressal of grievance with reference to evaluation is done at the HOD level and Dean Academics.
- b) Dean Academics further redressal the grievances of the students at University level.
- c) Dean student's welfare also address the grievances related to welfare of students.

2.6. Student performance and Learning Outcomes

2.6.1 Does the college have clearly stated learning outcomes? If 'yes' give details on how the students and staff are made aware of these?

Yes, each department has given details of program outcomes displayed on the notice board and college website.

2.6.2 Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of the course/programme? Provide an analysis of the students

results/achievements (Programme/course wise for last four years) and explain the differences if any and patterns of achievement across the programmes/course suffered.

- a) Performance of the student during the entire course is evaluated internally by conducting MST, Assignments, tutorial sheets etc and semester exam at University level.
- b) The results are communicated to students online by the University

Academic Performance				
Average Percentage of B.Tech. CSE	Batch 2007-11	Batch 2008-12	Batch 2009-13	Batch 2010-14
	72.15%	72.57%	73.27%	73.73%
Average Percentage of B.Tech. ECE U	Batch 2007-11	Batch 2008-12	Batch 2009-13	Batch 2010-14
	70.80%	72%	72.40%	73.52%
Average Percentage of B.Tech. ME	Batch 2007-11	Batch 2008-12	Batch 2009-13	Batch 2010-14
	68.5%	69%	71.40%	72.52%
Average Percentage of B.Tech. CHE	Batch 2007-11	Batch 2008-12	Batch 2009-13	Batch 2010-14
	78.95%	86.36%	79.41%	77.78%
Average Percentage of B.Tech. EE	Batch 2007-11	Batch 2008-12	Batch 2009-13	Batch 2010-14
	69.40%	70.80%	72.50%	73.48%

2.6.3 How are the teaching, learning and assessment strategies of the institution structured to facilitate the achievement of the intended learning outcomes?

- a) Academic calander is planned in the beginning of semester to ensure the minimum 90 working days for study purpose.
- b) Different academic support units of the institute are conducting curricular and co-curricular activities to support the achievement of intended learning outcome.
- c) Assessment of student in each course is done through by two level.

At level 1 student are evaluated internally through thee MST, Assignments/Quiz, Tutorial and attendance. It constitutes 40% weightage.

At level 2 students are evaluate externally by University.

2.6.4 What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (student placements, entrepreneurship,innovation and research aptitude, developed among students etc.) of the courses offered?

- a) These is a seprate training & Placement comprising of TPO and carrier guidance cell
- b) Each department has training & Placement incharge works who works in coordination with TPO.
- c) Institute has III cell that conduct activity to the students to meet the industrial challenge in order to compete with outside world.
- d) Financial assistance is provided to desering students for Research work.

2.6.5. How does the institution collect and analyze data on student performance and learning outcomes and use it for planning and overcoming barriers of learning?

- a) The final result declared by university (which include internal and exrernal weaks) are analized and remedial classes are arranged for the courses in which students performance is poor.
- b) Small projects are given to students for evaluating their technical skills and theoretical concepts for practical applications.
- c) Further academic support activities are planned depending upon the performance of students.

2.6.6 How does the institution monitor and ensure the achievement of learning outcomes ?

- a) Mid-term evaluations of students are made through quiz, seminars and assignments.
- b) The learning outcomes are mapped with Cos and PEOs.

2.6.7 Does the institution and individual teachers use assessment/evaluation outcomes as an indicator for evaluating student performance, achievement of learning objectives and planning? If 'yes' provide details on the process and cite a few examples.

Yes, result of MSTs are assessed for each subjects and after assessment remedial classes are conducted for weak students.

CRITERION III: RESEARCH, CONSULTANCY AND EXTENSION

3.1 Promotion of Research

3.1.1 Does the institution have recognized research center/s of the affiliating University or any other agency/organization?

No

3.1.2 Does the Institution have a research committee to monitor and address the issues of research? If so, what is its composition? Mention a few recommendations made by the committee or implementation and their impact.

Yes, There is one Dean, Postgraduate Studies and Research as Chairman and all HODs are members of the Research Committee. Faculty is encouraged time & again to submit projects to fetch aid for research. Further, seed grant for research from TEQIP project is given to faculty for research activities.

3.1.3 What are the measures taken by the institution to facilitate smooth progress and implementation of research schemes/projects?

§ autonomy to the principal investigator: Yes

§ timely availability or release of resources: Yes

§ adequate infrastructure and human resources: Yes

§ time-off, reduced teaching load, special leave etc .to teachers

Yes, special leave/study leave is granted to faculty for doing PhD or Post doctorate.

§ support in terms of technology and information needs

Yes, each faculty member is provided Laptop, Desktop and Tablets to HODs. E-journals are available in library to get latest information for research activities.

§ facilitate timely auditing and submission of utilization certificate to the funding authorities : Yes

§ anyother :

Sponsorships are given to each faculty members once in a year for for presenting research papers in a National level Conference and once in a three years for presenting research papers in International Conference.

3.1.4 What are the efforts made by the institution in developing scientific temper and research culture and aptitude among students?

- a) Students are given projects & are encouraged to use some innovative ideas to develop new techniques.
- b) Research grants are given to students for working on innovative ideas.
- c) Central research facilities are available for all students to facilitate their research work.

3.1.5 Give details of the faculty involvement in active research (Guiding student research, leading Research Projects, engaged in individual/collaborative research activity, etc.

List attached. Please see Annexure- I

3.1.6 Give details of workshops/ training programmes/ sensitization programmes conducted/organized by the institution with focus on capacity building interms of research and imbibing research culture among the staff and students.

List attached. Please see Annexure-II

3.1.7 Provide details of prioritized research areas and the expertise available with the institution.

Please see Annexure III.

3.1.8 Enumerate the efforts of the institution in attracting researchers of eminence to visit the campus and interact with teachers and students?

- a) Researchers of eminence from various Institutions are invited from Thapar Univ., IIT,Roorkee, IIT Ropar, USA and Netherlands.

b) In addition to TA and DA, they are given honourarium for delivering expert lecture.

3.1.9 What percentage of the faculty has utilized Sabbatical Leave for research activities? How has the provision contributed to improve the quality of research and imbibe research culture on the campus?

Institute rules permits Sabbatical leave for every faculty members for carrying out research work.

3.1.10 Provide details of the initiatives taken up by the institution in creating awareness/advocating/transfer of relative findings of research of the institution and elsewhere to students and community (lab to land)

- a) Lectures are delivered to faculty & students to create awareness of research and development activities.
- b) A centralized newsletter is published for faculty and students carrying news of research publications of faculty and students.
- c) Similarly, every department is also publishing departmental newsletter.

3.2 Resource Mobilization for Research

3.2.1 What percentage of the total budget is earmarked for research? Give details of major heads of expenditure, financial allocation and actual utilization.

Financial help in the form of seed grant max up to 1 lakh to each faculty member is allocated for research activities. More grants are given depending upon the type and quality of research proposals. Further, each faculty member can avail funds to attend one National Conference per year and one International conference per three years.

3.2.2 Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?

- a) Yes, Seed grant has been started from 2013 and two faculty members have availed seed grant till date, others are also in process to get the same.
- b) Seed grant @ Rs 50,000 per faculty members is given to faculty having M.Tech qualifications
- c) Seed grant of Rs. 3-5 Lacs per faculty members is given to faculty having Ph.D qualifications

3.2.3 What are the financial provisions made available to support student research projects?

- a) Students are given grant @ Rs. 25000 per project depending upon the recommendations of Research Committee of the Institute.
- b) Students also get financial assistance from PTU Jalandhar for their research projects.

3.2.4 How does the various departments/units/staff of the institute interact in undertaking inter-disciplinary research? Cite examples of successful endeavors and challenges faced in organizing interdisciplinary research.

Interdisciplinary research is done successfully. Many students are doing research with faculty of other departments.

3.2.5 How does the institution ensure optimal use of various equipment and research facilities of the Institute and all the research facilities available are accessible to faculty & students of each department.

- a) All the research facilities available are accessible to faculty & students of each department.
- b) Additionally, most research equipments are kept centrally in Central Research Room.

3.2.6 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research

facility ?If 'yes' give details.

Please see Annexure -IV

3.2.7 Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organizations. Provide details of ongoing and completed projects and grants received during the last four years.

Please See Annexure IV.

Nature of the Project	Duration Year From To	Title of the project	Name of the funding agency	Total Grant		Total grant received till date
				Sanctioned	Received	
Minor projects						
Major projects						
Interdisciplinary projects						
Industry sponsored						
Students' research projects						
Any other (specify)						

Pl see Annexure IV

3.3 Research Facilities

3.3.1 What are the research facilities available to the students and research scholars with in the campus?

Please see Annexure V

3.3.2 What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?

Infra structural facilities are upgraded from time to time & as per the need of hour. Recently all labs are modernized and upgraded under TEQIP Project of MHRD vide which institute got Rs. 10 Crore.

3.3.3 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facilities?? If 'yes', what are the instruments/facilities created during the last four years.

- a) Institute has received grant of Rs. 10 crore for overall quality improvement from TEQIP.
- b) Institute got Rs. 1.5 crore from AICTE for purchasing Lab equipments for promoting R&D activities
- c) Institute also got Rs. 2.00 Crore for building Hostel for SC/ST students.

3.3.4 What are the research facilities made available to the students and research scholars outside the campus/other research laboratories?

Students get help from other institutions like IIT, Roorke/IIT Ropar/IIT Delhi/ P.U. Chandigarh, SLIET, Longowal etc. for research facilities like getting NMR spectra/ SEM/ TEM/ XRD etc.

3.3.5 Provide details on the library/information resource center or any other facilities available specifically for there searchers?

E-journals are available in the library specially for researchers in various disciplines.

3.3.6 What are the collaborative research facilities developed /created by the research institutes in the college. For ex. Laboratories, library, instruments, computers, new technology etc.

Please See annexure V

3.4 Research Publications and Awards

3.4.1 Highlight the major research achievements of the staff and students in terms of

- * Patents obtained and filed (process and product)

one.

- * Original research contributing to product improvement

The B.Tech students of Electrical Engineering Departments have got first prize in "VYOM-2014" Tech-fest Project Competition organized at Punjab Engineering College Chandigarh. Students from 30 Engineering Colleges had participated in this Tech-Fest and the projects of our students got first position. These students

also got 3rd position in another project during 17th Science Congress Expo-2014 organised by PTU Jalandhar.

* **Research studies or surveys benefiting the community or improving the services**

a) **NSS students of the institute has conducted survey of Border areas on Education awareness among parents and students.**

b) **Students also conducted survey on water pollution.**

* **Research inputs contributing to new initiatives and social development**

More and more faculty members are encouraged to do research on social areas which will help the people at large.

3.4.2 **Does the Institute publish or partner in publication of research journal(s)? If 'yes' , indicate the composition of the editorial board, publication policies and whether such publication is listed in any international data base?**

No.

3.4.3 **Give details of publications by the faculty and students:**

* **Publication per faculty**

Please see AnnexureVI

* **Number of papers published by faculty and students in peer review edjournals (national/international)**

Annexure VI

* **Number of publications listed in International Database (for Eg: Web of Science, Scopus, Humanities International Complete, Dare Database- International Social Sciences Directory, EBSCO host, etc.)**

- * **Monographs**
- * **ChapterinBooks**
- * **BooksEdited**
- * **Books with ISBN/ISSN numbers with details of publishers**
- * **Citation Index**
- * **SNIP**
- * **SJR**
- * **Impact factor**
- * **h-index**

Please see Annexure VII

3.4.4 **Provide details (ifany) of**

- * **research awards received by the faculty**
- * **recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally**
- * **incentives given to faculty for receiving state, national and international recognitions for research contributions.**

Please see Annexue VIII

3.5 **Consultancy**

3.5.1 **Give details of systems and strategies for establishing institute-industry interface?**

Effective interaction and communication between an academic Institution and Industry for the mutual benefit, is the need of the hour. This helps the Engineering students to learn in a healthy environment with vast industrial exposure and subsequently in placement of these young and talented graduating students (candidates) all around the globe.

“Industry Institute Interaction Cell” at Shaheed Bhagat Singh State Technical Campus, Ferozepur, is a student driven initiative to bridge the gap between industry and students. It seeks to provide quality solutions to the industry from time to time and develop projects that cater to their needs. Our focus is to assist students by providing them with industry exposure where they can practically apply the concepts they learn at SBSSTC, Ferozepur. The projects help students in gaining valuable insights about the functioning of companies and management

problem solving. Students work on these projects and at the same time focus on their academics as well.

Lots of initiatives/activities has been practiced by **III-Cell**. The aim of this initiative is to help bridge the gap between the Industry requirements and the skill set provided by the institution and to build a bright and prospective career for the students.

To promote Industry - Institute Interaction following schemes are being undertaken

- Workshops, conferences and symposia with joint participation of the faculty and the industries.
- Encouraging HR, Finance and Marketing professionals from industry to visit Institution to deliver lectures.
- Arranging visits of staff members to various industry
- Visits of faculty to industry for study and discussions or delivering lectures on subjects of mutual interest.
- Visiting faculty/professors from industries.
- Practical training of students in industries.

3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized.?

The institute is promoting its consultancy by interacting with different Government, Semi-Government departments and private organisations through written correspondence. The detailed information of available expert faculty members as well as different labs alongwith available equipments/machinery and facilities is being sent to different organisations. The lists of projects executed by the Consultancy Cell is also intimated to different organisations through different medias.

3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?

The staff of the institution is utilized for their expertise by way of giving them incentives in the form of fixed percentage of the cost of the project. The remuneration to the staff is paid by the College as approved and given in the relevant clauses hereunder.

3.5.3 (a) If the consultancy work does not involve any facility from the College by way of Laboratory and Workshop etc. the total fees received should be distributed between the College and the staff members concerned in the ratio of 20:80 after deducting all their expenditure.

Further the distribution of this type of work which is carried out without the use of Equipments of College Laboratories is as under:

Total Money Received = T

5% to be paid to Director Office including 1% to the clerical assistance ship in Consultancy Cell = P

Expenditure on Consultancy Work = E

$T - P - E = M$

20% of M to go for College Share = C

Amount to be distributed by Principal Investigator = $M - C$ = Active Share

5 % of the Active Share to Director, 2.5% of the Active Share to Dean Consultancy and 2.5% the Active Share to Head of Department.

Out of the remaining Active Share, 77% to Principal Investigator and 23% to Laboratory Staff if attached with the work. Out of 23% for laboratory Staff, 12% will go to Technician and 11% to attendant. If no Technician and Attendant are attached but some other individual such as draftsman is attached, he will get 20% and then the share of Principal Investigator will be 80%.

3.5.3 (b) In case of (i) routine testing work and (ii) development of equipment and machine or process for a particular industry where use of Laboratory equipment and facilities is involved, the fees after deducting all expenses should be distributed between the College and members of the staff including Laboratory staff in the ratio of 30:70.

Further the distribution of this type of work which is carried out with the use of Equipments of College Laboratories is as under:

Total Money Received = T

5% to be paid to Director Office including 1% to the clerical assistance ship in Consultancy Cell = P

Expenditure on Consultancy Work = E

$T - P - E = M$

30% of M to go for College Share = C

Amount to be distributed by Principal Investigator = M-C = Active Share

5 % of the Active Share to Director, 2.5% of the Active Share to Dean Consultancy and 2.5% the Active Share to Head of Department.

Out of the remaining Active Share, 77% to Principal Investigator and 23% to Laboratory Staff if attached with the work. Out of 23% for laboratory Staff, 12% will go to Technician and 11% to attendant.

3.5.3 (c) For consultation work involving only personal discussion with members of the staff, the fees may be charged at the rate of Rs. 1000/- per hour. The fee for visit to the site of work for such consultation will be on per day basis at mutually acceptable rate subject to a maximum of Rs. 2000/- per day for academic staff and Rs. 500/- per day for technical and other non-academic staff including the days spent on travel. These charges will be in addition to TA and DA payable to the staff members. The fees will be shared with the College as in clause 3.5.3 (a).

3.5.3 (d) For regular consultation to a particular organisation on a retainer basis, where fees are paid on monthly rate, the fees received will be shared with the College as in the Clause 3.5.3 (a).

3.5.3 (e) The remuneration to office staff will be 5% of the gross fees received, to be distributed to the office of the College and the Department Office in the ratio of 4:1.

The norms for distribution of consultancy fee to the general and Accounts Office staff may be decided by the Director in each case.

3.5.3 (f) The total remuneration earned by a faculty and staff members of the college during the whole financial year on account of consultation and testing work, should not exceed the following limits of his yearly pay plus DA. Anything in excess of this is to be paid to the College in full:

(i) Teaching staff 150%

(ii) Laboratory and other Technical staff 75%

(iii) Office staff 50%

3.5.4 List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years.

Presently the institution is providing consultancy services in the areas of Geotechnical Engineering, Transportation Engineering, Structural Engineering, Environmental Engineering, Surveying and

testing of different materials being used for Civil Engineering projects.

Detail of revenue generated is as under:

Sr. No.	Year	Amount
1	2011-12	Nil
2	2012-13	Nil
3	2013-14	Nil
4	2014-15	84,997/-

3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: Institution) and its use for institutional development?

3.5.5 (a) If the consultancy work does not involve any facility from the College by way of Laboratory and Workshop etc. the total fees received should be distributed between the College and the staff members concerned in the ratio of 20:80 after deducting all their expenditure.

3.5.5 (b) In case of (i) routine testing work and (ii) development of equipment and machine or process for a particular industry where use of Laboratory equipment and facilities is involved, the fees after deducting all expenses should be distributed between the College and members of the staff including Laboratory staff in the ratio of 30:70.

3.5.5 (c) Rules for Generation & Utilization of PDF and DDF

3.5.5 (c) (i) Generation of PDF & DDF

The Professional Development Fund (PDF) of a faculty member or other academic staff member are generated by crediting a certain percentage of the following :

- (a) Institutional overhead charges received in a Sponsored Research/ Consultancy Project from the funding agency.
- (b) Institute share from a Consultancy Project and unspent balance, if any.
- (c) Institutional overhead charges received from HRD Programmes.
- (d) Any other source.

The College share received above are utilized to develop following three funds

- (i) Institute Development Fund (IDF): This fund will be under Director for the development of Consultancy works in the College.
- (ii) Departmental Development Fund (DDF): The objective of this fund is to provide additional grant to the Department for its developmental activities as well as for funding its other activities for which adequate funds are not available from other sources. This fund can also be used by the Department for holding seminars/Workshops/Conferences. This will need to get approval from Director after getting the recommendations of H.O.D..
- (iii) Professional Development Fund (PDF): There will be a professional Development Fund for individual academic staff.

The proposed percentages to be credited to the PDF of the concerned faculty/academic staff are as per the following table. Another portion of the Institutional overhead charges/Institute share will be credited to the Departmental Development Fund (DDF) of the concerned Department/Academic Centre as shown in the table :

The Distribution of Institute Share in %age

Type of Consultancy Work	Distribution of Institute Share			
	IDF	DDF	PDF	Incentive to office Staff & Staff Welfare Fund
Type (a) as detailed in item 3.5.5 (a) above	50%	15%	25%	10%
Type (b) as detailed in item 3.5.5 (b) above	60%	15%	20%	5%

3.5.5 (c) (ii) Rules for Utilization of DDF

This fund can be utilized for the following purposes :

- (a) Development of Departmental Infra structure facilities like equipment laboratories, class rooms, committee/conference rooms.
- (b) Repair, maintenance and A.M.C. of equipment.
- (c) Seed money for holding conferences/workshops and seminars etc.

The budget for utilizing DDF may be recommended by the Professional Committee of the Department and approved by the Director.

CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

4.1.1 What is the policy of the Institution for creation and enhancement of infrastructure that facilitate effective teaching and learning?

Institute has development fund collected from students every semester @ Rs. 14,600 per student. Institute also get additional grant from Govt. of Punjab which is used for the development of infrastructure .During the last three years Instute had created the following Insfrastructure

1. Administrative Block-D and Management Block-E at the cost of Rs.7.99 Cr. under NABARD scheme of Punjab Govt.
2. Girls hostel with 40 rooms,Gym, Mess Hall,Reading Room,Common Room at the cost of Rs. 5.15 Cr.
3. Institute has constructed Block-F having 24 lecture hall at the cost of Rs. 6.47 Cr which can accommodate 2000 students
4. New boys Hostel is under construction and likely to be completed by December,2014 at the cost of Rs. 4.0 Cr, out of which Rs. 2.0 Crore we will get from AICTE under SC/ST Grant Scheme.
5. Institute got Rs. 10.0 Cr under TEQIP project for the

enhancement of infrastructure.

4.1.2 Detail the facilities available for

- a) Curricular and co-curricular activities, lassrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, botanical garden, Animal house, specialized facilities and equipment for teaching, learning and research etc.

Room Address	Room Type/Use	Department	Area	Units			
A101	HC	EE	20.4	1		HC	Head Chamber
A102	DO	EE	26.6	1		DO	Dept. Office
A103a	FR		5.32	1		FR	Faculty Room
A103b	FR		5.32	1		CR	Class Room
A103c	FR		5.32	1		TR	Tutorial Room
A103d	FR		5.32	1			
A103e	FR		5.32	1			
A104	Lab	EE	65.2	1			
A105	Lab	EE	65.2	1			
A106	CR	CSE	80.95	1			
A107	CR	CSE	94.45	1			
A108	WR		0	0			
A109	WR		0	0			
A110	WR		0	0			
A111a	FR		6.33	1			
A111b	FR		6.33	1			
A111c	FR		6.33	1			
A112a	FR		5.22	1			
A112b	FR		5.22	1			
A112c	FR		5.22	1			
A112d	FR		5.22	1			
A113	FR		9.52	1			
A114	FR		9.52	1			
A115	FR		9.52	1			
A116a	Lab	EE	62.9	1			
A116b	Lab	EE	62.9	1			
A117a	Lab	EE	62.9	1			
A117b	Lab	PEE	62.9	1			
A118a	Lab	EE	62.9	1			
A118b	Lab	EE	62.9	1			
A119a	Lab	EE	62.9	1			

A119b	Lab	PEE	62.9	1			
A121	FR		9.77	1			
A122a	FR		5.08	1			
A122b	FR		5.08	1			
A122c	FR		5.08	1			
A123a	FR		5.08	1			
A123b	FR		5.08	1			
A123c	FR		5.08	1			
A124a	Lab	Common Lab	66	1			
A124b	Lab	Common Lab	66	1			
A124c	Lab	Common Lab	66	1			
A127a	Lab	ECE	77.5	1			
A127b	Lab	PG LabECE	77.5	1			
A201	HC	CSE	18.91	1			
A202	DO	CSE	22.85	1			
A203	Lab	CSE	66.7	1			
A203a	Lab	PCE	66.7	1			
A204a	FR		5.4	1			
A204b	FR		5.4	1			
A204c	FR		5.4	1			
A204d	FR		5.4	1			
A204e	FR		5.4	1			
A205	CR	CSE	80.95	1			
A206	CR	CSE	80.95	1			
A207	WR		0	0			
A208	WR		0	0			
A209	WR		0	0			
A210a	FR		7.13	1			
A210b	FR		7.13	1			
A211a	FR		7.13	1			
A211b	FR		7.13	1			
A212a	FR		4.81	1			
A212b	FR		4.81	1			
A213a	FR		4.81	1			
A213b	FR		4.81	1			
A214a	FR		4.81	1			
A214b	FR		4.81	1			
A215a	Lab	CSE	64.27	1			
A215b	Lab	PG LabCSE	64.27	1			
A216a	Lab	CSE	64.27	1			
A216b	Lab	CSE	64.27	1			
A217a	Lab	CSE	64.27	1			
A217b	Lab	PCE	64.27	1			
A218a	Lab	CSE	64.27	1			
A218b	Lab	CSE	64.27	1			

A220	FR		9.62	1			
A221a	FR		7.13	1			
A221b	FR		7.13	1			
A222 to A231	CC	CC	365.13	0			
A301 to A309	L	Library & RR	544.34	0			
A310a	FR		7.13	1			
A310b	FR		7.13	1			
A311a	FR		7.13	1			
A311b	FR		7.13	1			
A312	FR		9.61	1			
A313	FR		9.61	1			
A314	FR		9.61	1			
A315a	Lab	ECE	64.34	1			
A315b	Lab	ECE	64.34	1			
A316a	Lab	ECE	64.34	1			
A316b	Lab	PECE	64.34	1			
A317a	Lab	ECE	64.34	1			
A317b	Lab	ECE	64.34	1			
A318a	Lab	ECE	64.34	1			
A318b	Lab	PECE	64.34	1			
A320	FR		9.61	1			
A321a	FR		7.13	1			
A321b	FR		7.13	1			
A322a	FR		7.13	1			
A322b	FR		7.13	1			
A323	TR	CSE	30.1	1			
A324a	Lab	ECE	71.91	1			
A324b	Lab	ECE	71.91	1			
A327a	Lab	ECE	69.35	1			
A327b	Lab	ECE	69.35	1			
A329	HC	ECE	20.48	1			
A330	DO	ECE	32	1			
B101a	FR		6.14	1			
B101b	FR		6.14	1			
B101c	FR		6.14	1			
B102a	FR		5	1			
B102b	FR		5	1			
B102c	FR		5	1			
B102d	FR		5	1			
B102e	FR		5	1			
B102f	FR		5	1			
B103	HC	ME	19.2	1			
B104	DO	ME	29.56	1			

B105a	FR		6.4	1			
B105b	FR		6.4	1			
B105c	FR		6.4	1			
B106a	FR		6.5	1			
B106b	FR		6.5	1			
B106c	FR		6.5	1			
B107	Lab	ME	106.35	1			
B108a	Lab	ME	69.9	1			
B108b	Lab	PME	69.9	1			
B111	PC	TPO	33.62	0			
B112a	Lab	ME	68.12	1			
B112b	Lab	PME	68.12	1			
B115a	Lab	ME	68.12	1			
B115b	Lab	PME	68.12	1			
B118a	Lab	ME	68.12	1			
B118b	Lab	PME	68.12	1			
B121a	Lab	CE	69.63	1			
B121b	Lab	CE	69.63	1			
B123	WR		0	0			
B124	CR	ME	79.8	1			
B126a	FR		5.3	1			
B126b	FR		5.3	1			
B126c	FR		5.3	1			
B126d	FR		5.3	1			
B126e	FR		5.3	1			
B127a	FR		5.03	1			
B127b	FR		5.03	1			
B127c	FR		5.03	1			
B127d	FR		5.03	1			
B127e	FR		5.03	1			
B128	CR	ME	79.29	1			
B129	WR		0	0			
B130	WR		0	0			
B131	WR		0	0			
B132	SH	Common	57.75	1			
B201	DO	CE	18.42	1			
B202	HC	CE	19.2	1			
B203	TR	CSE	39.1	1			
B204	TR	ME	39.1	1			
B205a	FR		6.14	1			
B205b	FR		6.14	1			
B205c	FR		6.14	1			
B206	SH	CE	106.35	1			
B207a	Lab	CE	69.9	1			
B207b	Lab	CE	69.9	1			

B210	TR	ME	33.62	1		
B211a	Lab	CE	67.08	1		
B211b	Lab	CE	67.08	1		
B214a	Lab	ME	68.06	1		
B214b	Lab	ME	68.06	1		
B217a	Lab	ME	67.08	1		
B217b	Lab	ME	67.08	1		
B220a	Lab	ME	68.14	1		
B220b	Lab	PME	68.14	1		
B222	WR		0	0		
B223	CR	CSE	79.87	1		
B225a	FR		5.21	1		
B225b	FR		5.21	1		
B225c	FR		5.21	1		
B225d	FR		5.21	1		
B225e	FR		5.21	1		
B226a	FR		5.04	1		
B226b	FR		5.04	1		
B226c	FR		5.04	1		
B226d	FR		5.04	1		
B226e	FR		5.04	1		
B227	CR	ME	79.29	1		
B228	WR		0	0		
B229	WR		0	0		
B230	WR		0	0		
B231a	FR		5.41	1		
B231b	FR		5.41	1		
B232a	FR		5.64	1		
B232b	FR		5.64	1		
B233	FR		8.41	1		
B234	FR		8.5	1		
B235	FR		8.5	1		
B236	FR		8.5	1		
B237	FR		8.5	1		
B238	FR		8.69	1		
B301	SH	ME	167.7	1		
B302a	FR		5.03	1		
B302b	FR		5.03	1		
B302c	FR		5.03	1		
B302d	FR		5.03	1		
B302e	FR		5.03	1		
B303	TR	MCA	41.75	1		
B304	TR	ECE	39.46	1		
B305	EC	Exam Center	33.62	1		
B306	DH	Engg Wing	133.93	1		

B309	DH	Poly Wing	138.18	1		
B312a	CR	ME	67	1		
B312b	CR	ME	67	1		
B315a	CR	ME	69.4	1		
B315b	CR	ME	69.4	1		
B317	WR		0	0		
B318	TR	CHE	39.87	1		
B319	TR	PME	40	1		
B321	TR	ECE	25.17	1		
B322	SH	ECE	167.7	1		
C101a	FR		5.76	1		
C101b	FR		5.76	1		
C102a	FR		5.76	1		
C102b	FR		5.76	1		
C103a	FR		5.76	1		
C103b	FR		5.76	1		
C104a	FR		5.76	1		
C104b	FR		5.76	1		
C105	WR		0	0		
C106a	FR		5.11	1		
C106b	FR		5.11	1		
C106c	FR		5.11	1		
C106d	FR		5.11	1		
C107a	FR		5.11	1		
C107b	FR		5.11	1		
C107c	FR		5.11	1		
C107d	FR		5.11	1		
C108	DO	CHE	20.82	1		
C109	HC	CHE	20.71	1		
C110a	FR		5	1		
C110b	FR		5	1		
C110c	FR		5	1		
C110d	FR		5	1		
C111	CR	ECE	79.87	1		
C112	CR	ECE	92.41	1		
C113	TR	PCE	40	1		
C114	TR	PEE	39.68	1		
C115	TR	MBA	39.68	1		
C116	WR		0	0		
C117	WR		0	0		
C118	Lab	ChE	97.39	1		
C119	Lab	ChE	97.39	1		
C120	Lab	ChE	97.39	1		
C121	Lab	ChE	97.39	1		
C122a	Lab	ChE	68.52	1		

C122b	Lab	ChE	68.52	1		
C125a	Lab	ChE	67.07	1		
C125b	Lab	ChE	67.07	1		
C128a	Lab	Common Lab	66.25	1		
C128b	Lab	ChE	66.25	1		
C131a	Lab	ChE	68.95	1		
C131b	Lab	CHE	68.95	1		
C201a	FR		5.76	1		
C201b	FR		5.76	1		
C202a	FR		5.76	1		
C202b	FR		5.76	1		
C203a	FR		5.76	1		
C203b	FR		5.76	1		
C204a	FR		5.76	1		
C204b	FR		5.76	1		
C205	WR		0	0		
C206a	FR		5.11	1		
C206b	FR		5.11	1		
C206c	FR		5.11	1		
C206d	FR		5.11	1		
C207a	FR		5.11	1		
C207b	FR		5.11	1		
C207c	FR		5.11	1		
C207d	FR		5.11	1		
C208a	FR		5.2	1		
C208b	FR		5.2	1		
C208c	FR		5.2	1		
C208d	FR		5.2	1		
C209	DO	DASH	29.71	1		
C210	HC	DASH	39.04	1		
C211a	FR		5.49	1		
C211b	FR		5.49	1		
C211c	FR		5.49	1		
C212	CR	ECE	79.87	1		
C213	CR	ECE	92.41	1		
C214	CR	ChE	50.22	1		
C215	TR	CR-PG-CSE	39.68	1		
C216	TR	CE	39.68	1		
C217	WR		0	0		
C218	WR		0	0		
C219	R-Lab	R-Lab	92.14	1		
C220a	FR		5.58	1		
C220b	FR		5.58	1		
C220c	FR		5.58	1		
C220d	FR		5.58	1		

C221	Lab	ChE	92.14	1		
C222a	Lab	Common Lab	68	1		
C222b	Lab	Common Lab	68	1		
C225a	Lab	CSE	74.34	1		
C225b	R-Lab	R-Lab	74.35	1		
C228a	Lab	Common Lab	74.41	1		
C228b	Lab	Common Lab	74.41	1		
C231a	Lab	Common Lab	68.45	1		
C231b	Lab	Common Lab	68.45	1		
C301a	FR		5.76	1		
C301b	FR		5.76	1		
C302a	FR		5.76	1		
C302b	FR		5.76	1		
C303a	FR		5.76	1		
C303b	FR		5.76	1		
C304a	FR		5.76	1		
C304b	FR		5.76	1		
C305	WR		0	0		
C306a	FR		5.11	1		
C306b	FR		5.11	1		
C306c	FR		5.11	1		
C306d	FR		5.11	1		
C307a	FR		5.11	1		
C307b	FR		5.11	1		
C307c	FR		5.11	1		
C307d	FR		5.11	1		
C308a	FR		5.2	1		
C308b	FR		5.2	1		
C308c	FR		5.2	1		
C308d	FR		5.2	1		
C309	TR	CR-PG-CSE	39.71	1		
C310a	FR		5.49	1		
C310b	FR		5.49	1		
C310c	FR		5.49	1		
C310d	FR		5.49	1		
C310e	FR		5.49	1		
C310f	FR		5.49	1		
C311a	FR		5.49	1		
C311b	FR		5.49	1		
C311c	FR		5.49	1		
C312	SH	ChE	177	1		
C313	CR	ChE	71.3	1		
C313a	TR	CR-PG-ECE	41.71	1		
C313b	TR	CR-PG-ECE	41.7	1		
C314	WR		0	0		

C315	WR		0	0			
C316	SH	MBA	132.56	1			
C319a	CR	CE	74.35	1			
C319b	CR	CE	74.35	1			
C322a	CR	EE	74.21	1			
C322b	CR	EE	74.41	1			
C325	SH	MCA	134.05	1			
D101	WR		19.52	0			
D102	WR		19.52	0			
D103	WR		4.14	0			
D104	PO	Director Office	56	1			
D105	O	Offices	22	1			
D106	O	Offices	11.55	0			
D107	O	Offices	11.55	0			
D108	O	Offices	11.55	0			
D109	BR	Board Room	56.36	0			
D110	SH	Poly Wing	133.14	1			
D114a	Lab	EE	62.47	1			
D114b	Lab	PEE	62.47	1			
D115a	Lab	EE	62.47	1			
D115b	Lab	PEE	62.47	1			
D118	WR		26.41	0			
D119a	O	Offices	280.65	0			
D119b	CS	Central Stores	30	0			
D123	PO	Principal Office	31.36	0			
D124 (1/2)	DO	PECE	17.42	1			
D125 (2/2)	DO	PCS	17.42	1			
D127 to D129	O	Offices	41.8	0			
D201	WR		16.6	0			
D202	WR		16.6	0			
D203	WR		4.2	0			
D204	CR	PME	82.16	1			
D205	CR	PME	83.55	1			
D206	CR	PME	83.55	1			
D207a	HC	PME	13.59	1			
D207b	HC	PEE	13.59	1			
D208a	DO	PME	13.9	1			
D208b	DO	PEE	13.9	1			
D209a	Lab	PCE	62.5	1			
D209b	Lab	PCE	62.5	1			
D209c	Lab	PECE	62.5	1			
D209d	Lab	PECE	62.5	1			
D212	WR		27.3	0			
D213	WR		25.8	0			
D214	CR	PECE	83.31	1			

D215	CR	PECE	87	1			
D216	CR	PECE	83.55	1			
D217a	HC	PECE	13.2	1			
D217b	HC	PCE	13.2	1			
D218	CR	PECE	83.55	1			
D219	CR	MCA	88.67	1			
E101/102	DO	MBA-MCA	21.1	2			
E103	HC	MBA-MCA	27.41	2			
E104a	FR		5.16	1			
E104b	FR		5.16	1			
E104c	FR		5.16	1			
E104d	FR		5.16	1			
E104e	FR		5.16	1			
E105	CR	MCA	55.5	1			
E106	CR	MCA	56.2	1			
E107	WR		25.8	0			
E108	WR		26.41	0			
E109a	Lab	MCA	69.9	1			
E109b	Lab	MCA	69.9	1			
E112	CR	MCA	55.51	1			
E113	WR		22.72	0			
E114	CR	MBA	82.39	1			
E115	WR		18.38	0			
E116	WR		5.26	0			
E117	L	Reading Room- MBA	50	0			
E201a	CR	EE	55.44	1			
E201b	CR	EE	55.44	1			
E202	CR	MBA	69.3	1			
E203	CR	PEE	69.3	1			
E204	WR		25.79	0			
E205	WR		26.41	0			
E206a	Lab	MCA	69.77	1			
E206b	Lab	MCA	69.77	1			
E209	WR		22.71	0			
E210	CR	PEE	69.3	1			
E211	CR	PEE	68.68	1			
E212	WR		18.28	0			
E213	WR		4.87	0			
E214	L	Reading Room- MCA	50	0			
F101	CR	CSE	89.25	1			
F102	CR	CSE	89.25	1			
F103	SH	EE	116.02	1			
F104	CR	CSE	89.25	1			

F105	CR	ECE	66.92	1			
F106	CR	ECE	66.92	1			
F107	CR	ECE	66.92	1			
F108	CR	ChE	66.92	1			
F109	TR	PECE	36.19	1			
F110	WR						
F111	WR						
F201	CR	ECE	89.25	1			
F202	CR	PCE	89.25	1			
F203	SH	CSE	116.02	1			
F204	CR	PECE	89.25	1			
F205	CR	PECE	66.92	1			
F206	CR	PME	66.92	1			
F207	CR	PME	66.92	1			
F208	CR	PME	66.92	1			
F209	TR	PECE	36.19	1			
F210	WR						
F211	WR						
F301	CR	ME	89.25	1			
F302	CR	CHE	89.25	1			
F303	SH	Common	116.02	1			
F304	CR	MCA	89.25	1			
F305	CR	MBA	66.92	1			
F306	CR	EE	66.92	1			
F307	CR	CSE	66.92	1			
F308	CR	CE	66.92	1			
F309	TR	PME	36.19	1			
F310	WR						
F311	WR						
W101a	FR		5.77	1			
W101b	FR		5.77	1			
W102a	FR		6.02	1			
W102b	FR		6.02	1			
W103	WS	WS	97.65	0			
W104	TR	PME	47.54	1			
W105	WS	WS	102.67	0			
W106a	FR		6.47	1			
W106b	FR		6.47	1			
W107a	FR		6.47	1			
W107b	FR		6.47	1			
W108	Lab	ME	101.68	1			
W109	WS	WS	100	0			
W109a	Lab	PME	96	1			
W110a	Lab	ME	72.63	1			
W110b	Lab	PME	72.63	1			

W111/116	Lab	EE	95	1		
W112	Lab	Common Lab	101.68	1		
W113a	FR		6.47	1		
W113b	FR		6.47	1		
W114a	FR		6.47	1		
W114b	FR		6.47	1		
W115	WS	WS	102.67	0		
W117	Lab	ME	97.65	1		
W118	WR		0	0		
W119	WR		0	0		
G101	CR	PCE	55.3	1		
G102	CR	PCE	59.2	1		
G103 to G112	SC	Sports Club	155.6	0		
HC-1	HS	Health Center	88	0		
HC-2	SC	Sports Club	62	0		
HC-3	P	Pantry for Staff	12	1		
MC101	Cf	Cafeteria	180	1		
MC102		Grocery	18	1		
MC103	SS	Stationary Store	18	1		
MC104	SS	Reprography	18	1		
MC105		Confectionary	18	1		
MC106		Barber	18	1		
MC107		Dhobi	18	1		
MC108		Fruits Shop	18	1		
MC109		Post Office		1		
MC110 & MC 111		Bank Branch		0		
PH101 (SDO)	O	Offices	28.25	1		
PH102 (JE)	HK	House Keeping	15.3	1		
PH103	S	Security	14.3	0		
PH104 (Generator)	M	Maintenance	33.18	0		
PH105 (Ladder)	M	Maintenance	30.4	0		
PH106 (Power Room)	M	Maintenance	107	0		
SH-CR-B	CR-B	Common Room	55.75	0		
GH-CR-B	CR-B	Common Room	55.8	0		
BH-CR-B	CR-B	Common Room	42.48	0		
SH-CR-G	CR-G	Common Room	104.59	0		
SH-CC	CC	CC	74.42	0		
GH-CC	CC	CC	74.4	0		
BH-CC	CC	CC	62.94	0		
A-3	GH	Guest House	167	0		
PQ	PQ	Principal Quarter	198	0		
SH	H-B	Boys Hostel	7830.7	0		

GH	H-B	Boys Hostel	7830.7	0			
BH	H-B	Boys Hostel	5468.6	0			
SH-1	H-G	Girls Hostel	6246.2	0			
SH-2	H-G	Girls Hostel	882.5	0			
New Girls hostel	H-G	Girls Hostel	3977.3				
Toilets	Toilets	Toilets	762.52	0			
Corridors	Corridors	Corridors	3500	0			

b) Extra-curricular activities—sports, out door and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, Public speaking, communication skills development, yoga, health and hygien eetc.

A. National Cadet Corps (NCC)

a) The institute has an NCC unit run by 13 Pb Battalion. There are two platoons with troop members 6/13. The total quota of the platoons is 106 consisting of 2 boys platoon. Institute has following commissioned officer ANO Lt. (Dr.) Kulbhushan Agnihotri, Associate Professor, DASH

b) NCC unit is imparting training to NCC Cadet through army personnels and ANO of the college for two days in a week during working days. NCC cadets are given refreshment after Parade for 30 parade and 10 parade are without refreshment.

c) No. of cadets are sent for various camps every year to different part of country to get various training like different weapons training and drill for their personality development and motivation for joining army.

Some of the training camps attended by our cadets are as below

- ❖ 32 cadets attended Annual Training Camp held at NCC Academy Malout, Punjab in the year 2012-13
- ❖ 35 cadets attended Annual Training Camp held at Mahianwala, Zira Ferozepur in the Year 2011-12
- ❖ 08 cadets attended Annual Training Camp held at 13 Punjab Battallion, Ferozepur in the year 2011-12.
- ❖ 08 cadets attended Annual Training Camp held at 13 Punjab Battallion, Ferozepur in the year 2011-10.

- ❖ 40 cadets took part in firing camp held at 13 Punjab Battallion, Ferozepur in year, 2011-10.

d) To enhance the confidence level and to fill the students with the patriotic feelings, the Technical Campus has applied for new platoons for poly wing and management wing (3 for boys and 2 for girls). The SBSCET is drawing its attention by providing such challenging activities in its campus to the technical students to be an important part of Indian defensive wing.

e) The aims and objectives of the NCC programme are

- Development of leadership, character, comradeship, spirit of sportsmanship and ideal of service
- Creation of a force of disciplined and trained persons who could, in a national emergency, be of assistance to the country
- Provision of training for students with a view to developing in them officer-like qualities, thus also enabling them to obtain commissions in the armed forces.

f) Youth Exchange Programmes:

Youth Exchange Programmes between NCC of India and youth organizations of other countries are undertaken yearly. The Exchange Programme includes mutual visits up to 24 days in which cadets undertake billeting families, community work projects, educational activities etc. These projects develop mutual respect, adaptability, self-discipline, cross cultural learning and above all, love for one's country. India has Youth Exchange Programme with Australia, Bangladesh, Bhutan, Canada, Maldives, Nepal, Singapore, SriLanka, United Kingdom and Vietnam. These programmes give the youth of our nation an enhanced understanding of the international environment and help them to become effective leaders in the future.

B. National Service Scheme (N.S.S.)

This Technical campus has been allotted three units of NSS in Engg wing. Each unit has an intake of approx. 200 student volunteers. The central theme of NSS activities is to make students understand that their first duty should be, not only to treat their period of study as one of the opportunities for indulgence in intellectual luxury, but also for preparing themselves for final dedication in the service of those on whose back they are resting. To accomplish this goal, it is sought to arouse the social consciousness of students and provide them with opportunity to work with the people around the educational campus creatively and constructively and to put the education they receive to concrete social use. In fact, the primary aim of the scheme is to enable the students to upgrade their personality and experience through community service. The motto or watch word of NSS is "NOT ME, BUT YOU". This expresses the essence of democratic living and upholds the need for selfless service and appreciation of the other man's point of view and also to show consideration for fellow human beings. NSS units of the Technical campus organize cleanliness camps, plantation camps, blood donation camps, awareness camps, seminars and educational trips to fulfil the mission of NSS. NSS volunteers are awarded with certificates and general fitness marks as per their performance in NSS activities.

Facilities & Usages:-

1. The college NSS unit has organized following camps during one year.
 - a) Tree plantation camp (26-7-12)
 - b) Cleanliness camp (13-8-12)
 - c) Blood donation camp (04-10-12)
 - d) Seminar (12-9-12)
 - e) Blood Donation camp (To be organized in Feb. 2013)
 - f) Educational Trip (To be organized in March 2013)
2. 7-Day Cancer awareness camp (To be organized in Dec-2012 & Jan 2013)
3. Refreshment is provided to the volunteers as per grant received from PTU.
4. NSS certificates are awarded to volunteers by college & University.
5. General Fitness marks (50 marks) are awarded to students as per their performance in camps.
6. The college provides bus facility for educational trip and requisite infrastructure for other camps.
7. Program Officer (NSS) organizes all camps and accompanies the students.

C. Sports grounds facilities, and qualified sports instructors (5)

Sports Grounds

Following playgrounds are available in the college

1.	400m Athletic track	01 No's
2.	Hockey ground	01 No's
3.	Volley Ball ground	02 No's
4.	Lawn Tennis court	02 No's
5.	Basket Ball court	01 No's
6.	Cricket ground	01 No's
7.	Hand Ball ground	01 No's
8.	Foot Ball ground	01 No's
9.	Fitness Centre	01 No's

Facilities

1. Playgrounds are fitted with water sprinkler system for watering ground.
2. Athletic track having facility of lights to practice in the late night.
3. Drinking water facility.
4. Grass cutting machines – 02 no's
5. Two ground men for cutting the grass, watering the playgrounds and making of the fields.

Management

1. Playgrounds are maintained by grounds man.
2. Sports equipment for all the grounds quoted above is given to students for their practice.
3. Inter year sports competitions are organized during the academic year.
4. Inter college competitions are also organized of the game allocated to the college.

Qualified Sports Instructors

College has well qualified Director Physical Education having doctorate degree in physical education having experience of nearly 20 years

D. Academic Support Units and their Contributions to Programs

Institute has the following Academic Support Units:

a) Industry Institute Interaction Cell (IIIC)

IIIC has organized following activities with the involvement of Industry for providing practical exposure to the students.

Activity Names	CE	CHE	CSE	ECE	EE	ME	IIC	Total
Workshops			1		1	2	1	5
Expert Talks	6	1	4	1	1	4	1	18
Industrial Visits	2	2	2	1	3	6	3	19
Short Term Course		1	1	3	1	2	1	9
Net	8	4	8	5	6	14	6	51

b) Program-wise Technical Societies (6 No.)

Programme-wise six technical societies are formed to chisel the technical skills of students in their respective fields

- Society for Electrical Engineering (SEE)
- Society for Mechanical Engineering (SFME)
- Chemical Engineering Society (CHESS)
- Society for Electronics and Communication Engineering (SELCOM)
- COMPUWAVE-Society for Computer Engineers
- InfraTech- Society for Civil Engineers

c) ISTE Student Chapter

Indian Society of Technical Education is national, professional non-profit making society to advance the cause technical Education. ISTE Chapters provide technical platforms to student and faculty to share their knowledge

Major Activities undertaken by ISTE student Chapter

- Annual Technical Function "Techno-Opus"
- Project Competitions
- Technical Paper Presentation
- Aptitude Tests
- Seminars/Expert Talks on Emerging Technologies
- Career Guidance Seminars

d) SECA Activities

Society for Extra-Curricular Activities (SECA) organizes event & activities for students to develop their interpersonal skills and to provide them platforms for creativity and innovation.

Major Activities undertaken by SECA:

Personality Development

- Group Discussions
- Declamation
- Youth Parliament
- Quiz, etc.

Cultural activities

- Skit
- Singing
- Dance
- Choreography

Annual Activities

- Annual Cultural Fest "JASHAN"
- Hostel Night Celebration
- Welcome function for freshers
- Farewell function for passing out students, etc.

Hobbies Development

- Painting
- Poetry
- Sketching
- Rangoli, etc.

e) Eco Friendly Group

Eco friendly group raises the environmental consciousness of the students.

Major Activities undertaken by Eco-friendly Group:

- Planted about 7000 Trees in the Campus
- Organized Anti-Polythene Awareness Campaign
- Cleanliness drive
- Best Hostel Competition
- Best Room Competition
- Slogan writing Competition

4.1.3 **How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilized? Give specific examples of the facilities developed/augmented and the amount spent during the last four years (Enclose the Master Plan of the Institution/campus and indicate the existing physical infrastructure and the future**

planned expansions if any).

The Master Plan of the Institution is enclosed as Annexure---

Various facilities added in the institute during last four years are given as below:

1. Administrative Block-D and Management Block-E at the cost of Rs.7.99 Cr. under NABARD scheme of Punjab Govt.
2. Girls hostel with 40 rooms,Gym, Mess Hall,Reading Room,Common Room at the cost of Rs. 5.15 Cr.
3. Institute has constructed Block-F having 24 lecture hall at the cost of Rs. 6.47 Cr which can accommodate 2000 students
4. New boys Hostel is under construction and likely to be completed by December,2014 at the cost of Rs. 4.0 Cr, out of which Rs. 2.0 Crore we will get from AICTE under SC/ST Grant Scheme.

4.1.4 How does the institution ensure that the infrastructure facilities meet the requirements of students with physical disabilities?

1. Ramps are provided in all the newly constructed buildings such as Block D, Block E and Block F.
2. In older blocks, all the classes for physically differently abled students are arranged on the ground floors.

4.1.5 Give details on the residential facility and various provisions available within them:

- **Hostel Facility–Accommodation available**
- **Recreational facilities, gymnasium, yoga center, etc.**
- **Computer facility including access to internet in hostel**
- **Facilities for medical emergencies**
- **Library facility in the hostels**
- **Internet and Wi-Fi facility**
- **Recreational facility-common room with audio-visual equipments**

- Available residential facility for the staff and occupancy
Constant supply of safe drinking water

- Security

Hostel: - Beas Bhawan (Boys)

Total rooms one seater room =198

Facilities provided in Beas Bhawan:

- Guest room facility
- T.V. room with dish T.V. Connection.
- Common room for indoor Games like table tennis chess, carom.
- Fully Wi Fi Connected hotel.
- 2 Lush green parks in hostel.
- Fully furnished mess with fly tracker.
- Gymnasium with state-of-art machines

Staff

1. Warden = 01
2. Manager = 01
3. Munim = 01
4. Mess worker = 14
5. Security Guard = 03
6. Sweeper = 03
7. Mali = 01

Hostel: - Ganga Bhawan (Boys)

Total rooms Three seater room =89

Facilities provided in Ganga Bhawan:

- Guest room facility
- T.V. room with dish T.V. Connection.
- Common room for indoor Games like table tennis chess, carom.
- Fully Wi Fi Connected hotel.
- 2 Lush green parks in hostel.
- Fully furnished mess with fly tracker.

Staff

- Manager = 01
Munim = 01
Mess worker = 18
Security Guard = 03

Sweeper = 03
Mali = 01

Hostel: - Satluj Bhawan (Boys)

- Total rooms one seater room = 89
- Facilities provided in Satluj Bhawan:
 - Guest room facility
 - T.V. room with dish T.V. Connection.
 - Common room for indoor Games like table tennis chess, carom.
 - Fully Wi Fi Connected hotel.
 - 2 Lush green parks in hostel.
 - Fully furnished mess with fly tracker.
 - Computer Lab

Staff

Manager = 01
Munim = 01
Mess worker = 17
Security Guard = 03
Sweeper = 03
Mali = 01

Hostel: - Saraswati Bhawan (Girls).

Total rooms one seater room =15
Total rooms two seater room =43
Total rooms three seater room =21

Total room =79

Facility provided in Saraswati Bhawan:

- Guest room facility
- T.V. room with dish T.V. Connection.
- Common room for indoor Games like table tennis chess, carom.
- Fully Wi Fi Connected hotel.
- 2 Lush green parks in hostel.
- Fully furnished mess with fly tracker.

Staff

Manager = 01
Munim = 01
Mess worker = 14
Security Guard = 03
Sweeper = 03
Mali = 01

Hostel: - Mata Gujri Bhawan (Girls) .

Total rooms three seater room = 40

Facility provided in Mata Gujri Bhawan::

- Guest room facility
- T.V. room with dish T.V. Connection.
- Common room for indoor Games like table tennis chess, carom.
- Fully Wi Fi Connected hotel.
- 2 Lush green parks in hostel.
- Fully furnished mess with fly tracker.
- State of art Gymanism
- Footpaths for evening walk

Staff

Manager	= 01
Common Munim	= 00
Common Mess worker	= 14
Security Guard	= 03
Sweeper	= 02
Mali	= 01

4.1.6 What are the provisions made available to students and staff in terms of health care on the campus and off the campus?

Institute has its own three bedded Hospital in an area about 2500sq. ft. (50"X50") situated in the centre of the Campus area and is in easy reach of all boys & girls and campus staff.

The medical facility available in the college Health Centreare:-

1. B.P. moniysling, pulse checking, temp measurement respiration
2. Blood Gluco Test
3. Injection facility
4. Dressing
5. Treatment of emergency first aid medical staff to provide first aid and medical help in emergency

Staff:

I. Doctor	01 (MBBS M.S. Ortho par time)
II. Pharmacist	01
III. Staff Nurse	02 (male & Female)

Medical facility within the college:-

- I. First aid, Injection and Dressing of wound
- II. Treatment of common ailment j.e. fever loose motion diaseohea stomach pain.
- III. Blood Gluco Test facility
- IV. Weight check facility
- V. Ambulance

Off campus Medical facilities:-

- I. Orthopadic facility- Tarlok Hospital
- II. France Newton Hospital: for Indoor admission, surgery and general medical facilities

Medicine used during session:-2011-2012

Sr. No.	Name of Medicine	Quantity
1	Tab ofloxacin-200	2000
2.	Cap Amoxicillin + dicloxacillin	2000
3.	Tab cefixime-200	500
4.	Paracetamol-500	2000
5.	Tab Ibuprofen +pms	5000
6.	Nimesulide + Pcm	2000
7.	Oint fourderm 5gm	40 pc
8.	Tab Citrizen	3000
9.	Tab folic acid 5mg	500
10.	Tab loperamide	500
11.	Tab metronidazole -400	1000
12.	Tab Metocloperamide	200
13.	Tab dicyclomine + pms	200
14.	Ofloxacin –d-eye drop	40 pec
15.	Diclofenac gel 30gm	20 pec
16.	Bandage 2"	10
17.	Bandage 4"	10
18.	Povidone soln	06 pond of 500ml
19.	Povidone ointment	02 jar 250gm
20.	Silver sulphate oint	01 jar 500gm3

Medicine used during session:-2012-2013

Sr. No.	Name of Medicine	Quantity
1	Tab ofloxacin-200	2000
2.	Cap Amoxicillin + dicloxacillin	2000
3.	Tab cefixime-200	400
4.	Paracetamol-500	2000
5.	Tab Ibuprofen +pcm	4000
6.	Nimesulide + Pcm	3000
7.	Oint fourderm 5gm	40 pec
8.	Tab Citrizen	6000
9.	Tab folic acid 5mg	200
10.	Tab loperamide	1000
11.	Tab Metocloperamide	300
12.	Tab dicyclomine + pcm	300
13.	Ofloxacin –d-eye drop	40 pec
14.	Diclofenac gel 30gm	20 pec
15.	Bandage 2"	20dz
16.	Bandage 4"	10dz
17.	Povidone soln	05 pond of 500ml
18.	Silver sulphate oint 15mg	20pc
19.	Tab flagyl-400	2000
20	Electral ORS	60pec
21	Cap Tetracycline 250	500
22.	Famotidine 20mg	1400

Medicine used during session:-2013-2014

Sr. No.	Name of Medicine	Quantity
1	Tab ofloxacin-200	4000
2	Cap Amoxicillin + dicloxicillin	3000
3	Paracetamol-500	2000
4	Tab Ibuprofen +pcm	5000
5	Nimusulde + Pcm	3000
6	Tab Citrizen	5000
7	Tab loperamide	500
8	Tab dicyclomine + pcm	300
9	Ofloxacin –d-eye drop	50 pec
10	Bandage 2"	20dz
11	Bandage 4"	10dz
12	Povidine soln	03 pond
13	Tab flagul-400	900
14	ORS 21.8gm	50pkt
15	Famotidine 20mg	2800
16	Acelofenac + serration peptidas +pcm	400
17	Cap nutrolin-B	500
18	Glucon-D Jar 500gm	10pc
19	Inj. Tetnus toxiod	50pc
20	Inj. Perinorry	20pc
21	Inj. Aciloc	20pc
22	Inj. Diclonac	20pc
23	Disposable syring	200pc

List of Blood donation Camp Held in the Institute

Sr. No.	Date	Units donated
1	8/9/11	99
2.	17/1/12	56
3.	14/10/12	68
3.	27/8/13	122
4.	28/9/13	130
5.	13/3/14	57
6.	20/8/14	108

- 4.1.7 **Give details of the Common Facilities available on the campus –spaces for special units like IQAC, Grievance Redressal unit, Women’s Cell, Counselling and Career Guidance, Placement Unit, Health Centre, Canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.**

Separate office and halls are provided for each of the the above said facilities.

4.2 Library as a Learning Resource

- 4.2.1 **Does the library have an Advisory Committee? Specify the composition of such a committee. What significant initiatives have been implemented by the committee to render the library, student/user friendly?**

Yes, The Academic advisory committee consist of Director as its Chairman and Librarian as Member Secretary and all HODs are its member.

Following significant initiatives have been implemented by the committee to render the library, student/user friendly?

- Installation of Computer in the Library
- Providing dedicated internet facilities on each terminal installed in the Library.
- Procurement of E-Journals
- Procurement of E-Books for self study
- Air conditioned reading room
- Smooth arrangement for issuing of books to students

- 4.2.2 **Provide details of the following:**

*** Total area of the library (in Sq.Mts.): 494 Sq. Mtr**

*** Total seating capacity: 80**

*** Working hours (on working days, on holidays, before examination days, during examination days, during vacation) : 9AM to 7 PM**

*** Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-**

resources)

Individual reading carrels: 2200 Sq. feets

lounge area for browsing and relaxed reading: 800 Sq. feets

IT zone for accessing e-resources : 400 Sq. feets

(our campus is wi-fi ,e-resources can be accessed on all the systems available in the institute, hostels, residential area of the campus)

4.2.3 How does the library ensure purchase and use of current titles, print and e-journals and other reading materials? Specify the amount spent on procuring new books, journals and e-resources during the last four years.

Books are purchased as per the guidelines of Good Office Committee (GOC) approved by Govt of India Minister of Finance

Library holdings	Year-1		Year-2		Year-3		Year-4	
	Number	Total Cost	Number	Total Cost	Number	Total Cost	Number	Total Cost
Textbooks	4145	16,96,499-0	2534	4,57,658	1676	4,24,346-00	653	1,86,166
Reference Books	180	67000-00	100	38,00-00	80	25,00-00	30	10,000-
Journals/ Periodicals	79	1,64,629-00	79	1,61,939-00	79	1,60,326-00	67	55,889-00
e-resources	447	9,97,000-00	275	3,65,950	241	4,64,860-00	241	2,31,410
DELNET	Membership	11,500/-	Membership	11,500/-	Membership	11,500/-	Membership	11,500/-

4.2.4 Provide details on the ICT and other tools deployed to provide maximum access to the library collection?

- * OPAC: In-progress
- * Electronic Resource Management package for e-journals: YES
- * Federated searching tools to search articles in multiple databases: Nil

- * **Library Website:** YES
- * **In-house/remote accesstoe-publications:** YES
- * **Library automation:** YES
- * **Total number of computers for public access:** 10
- * **Total numbers of printers for public access:** 04
- * **Internet band width/speed:** 34 mbps
- * **Institutional Repository :** Yes
- * **Content management system fore-learning:** Yes
- * **Participation in Resource sharing networks /consortia (like Inflibnet):** Yes

4.2.5 **Provide details on the following items:**

- * **Average number of walk-ins ;** 120
- * **Average number of books issued/returned:** 185
- * **Ratio of library books to students enrolled:** 6:5
- * **Averagenumberofbooksaddedduringlastthreeyears:** 2600
- * **Average number of login too pac(OPAC)**
- * **Average number of login toe-resources:** 20/day
- * **Average number ofe-resources downloaded/printed:** 80/Day
- * **Number of information literacy trainings organized:** 03
- * **Details of“weedingout”ofbooksandothermaterials :** Nil

4.2.6 **Give details of the specialized services provided by the library**

- * **Manuscripts** No
- * **Reference** Yes
- * **Reprography** Yes
- * **ILL (Inter Library Loan Service)** Yes
- * **Information deployment and notification (Information Deployment andNotification)**
Yes
- * **Download:** Yes
- * **Printing** Yes
- * **Readinglist/Bibliography compilation**
- * **In-house/remote accesstoe-resources** Yes
- * **User Orientation and awareness** Yes
- * **AssistanceinsearchingDatabases** Yes

* **INFLIBNET/IUCfacilities** DELNET

4.2.7 **Enumerate on the support provided by the Library staff to the students and teachers of the college.**

Reference Service, CAS, SDI, Referral Service

4.2.8 **What are the special facilities offered by the library to the visually/physically challenged persons? Give details.**

Not Applicable

4.2.9 **Does the library get the feedback from its users? If yes, how is it analyzed and used for improving the library services. (What strategies are deployed by the Library to collect feed back from users? How is the feedback analyzed and used for further improvement of the library services?)**

Yes, the students put their suggestions in the complaint box which are analysed and due care is given to the suggestion found to be genuine.

Meeting of student representatives are held twice in a semester to discuss the problem faced by the students. Their suggestions are implemented keeping in view the available resources of the Library.

4.3 IT Infrastructure

4.3.1 **NumberofcomputerswithConfiguration-**

900 Computer Systems with i3, dual core and p4 processor. These systems have pre installed windows operating system.

- Computer Student ratio - **1:2**

- Stand alone facility - **yes**

- LAN facility -**Yes (on almost all the Computer systems)**

- WiFi facility -**Yes (on laptops and mobile devices of staff and students)**

- Licensed software -

MS Windows NT workstation, MS Windows NT Advanced server, SCO Open server development sys, SCO Open server Enterprise, SCO Open server Enterprise, Novel Netware, Oracle 7 workgroup server, Developer 2000, Power builder enterprise, Turbo C++, MS Visual C++, MS Visual Foxpro, MS Office 97 for windows, Softek Fortran-77, Windows 95, Lotus Notes, Visual Studio Ent 6.0 AE, Borland turbo c++, MS-Windows 2000 OEM, Norton Antivirus Preload, Caldra open linux server, Caldra linux workstation, C++ Software (Codegear c++ Builder 2009 Pro Academic Network Licence), Microsoft Office (MS Office STD 2010), Cobol Software (Softek Cobol 85 DOS Academic Lic), Prolog (Pdc Visual Prolog 7.X), Data Recovery tools, Qualnet, Windows OS, Rational Rose, NS2, Mysql, Java, Open Office, Linux, Software: MATLAB Version 7, Matlab toolbox, CHEMCAD Version 6.3.2, full suite, Comm – Sim 7, Xilinx, Tanner Tool, Labview, Ansoft HFSS, Auto CAD 2015 , Auto Desk Inventor 2015, Auto CAD Civil 2015, Auto CAD EE 2015, Mechanical Simulation 2015

- Number of nodes/ computers with Internet facility - All the systems has internet facility

4.3.2 In the college campus computer systems are available in the labs of every department. Beside these, computer systems are available in Computer Center of the college for every student. Also Computer System is issued to every staff member of the college. Laptops are provided to the HODs and faculty members. All these systems/ laptops have internet facility.

4.3.3 Institution is planning for the up gradation of Network backbone by purchasing latest core 3, Distributed and edge switches. Also institution is gradually increases the internet bandwidth with the increase in no. of new blocks and student intake.

4.3.4 Year wise annual budget for procurement, up gradation, development and maintenance of the computers and their accessories in the institution is as follows:

Year	Budget (in lacs)
2011-2012	30
2012-2013	21.50
2013-2014	35.2

4.3.5 Teachers and lab staff use LCD projector and Power Point Presentations to show the graphical contents.

4.3.6 There are smart classrooms in the departments. Also labs are equipped with LCD projectors. College has sufficient equipment for EDUSAT and through this system live lectures are received captured as per schedule.

4.3.7 College has National Knowledge Network (NKN) connectivity directly through MoU signed between college and Central Government. Through this connectivity internet service is running.

4.4 Maintenance of Campus Facilities

4.4.1 **How does the institution ensure optimal allocation and utilization of the available financial resources for maintenance and up keep of the following facilities (substantiate your statements by providing details of budget allocated during last Four years)?**

a.	Building
b.	Furniture
c.	Equipment
d.	Computers
e.	Vehicles
f.	Anyother

	2010-11	2011-12	2012-13	2013-14	
Building	271077	2804191	2947053	5725870	
Furniture	584433	675284	926007	1164835	
Equipment	3976709	7455825	3132530	1259744	
Computers	273014	704497	1212860	1539082	
Vehicles	558712	852049	824107	741655	
Any Other	14569856	3054004	1750595	16351489	

4.4.2 **What are the institutional mechanisms for maintenance and up keep of the infrastructure, facilities and equipment of the college?**

1. The Institute has separate Maintenance section having

Maintenance Engineer, Maintenance Supervisor along with 25 sporting staff such as mason,carpenters,plumber,electricians andhelpers.

2. Seprate budget is kept for maintenanceandand upkeeping of the infrastructure.
3. Most of the quipment like coputers,UPS,Networking equipmet etc is covered under AMC.
4. All HODs has been given approval and DDO powers up to Rs. 1.00 Lacs per purchase for upkeeing and maintenance of infrastructreal facilities.

4.4.3 How and with what frequency does the institute take up calibration and other precision measures for the equipment/instruments?

1. During summer vacation of about two months, equipmentsare calibrated and repaired accordingly.
2. Stock verification is done during this period at department level and equipmet is repaired, maintained and write off if required.

4.4.4 What are the major steps taken for location, up keep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)?

Institute is having HOT-Line power supply and two Generators for providing Power back up to sensitive equipments.

Institute has its own water supply system, which is available for 24 howers.

Log books of sensitiveequipments are maintained at department level.

CRITERION V: STUDENT SUPPORT AND PROGRESSION

5.1 Student Mentoring and Support

- 5.1.1 Does the institution publish its updated prospectus/handbook annually? If 'yes' ,what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?**

Yes, it contains all the information related to type of course available, faculty of respective department alongwith their qualifications, rules and regulations of the institute, fee structure, different societies and their functions etc etc.

Institute Information brochure is available on institute website www.sbsstc.ac.in

5.1.2 **Specify the type, number and amount of institutional scholarships/free ships given to the students during the last four years and whether the financial aid was available and disbursed on time?**

Detail of Institutional Scholar Ships given to students in time

Year	No.of Students	Amount in Rs.
2010-11	11	7,63,495
2011-12	15	10,90,723
2012-13	12	9,12,815
2013-14	11	6,83,349

5.1.3 **What percentage of students receive financial assistance from state government, central government and other national agencies?**

Scholarships from state and other states are directly given to students in their respective accounts.

Institute scholarships are also given to students from its own resources as Student Aids.

5.1.4 **What are the specific support services/facilities available for**

- ✓ **Students from SC/ST, OBC and economically weaker sections:** Yes, Tuition fee is not charged from students from SC/ST, OBC and EWS categories.
- ✓ **Students with physical disabilities :** Student Aid is given if found eligible.
- ✓ **Overseas students:** No
- ✓ **Students to participate in various competitions/National and International :** No

- ✓ **Medical assistance to students: health centre, health insurance etc.** Yes, Student Exigency fund is maintained in the institute.
- ✓ **Organizing coaching classes for competitive exams** :Yes, Every year coaching classes are engaged for preparing the students for competitive exams.
- ✓ **Skill development (spoken English, computer literacy, etc.,)** Yes: Soft skills and personality development classes are conducted every year for all students.
- ✓ **Support for “slow learners”:** Extra remedial classes are conducted during off working days for weaker students
- ✓ **Exposures of students to the institution of higher learning/corporate/business house etc.** Yes, students are taken for industrial trips every semester., they are also given industrial training in big industries for a period of 6 months.
- ✓ **Publication of student magazines:** students are motivated to publish their works in magazines and in institute newsletter.

5.1.5 Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts.

Institute has Industry Institute Interaction Cell (IIIC) and Entrepreneur cell for developing entrepreneurial skills among the students. They were guided how to set up their own units and from where they can get financial and other helps for setting up of an industry.

5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extra curricular and co-curricular activities such as sports, games, Quiz competitions, debate and discussions, cultural activities etc.

- * **additional academic support, flexibility in examinations**
- * **special dietary requirements, sports uniform and materials**
- * **any other**

a) Institute has General Fitness Marks in each Semester which are given to students on the basis of their performance in sports, cultural activities, curricular, co-curricular and extra curricular

activities.

- b) Institute has more than 8 different societies for involving the students in technical and non-technical competitions.
- c) TA/DA is provided to the students for participation in inter college /inter university competitions
- d) College has its own transport facilities which is also provided to the students
- e) Annual budget is also allocated for sports/extra curricular activities
- f) Sports students are also provided diet per day as per Govt. norms/university,sports equipments etc.

5.1.7 Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR-NET,UGC-NET,SLET, ATE/CAT/GRE/TOFEL/GMAT/ Central/ Stateservices, Defense, Civil Services, etc.

- a) Extra classes for personality development are conducted for students through professional Agencies.
- b) Career Guidance cell provide guidance and prepare the students for competitive exams.

5.1.8 What type of counseling services are made available to the students (academic, personal, career, psycho-social etc.)

Academic,Personal,Career and psycho-social counseling are provided to the students through Dean Academics, Chief Counsellor, Dean Student welfare respectively.

5.1.9 Does the institution have a structured mechanism for career guidance and placement of its students? If 'yes', detail on the Services provided to help students identify job opportunities and prepare themselves for interview and the percentage of students selected during campus interviews by different employers (list the employers and the programmes).

YES

Campus Placement Record 2012-2014

Sr No	Name of the Company	Batch	No. of Selected Students
1	INFOSYS	2014	23
2	Unit Nexus	2014	5
3	One Infonet, Mohali	2014	13
4	Arcadian Technocrats	2014	1
5	Indian Army	2014	9
6	IATC-Seimens Network	2014	5
7	Rockman Industries	2014	11
8	Enbake Consulting	2014	2
9	Rawelcom	2014	2
10	INFOSYS	2013	22
11	ABSOLUTE SPORTS PVT. LTD.	2013	4
12	PROACTIVE Soft India Ltd.	2013	7
13	VVDN, Gurgaon	2013	8
14	GVK	2013	3
15	MAX INDIA	2013	1
16	Henkel Adhesive Technologies India Pvt Ltd	2013	2
17	SONALIKA TRACTORS	2013	3
18	Enbake Consulting	2013	3
19	HCL Technologies Ltd. (Bserv)	2013	1
20	INDIAN AIR FORCE	2013	1
21	SBSSTC	2013	12
22	GVK	2012	2
23	HCL COMNET	2012	1
24	HEWITT	2012	
25	DELL SERVICES	2012	3
26	NEC HCL	2012	1
27	V-SERV BUSINESS	2012	1
28	INFOGAIN	2012	8
29	SASKEN	2012	
30	SONALIKA	2012	3
31	ENBAKE CONSULTANCY	2012	4
32	ERP gurus	2012	12
33	ESCORTS	2012	3
34	EXPECIENT	2012	1
35	GRUNDFOS	2012	3
36	INDIAN ARMY	2012	
37	INFOSYS	2012	35
38	INTELLISENSE TECHNOLOGY	2012	2
39	MAX INDIA	2012	2
40	NESTLE	2012	3
41	SMART INFRA PROJECTS	2012	
42	SYNTEL	2012	
43	VIBETECH SOLUTIONS	2012	6

44	TRIDENT IOL	2012	2
45	NOKIA SEIMENS	2012	4
46	BAJAJ MOTOR LTD.	2012	8
47	TECH MAHINDRA	2012	1
48	WONDER PLC	2012	1
49	GITCO	2012	1
50	TAB TECHNOLOGY	2012	1
51	ERNST & YOUNG (EY)	2012	1
52	SHARP ELECTRONICS	2012	2
53	VVDN	2012	2
54	CISCO	2012	1
55	IMFINITY	2012	1
56	ABLY SOFTWARE PVT. LTD.	2012	1
57	WIPRO	2012	1
58	SOPARA	2012	1
59	KUDOS Pharmaceuticals	2012	1
60	PARAS LUBRICANTS	2012	1
61	VIPL SOLUTIONS	2012	1
62	CMC LTD.	2012	1
63	ASSITANT PROFESSOR	2012	3
64	CEC LANDRAN	2012	1
65	PIT KAPURTHALA	2012	1
66	Dept. OF POST, JALANDHAR	2012	1

5.1.10 Does the institution have a student grievance redressal cell? If yes, list (if any) the grievances reported and redressed during the last four years.

Yes, any student can approach the students grievance cell for redressal of his/her grievances. Till date none of the students have reported against the finding of students grievance cell.

5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?

There is a Women grevences Cell and Anti Sexual Harassment Committee in the institute with female member as its Chairman to handle all such issues.

5.1.12 Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?

Yes, institute has anti ragging committees and anti ragging squads for checking the ragging activities of students.

No, Ragging incident had been reported during last four years. Some complaints were received but found to be cases of cross rivalry among the students.

5.1.13 Enumerate the welfare schemes made available to students by the institution.

1. Student Aid Fund for weaker students
2. Student Exigency Fund for students in case of death of bread earner.

5.1.14 Does the institution have a registered Alumni Association? If 'yes', what are its activities and major contributions for institutional, academic and infrastructure development?

Yes, the institute has registered body of Alumnus.

- a) The institute holds Alumini Meet of the passed out students annually.
- b) Department-Wise Online Alumini surveys are conducted for the passed out batches after every 3 years
- c) Department-wise Exit Survey are conducted for the passing out batch in their last semester
- d) A number of groups on the **Social Websites like Facebook etc.** are used to disseminate the information to the Alumni
- e) Alumni Registration is done through one online form published on college websit www.sbsstc.ac.in
- f) The feedback given by alumnus are used to improve curriculum, teaching and placement methods.

5.2 StudentProgression

5.2.1 Providing the percentage of students progressing to higher education or employment (for the last four batches) high light the trends observed.

Student progression	
UG to PG	
PG to M.Phil.	
PG to Ph.D.	
Employed	2012— 125students
● Campusselection	2013 –66 students
● Other than campus recruitment	2014-71 students

5.2.2 Provide details of the programme wise passpercentage and completion rate for the last four years (cohortwise/batchwise asstipulatedbythe university)? Furnishprogramme-wise details in comparison with that of the previous performance of the same institution and that of the Colleges of the affiliating university within the city/district.

Pass Percentage and completion rate for last four years of students of Department of Mechanical Engineering

Year of Entry In reverse chronological order)	Number of students admitted in first year + Admitted lateally in 2nd year (N1+N2)	Number of students successfully completing 1st year	Number of students successfully completing 2nd year	Number of students successfully completing 3rd year	Number of students successfully earning their degree in just 4 years
13-14	126				
12-13	150	33			
11-12	155	27	29		
10-11	143	32	54	48	
09-10	106	37	43	37	61
08-09	106	33	42	39	72
07-08	101	36	46	41	52

Pass Percentage and completion rate for last four years of students of Department of Chemical Engineering

Year of Entry In reverse chronological order)	Number of students admitted in first year + Admitted lateally in 2nd year (N1+N2)	Number of students successfully completing 1st year	Number of students successfully completing 2nd year	Number of students successfully completing 3rd year	Number of students successfully earning their degree in just 4 years
13-14	19				
12-13	31	14			
11-12	34	14	16		
10-11	37	7	4	17	
09-10	35	8	9	16	23

08-09	22	4	3	6	14
07-08	19	3	4	4	10

Pass Percentage and completion rate for last four years of students of Department of Electronics and Communication Engineering

Year of Entry In reverse chronological order)	Number of students admitted in first year + Admitted lateally in 2nd year (N1+N2)	Number of students successfully completing 1st year	Number of students successfully completing 2nd year	Number of students successfully completing 3rd year	Number of students successfully earning their degree in just 4 years
13-14	67				
12-13	113	27			
11-12	113	39	33		
10-11	116	27	47	79	
09-10	108	42	63	84	92
08-09	109	42	67	73	93
07-08	108	52	65	67	92

Pass Percentage and completion rate for last four years of students of Department of Computer Science and Engineering

Year of Entry In reverse chronological order)	Number of students admitted in first year + Admitted lateally in 2nd year (N1+N2)	Number of students successfully completing 1st year	Number of students successfully completing 2nd year	Number of students successfully completing 3rd year	Number of students successfully earning their degree in just 4 years
13-14	98				
12-13	151	145			
11-12	150	150	149		
10-11	149	148	147	147	
09-10	108	108	108	108	96
08-09	112	109	109	112	90

07-08	106	106	106	103	93
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Pass Percentage and completion rate for last four years of students of Department of Electrical Engineering

Year of Entry In reverse chronological order)	Number of students admitted in first year + Admitted lateally in 2 nd year (N1+N2)	Number of students successfully completing 1 st year	Number of students successfully completing 2 nd year	Number of students successfully completing 3 rd year	Number of students successfully earning their degree in just 4 years
13-14	60				
12-13	73	09			
11-12	74	09	10		
10-11	74	14	35	30	
09-10	72	13	27	40	49
08-09	70	4	15	15	45
07-08	64	9	14	26	34

Pass Percentage and completion rate for last four years of students of Department of Computer Applications and Management

Academic Performance				
	2010-13	2011-14	2012-15	2013-16
MCA	100%	99%	running	Running
MBA	98%	99%	99%	Running
BCA	66%	65%	Running	Running

5.2.3 How does the institution facilitate student progression to higher level of education and/or towards employment?

- The institute has career guidance cell which guide the interested students to pursue their career in higher education.

- The institute organize job fairs for campus placement of students.
- The students who are interested for higher education get admission in our college in PG courses
- Training and placement cell helps the students for job by calling industries for interview, written tests etc.

5.2.4 Enumerate the special support provided to students who are at risk of failure and dropout?

- In this regard college conducts remedial classes for weaker students.
- There is department council cell and chief councillor to sort out such problems.

5.3 Student Participation and Activities

5.3.1 List the range of sports, games, cultural and other extra curricular activities available to students. Provide Details of participation and program calendar.

Annual athletic meet is held every year in the institute in which more than 800 students participate in different activities of sports.

Sports Grounds

Following playgrounds are available in the college

i. 400m Athletic track	01 No's
ii. Hockey ground	01 No's
iii. Volley Ball ground	02 No's
iv. Lawn Tennis court	02 No's
v. Basket Ball court	01 No's
vi. Cricket ground	01 No's
vii. Hand Ball ground	01 No's
viii. Foot Ball ground	01 No's
ix. Fitness Centre	01 No's

Facilities

1. Playgrounds are fitted with water sprinkler system for watering ground.
2. Athletic track having facility of lights to practice in the late night.
3. Drinking water facility.
4. Grass cutting machines – 02 no's

5. Two ground men for cutting the grass, watering the playgrounds and making of the fields.

5.3.2 Furnish the details of major student achievement sinco-curricular, extra curricular and cultural activities at different levels: University/State/Zonal/National/International, etc. for the previous four years.

- Our students have won the Yoga Competition, solo and group dance, Gidha and song competition in University level competitions.
- Our students have also won Volleybal, Hockey and basketball competitions at district level competitions.

5.3.3 How does the college seek and used at a and feed back fromits graduates and employers, to improve the performance and quality of the institutional provisions?

College gets feedback twice in every Semester and on th basis of feedback, HODs of respective deparments council the faculty members individualy.

5.3.4 How does the college involve and encourage student stopublish materials like catalogues, wallmagazines, college magazine, and other material? List the publications/ materials brought out by the students during the previous four academic sessions.

- Students editors of different language are appointed as per the interests of students who motivate other students for publications of their works
- Competitions are arranged for publications of Technical, and non-technical articles.
- Students are encouraged to publish in annual magazines “Mathan” and monthly newsletter “Veronica”.

5.3.5 Does the college have a Student Councilorany similar body? Give details on its selection, constitution, activities and funding.

YES, Each department has Student Council cell and a chief counallor

at the institute level. But there is no student body in the institute.

5.3.6 Give details of various academic and administrative bodies that have student representatives on them.

In the following academic & administrative bodies students have their representations

- College Council
- Student Aid Fund Committee
- Student Exigency Fund Committee
- NCC/NSS
- Mess Committee of all the hostels
- Sports committee

5.3.7 How does the institution network and collaborate with the Alumni and former faculty of the Institution.

- The institute holds Alumini Meet annually and invites all pass out students as well as ex-faculty members.
- In addition to invitation published in the leading newspapers, a number of groups on the Social Websites like Facebook etc. are used to disseminate the information to the Alumni.
- Department-Wise Online Alumini surveys are conducted for the passed out batches after every 3 years
- Department-wise Exit Survey are conducted for the passing out batch in their last semester
- Alumni Registration is done through one online form published on college websit www.sbsstc.ac.in

CRITERION VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 Institution Vision and Leadership

6.1.1 State the vision and mission of the Institution and enumerate on how the mission statement defines the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution's traditions and value orientations, vision for the future, etc.

Vision

To be identified as preferred destination for professional studies responsive to industrial and societal needs of the country.

Mission

1. Development of technically competent manpower with requisite analytical, theoretical and managerial skill and practical exposure.
2. All round development of students, staff and faculty by providing conducive environment and infrastructure for learning, skill development and research.
3. Imbibing versatility, adaptability and yearning for excellence amongst students with highest ethical values as their inner strength.

The College ensures that its vision and mission statement clearly defines the institution's distinctive characteristics in the following manner:

- i) SBSSTC was set up with a mission to impart such knowledge as may be necessary for the all round development of the character of students thereby making them capable of being better employed and at par with the highly competitive job markets.
- ii) The institution follows a three-fold system with academic, co-curricular and extra-curricular programs.
- iii) The academic design is based on enhancing and empowering the knowledge base of the students. The focus is on the recent trends in technology.
- iv) The college visualizes at facilitating young adult learners with opportunities to kindle their ethics and leadership potential thereby sensitizing learners towards inclusive social concerns, human rights, gender and environmental issues.
- v) The College has drawn a clear perspective plan for future development and to maintain competitive edge in quality and system.

6.1.2 What is the role of top Management, Principal and Faculty in design and implementation of its quality policy and plans?

- i) The Management, Director, HODs and the faculty are always stepping in together for designing and proper applications of the quality policy and plans.
- ii) The faculty members are actively involved in decision-making process at their levels. A few Faculty members are in the committees like Anti-ragging Committee, Research and Development Cell, Training and Placement Cell, Department Technical Societies, Publication Committee, Examinations Committee, Sports day Committee, Cultural festival Committee, and many other committees that are constituted for the smooth conduction of various events.
- iii) All the new and revised policies to improve academic activities, methodology of conducting examinations are reviewed and discussed in HODs meeting before implementation. Importantly, the Director provides academic leadership and in association with the various faculties, evolves strategies for academic growth of the institution.

6.1.3 What is the involvement of the leadership in ensuring :

- *The policy statements and action plans for fulfillment of the stated mission.*

The BOG takes responsibility in providing the facilities for learning and growth of the college. Prior planning is made by every department well before the commencement of the academic year and after critical study, the budget is allocated under various heads for improving infrastructure and development of the institute.

As many of the students are from the rural background there is a need to stress on improving their communication skills and make them job / placement ready by the time they leave the college. Keeping this in mind the Training and Placement department is strengthened, which in turn reflects the mission statement.

The mission is also to produce highly competent engineers with excellent technical and behavioral skills. The students are trained in these aspects through regular curriculum, co-curricular activities like guest lectures, seminars and training in various other aspects. The Management proactively supports all these activities. Thus the leadership helps in moulding the students into worthy citizens of the society.

- *Formulation of action plans for all operations and incorporation of the same into the institutional strategic plan.*

Based on the policy statements, the management advises the staff to accomplish the strategic plans through various activities. The success of different activities is ensured through strict adherence to the action plans such as

- Academic calendar for the college which details the curricular activities
- Calendar of events for co-curricular and extra-curricular activities by individual
- Departments.
- Budgetary sanctions
- Lesson and course plans

- *Interaction with stakeholders*

Keeping in mind the stakeholders whom the college has to serve such as students, faculty, parents, industry, government and society, the leadership focuses on how to interact with various stakeholders. The inputs and feed back about the functioning and various other aspects of the college is collected through a number of ways.

- Interacting and getting the opinion of the regular students through various platforms like grievance redressal committee, formal & informal feedback, counseling etc..
- Organizing parents meeting during the admission process, interacting with them during counseling and obtaining the views and suggestions of parents.
- Recording the opinions of the academicians and other eminent people when they visit the college
- Interaction with faculty members through various formal and informal meetings and also obtaining feedback from them.
- Alumni is best source to obtain un-biased feed back basing on their experience within the college and the external world.
- The feed back of the recruiters from various companies helps the college to identify any improvisations required in the talents of the students.
- The college also tries to get feedback from the employers through the placement cell about the performance of our students working in their organization.

The feedback received from all stakeholders is critically reviewed, analyzed and remedial actions will be initiated. The management encourages the participation of the staff in the process of decision making in institutional functioning. The personal interaction of the Principal with various stakeholders, the faculty, the non teaching staff, the students and the guardians also plays an important role in this. Thus, participatory role of the management encourages and sustains the involvement of the college staff, which is necessary for the efficient and effective running of the College.

- *Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders.*

The inputs collected from various stakeholders will be taken into cognizance by the management and through various interactive methods with the staff helps them in identification of critical areas for development and reviews progress in continuous improvement.

- *Reinforcing the culture of excellence.*

The institute always benchmarks itself with best institutes in the country and tries to implement the best practices. It channelizes the procedures and practices in tune with such practices to create an ambience that is most conducive for academic excellence. Infosys has recognized SBSSTC as Centre of excellence.

- *Champion organizational change.*

SBSSTC follows a structured approach for ensuring that changes are smoothly and successfully implemented, and that the lasting benefits of change are achieved. In order to accomplish this, SBSSTC aligns stakeholders expectations, communicates, and integrates with employees efforts for the growth of the institution.

It makes use of performance metrics in terms of pass percentage, placement percentage, presentation in conferences, journal publication, accepted proposals, consultancy work etc to design appropriate strategies. These are communicated to the employees so that they execute and accomplish the requirements as per the strategies set.

6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?

Institute adopts the following procedures:

- i) Faculty plans the course well in advance. He / she also monitor the delivery.
- ii) Subject faculty and HOD monitor daily/weekly/monthly attendance of the students and use this for delivery of academics.
- iii) Institute conducts monthly unit test & display the marks of students.
- iv) Institute does analysis of University examination results.
- v) Class co-coordinator conducts students meeting once in a month & takes review of attendance, syllabus completion and students difficulties.
- vi) Institute conducts Parent meet every semester and interact with them.
- vii) Institute conducts meeting with industrial experts.
- viii) Institute conducts project, papers competitions and reviews the research.
- ix) Institute takes feedback from students, parents, alumni, industry persons.
- x) In statutory bodies such as Governing body, experts from various fields are members and they contribute towards the development of the institution.
- xi) The effective improvement of students in terms of academics is measured through percentage of marks obtained with reference to earlier situation.

- xii) Result analysis has been done and is reviewed by the Director and concerned HODs for further improvements.

6.1.5 Give details of the academic leadership?

- The institute provides adequate freedom to faculty for strengthening teaching–learning process, academic advancement, nurturing multifaceted talent in students, Entrepreneurship development and Research.
- Faculty is at liberty to formulate plans for preparing required learning material, organizing various programme for curricular and extracurricular abilities, encouraging enthusiastic learners for professional competency, designing new experimental set up in laboratories, taking up in house R &D projects. The freedom of action motivates faculty for creative and innovative practices, coordination and team work.
- The staff members are also given faculty development programs to enrich themselves for the changing scenario of the educational field.
- Faculty is encouraged to enroll for higher studies. Faculty members are give incentives in the form of three years leave with 25% basic pay in addition to salary for PhD work. The faculty members who enroll for part-time study, their course fee is fully reimbursed.

6.1.6 How does the college groom leadership at various levels?

Principal is the academic as well as the administrative head of the institution. He acts independently by blending the rules and regulations as well as the norms laid down by the AICTE and Punjab Technical University with the policies and strategies/byelaws of the college. The college believes in decentralization of administration and transparency of governance. Independence is given to all Heads of the Departments in planning, organizing and implementing various activities in the departments in a effective way. The HODs in turn will delegate the authority and support the faculty in taking up various departmental activities. Various committees were constituted as given below and the committee chair person / coordinator works independently to ensure the objectives of the committee are met with.

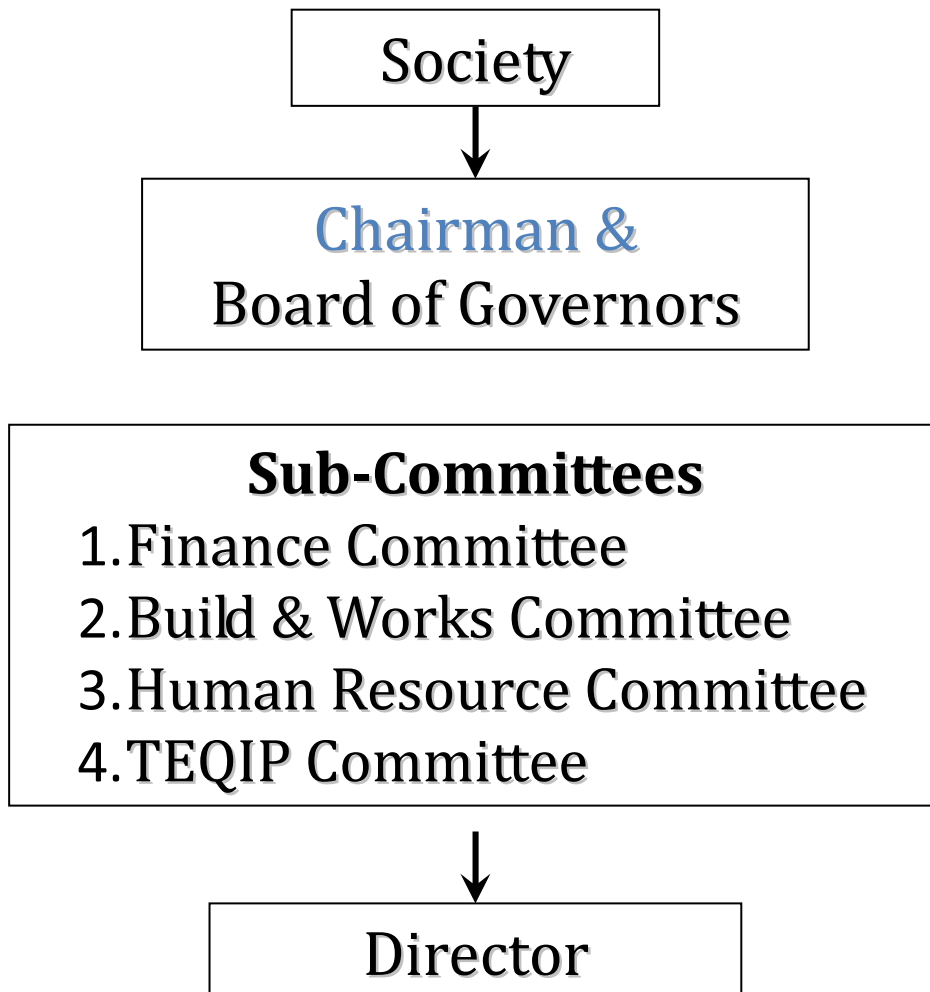
- i) Purchase Committee
- ii) Disciplinary Committee
- iii) Institutional Development Committee
- iv) Students Affair Committee
- v) Library Committee
- vi) Grievance Committee

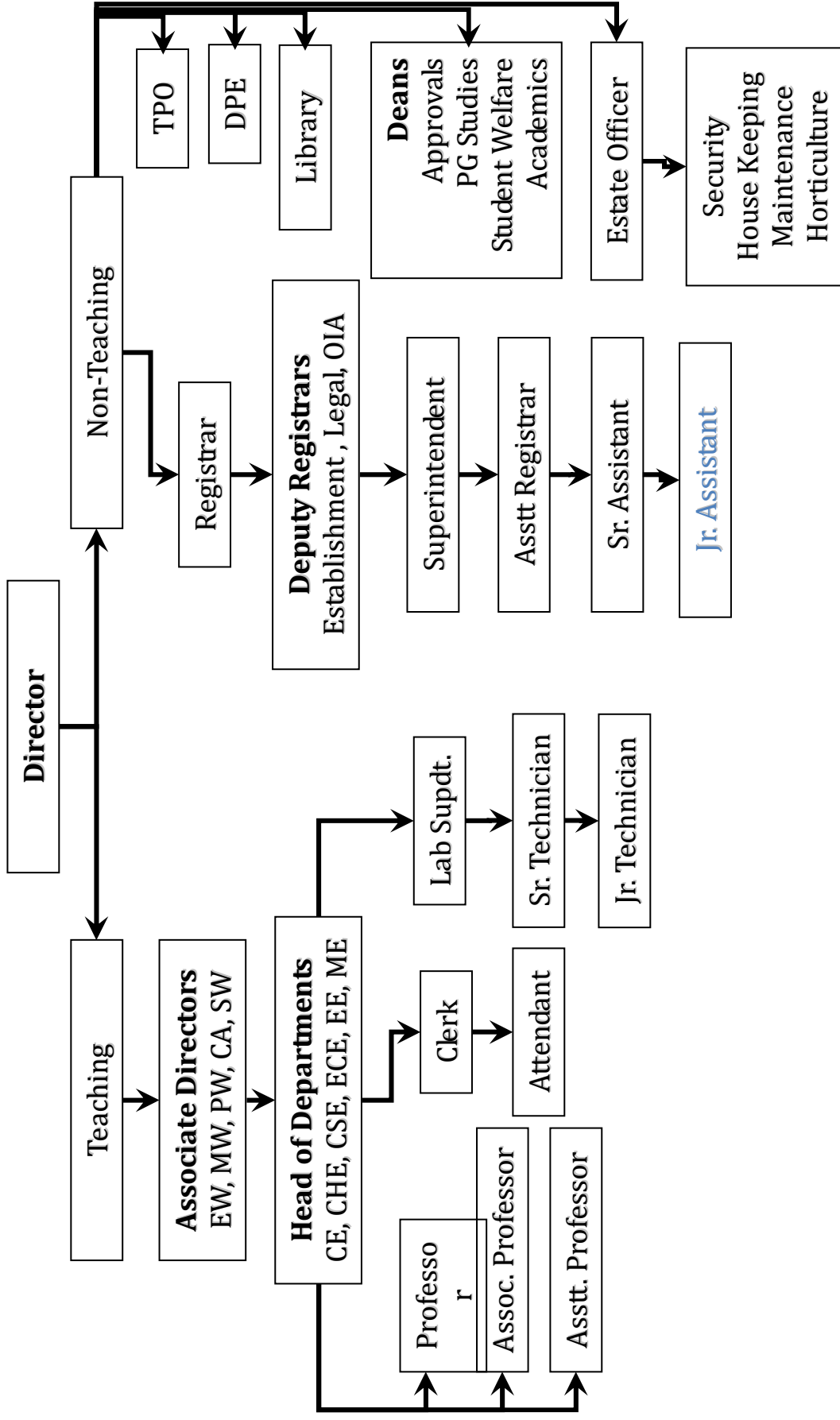
vii) Anti-Sexual Harassment Committee

The college ensures that leadership is groomed at various levels through these committees which create an ambience of trust and enhance competence and foster a sense of belongingness to the institution among the faculty and students.

6.1.7 How does the college delegate authority and provide operational autonomy to the departments / units of the institution and work towards decentralized governance system?

The Director is the administrative head of the College. However certain administrative functions are delegated to the Heads of Departments and various functionary committees to ensure a decentralized governance system. The Governing body has also approved of the constitution of Committees involving Staff members, which perform an advisory role in matters within their designated sphere of activity and also help in the execution of administrative decisions. Organizational chart of the college are as follows:





6.1.8 Does the college promote a culture of participative management? If 'yes', indicate the levels of participative management.

- Yes, the college promotes a culture of participative management. The management of the college rests with its Governing Body, whose member, is appointed in accordance with the guidelines provided in institution bye-laws.
- The Director is the academic and administrative head of the Institution and also the member secretary of the governing body.
- The Heads of Departments are responsible for the day-to-day administration of the departments and report directly to the Director.
- HODs have major role in development, procurement, selection of faculty, programs and activities, academic calendar, research and start of new programs.
- Additionally, every department has distributed various duties among faculty members which play an important role in various institutional functions. These duties have been discussed in departmental meetings conducted and the minutes of these meetings are recorded.
- The faculty is actively involved in planning and implementing the academic calendar and teaching learning. The planning and organization of co curricular and extracurricular activities is done by faculty, non teaching staff and students.
- The Board of Governors of the Institute has representation of two faculty members.
-

6.2 Strategy Development and Deployment

6.2.1 Does the institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?

A number of mechanisms have been taken to translate quality to its various sections by the institute. The plans and policies are geared up by the Academic Committee comprising of Dean Academic, Dean PG Studies and all HODs based on the activities suggested by various departments for the particular semester. The prepared plan is placed before the faculties, Student Representatives and administrators for an open discussion. An accord is arrived at, finalized and implemented after required permissions from institute director. The director holds formal and informal dialogues with the staff, from time to time, to redress any grievances. In the academic units, teachers are encouraged and supported to participate in seminars, conferences, workshops and refresher and orientation courses to update their knowledge.

6.2.2 Does the institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

The college has plans to expand both in the UG and PG levels. Plans have been chalked out to get the NBA Accreditation for eligible departments and to obtain Academic Autonomy for the institution. Apart from that there is a plan to upgrade to the Deemed University status.

Usually perspective plans are chalked out annually. They are based on the instructions from Director of institution after meeting all concerned heads of various departments being considered for an agenda point for discussion at annual governing body meeting. The same is reviewed periodically throughout academic year in measuring efficiency.

6.2.3 Describe the internal organizational structure and decision making processes.

Organization and Governance

The college has a well-framed administrative set up conforming to the norms of the regulatory bodies.

a) Administration setup

- The institute Director wields the powers with regard to financial and to all the academic and administrative matters.
- The Director discusses all the administrative problems with HODs.
- To expedite the organizational work and minimize undue delays in decision making, the college administration has been decentralized to a large extent.
- Head of the department assigns various tasks to members of the faculty and staff.
- The statutory and the non-statutory committees look after the academic and administrative procedures.
- The statutory committees are constituted as per the guidelines of the regulating bodies (AICTE, PTU) / State Govt / Institute Bye-laws.
- Non-statutory committees which have their well defined Charters.
- The HOD initiates appropriate administrative measures for strengthening
- the teaching learning processes. HOD is given autonomy to take academic/administrative decisions.

- Dean, Academic affairs have authority and responsibility to modify, interpret, adapt and change academic policies.
- Dean Student Affairs is responsible for creating and maintaining a safe, healthy and supportive environment and culture that synthesizes the intellectual, physical, social, emotional and spiritual development of students in a holistic way.
- TPO looks after tasks related to Training and Placement activities.
- All the activities of the institute are meticulously planned, properly coordinated and perfectly executed.

b) Academic Activities:

- Decisions pertaining to academic matters are decentralized to a large extent. Allotment of course work, monitoring of syllabus coverage, planning and organizing seminars guest lectures, workshops, industrial tours, staff orientation programs, remedial sessions, Personality development programs, add on courses, project works are also organized as per the instructions of the HOD.

c) Financial Powers:

- With the approval of BOG, purchasing power and DDO powers have been delegated to all HODs for purchasing up to Rs. 1.00 Lac per item.
- With the approval of BOG, Registrar of the institute is empowered to release salary of all employees, loan and advances, pension and gratuity, fee refund of students.

The following statutory committees are functioning in the college to look after the administrative and academic procedures

Statutory committees:

- Governing Body
- Building and works Committee
- Finance Committee

In addition to the statutory committees, the college has the following Non-statutory committees.

Non-statutory committees

- Purchase Committee
- Disciplinary Committee
- Institutional Development Committee

- Students Affair Committee
- Library Committee
- Grievance Committee
- Anti-Sexual Harassment Committee

The above committees are functioning in order to facilitate the successful implementation of autonomy. Each of the committees conducts its meetings and the minutes are recorded.

6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following

- **Teaching and Learning**
- **Research & Development**
- **Community Engagement**
- **Human Resource Management**
- **Industry Interaction**

Teaching and learning

- Teachers and students are encouraged to use modern teaching aides, Wi-fi facility to students and teachers at different locations of the college and hostel.
- Most of the class rooms have the teaching aid facility and for special lectures small and big size air-conditioned auditoriums are available.
- By implementing outcome based learning approach.
- By holding periodic workshops and training programme to new teachers on pedagogy and to the experienced teachers on advanced pedagogy.
- Consistent efforts have been made to design curriculum on student learning outcome.
- Efforts have been taken to make teacher centric learning to student centric learning.
- Digital library, Delnet facilities are provided, large number of online journals are subscribed.

Research and development

- Teachers are given relief from heavy work load/or leave is granted to pursue higher study/research.
- Students are given opportunity to pursue research through the undergraduate research projects.
- Five departments of the college are PTU recognized PG research centers.

- Six departments have AICTE, DST etc. sponsored research projects
- etc.
- Teachers are given seed grants for carrying out research activities

Community engagement

- Periodic blood donation camps in the college, NSS camps in villages.
- Van-Mahotsava, Earth day etc. are celebrated is celebrated and local community is involved in all such activities.
- The institute has been recognized as Vocational Education Provider for imparting training to village youth in soft skills, Mechanic, Electrician and other vocational streams.

Human resource planning and development

- The Institution has faculty and Non teaching staff as per requirement specified by Statutory bodies.
- Institution deputed faculty members for higher studies and also encourages faculty to register for Ph D program in the Institution by extending the Institute facilities.
- For teaching staff at the entry level orientation programs on Pedagogy are
- Arranged.
- Department wise faculty development programs are conducted. Faculties are encouraged to attend short term program/workshops/FDP conducted by other Institutions.
- Technical supporting staff are encouraged to under go skills upgradation.
- Non technical supporting staff are given training in Computer Operation.

Industry interaction

- The institute has dedicated Industry Institute Interaction Cell (IIIC). It has been given the responsibility of industry institute collaboration. Under its leadership, one faculty from each department takes the initiative in contacting industries for talks, visits, demonstrations and lectures.
- A database of core industries with respect to each department has been developed and brochure has been prepared giving out the details of the department's achievements, strengths, expertise, research potentiality and academic outputs is given to industries to enhance industry institute interaction.
- Large number of students through placement department and through the

- department's contact goes through summer internship in core industries during vacation.
- Placement department arranges periodic lectures on soft skills and skills required for employment in industry.
- Curriculum in computer science engineering for some courses has been designed as per the requirements of INFOSYS

6.2.5 How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available to the top management and the stake holders, to review the activities of the institution?

- Director ensures that adequate information (from feedback and personal contacts etc.) to review the activities of the institution through:
 - Meeting with HODs weekly
 - Collecting Feedback from students periodically.
 - Taking feedback and suggestions from Parents on periodical basis.
 - Continuous process of counseling and mentoring mechanism by faculty coordinators.
 - Periodical meetings with Faculty and Staff members.
 - Alumni association recommendations to enhance the academic excellence.
 - The website, face book update on routine basis help all stakeholders to understand the overall activities of the institute.
 -

6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?

The Management is always encouraging and supporting the involvement of the staff in improving the institutional process. The management, through the Director, involves the staff members in various activities and decision making process related to the curricular, extra-curricular and administrative development of the college.

The staff members involve themselves through various committees such as Admission Committee, Anti-ragging Committee, Sports Committee, Time table committee, library committee, Industry Institution Interaction Cell etc. The representatives of each committee are free to give suggestions and opinions during the meetings with the

Management. These suggestions are taken in to consideration before making any decisions.

6.2.7 Enumerate the resolutions made by management council in the last year and the status of implementation of such resolutions.

Following table below shows some of the resolutions & implementation status of major decisions taken during BOG meetings:

Sr	Resolution	Implementation Status
1	Improved participation in Faculty development Programs/Conferences	Faculty is encouraged to participate in faculty development programs / conferences. More than 60 faculty members have participated in one or more than one faculty development programmes over the last one year. Further more than 20 in house faculty development programmes/ training have been conducted in last one and half year
2	Conduct of International Conferences	The institute has already conducted one international conference on 08-09, August 2014, one national conference on 05-06 September 2014. Another international conference has been proposed on 30-31, October 2014.
3	Increased intake in B.Tech ME and CE branches.	The institute has increased intake in B.Tech in Mechanical Engineering from 120 to 180 and in Civil \engineering from 60 to 120 for the session 2014-15.
4	New M.Tech Programme in Mechanical Engg.	New M.Tech Course in Mechanical Engg. has been approved and has been started from 2014-15.
5	Emergent Civil work like girls hostel, new academic block, boys hostel, computer centre and library block	One academic block and one girl hostel have been newly constructed and possession has been taken. One boys hostel is under construction. The design of computer center and library block has been finalized. The project will be implemented through Publics Works

Sr	Resolution	Implementation Status
		Department (PWD).
6	Commencement of Skill Development Programs	The training and placement cell of the institute is running soft skill classes in collaboration with M/s SKIDT for the last one and a half year. The classes are meant for students in 5 th semester onwards. Besides it has been made mandatory for non-teaching technical and non-technical staff to undergo computer training.
7	Commencement of remedial Development Programs	The remedial classes are conducted on a continual basis for first year to improve transition rate. The transition rate for 2012-13 batch is 34.2% where as the transition rate for 2013-14 batch is 45%. The marked improvement in transition rate is there due to remedial classes. For second year onwards the remedial classes are conducted in some identified subjects with large no of reappears. Every semester the result is thoroughly analyzed and students are encouraged to participate in the remedial classes.

6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institute? If 'yes', what are the efforts made by the institution in obtaining autonomy?

Yes, provision is made by PTU (affiliating university) to accord the status of autonomy to its affiliated institutions. College has already applied for autonomous status to UGC. The inspection visit from UGC is pending.

6.2.9 How does the institution ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder relationship?

College constituted various committees for Grievances redressal

- Grievance Committee
- Anti Sexual Harassment Committee
- Students Affair Committee

The institute has well defined grievance redressal procedure. Prompt and effective disposal of grievances of various stakeholders are being done. College constituted grievance committee with faculty as members and institute Registrar as chairman. The committee thoroughly discusses the grievances and suggests the solutions for redressing the grievance to institute Director. The institute Director reviews the suggestions and initiates suitable actions. If there is a need to redress the issue in BOG, the college takes up the issue as an agenda point in BOG meeting. The college has a women cell as well which caters to the grievances and other needs of girl students.

6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute? Provide details on the issues and decisions of the courts on these?

- Mr Jagdeep singh Magat vs Director, SBSSTC, FZR civil writ petition no. 4154 of 2012 in process at Punjab and Haryana High Court.
- Mr Raj Kumar vs Director, SBSSTC, FZR civil writ petition no. 12481 of 2013 in process at Punjab and Haryana High Court.
- Mr Ravi Kant Grover vs Director, SBSSTC, FZR case no no. CA-155, 18-11-2013 in process at Additional District Judge, Firozpur.
- Mr Baldev Singh vs Director, SBSSTC, FZR case no no. CA-8/14 in process at Additional District Judge, Firozpur.
- Mr Gurmeet Singh vs Director SBSSTC, FZR Case No 269, 2012 in process at The District Consumer Disputes Readdressal Forum, Firozpur
- Mr Sukh Singh vs Director SBSSTC, FZR Case No 164, 2012 in process at The District Consumer Disputes Readdressal Forum, Firozpur.
- Mr Inderdeep Singh vs Director SBSSTC, FZR Case No 2261, 2012 in process at The District Consumer Disputes Readdressal Forum, Firozpur.
- Ms Banisha Gupta vs Director SBSSTC, FZR Case No 25/27, 2013 in process at The District Consumer Disputes Readdressal Forum, Firozpur.
- Ms Priaya Goyal vs Director SBSSTC, FZR Case No 25/27, 2013 at The District Consumer Disputes Readdressal Forum, Firozpur. The decion was held against the college.

6.2.11 Does the institution have mechanism for analyzing student feedback on institutional performance? If 'yes', what was the outcome and response of the institution to such an effort?

Yes, the institution has a mechanism for analyzing student feedback on institutional performance. A continuous assessment/ feedback system is incorporated by covering following aspects linking various levels.

Student-Faculty Level:

- Coverage of the Subject Material Specified in the syllabus.
- Preparation & Organization of the Lecture.
- Presentation and Communication Skills.
- Planning of Tutorials and Quality of Tutorial Assignments.
- Uniformity in Pace of Teaching during the Semester.

Apart from above Alumni feedback and exit survey from the students are collected. Accordingly action plan initiated to rectify the areas where the institution seems to be weak.

6.3 Faculty Empowerment Strategies

6.3.1 What are the efforts made by the institution to enhance the professional of its teaching and non-teaching staff?

- For teaching staff Faculty Improvement Programmes are conducted and teachers are encouraged to participate in FIP programmes conducted by the college and other colleges/universities.
- For the non teaching staff, computer trainings are held regularly. The non-teaching technical staff members are encouraged to enroll for higher studies.
- Many faculty have been granted leave with full salary to pursue M.Tech or Ph.D programmes.
- Faculty have been given the opportunity to register for Ph.D programme within and outside the college.
- For newly appointed faculty, training programmes and workshops are conducted for pedagogy in teaching methods.
- Faculty is encouraged to take active participation in faculty development programmes, conferences, seminars/workshops by paying the registration fee, TA/DA etc.
- Institute providing Laptops for faculty.

- Institute assists & encourage faculty for availing membership of national, international & professional bodies.
- It motivates & guides faculty for research and development by providing seed money, digital library and research equipments and labs.

6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?

- Training new Faculty on instructional design & delivery by the experts from NITTTR, Chandigarh and faculty from premium institutions before the commencement of academic Year.
- Training faculty on emerging technologies and also on real time problems in industry by eminent external faculty from industry and institution by organizing guest lectures and seminars
- Deputing faculty to refresher courses by external subject experts.
- Formulation of various committees with faculty as coordinator / member with proper allocation of work, assigning responsibility and grant of adequate authority and autonomy.
- Faculty are entitled to be sponsored for training programmes, paper presentations, attending seminars, workshops, quality improvement programmes etc.
- Besides better working environment conducive to teaching learning processes, other benefits like PF and incentives for both better performances as well for acquiring higher educational qualification has made the college to have higher retention ratio.
-

6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.

The Performance of the faculty is analyzed through the details provided by them in the self appraisal form every year. The performance of the faculty is assessed basing on various parameters such as

- Examination results on the lines of pass percentage, relative position with respect to other affiliated college of the university, scores of students etc..
- Student feed back

- Involvement in co-curricular and extra-curricular activities
- Responsibilities taken in the department
- Publications and research work etc.

The performance of each faculty is reviewed by the administration and the areas of improvement are suggested.

6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?

From the student feedback on faculty, if any gross anomalies are observed, HOD discusses the issues with the faculty and gives the advise with strategies to improve. If improvement is not observed, the faculty is asked to seek the employment elsewhere.

The outcomes of the performance appraisal will reflect in the annual increment, incentives and the promotion of the faculty. They are communicated through annual increment order and promotion orders.

6.3.5 What are the welfare schemes available for teaching and non-teaching staff? What percentage of staff have availed the benefit of such schemes in last four years?

- PF benefits and gratuity scheme
- Concession on fees for the children of the employees of the college studying in the same institute
- Rent free accommodation
- Reimbursement of medical expenses
- 15 casual leaves for male staff and 20 casual leaves for female staff every year.
- Maternity leave with full pay for six months for two times
- Study leave with full salary with 25% (BP +GP)allowance .
- Sabbatical Leave to undertake study or research or other academic pursuits for the objective of increasing their proficiency and usefulness to the institution on higher education system.
- Grain loan and free uniform to class IV employees
- Soft loan to class IV employees for celebrating festivals
- Earned Leave (E.L) of one for 30 days actual service and 1/3 of vacation
- period.

- Medical leave of 20 half pay leaves per year subject to a maximum of 180
- cumulative half pay medical leaves.

100% of the faculty and staff are availing the benefits.

6.3.6 What are the measures taken by institution for attracting and retaining eminent faculty?

The college creates an excellent working environment for the effective teaching learning processes, research and development and works in a transparent manner. The work culture in the institute helps in attracting and retaining good faculty. Some salient measures are

- On campus accommodation
- UGC-AICTE scale of pay
- TA/DA for attending conferences/seminars/workshops
- Support for patenting
- Support for obtaining research grants.
- Reduced workload for devoting time for research and writing grant proposals.
- Provident Fund & Gratuity
- Canteen, ATM & Reprographic facility
- Dress & soft loan for class IV employees.
- Moreover, almost all eligible staff members have taken advantage of these schemes.
-

6.4 Financial Management and Resource Mobilization

6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?

The Institution has well defined mechanism to monitor effective and efficient use of available resources. College obtains proposals from concerned departments in an academic year under three different heads of account i.e., capital budget, maintenance budget and developmental budget. After assessing the projected income for an academic year, college allocates budget to each department and institution with minute details. After the allocation, the departments can avail the financial resources within the sanctioned limit.

Purchases will be made with the recommendations of duly constituted purchase committee in the department upto a single purchase of Rs 1

Lakh. For purchases beyond 1 lakh, Central stores gets the purchases done after due approval from institute Director.

6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.

Internal

The College has a finance committee Comprising of following members:

1.	Secretary to the Government of Punjab, Department of Technical Education	Chairman
2.	Secretary to the Government of Punjab, Department of Finance or his representative (not below the rank of Joint Secretary)	Member
3.	Director, Department of Technical Education and Industrial Training, Punjab	Member
4.	Director, Shaheed Bhagat Singh State Technical Campus, Ferozepur	Member
5.	Registrar, Shaheed Bhagat Singh State Technical Campus, Ferozepur	Member-Secretary

Every financial year budget proposals including Income & Expenditure details being submitted by the college to the finance committee for their consideration and approval. The proposals are made on different heads such as laboratory equipment, library expenses, salary payments, building infrastructure and other maintenance expenses. The director of the institute periodically conducts meetings with department heads and section heads to review the action taken, and utilization of resources to improve the system performance.

External:

The annual balance sheet of the college is audited by an authorized audit team. The last audit was done in May 2014. There are no major audit objections.

6.4.3 What are the major sources of institutional receipts / funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and reserve fund / corpus available with institutions, if any.


The College is an autonomous institution established by Punjab Government, affiliated to PTU, we get the income mainly from tuition fee receipts, as fixed by Government of Punjab. The expenditure mainly consists of salary payments, laboratory equipments, Library, infrastructure & building infrastructures and maintenance. For meeting the expenses if there is any deficit of funds, the same is met by the funding from the State Government. The audited income and expenditure statements of previous four years are attached below:


SHAHEED BHAGAT SINGH STATE TECHNICAL CAMPUS, MOGA ROAD, FEROZEPUR 2

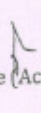
COLLEGE (DEGREE) WING

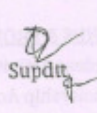
INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON 31.03.2013

EXPENDITURE	AMOUNT	INCOME	AMOUNT
GIA Account	118763345.34	College Security Account	1839722.00
Hostel Due Account	94309.00	GIA Account	121942735.20
Misc.Account	10787360.00	Hostel Due Account	561621.15
Student Activity Account	3438938.30	M Tech Tutition Fee Account	90648.00
Student Aid Account	196185.00	M Tech University	323.00
University Due Account	36000.00	Misc.Account	27723005.49
		Scholarship Account	328775.05
		Student Activity Account	23804114.45
		Student Aid Account	96914.00
		University Due Account	2640909.00
Excess of Income Over Exp.	45712629.70		
TOTAL RS.	179028767.34	TOTAL RS.	179028767.34


 Director

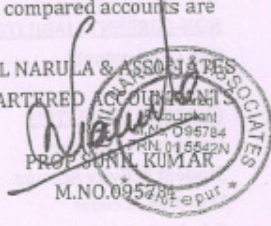

 Registrar


 Officer-in-Charge (Accounts)


 Supdt

AUDITORS REPORT:-
 The above accounts have been compared with the Books of Accounts produced before us and the compared accounts are in agreement with the Books of Accounts produced before us.

PLACE : FEROZEPUR CITY
 DATED : 10.06.2013

FOR SUNIL NARULA & ASSOCIATES
 CHARTERED ACCOUNTANTS

 PROF. SUNIL KUMAR
 M.NO.095784

SHAHEED BHAGAT SINGH STATE TECHNICAL CAMPUS, MOGA ROAD, FEROZEPUR

**INCOME & EXPENDITURE A/C OF COLLEGE SECURITY FUND ACCOUNT FOR THE YEAR ENDED ON 31.03.2012
(CW.MGT.PW AND M-TECH.)**

EXPENDITURE	AMOUNT	INCOME	AMOUNT
Excess of Income Over Exp.	569069.00	Bank Interest	569069.00
TOTAL RS.	569069.00	TOTAL RS.	569069.00

BALANCE SHEET OF COLLEGE SECURITY FUND ACCOUNT AS AT 31.03.2012

LIABILITIES	AMOUNT	ASSETS	AMOUNT
CAPITAL FUND		CASH & BANK BALANCES	
Opening Balance	4749015.96	SBOP	4929014.96
Add : Excess of Income Over Exp.	569069.00	SBOP FDR	13463845.00
			18392859.96
CURRENT LIABILITIES		LOAN, ADVANCES & RECEIVABLES	
Student Security	13094651.00	GIA (2010-2011)	2576000.00
Mess Advance	1277674.00		
Dealer Security	35000.00		
GIA Account (Old)	1243450.00		
	15650775.00		
TOTAL RS.	20968859.96	TOTAL RS.	20968859.96

[Signature]
Director

[Signature]
Registrar
[Signature]
Officer-in-Charge (Accounts)

[Signature]
Supdt.

AUDITORS REPORT:-

The above accounts have been compared with the Books of Accounts produced before us and the compared accounts are in agreement with the Books of Accounts produced before us.

PLACE : FEROZEPUR CITY
DATED : 27.09.2012

FOR SUNIL VARULA & ASSOCIATES
CHARTERED ACCOUNTANTS
[Signature]
PROF. SUNIL KUMAR
M.NC095788

SHAHEED BHAGAT SINGH STATE TECHNICAL CAMPUS, MOGA ROAD, FEROZEPUR

ENGINEERING WING

COMBINED INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON 31.03.2014

EXPENDITURE	AMOUNT	INCOME	AMOUNT
GIA Account	163361607.64	GIA Account	164285240.62
Hostel Due Account	65641.00	Hostel Due Account	802213.20
Misc. Account	26782675.00	Misc. Account	30286081.00
Student Activity Account	7160822.00	Student Activity Account	28150108.68
		Student Aid Account	77677.70
		College Security Account	153423.00
		Scholarship Account	185997.99
Excess of Income Over Exp.	26569996.55		
TOTAL RS.	223940742.19	TOTAL RS.	223940742.19

Director

Registrar

Associate Director

Officer Incharge (Accts)

Supdt. (Accts)

AUDITORS REPORT:-

The above accounts have been compared with the Books of Accounts produced before us and the compared accounts are in agreement with the Books of Accounts produced before us.

FOR PARMOD SHARMA & ASSOCIATES
CHARTERED ACCOUNTANTS

PARMOD KUMAR (PARTNER)
M.NO.078891

PLACE : FEROZEPUR CITY

DATED : 13.05.2014

The institute has established four funds and the size of four funds as on 31-03-2014 is follows:

Corpus fund	186058-00
Faculty Development Fund	187277-00
Equipment Replacement Fund	186058-00
Maintenance Fund	202009-00

6.4.4 Give details on the efforts made by the institutions in securing additional funding and utilization of the same (if any).

The institution encourages faculty to apply for various schemes available under different government organizations such as AICTE, UGC, CSIR etc. Some of the projects, which institute got from AICTE/MHRD are mentioned as under:

Sr No	Year	Name of Project	Name of Funding Agency	Total grant Received	Status
1	2011-12	MODROBS 8024/RIFD/MOD-263	AICTE	1100000-00	Completed
2	2011-12	MODROBS 8024/RIFD/MOD-262	AICTE	1000000	Completed
3	2011-12	MODROBS 8024/RIFD/MOD-261	AICTE	850000	Completed
4	2011-12	MODROBS 8024/RIFD/MOD-261	AICTE	150000	Completed
5	2011-12	RPS 8023/RID/RPS-49	AICTE	225000	Completed
6	2011-12	RPS 8023/RID/RPS-93	AICTE	750000	Completed
7	2011-12	Seminar grant	AICTE	100000	Completed
8	2011-12	Staff Development Programme	AICTE	200000	Completed
9	2012-13	TEQIP-II	MHRD	100000000-00	In process

6.5 Internal Quality Assurance System (IQAS)

6.5.1 Internal Quality Assurance Cell (IQAC)

- a. **Has the institute established an Internal Quality Assurance Cell (IQAC)? If 'yes', what is institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance process?**

The institution has established an Internal Quality Assurance Cell (IQAC) on 15.01.2014. The Composition of the cell is as under

Institute Director/ Associate Director:	Chairman
Convener & coordinator	Dean Academic
Members	All HODs, Registrar Two External members At the level of Associate Professor and above

The policies of the institutional quality assurance cell are:

- i) To equip the students of the college with the knowledge in the latest trends in their respective fields and to prepare them to meet the requirements of the job market.
- ii) To focus on augmenting the placement of the final year students in reputed companies through effective campus placement drives.
- iii) To organize more number of guest lectures by eminent resource persons/subject experts in all the departments to enhance the academic input.
- iv) To continue the schemes of Remedial Coaching classes for academically weak students.
- v) To conduct Faculty Development Programmes (FDP"s) periodically to update their knowledge.
- vi) To record all the major and minor achievements of all the Departments and publish them in newsletters in clusters.
- vii) To improve the communicative skills of the students.
- viii) To upgrade the industry-institution relationship by developing linkages with professional/research bodies
- ix) To conduct a social audit and to enhance the status of the institution in the society.
- x) To inculcate the spirit of service mentality among student volunteers through NSS activities
- xi) To give adequate counseling and guidance to students in their personal/academic/professional fronts through the Counseling and Guidance cell.
- xii) To encourage more number of students to participate in sports by
- xiii) providing them with required training, coaching and guidance.

Based on its policies, IQAC will ensure:

- i) Fixing quality parameters for various academic and administrative activities.
 - ii) Monitoring the organization of class work and related academic activities.
 - iii) Conducting Internal Quality Audits periodically to verify the effectiveness of measures taken in reaching the quality parameters.
 - iv) Documenting various programs / academic activities leading to quality improvement and reviewing their effectiveness in quality improvement/ sustenance
- b. **How many decisions of the IQAC have been approved by the management /authorities for implementation and how many of them were actually implemented?**

The institute governing body strongly believes in quality education as mentioned in the mission and vision statements and thus approves and supports the activities of IQAC and endorses the decisions taken by the body as mentioned in the Academic Calendar.

- c. **Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.**

The following two are external members of the committee:

They contribute in establishment of research facilities, establishment of problem solving group of students, motivating faculty for research, evaluating the faculty and guiding them for improvement in teaching learning.

- d. **How do students and alumni contribute to the effective functioning of the IQAC?**

The students put forward good suggestions for the enhancement of quality in the functioning of the college. The alumni of the institution meet the faculties of their department as and when they visit the institution. Some of them meet the students of their department and share their experience and job market expectation. The alumni of the institution is considered as an asset and every suggestion is given due respect and implemented by the college for betterment of students. It is proposed to make alumni stronger by ensuring their active participation in IQAC in coming years.

- e. **How does IQAC communicate and engage staff from different constituents of the institution?**

The faculty and non-teaching staff representatives have been nominated as members of the general body of IQAC. They are attending and effectively participating in the general body meeting of IQAC. The IQAC elicits the views of the staff members of the institution who proposes the conduct of various curricular, co-curricular and extra-curricular events and the proposals are subsequently discussed and finalized in IQAC meetings. The chairman, IQAC also regularly interacts with the staff members through circulars and periodic meetings to ensure their effective participation in all the activities of the body.

6.5.2 Does the institute have an integrated framework for quality assurance of the academic and administrative activities? If 'yes' give details on operationalisations.

The vision of the institution clearly brings out the intended quality of education the institution wishes to provide. The same is also translated into academic policies and communicated to both academic and administrative staff. The academic quality is ensured by focused teaching-learning process and effective feedback system. The institution has built in an integrated support system where the administrative staff contributes substantially to achieve academic quality.

The academic functions and related administrative matters have been vastly streamlined ever since the functional committees are formed. The feedback on faculties obtained from students has helped analyze and evaluated the performance of the faculties. The evaluation has led to remedial measures to improve the performance of teachers and to encourage teachers who have been efficient and full of initiative. The self-appraisal mechanism started for teachers, together with the student feedback has been very useful for the Director to arrive at an overall performance report of the faculty. These evaluator mechanisms are taken into consideration for faculty promotions. Arrangements of faculty development programmes, skill development programmes for students and non teaching staff, continuous up-gradation of laboratory facilities, library and office automation, enhancement of student support services (Placement, career guidance, counselling, mentorship, encouragement to culture and sports activities)

6.5.3 Does the institution provide training to its staff for effective implementation of the Quality Assurance procedures?

The institute organizes orientation program to imbibe the culture of quality among the staff members. It is also supported in and through faculty development programs. It helps faculty members in

understanding and to implement academic policies effectively. Moreover, the college has adopted a participative decision making process wherein the faculties contribute effectively towards the development of the institution. The institute authorities monitors every activity both academic and non academic through faculty and staff meetings to ensure highest quality in services provided.

Apart from this, the institute encourages and sponsors faculty in participating in various orientation and refresher programmes, workshops, conferences, seminars etc., organized by reputed institutions like IIT's, NIT's, PTU amongst others.

6.5.4 Does the institution undertake Academic Audit or other external review of the academic provisions? If 'yes', how are the outcomes used to improve the institutional activities?

Academic audit is a regular feature in the College for continuous monitoring of the students. Over and above the college, the affiliating university regularly monitors the performance regularly through:

Academic audit is conducted on the following:

- i) Course files and lab manuals
- ii) Monthly students attendance
- iii) Internal Exam Marks
- iv) Semester Internal Marks
- v) Semester and exam marks
- vi) Semester wise performance and comparison with other University
- vii) affiliated colleges.
- viii) Faculty development programmes and their impact on teaching –
- ix) learning process.
- x) Training programmes to students.
- xi) Co-curricular / extra-curricular activities.

Based on the report of internal academic audit, the courses of actions /measures being followed are reviewed and suitable remedial measures are taken.

As measure of our good academic practices, the institution has applied for accreditation by NBA, New Delhi. The same has conducted the visit and the result is awaited.

6.5.5 How are the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies / regulatory authorities?

- Teaching quality is monitored by HODs, senior faculty on regular basis. Based on those findings corrective actions are implemented.
- University regularity visit Institute in each academic year and carries the inspection of the academic processes.
- Feedbacks are invited from all the stakeholders (Students, guardians, alumni, experts).
- Institute uses the guidelines of professional bodies for quality education, for development of its internal quality assurance mechanisms.
- The institute quality assurance mechanism are developed using the guidelines of quality assurance agencies like NAAC, NBA
- The institute studies the quality assurance norms of university, NAAC, NBA and develops the quality assurance mechanism for teaching, learning, research, industry institute interaction, higher studies, good citizens and academic audits.

6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?

The following points are considered for formulating the policies on Teaching:

- The inter semester and end semester feedbacks on all the subjects are taken from the students in every semester.
- The feedback is analyzed and evaluated on the scale of 100 and every teacher is provided with a copy of feedback for making necessary corrections. Further, teachers are counseled by the head of the department, Dean Academic Affairs, Principal and Director if required.
- The administration also receives the feedback by interacting with a selected group of students from each class.
- The institution has implemented lesson plan system, which helps all the faculty members to plan the delivery of the curriculum. The management and the Principal are regularly monitoring the planned delivery of curriculum and its execution status.
- The quality of course material and assignments prepared by the faculty are assessed internally and suitable suggestions for enriching the course materials and assignments are given by the senior faculty of the departments.

- New / creative assignments are prepared every year in all the subjects.
- Performance and self-appraisals are taken from the faculty at the end of every academic year and their performance is evaluated. Based on the evaluation report faculty are counseled.

6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?

- Institute has the regular liaison with internal and external stakeholders.
- Institute discusses the quality assurance policies with the members of student council and gets their views in this regards.
- Each department of the institute regularly organizes parent meet and conveys the quality assurance policies to parents.
- It invites the parents for co-curricular and cultural activity & discusses the quality assurance policies.
- Institute has Industry Institute Interaction Cell. It conducts the meet and shares the information.

CRITERIA VII: INNOVATIONS AND BEST PRACTICES

7.1 Environment Consciousness

7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?

Yes, Eco-Friendly group of the college conducts different activities for **Environment Consciousness among the students and staff including debates and competitions for the same.**

7.1.2 What are the initiative staken by the college to make the campus eco-friendly?

* Energy conservation	Yes
* Use of renewable energy	Yes
* Water harvesting	Yes
* Check dam construction	N.A
* Efforts for Carbon neutrality	Yes
* Plantation	Yes
* Hazardous waste management	Yes
* e-waste management	Yes

7.2 Innovations

7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

- College has a huge and pleasant green cover. Different types of plants are available all over the campus making it a pollution free campus.
- Campus is well maintained
- A beautiful park spreading over 15 Acre of land is maintained in the institute for evening walk.
- Whole campus is provided Wi-Fi facilities.
- All faculty and staff members have been given dedicated internet facility in their offices and houses.
- Wi-Fi and internet facilities are given in all Hostels
- A lush green and clean campus spreading over 100 Acres have shopping complex, bank, post office, Milk booth,

Nescafe etc etc.

7.3 BestPractices

7.3.1 Elaborate on any two best practices in the given format at page no.98, which have contributed to the achievement of the Institutional Objectives and/or contributed to the Quality improvement of the coreactivities of the college.

Presentation of BestPractice

1. Title of the Practice:

“Promotion of Research among Faculty & Innovative Student Projects”

2. Objectives of the Practice

What are the objectives/ intended outcomes of this “best practice” and what are the underlying principles or concepts of this practice (in about 100 words)?

The main focus of the higher education in India is to promote research. In accordance with the growing need for the upgradation of the faculty and the students in higher education, enormous efforts are taken by the management of the college to inculcate research culture in the staff and the students to arouse curiosity, develop objectivity and improve critical thinking. It ensures continuous professional growth on the part of teachers and of problem identifying, systematic planning, careful implementing and solution finding abilities on the part of students.

- To keep pace with the latest advancements in respective discipline and thus to update the intellectual calibre of the faculty
- To encourage the faculty to pursue Ph.D. and to acquire more PhD guides/supervisors to have more research scholars.
- To motivate the faculty to apply for the major and minor research projects
- To promote the departments to have more research labs
- To collaborate with other institutions, universities and industries in India and abroad

- To arrange for interface among the institutions, industries and the public to take up research projects of relevance.
- To encourage the faculty and the students to organize and present research papers in the national / international seminars / conferences / workshops
- To publish quality research articles in reputed journals, edit study materials for the prescribed syllabus and author books of high originality
- To provide seed money for research activities

3. The Context

What are the contextual features or challenging issues that needed to be addressed in designing and implementing this practice (in about 150 words)?

In order to keep pace with the latest development the periodic and constant updating of the subject material is very essential. The teaching faculty and staff of the institute are highly conscious of quality enhancement and quality sustenance at par with the progress of technology. The knowledge generation and effective dissemination are the two major focus of our quality research. The congenial research ambience has been created through strengthening infrastructure facilities, motivating faculty and staff members and guiding them to acquire grants from the funding agencies to launch new research projects and assignments - pursuing Ph.D., taking up minor or major research projects, guiding research scholars and publishing research papers and books.

Challenging issues to be addressed while designing and implementing the practice

Following are some of the basic challenges that needed to be addressed while implementing the practice. Requiring sound knowledge of technology development

- Creation of awareness on the need for research to update the knowledge of the students and the staff at international standards
- Passive attitude of the faculty and staff towards the research.

- Creating an interest in research in students through individual or group research projects as part of their syllabus
- Analyzing and addressing the needs of the society through JACEP and submitting reports based on their field research
- Forming linkage with the industries and research centres and collaborating with them for the research projects of staff and students.
- The great demand of the rural based students for the attention of the staff to cope with their studies

4. The Practice

Describe the practice and its uniqueness in the context of Indian higher education. What were the constraints/ limitations, if any, faced (in about 400 words)?

The institution provides opportunities to the faculty and staff for improvement in qualification and skill level. A number of channels like study leave and QIP are in place for doing higher studies M.Tech or Ph.D. on regular basis. The institute rules also allows Part Time registration for a research degree. The institute also motivates its faculty for Post Doc Studies in India or abroad. Special emphasis is given on the sponsored projects (major and minor) of various funding agencies.

A Research Monitoring Committee is in place under the Chairmanship of the Dear (PG Studies & Research) for promoting research culture among the staff and students in the campus. It sets the target for achievement in the action plan presented and submitted in the Board of Governors meeting every year. The attainment of the target is reviewed every year.

Support facilities for research

- Special consideration in the form of leave is given to the staff who are on the verge of completing their research work.
- The visits to various Universities and libraries for data collection have enriched their research.
- The management extends co-operation to the staff to go abroad for paper presentation and send proposals to UGC to avail travel grant.

- Steps have been taken to have a linkage with Liverpool Hope University, U.K. to promote teaching, learning and research.
- The management has decided to give financial assistance to the self-finance faculty who make research publications in the journals with high impact factor.
- Rewards of teachers are based on their achievements in research.

Constraints faced in the pursuit of research

- Owing to time constraint and interface, the gap between academia and industries is not adequately bridged to fulfill the needs of industries.
- The students can be further motivated to explore new areas of research and procure funds from various funding agencies.
- Students can be provided hands-on activity based research in the industries to address challenges faced in the job market.
- Extension Programme can focus on neighbourhood oriented research to solve real life problems.
- Interdisciplinary and socio- economic developmental research can be encouraged among the students and the teachers.
- Ph.D. holders can be motivated to publicize their research in the form of books.

5. Evidence of Success

Provide evidence of success such as performance against targets and benchmarks, review results. What do these results indicate? Describe in about 200 words.

The achievements in the field of research are the main indicators of excellence in research practiced at the institute.

- In last three years 11. faculty members have successfully completed PhD degrees from IITs or some renowned universities and completed their M.Tech in respective areas.

- A good number of faculty have availed the opportunities for presenting papers in National () and International () Conferences.
- Nine faculty members have been sent abroad for attending the International events.
- Director and Chairman Board of Governors visited top ranking Universities of USA to see the best practices being followed there.
- Expert from PUM of Netherlands visited the campus to give a thrust to academic activities specially research and industrial collaboration.
- A team of two senior faculty members was sent to Netherlands in connection with the ongoing international interaction and exchange programme inked with PUM of Netherlands.
- Nine sponsored research projects with a funding of nearly crores are undertaken during the assessment period. The institute was also granted the TEQIP project of MHRD/World Bank for Rs. 10.00 crores.
- 27 faculty members are University-approved supervisors for guiding M.Tech. and Ph.D. scholars.
- Final year UG and PG students undertake mandatory and funded, individual and group projects.
- New Project and Research labs have been established in departments to give a thrust to research activities
- E-journals, DELNET and Internet laboratory are added in the library.
- In addition to the central Computer Centre facility, CAD/CAM and Computational laboratories have been established in 05 departments.
- Separate Computer labs have been established in all the hostels.
- Publication of research papers in reputed journals with high impact factor evinces the keen interest of the faculty in research. The number of publication is continuously increasing
- A number of teachers have published articles and chapters in research books.
- .Competitive grants have been sanctioned to a number of faculty members of the institute by DST or AICTE for research as well as laboratory modernization projects.
- The proceedings of the three conferences organized in the institute are published in the form of books.

- Research is nurtured at the college by strengthening infrastructure facilities in the laboratories and the library.

6. Problems Encountered and Resources Required

Please identify the problems encountered and resources required to implement the practice (in about 150 words).

- More incentives can be given to the teachers by the Government for research activities - publications of books and papers in reputed journals.
- More State of Art Research Intensive Workshops should be organized for faculty to attract them to the Quality Research and participation in Sponsored Research Projects/activities.
- Various technical sessions and seminars can be organized for the young teachers and UG/PG students to create awareness of the requirements for research - preparation of proposals, various funding agencies etc.
- General grants can be provided by UGC under special schemes to strengthen research resources at the college in the form of books and equipments.
- International collaboration and co-operation can be sought to make research more qualitative.
- A research journal can be published by maintaining the standard of the articles and making the peer review process strict.
- Academic audit can formulate quality parameters to ascertain the quality of research of the staff and the students in each department.
- Vacancies can be filled up by the Government to acquire powerful human resource with research acumen to develop research activities.

7. Any additional information regarding Innovations and Best Practices, which the College would like to include.

- The institute is situated at a distance of only 11 KM from the Indo Pak Boarder and caters to the backward boarder belt of the state of Punjab
- The institute is one of the leading destination for technical and professional education in North West part of the country.
- It has a 100 Acre green lush campus on NH-95, 3 km away from Firozpur Cantt with idea ambience for learning.

- The institute is devoted for the Holistic development for all the students, faculty and staff members.

8. Contact Details

Name of the Principal: Dr. T. S.Sidhu

Name of the Institution: Shaheed Bhagat Sing State technical Campus
Ferozepur

City: Ferozepur

PinCode: 152004

Accredited Status: Applied for

Work Phone: 01632-242138 **Fax:** 01632-242138

Website: sbsstc.ac.in **E-mail:** tssidhu@rediffmail.com

Mobile: 8288012001

Evaluative Report of the Department of Civil Engineering

1. **Name of the Department:** Department of Civil Engineering

2. **Year of the establishment:** 2011

3. **Name of programmes/course offered (UG, PG,M Phill, Ph.D., integrated Masters; Integrated Ph.D etc):** UG (B.Tech. Civil Engineering)

4. **Name of interdisciplinary courses and the departments/units involved**

Course	Course code	Deptt./units involved
Engineering Chemistry	BTCH 101	Deptt. of App. Sci. & Hum.
Engineering Mathematics-I	BTAM101	Deptt. of App. Sci. & Hum.
Elements of Mechanical Engineering	BTME101	Deptt. of Mech. Engg.
Fundamentals of Computer Programming and IT	BTCS101	Deptt. of Comp. Sci. & Engg.
Environmental Science	EVSC 101	Deptt. of App. Sci. & Hum.
Engineering Chemistry Laboratory	BTCH102	Deptt. of App. Sci. & Hum.
Engineering Drawing	BTME102	Deptt. of Mech. Engg.
Fundamentals of Computer Programming and IT Laboratory	BTCS102	Deptt. of Comp. Sci. & Engg.
Engineering Computer Graphics Laboratory	BTME103	Deptt. of Comp. Sci. & Engg.
Engineering Physics	BTPH101	Deptt. of App. Sci. & Hum.

Engineering Mathematics-II	BTAM102	Deptt. of App. Sci. & Hum.
Communicative English	BTHU101	Deptt. of App. Sci. & Hum.
Basic Electrical and Electronics Engineering	BTEE 101	Deptt. of Electrical Engg.& Electronics & Comm. Engg.
Human Values and Professional Ethics	HVPE101	Deptt. of App. Sci. & Hum.
Engineering Physics Laboratory	BTPH102	Deptt. of App. Sci. & Hum.
Communication English Laboratory	BTHU102	Deptt. of App. Sci. & Hum.
Basic Electrical and Electronics Engineering Laboratory	BTEE102	Deptt. of Electrical Engg.
Manufacturing Practice	BTMP101	Central Workshop
Strength of Materials	BTCE-303	Deptt. of Mech. Engg.
Strength of Materials Lab	BTCE-307	Deptt. of Mech. Engg.
Engineering Mathematics-III	BTAM-301	Deptt. of App. Sci. & Hum.
Numerical Methods in Civil Engineering	BTCE-604	Deptt. of App. Sci. & Hum.

5. Annual/semester/choice based credit system (programme wise)

Department of Civil Engg. has adopted credit system as per the revised course

curriculum Scheme-2011 of Civil Engg. of Punjab Technical University, Jalandhar. The latest curriculum Scheme-2011 is available on PTU website on link http://www.ptu.ac.in/userfiles/file/syllabus/engg/syllabus_revised_july_2013.pdf

Annual Based Credit System

Sr. No.	Year	Credit
1	First Year	50
2	Second Year	59
3	Third Year	61
4	Fourth Year	58

6. Participation of the department in the courses offered by other departments:

As per requirement of other departments, the department has been sharing teaching load from time to time.

Course	Course code
Environmental Science	EVSC 101

7. Courses in collaboration with other universities, industries, foreign institutions, etc: NIL

8. Details of courses/programmes discontinued (if any) with reason: NOT APPLICABLE

9. Number of teaching posts

	Sanctioned	Filled
Professor	01	NIL
Associate Professor	02	NIL
Asst. Professor	11	07

10. Faculty profile with name, qualification, designation, specialization, (D.sc/D. Litt./Ph. D/ M. Phil .etc.)

Name	Qualification	Designation	Specialization	No. of years of experience	No. of Ph. D Students guided for last 4 year
Er. Parampreet Kaur	M. Tech.	Asstt. Professor	Geotechnical Engg.	03Years 08months	NIL
Er. Bohar singh	M. Tech.	Asstt. Professor	Geotechnical Engg.	12 Years	NIL
Er. Dapinderdeep Singh	M. Engg.	Asstt. Professor	Environmental Engg.	02 Years	NIL
Er. Gurpreet Singh	M. Engg.	Asstt. Professor	Highway Engg.	02 Years	NIL
Er. Gurtej Singh	M. Tech.	Asstt. Professor	Soil Mechanics & Foundation Engg.	18 Years	NIL
Er. Satish Bansal	B.Sc. (Civil Engg.)	Associate Professor	---	32 Years	NIL
Er. Rajdeep Singh	B. Tech. (Civil Engg.)	Asstt. Professor	---	NIL	NIL

11. List of senior visiting Faculty:

Sr. No.	Eminent academicians /visitor to the department	Designation	Topic and Date of Visit
1	Prof. V.P. Puri	Professor, N.I.T.T.T.R., Chandigarh	Managerial Excellence on 09/09/2013
2	Prof. T.N. Thukral	Professor, N.I.T.T.T.R., Chandigarh	Understanding Learners on 09/09/2013
3	Prof. V.P. Puri	Professor, N.I.T.T.T.R., Chandigarh	Significance of Academic Ethics and Integrity on 09/09/2013
4	Prof. T.N. Thukral	Professor, N.I.T.T.T.R.,	Resource

		Chandigarh	Management on 10/09/2013
5	Dr. J.S. Saini	Professor, N.I.T.T.T.R., Chandigarh	Higher Education in on 10/09/2013
6	Dr. J.S. Saini	Professor, N.I.T.T.T.R., Chandigarh	NVEQF on 10/09/2013
7	Dr. S.P. Bedi	Professor, N.I.T.T.T.R., Chandigarh	Creativity on 10/09/2013
8	Prof. T.N. Thukral	Professor, N.I.T.T.T.R., Chandigarh	Team Building on 11/09/2013
9	Dr. S.P. Bedi	Professor, N.I.T.T.T.R., Chandigarh	Conflict management on 11/09/2013
10	Prof. T.N. Thukral	Professor, N.I.T.T.T.R., Chandigarh	Time Management on 11/09/2013
11	Dr. S.P. Bedi	Professor, N.I.T.T.T.R., Chandigarh	Positive Thinking on 11/09/2013
12	Prof. T.N. Thukral	Professor, N.I.T.T.T.R., Chandigarh	Planned Change on 12/09/2013
13	Dr. S.P. Bedi	Professor, N.I.T.T.T.R., Chandigarh	Coping with on 12/09/2013
14	Prof. T.N. Thukral	Professor, N.I.T.T.T.R., Chandigarh	Decision Making on 12/09/2013
15	Dr. S.P. Bedi	Professor, N.I.T.T.T.R., Chandigarh	Emotional Intelligence on 12/09/2013
16	Dr. S.P. Bedi	Professor, N.I.T.T.T.R., Chandigarh	Transactional Analysis on 13/09/2013
17	Dr. S.P. Bedi	Professor, N.I.T.T.T.R., Chandigarh	Interpersonal Relations on 12/09/2013
18	Dr. M.P. Punia	Director, N.I.T.T.T.R., Chandigarh	Leadership Skills on 13/09/2013
19	Dr. H.S. Rai	Dean Consultancy, GNDEC, Ludhiana	Successful Carrier in Civil Engineering on

			08/10/2013
20	Dr. Sanjiv Aggarwal	H.O.D., Deptt. of Civil Engg., PTUGZS Campus, Bathinda	Construction Technologies for roads on 09/04/2014
21	Dr. Sanjiv Aggarwal	H.O.D., Deptt. of Civil Engg., PTUGZS Campus, Bathinda	Road Transport System of India on 23/07/2014
22	Dr. Sanjiv Aggarwal	H.O.D., Deptt. of Civil Engg., PTUGZS Campus, Bathinda	High Speed rail network on 20/10/2014
23	Dr. Manjeet Bansal	Associate Professor, Deptt. of Civil Engg., PTUGZS Campus, Bathinda	Strength of Materials on 11/11/2014
24	Er. Naresh Garg	Structure Engineer, Newlife Engineers, Kotkapura	Design of R.C.C. Structures on 11/11/2014

12. Percentage of Lectures Delivered and practical classes handled (programme wise) by temporary faculty

Sr. No.	Lectures Delivered by temporary faculty	Practical classes handled by temporary faculty
1	25.97%	10.50%

13. Student-teacher Ratio (programme Wise): 24.83

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

	Sanctioned	Filled
Lab-Superintendent	01	01
Lab-Technician		02
Lab. Attendent		01
Clerk	01	01
Peon	01	01

15 Qualifications of teaching faculty with Dsc/D.litt/Ph.D/MPhil/PG:

Name	Qualification	Designation	Specialization
Er. Parampreet Kaur	M. Tech.	Asst. Professor	Geotechnical Engg.
Er. Bohar singh	M. Tech.	Asst. Professor	Geotechnical Engg.
Er. Dapinderdeep Singh	M. Engg.	Asst. Professor	Environmental Engg.
Er. Gurpreet Singh	M. Engg.	Asst. Professor	Highway Engg.
Er. Gurtej Singh	M. Tech.	Asst. Professor	Soil Mechanics & Foundation Engg.

16. Number of faculty with ongoing projects from (a) National (b) International (c) International funding agencies and grant received: NIL

17. Departmental Projects funded by DST-FSIT, UGC, DBT, ICSSR, etc. and total grants received: NIL

18. Research Centre/facility recognized by the University: NA

19. Publications:

- Publications per faculty

Name	No. of Journal publications	No. of National Conference publications (last three years)	No. of International Conference publications (last three years)
Er. Parampreet Kaur	3 Journal	1	03
Er. Bohar singh	---	---	03
Er. Dapinderdeep Singh	3 Journal	01	02
Er. Gurpreet Singh	--	--	02
Er. Gurtej Singh	--	01	--

- Number of papers published in peer reviewed journals (national/international) by faculty and students:

Name	List of Publications	Name of Journal
Er. Parampreet Kaur	Soil Improvement With Lime	“IOSR Journal of Mech. & Civil engg.” May-June 2012
	Corelation between soaked CBR value obtained with dynamic cone pentrometer	“IJREAS journal”Feb.2012
	Concrete self healing capability using bacterial action	“I- Manager’s journal on structural engg. Vol-II No. 3” Sept.-Nov.2013
Er. Dapinder Deep Singh	Effect on environment by burning different agricultural waste	“International origination of scientific research journal” March-April 2013
	Study the different parameters of sewage treatment with UASB&SBR technologies	“International origination of scientific research journal” March-April 2013
	Effect of polutted surface water on ground water : A case study of Budha Nullah	“International origination of scientific research journal” March-April 2013

- Number of publications listed in International Database (e.g. Web of Science, Scoups, Humanities International Complete, Dare Database-International Social Sciences Directory, EBSCO host etc.):
- Monographs
- Chapter in Books

- Books Edited
- Books with ISBN/ISSN numbers with details of publishers
- Citation Index
- SNIP
- SJR
- Impact factor
- H-index

20. Areas of Consultancy and Income generated

Sr. No.	Areas of Consultancy	Income generated
1	Geotechnical Engg., Structure Design, Transportation Engg., Environmental Engg., Surveying	Rs. 84,997/-

21. Faculty as members in:

a) National Committees b) International Committees c) Editorial Boards

Sr. No.	Faculty Name	Committee Name	National/International	Role/Capacity
1	Er. Parampreet Kaur	Indian Geotechnical Society	National	Life Member
		Punjab Science Congress	National	Life Member
		Institute of Evaluers	National	Life Member
2	Er. Bohar Singh	Indian Geotechnical Society	National	Life Member

22. Student Projects

a) Percentage of students who have done in-house projects including inter departmental/programme: **NA**

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/other agencies: **NA**

23. Awards/Recognitions received by faculty and students: **NIL**

24. List of eminent academicians and scientists/visitors to the department

Sr. No.	Eminent academicians /visitor to the	Designation
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	department	
1	Dr. H.S. Rai	Dean Consultancy, GNDEC, Ludhiana
2	Dr. Sanjiv Aggarwal	H.O.D., Deptt. of Civil Engg., PTUGZS Campus, Bathinda
3	Dr. Manjeet Bansal	Associate Professor, Deptt. of Civil Engg., PTUGZS Campus, Bathinda

25. Seminars/Conferences/Workshops organized & the source of funding

a) National:

One week Faculty Development Programme titled “Managerial Skills” in collaboration with N.I.T.T.T.R., Chandigarh from 09/09/2013 to 13/09/2013 under TEQIP-II.

b) International:

Two days International Conference “Frontiers in Material Research & Applications” at SBSSTC, Ferozepur on 30/10/2014 to 31/10/2014.

26. Student profile programme/course wise:

Name of the Course/Programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			Male	female	
B.Tech. Civil Engineering -1 st year(Batch2014)	63	63	61	02	34.13
B.Tech. Civil Engineering -2 nd year (Batch 2013)	78	74	69	05	11.8
B.Tech. Civil Engineering-3 rd year (Batch 2012)	78	77	68	09	10.9

27. Diversity of Students

Name of the Course	% age of students	% age of students	% age of students
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	from the same state	from other states	from abroad
B.Tech. Civil Engg.	81.60%	18.39%	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, defence services etc.: NA

29. Student Progression

Student progression	Against % enrolled
UG to PG	N.A.
PG to M. Phil	N.A.
PG to Ph. D.	N.A.
Ph. D. To Post-Doctoral	N.A.
Employed - Campus selection - Other than campus recruitment	N.A.
Entrepreneurship/Self-employment	N.A.

30. Details of Infrastructural facilities

a) Library: 25 no. of Books are present in Departmental Library

b) Internet facilities for Staff & Students:

Fully available to each Faculty, Staff and all the Students. In addition to this following gadgets are provided to Faculty and Staff members as per following detail.

Sr. No.	Name of Faculty/Staff/Place	Item	Quantity
1	Er. Parampreet kaur	(i) HP Desktop i5 computer with LCD , 500 GB HDD, RAM 4GB	01
		(ii) Laserjet printer M1136 MFP	01
		(iii) Laptop SONY i5 processor, HDD 500GB, RAM 4 GB	01
2	Er. Bohar Singh	(i) HP Desktop i5 computer with LCD , 500 GB HDD, RAM 4GB	01
		(ii)Laptop SONY i3 processor, HDD 500GB, RAM 4 GB	01
3	Er. Dapinder Deep singh	Laptop SONY i3 processor, HDD 500GB, RAM 4 GB	01
4	Er. Gurpreet Singh	(i) HP Desktop i5 computer with LCD , 500 GB HDD, RAM 4GB	01
		(ii) Laser printer	01
		(iii)Laptop SONY i3 processor, HDD 500GB, RAM 4 GB	01
5	Sh. Jasvinder Singh	HP Desktop i5 computer with LCD , 500 GB HDD, RAM 4GB	01
6	Sh. Gurmeet Singh	LENOVO desktop computer core 2 dual processor, HDD 500GB, RAM 2 GB	01
7	Deptt office (Room no C-311)	HP Desktop i5 computer with LCD , 500 GB HDD, RAM 4GB	01
8.	CAD Lab. (Room No. C-319)	HP Desktop i5 computers with LCDs , 500 GB HDD, RAM 4GB	45

c) Class rooms with ICT facility: 01 (Room No. C-313)

d) Laboratories

i) List of Equipments of Geotechnical Engineering:

Sr. No.	Name of Equipment	Quantity	cost
1	Universal Automatic Compactor	01	172825.00
2	Lab Permeability Apparatus	01	47027.00
3	Unconfined Compression Testing Machine	01	114974.00
4	Soil Cone Pentrometer	01	49102.00
5	Standard Proctor Test	01	15901.00
6	Lab Vane Shear Apparatus	01	25943.00
7	Relative Density Apparatus	01	173877.00
8	Modified Proctor Test	01	26901.00
9	Direct shear test Apparatus	01	148176.00
10	Dynamic cone penetration test equipment apparatus	01	65327.00

11	Triaxial Test Apparatus	01	797875.00
12	Standard Penetration Test Equipment	01 set (8 nos.)	99500.00
13	Consolidation test Apparatus	01	166069.00
14	Plastic Limit Apparatus	03 Nos.	4742.00
15	Core Cutter	04 nos.	11088.00
16	Liquid Limit Device (Hand Operated)	03	14313.00
17	Electronic Balance (i) Capacity 300gm x 0.01gm (ii) Capacity 3kg x 0.1gm (iii) Capacity 10kg x 0.5gm (iv) Capacity 20kg x 1gm	04 nos.	33376.00
18	Electric Oven	01	21146.00
19	Sieve Set (Brass Frame)	35	32247.00
20	Automatics sieve shaker	01	49725.00

ii) List of Equipments of Transportation Engg. Lab.

Sr. No.	Name of Equipment	Quantity	cost
1	Digital Benkelman Beam Test Equipment	01	49876.00
2	Impact Value Test Equipment	01	39938.00
3	Universal Penetrometer	01	40620.00
4	Digital Ductility Apparatus	01	130737.00
5	California Bearing ration machine	01	143064.00
6	Ring and Ball Apparatus	01	28775.00
7	Abrasion Value Test Equipment	01	147417.00
8	Bitumen Extractor	01	47989.00
9	Length Gauge	01	892.00
10	Sieve Set G.I. Frame	01 set (39no)	40093.00
11	Thickness Gauge	(02 no.)	892.00
12	Flash and Fire Point	01	6515.00
13	Marshall Stability Test Apparatus	01 set (16 nos.)	309060.00

iii) List of Equipments of Strength of Materials Lab.

Sr. No.	Name of Equipment	Quantity	Cost
1	Rockwell Hardness Test	01	17508.00
2	Impact Testing Machine	01	37794.00

3	Spring Testing Machine	01	33200.00
4	Torsion testing machine	01	85000.00
5	Universal Testing Machine	01	325000.00

iv) List of Equipments of Surveying Lab.

Sr. No.	Name of Equipment	Quantity	cost
1	Fibre Tap 20 m long	06	1368.00
2	Fibre Tap 30 m long	06	1860.00
3	Steel tap 30 m Long	02	770.00
4	Survey Chain 20 m	06	2310.00
5	Survey chain 30 m	06	2820.00
6	Ranging Rod (Diameter 25mm, length 2 m long)	25	2950.00
7	Ranging Rod (Diameter 25mm, length 3 m long)	10	1580.00
8	Pedometer	02	1990.00
9	Survey Compass	01	1145.00
10	Pocket Altimeter	01	2600.00
11	Telescopic Alidade with wooden Box	02 no.	5980.00
12	Steel Arrow	60	540.00
13	Nautical Sextant with wooden box	01	2450.00
14	Binocular expert	01	1690.00
15	Stop Watch	02	396.00
16	Box sextant with box	01	890.00
17	Steel band (30 m long)	01	970.00
18	Steel band (20 m long)	01	890.00
19	Dumpy level (12 inches)	05	17375.00
20	Lilting level (9 inches)	05	19950.00
21	Plain Table (23 inches x32 inches x 22mm)	05	12475.00
22	Prismatic compass	05	5375.00
23	Telescopic levelling staff (04 m long)	02	1190.00
24	Telescopic levelling staff	02	1860.00
25	Cross Staff	02	304.00
26	Prim Square	02	690.00
27	Octagonal Cross Staff	02	690.00
28	Hand level	02	290.00
29	Tangent Clinometers	04	2780.00
30	Ghat Tracer	02	1980.00
31	Survey Umbrella (2 m dia.)	05	5950.00
32	Plum Bob	05	590.00
33	Tripod Signal	05	3700.00
34	Vernier Transit Theodolite (20sec. Accuracy) with	05	47250.00

	stand		
35	Wooden pegs	50	1200.00
36	Plumbing Fork	10	1450.00
37	Abney label	02	980.00
38	Auto level with stand	05	29400.00
39	Sight vane brass	06	1500.00
40	Sprit level	06	888.00
41	Offset rod label 2mm long	05	690.00
42	Offset rod label 3mm long	05	790.00
43	Clinometers	02	496.00
44	Magnetic compass	05	695.00
45	Pantagraph Complete Set	02	1980.00
46	Line ranger	05	1700.00
47	Total Station	01 set	498750.00
48	Digital Planimeter	02	60000.00
49	Electronic Theodolite	02	60000.00

v) List of Equipments of Concrete Technology Lab.

Sr. No.	Name of Equipment	Quantity	cost
1	Compression Testing machine	01	398188.00
2	Vibrating machine	01	65465.00
3	Vibrating Table	01	78451.00
4	Vee Bee apparatus	01	54951.00
5	Cement Moulds	30	84690.00
6	Concrete Moulds	30	29370.00
7	Flexure testing machine	01	158681.00
8	Flow Table	01	145535.00
9	Automatic motor mixing machine	01	102192.00
10	Concrete mixture Pan type	01	168092.00
11	Vacat apparatus	04	12600.00
12	Compaction Factor Apparatus	01	16574.00
13	Slump Test Apparatus	04	6858.00
14	Ultra Sonic Pulse Velocity Test Apparatus	01	281250.00
15	Density Basket	02	1806.00

vi) List of Equipments of Structural Analysis Lab.

Sr. No.	Name of Equipment	Quantity	Cost (Rs.)
1	Apparatus for Clark Maxwell Reciprocal Theorem	01	14888.00
2	Apparatus to verify plastic properties of Different Beam	01	20888.00

3	Continuous Beam Apparatus	01	20888.00
4	Behavior of Colum and struts apparatus	01	14888.00
5	Three hinged Arch Apparatus	01	20999.00
6	Two Hinged Arch apparatus	01	22888.00
7	Deflections Truss apparatus	01	23888.00
8	Redundant Joint Apparatus	01	17999.00
9	Curved member Apparatus	01	16888.00
10	Unsymmetrical Bending apparatus	01	22999.00

vii) List of Equipments of CAD Lab.

Sr. No.	Name of Equipment	Quantity	Cost (Rs.)
1	UPS 5kVA with batteries	04	263580.00
2	UPS 1kVA with batteries	01	17490.85
3	Computer chairs	50	210197.00
4	HP Desktop computers	50	1877085.00

31. Number of students receiving financial assistance from college, university, government or other agencies:

Sr.No.	Programme	No. of students
1	UG	33

32. Details on student enrichment programmes (special lecture/workshop/seminar) with external expert

Sr. No.	Expert Lecture On Topic
1	Building Materials by Er. Gagandeep Singh from ACC Limited on 23/08/13
2	Successful carrier in Civil Engineering by Dr. H.S. Rai on 08/10/13
3	Concrete Mix Design by Er. Navinder Tommar from Ambuja Cements Limited on 11/10/13
4	Prestressd Concrete by Er. Gagandeep Singh from ACC Limited on 30/01/14
5	Earthquake resistance structure by Er. Jaswinder Singh Ambuja Cement Limited on 13/02/14
6	Road Transport System of India By Dr. Sanjiv Aggarwal on 23/07/2014
7	Construction technologies for roads By Dr. Sanjiv Aggarwal on 09/04/2014

33. Teaching methods adopted to improve student learning: Use of Black-board and chalks and Power Point Presentations is made to deliver the course contents. Assignment Sheets as well as Tutorial Sheets are given to students for problem solving. Expert lectures and class quizzes are arranged for the students to improve their learning skills.

34. Participation in Institutional social responsibility (ISR) and extension activities: N.C.C., N.S.S. activities like Blood-donation, Tree-plantation and Election duty.

35. SWOC analysis of the department and future plans:

1. STRENGTH:

- Department is based on a unique philosophy of education which combines the material with the spiritual and offers students to develop themselves as fully integrated individuals.
- The department can boast of near perfect academic discipline. There has been no disruption in the Academic Calendar due to disturbances that institutions of higher learning generally experience in India.
- The department has a dedicated faculty and highly efficient support staff, who are available on the campus round the clock and take care of all aspects of the campus, the academic and the personal.
- The students of the department try to dedicate themselves fully to the acquisition of knowledge and character building exercise. This explains the existence of a healthy campus life with no incidence of ragging or any activity that is detrimental to their academic pursuits.
- The infrastructural support offered by the department to students can be compared with the best in this part of the country. The teacher-student ratio, which is perhaps unparalleled in the country, makes it possible for teachers to successfully address individual need of the students.
- The department is considered a reputed centre of higher learning and this makes it possible to get a great deal of support and co-operation from other institutions of higher learning as well as industrial houses, formally and informally.
- The NSS and NCC volunteers of the department have been very active and have participated with great enthusiasm in activities like blood donation, first aid training, health awareness survey etc.

2. WEAKNESSES:

- a. The socio-economic background of many of the students (some of them are first and second generation learners) admitted in the department is responsible for poor language competence (both in their mother tongue as well as English). This leads to an unsatisfactory level of comprehension and communication.
- b. The department has not been able to enter into either faculty exchange or student exchange programmes due to structural and governmental policy limitations. The inability to implement the credit transfer systems (CTS) has also hindered the student exchange programme.

3. OPPORTUNITIES :

- The level of academic excellence which the Department has acquired makes it possible for our students to get entry into institutes of global repute. The College has to devise mechanisms for translating this potential into a reality.
- The new learning of the age requires greater proficiency in soft skills among students. Department has the necessary technical and infrastructural resources to take this to a higher level.
- The vision of the department makes it imperative to engage in socially relevant programmes such as organising voluntary blood donation camps, AIDS awareness programmes and disaster management skills. The College with its resources and networking can ensure students' greater participation in these activities.

4. CHALLENGES:

- As the number of new people are not interested in teaching jobs, the college/department has to play a proactive role to fill up the teaching vacancies. This is a daunting task as the absence of suitable candidates is sure to put many obstacles in the process. The other challenge involves getting permission from the Government to fill up the vacant posts of the administrative support staff.
- Retaining the unique character of the College in an increasingly consumerist society poses a great challenge.

Evaluative Report of Department of Chemical Engineering

1. Name of the department: **Department of Chemical Engineering**
2. Year of Establishment: **1996**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.): **UG in Chemical Engineering**
4. Names of Interdisciplinary courses and the departments/units involved:

Course	Course code	Dept./units involved
Engineering Chemistry	BTCH 101	Dept. of App. Sci. & Hum.
Engineering Mathematics-I	BTAM101	Dept. of App. Sci. & Hum.
Elements of Mechanical Engineering	BTME101	Dept. of Mech. Engg.
Fundamentals of Computer Programming and IT	BTCS101	Dept. of Comp. Sci. & Engg.
Environmental Science	EVSC 101	Dept. of App. Sci. & Hum.
Engineering Chemistry Laboratory	BTCH102	Dept. of App. Sci. & Hum.
Engineering Drawing	BTME102	Dept. of Mech. Engg.
Fundamentals of Computer Programming and IT Laboratory	BTCS102	Dept. of Comp. Sci. & Engg.
Engineering Computer Graphics Laboratory	BTME103	Dept. of Mech. Engg.
Engineering Physics	BTPH101	Dept. of App. Sci. & Hum.
Engineering Mathematics-II	BTAM102	Dept. of App. Sci. & Hum.
Communicative English	BTHU101	Dept. of App. Sci. & Hum.
Basic Electrical and Electronics Engineering	BTEE 101	Dept. of Electrical Engg. & Electronics & Comm. Engg.
Human Values and	HVPE101	Dept. of App. Sci. & Hum.

Professional Ethics		
Engineering Physics Laboratory	BTPH102	Dept. of App. Sci. & Hum.
Communication English Laboratory	BTHU102	Dept. of App. Sci. & Hum.
Basic Electrical and Electronics Engineering Laboratory	BTEE102	Dept. of Electrical Engg.
Manufacturing Practice	BTMP101	Central Workshop
Strength of Materials	BTCH-304	Dept. of Mech. Engg.
Strength of Materials Lab	BTCH-306	Dept. of Mech. Engg.
Institutional Practical Training (At the end of 1 st year)	BTCH-309	Central Workshop
Engineering Mathematics-III	BTAM-201	Dept. of App. Sci. & Hum.
Human Resource Management	HU-251	Dept. of App. Sci. & Hum.
Total Quality Management	ME-251	Dept. of Mech. Engg.

5. Annual/ semester/choice based credit system (programme wise):

The Dept. of Chemical Engg. has adopted credit system as per the revised course curriculum Scheme-2011 of Chemical Engg. of Punjab Technical University, Jalandhar.

The latest curriculum Scheme-2011 is available on PTU website on link http://www.ptu.ac.in/userfiles/file/syllabus/engg/syllabus_revised_july_2013.pdf

6. Participation of the department in the courses offered by other departments:

As per requirement of other departments, the department has been sharing teaching load from time to time.

Course	Course code
Environmental Science	EVSC 101

7. Courses in collaboration with other universities, industries, foreign institutions, etc.

Nil

8. Details of courses/programmes discontinued (if any) with reasons

Not Applicable

9. Number of Teaching posts

	Sanctioned	Filled
Professors	1	1
Associate Professors	2	5
Asst. Professors	6	2

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. Rajeev Garg	B.E. (Chem Engg.), PU Chandigarh, 1992 M.E. (Chem Engg.), PU Chandigarh, 1995 Ph.D. (Chem Engg.), IIT Delhi, 2009	Professor	Modeling and Simulation	17	03 Students registered
Mrs. Balpreet Kaur	B. Tech. (Chem Engg), PTU Jalandhar, 1998 M.Tech. (Env. Sc Engg), PTU Jalandhar, 2010	Associate Professor	Environmental Science	16	Nil
Mr. Rajiv Arora	B.Tech. (Chem & Bio), GNDU Amritsar, 1995 M.Tech. (Chem Engg.), PTU Jalandhar, 2008 Pursuing PhD from PU Chandigarh	Associate Professor	Modeling and Simulation	14	Nil
Mr. Pankaj Kalra	B.E. (Chem Engg.) PU Chandigarh, 1997 M.Tech. (Chem Engg.), PTU Jalandhar, 2008 Pursuing PhD from PTU Jalandhar	Associate Professor	Modeling and Simulation	15	Nil

Mr. Surinder Singh	B.E. (Chem Engg.), PU Chandigarh, 1990 Pursuing Mtech. (chemical Engg.) from PTU Jalandhar	Assistant Professor	--	15	Nil
Mr. Raj Kumar	B.E. (Chem Engg.), PU Chandigarh, 1991 M.Tech. (Env. Sc Engg), PTU Jalandhar, 2011	Associate Professor	Environmental Science	15	Nil
Mr. Amit Arora	B.Tech. (Chem Engg), PTU Jalandhar, 2000 M.Tech. (Env. Sc Engg), PTU Jalandhar, 2011 Pursuing PhD from IIT Roorkee	Assistant Professor	Environmental Science	13	Nil

11. List of senior visiting faculty:

Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

In the current semester = $(02/09) * 100 = 22\%$

13. Student -Teacher Ratio (programme wise)

$$STR = (x + y + z) / N1$$

Where x = Number of students in 2nd year of the program

y = Number of students in 3rd year of the program

z = Number of students in 4th year of the program

N1 = Total Number Faculty Members in the program (by considering fractional load)

Year	x	y	z	x+y+z	N1	STR
CAYm2(2011-12)	37	35	22	94	7	13.43
CAYm1(2012-13)	35	37	35	107	8	13.38
CAY (2013-14)	35	35	37	107	8	13.38

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

	Sanctioned	Filled
Lab Supdt.	1	1
Junior technician	1	1
Lab Attendant	1	1
Clerk	1	1 (contract staff)
Peon	1	1

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

Name	Qualification	Designation	Specialization	No. of Years of Experience
Dr. Rajeev Kumar Garg	B.E. (Chem Engg.), PU Chandigarh, 1992 M.E. (Chem Engg.), PU Chandigarh, 1995 Ph.D. (Chem Engg.), IIT Delhi, 2009	Professor	Modeling and Simulation	17
Mrs. Balpreet Kaur	B. Tech. (Chem Engg), PTU Jalandhar, 1998 M.Tech. (Env. Sc Engg), PTU Jalandhar, 2010	Associate Professor	Environmental Science	16
Mr. Rajiv Arora	B.Tech. (Chem & Bio), GNDU Amritsar, 1995 M.Tech. (Chem Engg.), PTU Jalandhar, 2008 Pursuing PhD from Pu Chandigarh	Associate Professor	Modeling and Simulation	14
Mr. Pankaj Kalra	B.E. (Chem Engg.) PU Chandigarh, 1997 M.Tech. (Chem Engg.), PTU Jalandhar, 2008 Pursuing PhD from PTU Jalandhar	Associate Professor	Modeling and Simulation	15
Mr. Surinder Singh	B.E. (Chem Engg.), PU Chandigarh, 1990 Pursuing Mtech. (Chemical Engg.) from PTU Jalandhar	Assistant Professor	--	15

Mr. Raj Kumar	B.E. (Chem Engg.), PU Chandigarh, 1991 M.Tech. (Env. Sc Engg), PTU Jalandhar, 2011	Associate Professor	Environmental Science	15
Mr. Amit Arora	B.Tech. (Chem Engg), PTU Jalandhar, 2000 M.Tech. (Env. Sc Engg), PTU Jalandhar, 2011 Pursuing PhD from IIT Roorkee	Assistant Professor	Environmental Science	13

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

Department has been a sanctioned MODROBS project by AICTE as per details below:

S.No.	Project Title	File No. and Date	Coordinators	Amount	Period	Status
1	Modernization of Computational Lab	AICTE-MODROB 12/AICTE/RIFD/MOD(Policy-2)-99/2012-13 dated 5.02.2013	Dr Rajeev Kumar Garg	5.75 Lac	2013-2014	In Progress

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:

Department have been sanctioned MODROBS projects by AICTE from time to time as per details below:

S.No.	Project Title	File No. and Date	Coordinators	Amount	Period	Status
1	Modernization of Computational Lab	AICTE-MODROB 12/AICTE/RIFD/MOD(Policy-2)-99/2012-13 dated 5.02.2013	Dr Rajeev Kumar Garg	5.75 Lac	2013-2014	In Progress
2	Modernization of Heat Transfer Lab	AICTE-MODROB 8024/RIFD/MOD-264/2011-12 dated 21.12.2011	Dr Rajeev Kumar Garg	1.5 Lac	2011-2012	Completed
3	Modernization of Mass Transfer Lab	AICTE-MODROB 8023/RID/BOR/MOD-97/2005-06 dated 17.02.2006	Dr Pushpa Paul	10 Lac	2005-2006	Completed
4	Waste Management, Effluent Treatment and Recycling	AICTE-RPS 8021/RID/NPROJ/TAP-17/2002-03 dated 21.12.2002	Dr Pushpa Paul Mr Raj Kumar	20 Lac	2002-2003	-

18. Research Centre /facility recognized by the University: NA

19. Publications:

* a) Publication per faculty

Name	No. of Journal publications	No. of National Conference publications (last three years)	No. of International Conference publications (last three years)
Dr. Rajeev Kumar Garg	5 Journal +2 book chapters	08	07
Mrs. Balpreet Kaur	3 Journal	05	01
Mr. Rajiv Arora	2 Journal	06	08
Mr. Pankaj Kalra	3 Journal +1 book chapter	02	01
Mr. Surinder Singh	--	--	--
Mr. Raj Kumar	--	--	03
Mr. Amit Arora	1 Journal +1 book chapter	18	15

* Number of papers published in peer reviewed journals (national / international) by faculty and students

Name	List of Publications	National/ International	Name of Journal
Dr. Rajeev Kumar Garg	Garg R.K., Krishnan V.V., Srivastava V.K., Prediction of Concentration and Temperature Profiles for Non Isothermal Ethane Thermal Cracking in a Pipe Reactor	International	Korean J. Chem. Engg. 23(4), 531-539, 2006
	Garg R.K., Srivastava V.K., Modeling and Simulation of Non Isothermal Thermal Cracker	International	J. Chem. Engg. of Japan 39(10), 1057-4 2006
	Garg R.K., Vashishta, M., Srivastava V.K., A Modeling Approach to Reaction of Non Newtonian Fluids in Tubular Reactor	International	Polymer-Plastics Technology and Engg
	Kalra P., Garg R. K., Grover N. K., Structural Properties of Anode Composite Precursor of a Solid Oxide Fuel Cell Prepared via Combustion Synthesis Route	International	Asian Journal of Engineering and Applied Technology ISSN 2249-068X Vol-1 No. 2 July-Dec 2012
	Kalra P., Garg R. K., Kumar A. , Singh A.P., Electrical characterization of NiO-CGO composites- SOFC anode precursor- prepared via combustion synthesis route	International	International Journal of Innovative research in Science, Engineering & Technology, Vol-3, Issue 5, May 2014.

Mrs. Balpreet Kaur	Rajoriya S., Kaur B. , Saharan V. K. 3, Kinetics and Isotherm on the Adsorption of Zn (II) from Aqueous Solutions by Natural Bio-sorbents	International	International journal of engineering sciences & research technology, ISSN : 2277-9655
	Singh Harjinder, Kaur Balpreet, Pandey O.P., Reduction of Wolframite Ore with Activated Charcoal to Produce Nano Tungsten Carbide	International	INROADS- An International Journal of Jaipur National University Year : 2014, Volume : 3, Issue : 1s2 First page : (276) Last page : (279)
	Rajoriya S., Kaur B. , Adsorptive Removal of Zinc from Waste Water by Natural Biosorbents	International	International Journal of Engineering Science Invention ISSN (Online): 2319 – 6734, ISSN (Print): 2319 – 6726 Volume 3 Issue 6, June 2014 PP.60-80
Mr. Rajiv Arora	Grover N. K., Arora R., Numerical Studies on Droplet Evaporation at High Ambient Temperature and Pressures	International	International Journal of Advances in Thermal Science & Engineering Vol. 1 (2), 2010, 133-137
	Arora R., Kapoor V., Kumar V., Agnihotri S. Jaiswal M., Esterification of Free fatty acids in waste cooking oil by carbonaceous sulfated acid catalyst: optimization & kinetic study	International	International Journal of Engineering Research Science & Technology, Vol-3, No. 3, August 2014 ISSN 2319-5991
Mr. Pankaj Kalra	Kalra P., Kumar A. , Singh A.P., Structural Properties of NiO-CGO Composites Precursor prepared via Combustion Synthesis Route	International	Asian Journal of Chemistry Vol. 21, No. 10 (2009), S157-161
	Kalra P., Garg R. K., Grover N. K., Structural Properties of Anode Composite Precursor of a Solid Oxide Fuel Cell Prepared via Combustion Synthesis Route	International	Asian Journal of Engineering and Applied Technology ISSN 2249-068X Vol-1 No. 2 July-Dec 2012
	Kalra P., Garg R. K., Kumar A. , Singh A.P., Electrical characterization of NiO-CGO composites- SOFC anode precursor- prepared via combustion synthesis route	International	International Journal of Innovative research in Science, Engineering & Technology, Vol-3, Issue 5, May 2014.
Mr. Amit Arora	Nanotechnology and Its Applications in Drug Delivery: A Review	International	International Journal of Medicine and Molecular Medicine ISSN:2046 1690 2012;3(1):WMC002867

* Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)

-Nil-

* Monographs

-Nil-

* Chapter in Books : 02

Book Chapters

- Pankaj Kalra, Rajeev Garg; Chapter titled "**Solid Oxide Fuel Cells- A Future Source of Power and Heat Generation**" in special edition of Material Science forum "**Engineering Applications of Nano-Science & Nano-Materials**", TransTech publications, edited by Rajesh Tayade and Ajay Bansal
- Navneet Sood, Rajeev Kumar Garg, M.K Jha and Amit Arora; Chapter titled "**Treatment of leachate by using natural adsorbents**" in **Recent Advances in Bioenergy Research Volume II** , © Sardar Swaran Singh National Institute of Renewable Energy, Kapurthala-2013, Electronic version published by SSS-NIRE edited by Sachin Kumar, S. K. Tyagi.

* Books Edited: NIL

-Nil-

* Books with ISBN/ISSN numbers with details of publishers:

-Nil-

* Citation Index

* SNIP

* SJR

* Impact factor

The data for the impact factor & SJR for the journals is as per the table given below:

Name of Faculty	Title of paper	Journal Name & volume	Impact factor	SJR
Dr. Rajeev Kumar Garg	A Modeling Approach to Reaction of Non-Newtonian Fluids in Tubular Reactor	Polymer-Plastics Technology and Engineering, <u>Volume 46</u> , Issue 10, 2007, pg 965-971 2012	1.481 (©2013 Thomson Reuters, 2012 Journal Citation Reports®)	
	Prediction of Concentration and Temperature Profiles for Non Isothermal Ethane Thermal Cracking in a Pipe Reactor	Korean Journal of Chemical Engineering	1.24 (2013) Thomson Reuters	0.46
	Modeling and Simulation of Non Isothermal Thermal Cracker	Journal of Chemical Engineering of Japan	0.61 Thomson Reuters	0.31

* h-index

As available from internet google scholar

Name of Faculty	Citation indices All Since 2009		
	Citations	h-index	i10-index

Dr. Rajeev Kumar Garg	4	1	0
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2

0. Areas of consultancy and income generated:
Nil

21. Faculty as members in

a) National committees b) International Committees c) Editorial Boards....

Name	Committee	Remarks
Dr. Rajeev Kumar Garg	Member Board of Studies Chemical Engg. PTU Jalandhar	Development of courses and curriculum for B. Tech and M. Tech at PTU, Jalandhar in Chemical Engg
	Resource person in committee at NITTTR Chandigarh	Development of course curriculum for Diploma in Chemical Engg at NITTTR, Chandigarh
Mr. Rajiv Arora	Member Board of Studies Chemical Engg. PTU Jalandhar	Development of courses and curriculum for B. Tech and M. Tech.

Name of faculty	Membership type	Committees
Dr. Rajeev Kumar Garg	Life- member	Indian Society for Technical Education (ISTE)
	Life- member	Indian Institute of Chemical Engineers (IChE)
Mrs. Balpreet Kaur	Life- member	Indian Society for Technical Education (ISTE)
Mr. Rajiv Arora	Life- member	Indian Society for Technical Education (ISTE)
	Associate member	Indian Institute of Chemical Engineers (IChE)
Mr. Pankaj Kalra	Life- member	Indian Society for Technical Education (ISTE)

Mr. Surinder Singh	Life- member	Indian Society for Technical Education (ISTE)
Mr. Raj Kumar	Life- member	Indian Society for Technical Education (ISTE)
Mr. Amit Arora	Life- member	Indian Society for Technical Education (ISTE)
	Life- member	Indian Institute of Chemical Engineers (IChE)

22. Student projects

- a) Percentage of students who have done in-house projects including inter departmental/programme:
100% students of the 7th Sem. Chemical Engg. do in-house Projects as per the course-curriculum of Punjab Technical university.
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies:
100% students of the 8th Sem. Chemical Engg. are placed for projects in organizations outside the institution during their Six month Industrial training in Research laboratories/Industry/ other agencies as per the course-curriculum of Punjab Technical university.

23. Awards / Recognitions received by faculty and students:

- i). Varun Suri, Vikram kumar, Harpreet kaur; Students of Final Year under Ms. Balpreet Kaur won second prize in National conference on Recent Advances in Chemical and Environmental Studies(RACES-2012) 3 March, 2012 held at Multani Mal Modi college Patiala, for their paper titled "Variation in COD of Pulp And Paper mill Effluent on treatment with Bio Degradable Polymer".
- ii) Amit Kumar, Avinash Kumar, Shamsheer Singh Rawat, Ishan Manchanda, Jaskaran Singh, Ramandeep under Ms. Balpreet Kaur won second prize in TECHNO OPUS 2014 held at SBSSTC Ferozepur for their paper titled "Removal and Recovery of Phosphorous from Waste Water by using Magnetite" based upon environmental pollution control.

24. List of eminent academicians and scientists / visitors to the department:

1. Dr. M.K Jha,
Prof. & Vice President IChE
Department of Chemical Engg,
NIT Jalandhar

2. Dr. Vineet Kumar,
Associate Prof.,
Department of Chemical Engg,
IIT, Roorkee

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National:

One week Faculty Development Program titled “Recent Trends in Polymers, Composites & Their Engineering Applications” in collaboration with CIPET Amritsar from 16-20 September 2013 under TEQIP.

b) International
Nil

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected#	Enrolled		Pass percentage
			*M	*F	
B.Tech. Chem. Engg.					
Batch2010 admission		37	26	11	26/36 = 72.2
Batch2009 admission		35	24	11	23/35 = 65.7
Batch2008 admission		22	12	10	14/22 = 63.6

*M = Male *F = Female # including LEET and Fee waiver students

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B.Tech. Chem. Engg. (all four years as on date)	73.9	26.1	Nil
Batch 2014 admission	61.1	38.9	Nil
Batch 2013 admission	88.6	11.4	Nil
Batch 2012 admission	64.7	35.3	Nil
Batch2011 admission	75	25	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defence services, GRE etc.?

01 student cleared GRE exam (Rakesh Tangri)

29. Student progression

2010-2014 batch

Student progression	Against % enrolled
UG to PG	-
Employed <ul style="list-style-type: none">• Campus selection• Other than campus recruitment	01/36(2.78%) 01/36(2.78%)
Entrepreneurship/Self-employment	--

2009-2013 batch

Student progression	Against % enrolled
UG to PG	03/34 (8.82%)
Employed <ul style="list-style-type: none">• Campus selection• Other than campus recruitment	01/34 (2.94%) 08/34 (23.6%)
Entrepreneurship/Self-employment	01/34 (2.94%)

2008-2012 batch

Student progression	Against % enrolled
UG to PG	-
Employed <ul style="list-style-type: none">• Campus selection• Other than campus recruitment	04/22 (18.18%) 08/22(36.36%)
Entrepreneurship/Self-employment	--

30. Details of Infrastructural facilities a)

Library:

The dept. presently does not have a separate room for library but it is in process of making a separate dept. library and purchasing books of repute for their library section.

b) Internet facilities for Staff & Students

Name of the Internet provider: BSNL,ferozepur
 Available bandwidth: 34Mbps(1:1)
 Access speed :
 Availability of internet in an exclusive lab: YES
 Availability in most computing labs : YES
 Availability in department and other units : YES
 Availability in facility rooms: YES
 Institute's own e-mail facility to faculty / students. YES
 Security/privacy to e-mail/internet users : YES

c) Class rooms with ICT facility: 01 No.

Name of class room	Exclusive/shared	Room No.
Computational Lab	Exclusive	C122
Classroom	Shared	C214

d) Laboratories:

Curriculum Lab Description	Exclusive use/Shared?	Space (m²), Number of Students	Number of experiments
Fluid Mechanics Lab	Shared	C121, 100, 30	12
Mechanical Operations Lab	Exclusive	C122, 94, 30	08
Heat Transfer Lab	Shared	C118, 190, 30	15
Mass Transfer Lab	Exclusive	C125, 106, 30	11
Chemical Reaction Engineering & Environmental Engineering Lab	Exclusive	C131, 106, 30	13
Chemical Technology Lab	Shared	C128, 106, 30	08
Computational Lab	Exclusive	C122, 106, 30	Computational problem handling according to curriculum

			(approx. 20)
Process Dynamics, Instrumentation & Control Lab	Exclusive	C221, 92, 30	10

The following is the list of equipments in respective labs of dept. of chemical Engineering:

Name of Laboratory	Equipment/ Setup
Chemical Reaction Engineering & Environmental Engineering Lab.	Continuous Stirred Tank Reactor
	Isothermal Batch Reactor
	Isothermal Plug Flow Reactor
	Semi Batch Reactor
	Cascade Continuous Stirred Tank Reactor
	RTD Studies in Continuous Stirred Tank Reactor
	RTD Studies in Packed Bed Reactor
	COD Measuring Apparatus
	pH Meter
	DO Meter
	TDS & Conductivity Meter
	Refrigerator
	BOD Incubator
High Volume Sampler	
Heat Transfer Lab	Heat Transfer through lagged Pipe.
	Emissivity Measurement Apparatus
	Parallel/ Counter Flow Heat Exchanger
	Heat Pipe Demonstrator
	Critical Radius of Insulating material
	Pin Fin in Natural & Forced Convection
	Measurement of Thermal Conductivity by guarded hot plate method.
	Vertical Condenser
	Unsteady State Heat Transfer Apparatus
	Finned Tube Heat Exchanger
	Drop Wise- film wise condensation Apparatus
	Shell & Tube Heat Exchanger
	Double Effect Evaporator
	Single Effect Evaporator (MODROB-AICTE)
Baby Boiler – Thermax 50kg/hr capacity	
Open Pan Evaporator	
Mass Transfer Lab	Rotary Drier
	Batch Crystallizer
	Sieve Tray/ Plate Tray Distillation Column
	Liquid- Liquid Extraction Apparatus
	Gaseous Diffusion Coefficient Apparatus
	Natural Draft Tray Drier
	Wetted Wall Column

	HETP Apparatus
	Rayleigh Equation Batch Distillation Apparatus with Abbe Refractrometer
	Liquid Hold Up Packed Column set up
	Fully Automated Binary Distillation Column (MODROB-AICTE)
Fluid & Particle Mechanics Lab.- Mechanical Operations Lab	Plate & Frame Filter Press
	Fluidized Bed Apparatus
	Cyclone Separator
	Automatic Sieve Shaker
	Sedimentation Apparatus
	Stoke's Law setup
	Ball Mill
	Jaw Crusher
	Froth Flootation Setup
Fluid & Particle Mechanics Lab.- Fluid Flow Lab	Close Circuit variable Speed Centrifugal Pump
	Gear Pump Test Rig
	Flow Through non Circular Pipes Apparatus
	Equivalent Length of Pipes & Fittings Apparatus
	Apparatus for determination of losses in pipe bends , fittings& elbows
	Flow through a V- Notch Apparatus
	Orificemeter & Venturimeter setup
	Friction losses in pipe setup
	Bernoulli's theorem Apparatus
	Pitot tube Apparatus
	Sudden contraction and Enlargement friction loss Apparatus
	Metacentric Height Apparatus
Chemical Technology Lab	Bomb Calorimeter
	Weighing Balance Analytical
	Digital Weighing Balance
	Magnetic Stirrers
	Electronic Weighing Balance
	Muffle Furnace
	Tensile Testing Machine for polymeric materials
	Two Roll Mill
	Injection Moulding Machine
	Gas Chromatograph
	Compression Moulding Machine
High Temperature Furnace	
Process Instrumentation Dynamics & Control Lab	Cascade Level Flow Trainer
	Pneumatic P-I Controller
	Control Valve Characteristics setup
	Shell & Tube Heat Exchanger (Computerized)
	PLC trainer
	Interacting Liquid Level Tank Dynamics setup
	Liquid Level Tank Dynamics setup
	Flow Control Trainer
	Dynamics of Shell & Tube Heat Exchanger

	Dead Weight Pressure Tester
	UPS- 5KVA 01No.
	Calibration of instruments
Computational Lab	Computer Systems P4 Lenovo Make 512 MB- Nos. 7 Computer Systems P4 Wipro Supergenious – Nos 5 Computer Systems i5 hp make Intel core TM – Nos. 10
	Printer Dot-Matrix 02 Nos. Printer Laserjet 01 No.
	UPS 5kVA- 02 Nos.
	Software: MATLAB Version 7 - 5 user license and toolbox 1 user
	Software: CHEMCAD Version 6.3.2- 30 user license (MODROB-AICTE)
	LCD Projector Hitachi make 01No.

31. Number of students receiving financial assistance from college, university, government or other agencies:

The students of SC/ST/OBC category receive financial assistance from PMSS (Post Matric Scholarship Punjab). They are given a scholarship amounting to 75% (approx.) of the total fees as per govt. rules. The detail of the admitted students in SC/ST/OBC category is given in the following table:

Details of SC/ST Post Matric Students

Sr. No.	Batch	Name
1.	2011	Pardeep Kumar,
2.		Satwinder Singh
3.	2012	Gorav Sawaria
4.	2013	Divyanshi
5.		Gurmeet Kaur
6.		Sareen Viridi
7.		Sandeep Kaur
8.		Mandeep
9.		Kirandeep
10.		Navdeep Kainth
11.		Navjot Kaur
12.		Ritika
13.		2014
Total =13		

Further, meritorious students are admitted under fee-waiver category, based upon their rank in JEE main.

Details of students admitted under Fee waiver

Sr. No.	Batch	Name	No. of students
1	2011	Jyoti Sharma	01
2	2012	Ankit Narang	01

3	2013	Kashish Chandna	01
4	2014	Anshul Garg & Mohit Sehgal	02
Total			05

32. Details on student enrichment programmes (special lectures / workshops /seminar) with external experts:

- At the institute level, societies like SECA and ISTE students chapter organizes various co-curricular and extra-curricular activities to enhance the overall personality development of the students and hence contribute to attainment of the PEOs (Details in Annexure-V).
- The NCC, NSS and sports facilities are provided to the students of the college for their development (Details in Annexure-V).
- ChESS, the departmental students' society has been engaged in organizing expert lectures, group discussions, oral and poster presentations for all round development of the students (details in section 4).
- The college placement cell organizes workshops and classes for enhancing the soft skills of the students.
- Industrial visits are organized visits through Industry Institute Interaction Cell (IIC) of the college.

33. Teaching methods adopted to improve student learning

- The curriculum includes practical work distributed over twelve laboratories in the Department and other departments. The course content of the laboratories is designed on the basis of contents of the theory courses of the curriculum so that the students can have experience of handling and operating systems on lab scale and derive meaningful results.
- The students undergo industrial training at various stages for hands on experience as a part of curriculum. The students are required to undergo trainings at end of first year (in Workshops- Institutional practical training), at the end of second year (in industry-Industrial practical training) and six months Industrial training in 7th / 8th semester. The students undertake projects in consultation with the faculty. Many students go to prestigious industrial houses, to carry out six months training.
- The final year project work is allotted to a group of students, which may be a theoretical design project or experimental one. The students' performance in the project helps in analyzing the problem solving capabilities, their knowledge and team spirit. The following table gives some of key-projects being taken by students of Chemical Engineering during last few years.

Name of the Student(s)	Project Title	Area of Specialization	Project Supervisor(s)	Contribution / Achievements / Research Output
In CAYm4(2009-2010)				
Jaspal Singh Karan Arora Vikrant joshi	Optimization through genetic algorithm	Optimization	Dr. Rajeev Garg	Use of non-traditional optimization
Akhilesh Chadha Bhupender Kumar Kamalpreet Kaur	Processing & testing of TiO ₂ filled Polypropylene	Material processing	Mr. Pankaj Kalra	Material processing for property variations

Anmol Singh Pulkit Rhode Sarvjeet Kaur	Preparation of compost using Anerobic microbial degradation	Environmental Application	Mr. Amit Arora	Bio-fermentation process technology
Manjit Kaur Gaganpreet Kaur	Analysis of waste water and design of ASP for paper mill	Plant Design	Mrs. Balpreet Kaur	Environmental pollution control
In CAYm3 (2010-11)				
Hardeep Kumar Sandeep Kaur Swami Vivek	Plant design for Production of Biogas from distillery spent wash	Plant Design	Mr. Pankaj Kalra	Biogas from waste
Megha Arora Prince Kumar Sandeep Singh Raghav	Simulation and Modeling of CSTR using GA	Modeling & simulation	Dr. Rajeev Garg	Use of Genetic Algorithm in chemical engineering problem
Sandeep Kaur Parveen Devinder Kumar	Production of Biocoal from Hostel food waste	Environmental Application	Mr. Amit Arora	Utilization of local bio waste
Gurjeet Kaur Honey Sharma Shubhank Vajpayee	Municipal Waste water treatment	Environmental Application	Ms. Balpreet Kaur	Environmental pollution control
In CAYm2 (2011-12)				
Abhinav Goel Ashish Chopra Chetan Sharma Deepak Sharma	Development of coloured anodized AL- Oxide by filling dyes in Nano-Pores	Material Processing	Mr. Surinder Singh Dr. M.K. Kushwaha	Material processing for property variations
Kaptan Singh Sahil Singh Shivani Sharma	Anodization of aliminium in the presence of surfactant	Material Processing	Dr. Rajeev Garg Dr. M.K Kushwaha	Material processing for property variations
Mandeep Singh Supriya Kshama Rajwant Kaur	Production of bio diesel through trans-esterification of waste cooking oil	Pollution control	Mr. Amit Arora	Utilization of local waste cooking oil
Varun Suri Vikram kumar Harpreet kaur	Variation in COD of Pulp And Paper mill Effluent on treatment with Bio Degradable Polymer	Pollution control	Ms. Balpreet Kaur	One publication*
In CAYm1 (2012-13)				
Renuka, Sahil Singla, Prashant Thakur, Jyoti Sharma, Prateek Saxena	One dimensional Modeling and Simulation of Solid Oxide Fuel Cell	Modeling & simulation	Mr. Pankaj Kalra	Use of modeling and simulation concepts for a new system
Rohit Ghai, Rohit Goyal, Gurvinder Singh, Heena Sharma, Harjit Singh	Reclamation of Lubricating Oil	Material processing & testing	Mr. Surinder Singh	Recycle & Reuse
Gagandeep Kaur, Neetu Shama, Komal Sharma, Ajay, Harpreet Singh	Adsorption of Dyes	Pollution control	Mr. Raj Kumar	Environmental pollution control
In CAY (2013-14)				
Karamvir Singh, Kashish Pawar, Ritika, Shimpan Thakur, Jasdeep Singh, Sukhjinder Singh	Adsorption of Reactive Black 5 Dye on Fly Ash	Pollution control	Mr. Raj Kumar	Environmental pollution control
Kajal, Maneet Kaur, Ashish Koundle, Anwar Khan, Mandeep Kaur,	Manufacture of Fly Ash Bricks Incorporating Carbon From Waste Dry Cells	Pollution control	Mr. Surinder Singh	Recycle & Reuse

Gulshan Kumar				
Palak Dhiman, Amandip Kaur, Priya Sharma, Rakesh Kumar, Ajay Kumar, Manpreet Singh	Preparation of Plywood Adhesive from Paper Mill Waste (Black Liquor)	Pollution control	Mr. Pankaj Kalra	Recycle & Reuse
Mohit Mittal, Diwakar Kandwal, Manjot Thind, Gupinder Singh, Harpreet Kumar, Muskan Bagheria	Study of Esterification of Butyric Acid with Methanol and its Reaction Kinetics using Carbonaceous Catalyst	Material Processing	Dr Rajeev Kumar	Material Processing by alternate methods
Amit Kumar, Avinash Kumar, Shamsheer Singh Rawat, Ishan Manchanda, Jaskaran Singh, Ramandeep	Removal and Recovery of Phosphorous from Waste Water by using Magnetite**	Pollution control	Ms. Balpreet Kaur	Environmental pollution control

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

The following administrative setup helps in Institutional Social Responsibility (ISR) and other Extension activities:

The students of the dept. are engaged in activities in various groups like N.C.C., N.S.S. and are instrumental in organization of various social activities like Blood-donation, Tree-plantation.

The faculty of the dept. are engaged in various extension activities like Election duty, Skill development Scheme, Census duty.

35. SWOC analysis of the department and Future plans

Strength

1. Highly qualified and dedicated faculty
2. Advanced facility in laboratories covering whole syllabus and beyond.
3. Well oriented Training & placement cell for recruitment of students.
4. Refined approachable counseling & mentoring system in the department
5. ChESS Chemical Engg. Students society active in personality and overall development of students

Weaknesses

1. Institute located in Rural and Border area, therefore lacks proper approach of initiatives.
2. Student exchange programs in eminent national and international universities /industries

Opportunities

1. Collaboration with eminent national and international universities/industries for institutional industries and placements

2. Collaboration with eminent national and international research labs/industries to make career in research industry

Challenges

1. Average academic-background students from rural and border areas
2. Designing of curriculum according to industry needs.

Future Plans

- ▶ Laboratory performance assessment to be made elaborated on basis of performance on each turn
- ▶ More expert lectures
- ▶ More use of presentations in teaching.
- ▶ A fully furnished dept. library having all relevant text books, reference books, chemical engg. journals & e-books.

Evaluative Report of Computer Science & Engg. Department

1. Name of the department **Computer Sc & Engg**
2. Year of Establishment **1996**
3. Names of Programmes/Courses offered (UG,PG,M.Phil.,Ph.D.,Integrated Masters; Integrated Ph.D., etc.)
1. B.Tech Computer Sc & Engg
2. M.Tech Computer Sc & Engg
4. Names of Inter disciplinary courses and the departments/units involved:
ECE, DASH, Mech Engg.
5. Annual/semester/choice based credit system (programmewise) :**Semester**
6. Participation of the department in the courses offered by other departments :**Teaching FCPIT, Operating Systems, Data Structure**
7. Courses in collaboration with other universities, industries, foreign institutions, etc.
1. Mobile Application Development
2. Agile Software Development
8. Details of courses/programmes discontinued (if any) with reasons: **Nil**
9. Number of Teaching posts

	Sanctioned	Filled
Professors	03	01+02(Asstt Prof)
Associate Professors	06	04+02(Asstt Prof)
Asst. Professors	21	21

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D./M.Phil.etc.,)

Name	Qualification	Designation	Specialization	No.ofYears of Experience	No.ofPh.D. Students guidedforthe last4years
Dr Krishan Saluja	Ph.D (IIT, Roorkee)	Professor	Network Security	19 Years	Completed (01) Registered (06), Enrolled (04)
Dr Monika Sachdeva	Ph.D (GNDU, Amritsar)	Associate Professor	Network Security	17 Years	Enrolled(8)
Mrs Daljeet Kaur	M.Tech (PTU, Jalandhar)	Associate Professor	Network Security	19 Years	
Mr Japinder Singh	M.S(Software Systems)	Associate Professor	Network Security/Admn	19 Years	
Mr Navtej Singh	M.Tech (NITTR, Chd)	Associate Professor	Cloud Computing	19 Years	
Ms Sonika Jindal	M.Tech (Pbi University)	Assistant Professor	Image Processing	19 Years	
Mr Sunny Behal	M.Tech (PTU, Jalandhar)	Assistant Professor	Network Security	12 Years	
Mr Vishal Arora	M.Tech (PTU, Jalandhar)	Assistant Professor	Network Security	12 Years	
Mr Pawan Luthra	M.Tech (PTU, Jalandhar)	Assistant Professor	Network Security	12 Years	
Mr Sarabjeet Singh	M.Tech (PTU, Jalandhar)	Assistant Professor	Parallel Computing	12 Years	
Mr. Gurjeet Singh	MTech, PAU,Ludhiana	Assistant Professor	WSN	0 years	
Mr. Gurbhej Singh	M.Tech SGGS, Fatehgarh Sahib	Assistant Professor	WSN	0 years	
Mr. Jabarweer Singh	M.Tech (PTU, Jalandhar)	Assistant Professor	Network Security	0 years	
Ms. Surinderjit Kaur	M.Tech Punjabi University, Patiala	Assistant Professor	WSN	0 years	

Ms. Kiranveer Kaur	M.Tech Punjabi University, Patiala	Assistant Professor	MANET	0 Years	
Ms. Supreet Kaur	M.Tech, Punjabi Univeristy, Patiala	Assistant Professor	Image Processing	0 Year	
Ms. Prabhjot Kaur	M.Tech (GNDU, Amristar)	Assistant Professor	Parallel Computing	0 Year	
Mrs. Pawansupreet Kaur	M.Tech (PTU, Jalandhar)	Assistant Professor	Network Security	2 Years	
Ms. Tania Nagpal	M.Tech (PTU, Jalandar)	Assistant Professor	Network Security	3 Years	
Mr. Dheeraj Pal Singh	M.Tech (Punjabi University, Patiala)	Assistant Professor	Software Engineering	0 Year	

11. List of senior visiting faculty

Dr Gurvinder Singh Prof & HOD GNDU Amritsar
 Dr S P Gupta Asso Prof & HOD BCET Gurdaspur
 Dr Himanshu Garg Professor UCOE, Punjabi University Patiala

12. Percentage of lectures delivered and practical classes handled (programmewise) By temporary faculty.

13. Student-Teacher Ratio (programmewise) BTech : 15:1
 MTech :12:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled: Filled-09

15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr Krishan Saluja	Ph.D (IIT, Roorkee)	Professor	Network Security	19 Years	Completed (01) Registered (06), Enrolled (04)

Dr Monika Sachdeva	Ph.D (GNDU, Amritsar)	Associate Professor	Network Security	17 Years	Enrolled(8)
Mrs Daljeet Kaur	M.Tech (PTU, Jalandhar)	Associate Professor	Network Security	19 Years	
Mr Japinder Singh	M.S(Software Systems)	Associate Professor	Network Security/Admn	19 Years	
Mr Navtej Singh	M.Tech (NITTR, Chd)	Associate Professor	Cloud Computing	19 Years	
Ms Sonika Jindal	M.Tech (Pbi University)	Assistant Professor	Image Processing	19 Years	
Mr Sunny Behal	M.Tech (PTU, Jalandhar)	Assistant Professor	Network Security	12 Years	
Mr Vishal Arora	M.Tech (PTU, Jalandhar)	Assistant Professor	Network Security	12 Years	
Mr Pawan Luthra	M.Tech (PTU, Jalandhar)	Assistant Professor	Network Security	12 Years	
Mr Sarabjeet Singh	M.Tech (PTU, Jalandhar)	Assistant Professor	Parallel Computing	12 Years	
Mr. Gurjeet Singh	MTech, PAU,Ludhiana	Assistant Professor	WSN	0 years	
Mr. Gurbhej Singh	M.Tech SGGS, Fatehgarh Sahib	Assistant Professor	WSN	0 years	
Mr. Jabarweer Singh	M.Tech (PTU, Jalandhar)	Assistant Professor	Network Security	0 years	
Ms. Surinderjit Kaur	M.Tech Punjabi University, Patiala	Assistant Professor	WSN	0 years	
Ms. Kiranveer Kaur	M.Tech Punjabi University, Patiala	Assistant Professor	MANET	0 Years	
Ms. Supreet Kaur	M.Tech,Punjabi Univeristy, Patiala	Assistant Professor	Image Processing	0 Year	
Ms. Prabhjot Kaur	M.Tech (GNDU, Amristar)	Assistant Professor	Parallel Computing	0 Year	

Mrs. Pawansupreet Kaur	M.Tech (PTU, Jalandhar)	Assistant Professor	Network Security	2 Years	
Ms.Tania Nagpal	M.Tech (PTU, Jalandhar)	Assistant Professor	Network Security	3 Years	
Mr. Dheeraj Pal Singh	M.Tech (Punjabi University, Patiala)	Assistant Professor	Software Engineering	0 Year	

16. Number of faculty with on going projects from a) National b) International funding agencies and grants received

RPS Project	Title :Development of Testbed for evaluation of Defence Techniques against DDoS Attack	Amount 7.5 lakhs Sponsored by AICTE Status Ongoing
MODROB	Modernisation of Networking Lab	Amount : 8.5 lakhs Sponsored by AICTE Status : Near Completion

17. Departmental projects funded by DST-FIST;UGC, DBT, ICSSR, etc. and total grants received

RPS Project	Title :Development of Testbed for evaluation of Defence Techniques against DDoS Attack	Amount 7.5 lakhs Sponsored by AICTE Status Ongoing
MODROB	Modernisation of Networking Lab	Amount : 8.5 lakhs Sponsored by AICTE Status : Near Completion

18. Research Centre/facility recognized by the University

02 students are Pursuing Fulltime PhD

Punjab Technical University has recognized it as Regional Study Centre for M.Tech Computer Sc&Engg for their students

19. Publications:

- * a) Publication per faculty
- * Number of papers published in peer reviewed journals (national/

Publications By Faculty Members

Sr. No	Name of Faculty	Number of papers published in peer reviewed journal	No of publications listed in International Database	Monographs	Chapter in Books	Books Edited	Books with ISBN/ISSN numbers	Citation Index	SNIP	SJR	Impact Factor	h-index
1	Dr. Krishan Saluja	48	90	Nil		4	3	315			14 paper	10
2	Dr. Monika Sachdeva	24	48	Nil	Nil	Nil	Nil	175			6 paper	8
3	Ms. Daljeet Kaur	1	5	Nil	Nil	Nil	Nil					
4	Mr. Japinder Singh		2	Nil	Nil	Nil	Nil					
5	Mr.Navtej Singh Ghuman	1	5	Nil	Nil	Nil	Nil					
6	Ms. Sonika Jindal	20		Nil	Nil	Nil	Nil	40			13 paper	3
7	Mr.Sunny Behal	12	26	Nil	Nil	Nil	Nil	35			7 papers	3
8	Mr. Pawan Luthra	5	8	Nil	Nil	Nil	Nil					
9	Mr Vishal Arora	7	11	Nil	Nil	Nil	Nil					
10	Mr. Sarabjeet Singh	1	5	Nil	4	Nil	Nil					
11	Mr. Gurjeet Singh	1	1	Nil	Nil	Nil	Nil					
12	Mr. Gurbhej Singh	4	4	Nil	Nil	Nil	Nil					
13	Mr. Jabarveer Singh	1	1	Nil	Nil	1	Nil					
14	Ms. Surinderjit Kaur	3	3	Nil	Nil	Nil	Nil					
15	Ms. Kiranveer Kaur	3	3	Nil	Nil	Nil	Nil					
17	Ms. Prabhjot Kaur	2	2	Nil	Nil	Nil	Nil					
22	Mr. Jagdeep Singh	2	2	Nil	Nil	Nil	Nil				1 paper	

- * Number of publications listed in International Data base (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database-International Social Sciences Directory, EBSCO host, etc.)
- * Monographs
- * Chapter in Books
- * Books Edited
- * Books with ISBN/ISSN numbers with details of publishers
- * Citation Index
- * SNIP
- * SJR
- * Impact factor
- * h-index

20. Areas of consultancy and income generated : Nil

21. Faculty as members in

- a) National committees
- b) International Committees
- c) Editorial Boards....:

22. Student projects

- a) Percentage of students who have done in-house projects including interdepartmental/programme: 20%
- b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies: 5%

23. Awards/Recognitions received by faculty and students

03 Students received Award at National Level Competition held at IIT Roorkee.

24. List of eminent academicians and scientists/visit or to the department :

25. **Seminars/Conferences/Workshops organized & the source of funding**
- a) Regional
 01 workshop funded by TEQIP II
 - b) National
 - c) International
 01 ICCCS 2014 funded by TEQIP

26. **Student profile programme/course wise:**

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
BTech		528	338	190	94
MTech		36	03	32	95

*M=Male *F=Female

27. **Diversity of Students**

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
BTech	70.64	29.36	
MTech	88.88	11.12	

28. **How many students have cleared national and state competitive examination such as NET, SLET, GATE, Civil services, Defense services, etc.?**

29. Student progression

Student progression	Against % enrolled
UG to PG	Approx 10%
PG to M.Phil.	
PG to Ph.D.	
Ph.D. to Post-Doctoral	
Employed	
● Campus selection	55%
● Other than campus recruitment	33%
Entrepreneurship/Self-employment	2%

30. Details of Infrastructural facilities a)

a) Library : under process

b) Internet facilities for Staff & Students **Fully available to each faculty & students**

c) Class rooms with ICT facility 04

d) Laboratories 04

Name of Lab	Room No.	Even Sem Practical course	Odd Sem. Practical Course	No. of Computer	Other kits/ infrastructure	S/w
Networking Lab	214-15	Operating System Lab(BTCS306), Open Source Software Lab(BTCS605), Computer Network1(BTCS403)	Artificial Intelligence(BTCS704), VA, EIT, Computer Graphics (BTCS509), Computer Network2(BTCS507)	25	Networking Training Kits, Router, Switch, Printer, Scanner, Projector etc.	WINDOWS, Data recovery tools, Java, C++, Linux
Major Project Lab	217	Operating System Lab(BTCS306), Software Engg(BTCS606), Value Added, EIT	DATA STRUCTURE(BTCS306)	34	PRINTER, Projector	WINDOWS, Rational Rose, C++, Java, Linux
Computational Lab	218-19	FCPIT, System Programming(BTCS409), EIT,	Object Orient Programming using c++ (BTCS309), Computer Graphics (BTCS509), Design and Analysis of Algorithms(BTCS508)	30	PRINTER, Projector	WINDOWS, MSOFFICE, C++
RDBMS Lab	203-04	RDBMS(BTCS506), System Prog. (BTCS409), Simulation and Modelling (BTCS607)	RDBMS-1(BTCS604), VA, Design and Analysis of Algorithms(BTCS508)	25	PRINTER, Projector	C++, Sql, Java, NS 2

31. Number of students receiving financial assistance from college, university, Government or other agencies

32. Details on student enrichment programmes (speciallectures/workshops/seminar) with external experts

Sr. No.	Title of STC/Workshop	Duration	No of Participant
1.	Workshop on "Mobile Application Development" from 18-19 th Feb 2014.	2 Days	57
2.	STC on "Cloud Computing" from 28 th Oct- 1 st Nov 2013.	5 Days	30
3.	STC on "New Computing and Emerging Technologies in the ICT and Modern Teaching Tools" on 26 th -30 th Aug 2013.	5 Days	90
4.	Expert Lecture on "Current Technology Awareness" on 21-08-2013 by Navjot Singh, Technical Director, Weavebytes, Chandigarh.	1 Day	90
5.	Expert Lecture on "Mobile Application n Development" on 19-08-2013 by Manu Mehra, Director, V-Serv Solutions, Ludhiana.	1 Day	73
6.	Expert Lecture on "Software Safety" on 09-08-2013 by Pankaj Vyas, AP, CSE, BITS, Pilani.	1Day	35

33. Teaching methods adopted to improve student learning

- 01 Classroom Teaching**
- 02 Laboratories**
- 03 Audio Visual Aids**
- 04 Availability of NPTEL Lectures thru Internet**
- 05 EDUSAT facility**
- 06 Workshops**
- 07 Expert Lectures**
- 08 Industrial Visit**
- 09 Value added Subjects**
- 10 Remedial classes**
- 11Interaction with the Industry**

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Students Participate in NSS Activities

Faculty & Students both Participate in Blood Donation Camp
Faculty & Staff both take active participation in Election Process

35. SWOC analysis of the department and Futureplans

Future Plans

Encouraging Faculty to enroll in PhD

Active participation for consultancy to Industry

Enhancement of Research Infrastructure

Establishment of Centre of Excellence.

Evaluative Report of Electronics & Communication Engineering Department

1. Name of the department: Electronics & Communication Engineering
2. Year of Establishment: 2002
3. Names of Programmes/Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.): UG, PG
4. Names of Inter disciplinary courses and the departments/units involved:

Sr.	Course Code	Course Title	Semester	Branch	Load Taken By
List of subjects sent to other deptt. by ECE department					
1	BTAM-301	Engg. Mathematics-III	3 rd	ECE	Dash
2	BTCS-305	Object Oriented Programming using C++	3 rd	ECE	CSE
3	BTCS-309	Lab Object Oriented Programming	3 rd	ECE	CSE
4	BTEE-402	Linear Control Systems	4 th	ECE	EE
5	BTCS-304	Data Structures	5 th	ECE	CSE
6	BTCS-401	Operating Systems	6 th	ECE	CSE
7	BTEC-603	Engg. Economics & Industrial Management	6 th	ECE	MBA
8	Value Added Course	Essentials of IT	5 th	ECE	CSE

5. Annual/semester/choice based credit system (programme wise):

Sr. No.	Programme Wise	Branch	Annual / Semester
1.	UG	ECE	Semester
2.	PG	ECE	Semester

6. Participation of the department in the courses offered by other departments

Sr. No.	Department	Semester	Subjects	Theory/ Lab
1.	CSE	3 rd	DCLD	Theory & Lab
2.	CSE	4 th	MALP	Lab
3.	EE	3 rd	SCD	Lab
4.	EE	4 th	EDC	Lab
5.	EE	6 th	MCPLC	Lab
6.	BCA	2 nd	DCLD	Lab
7.	MCA	5 th	ES	Lab

7. Courses in collaboration with other universities, industries, foreign institutions, etc.

Value added courses added offered to students in collaboration with INFOSYS

Essentials of Information Technology*

Mobile Application Development

Agile Software Development

Business Intelligence

Internet and web technologies

*Presently offered course to 5th semester ECE.

8. Details of courses/programmes discontinued (if any) with reasons: Nil

9. Number of Teaching posts

	Sanctioned	Filled
Professors	2	1
Associate Professors	4	2
Asst. Professors	12	15

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./M.Phil.etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D students guided for the last 4 years
Dr. Sanjeev Dewra	PhD.	Associate Professor	Optical Fiber Communication	21yrs	Nil
Dr. Satvir Singh	PhD.	Professor	Soft Computing	14yrs	Nil
Mrs. Rajni	M.Tech PhD(Pur.)	Associate Professor	Wireless Communication and Antenna Design	16yrs	Nil
Dr. Vishal Sharma	PhD.	Assistant Professor	Optical & Wireless Communication Systems & network	10yrs	Nil
Mr. Vikram Mutneja	M.Tech PhD(Pur.)	Assistant Professor	Image Processing ,Embedded Systems	12yrs	Nil
Mrs. Jaswinder Kaur	M.Tech PhD(Pur.)	Assistant Professor	Wireless Communication Systems	9yrs	Nil
Mrs. Geeta Arora	M.Tech	Assistant Professor	Embedded Systems	17yrs	Nil
Mr. Inderjeet Singh Gill	M.Tech PhD(Pur.)	Assistant Professor	Digital System Design/Imaging Processing /WSN	12yrs 8 months	Nil
Mr. Amit Grover	M.Tech PhD(Pur.)	Assistant Professor	Wireless Communication Systems	13yrs	Nil
Mr. Chakshu	M.Tech	Assistant	VLSI	12yrs	Nil

Goel		Professor			
Ms. Navdeep Kaur	M.Tech	Assistant Professor	Neural Network /Wireless Communication systems/VLSI	6.5yrs	Nil
Mrs. Ramandeep Kaur	M.Tech	Assistant Professor	Embedded systems	1yr	Nil
Mr. Gurpreet Singh	M.Tech	Assistant Professor	Wireless Communication systems	Nil	Nil
Ms. Mini Lumba	M.Tech	Assistant Professor	Optical Communication Systems	1yr	Nil
Ms. Riya	M.Tech	Assistant Professor	Wireless Sensor Networks	1yr	Nil
Ms. Paras Mani	M.Tech	Assistant Professor	VLSI	Nil	Nil
Ms. Aruna Rani	M.Tech	Assistant Professor	Optical Fiber Communication	Nil	Nil
Mr. Vivek Soi	M.Tech PhD(Pur.)	Assistant Professor	Wireless Communication systems	5yrs	Nil

11. List of senior visiting faculty

S. No.	Name of Visiting Faculty	Designation	Description
1.	Dr. T.S Kamal	Retired Prof. SLIET, Longowal	International Conference of Communication & Computing, SBSSTC, Ferozepur 8 to 9 august 2014

2.	Dr. Shakti Kumar	Director Yamna Group of Information, Yamnanagar	International Conference of Communication & Computing, SBSSTC, Ferozepur 8 to 9 august 2014
3.	Dr. Surinder Singh Sodhi	Associate Prof. ECE, SLIET Longowal	Photonics 21 st to 25 th oct. 2013
4.	Dr. Rajneesh Talwar	Professor & Principal, CGC Landran	Photonics 21 st to 25 th oct. 2013
5.	Dr. Manjit Singh Bhamrah	Professor ECE, UCOE, Punjabi University, Patiala	Photonics 21 st to 25 th oct. 2013
6.	Dr. R.S Kaler	Sr. Professor, ECE, Thapar University, Patiala	Photonics 21 st to 25 th oct. 2013
7.	Dr. A.K. Tyagi	Professor, DASH, SBSSTC, Ferozepur	Photonics 21 st to 25 th oct. 2013
8.	Mr. Pankaj Bagga, CEO	E2 Matrix, Opp. Phagwara Bus Stand, Above Cafe Coffee Day, Handa City Center, Phagwara	Digital Image, Video & Medical Image Processing 23 rd to 27 th Sept 2013
9.	Mr. Jitender Kumar	Project Manager at Unit Nexus, SCO 1, Above State bank of India, Zirakpur	Digital Image, Video & Medical Image Processing 23 rd to 27 th Sept 2013
10.	Mr. Ankit Makkar	Manager at Maffick Instruments, #380, Model Town, Ambala City, Haryana, India	Digital Image, Video & Medical Image Processing 23 rd to 27 th Sept 2013
11.	Mr. Lovish Jaswal	Research Associate at Gigabyte Network Pvt. Ltd. 6 th floor Surya kiran-	Recent Trends in Optical communication

		II, Ludhiana	system Design 9 th Sept. to 13 th Sept. 2013
12.	Mr. Vishal Chaudhary	Sr. Application Engg. at Gigabyte House c/o Gigasoft India, Sixth floor Surya kiran phase- II, The Mall, Ludhiana	Recent Trends in Optical communication system Design 9 th Sept. to 13 th Sept. 2013
13.	Mr. Achint Vats	Application Engg. at Eigen Technologies Pvt. Ltd. IIIrd floor, C-27 community centre janakpuri, New Delhi	Recent Trends in Optical communication system Design 9 th Sept. to 13 th Sept. 2013
14.	Mr. Amit Sharma	Technical Director At Amitec Electronics, 4/32 Sahibabad, Industrial Area New Delhi	Recent Trends in Optical communication system Design 9 th Sept. to 13 th Sept. 2013
15.	Mr. Ankit Makkar	Manager System Integration at Maffick Instruments,#380, Model Town, Ambala City, Haryana, India	Recent Trends in Optical communication system Design 9 th Sept. to 13 th Sept. 2013
16.	Dr. Anil Rose	Associate Prof. Panipat Institute of Engg. & Technology	Nature Inspired Computational Intelligence 6 to 17 May 2013
17.	Dr. Pawan Dahiya	Assistant Professor Deen Bandu University Of Science & Technology	Nature Inspired Computational Intelligence

		Murthal Sonipat	6 to 17 May 2013
18.	Dr. Manoj Duhan	Professor Deen Bandu University Of Science & Technology Murthal Sonipat	Nature Inspired Computational Intelligence 6 to 17 May 2013
19.	Dr. Nirmal singh	Retired Principal MIMIT, Malout	Nature Inspired Computational Intelligence 6 to 17 May 2013
20.	Dr. Arun Khosla	Associate Professor NIT, Jalandhar	Nature Inspired Computational Intelligence 6 to 17 May 2013
21.	J.S. Saini	Prof. Deen Bandu University of Science & technology, Murthal Panipat	Nature Inspired Computational Intelligence 6 to 17 May 2013
22.	Dr. Anil Rose	Associate Prof. Panipat Institute of Engg. & Technology	Applied Soft Computing 26 th to 30 th November 2012
23.	Dr. Pawan Dahiya	Assitant Professor Deen Bandu University Of Science & Technology Murthal Sonipat	Applied Soft Computing 26 th to 30 th November 2012
24.	Dr. Manoj Duhan	Professor Deen Bandu University Of Science & Technology Murthal Sonipat	Applied Soft Computing 26 th to 30 th November 2012
25.	Dr. Nirmal singh	Retired Principal MIMIT, Malout	Applied Soft Computing 26 th to 30 th November

			2012
26.	Dr. Arun Khosla	Associate Professor NIT, Jalandhar	Applied Soft Computing 26 th to 30 th November 2012
27.	J.S. Saini	Prof. Deen Bandu University of Science & technology, Murthal Panipat	Applied Soft Computing 26 th to 30 th November 2012
28.	Dr. Arun Khosla	Associate Professor NIT, Jalandhar	Intelligent Computational Techniques 4 to 15 July 2011
29.	Mr. Amit Sharma	Technical Director At Amitec Electronics, 4/32 Sahibabad, Industrial Area New Delhi	Intelligent Computational Techniques 4 to 15 July 2011
30.	J.S. Saini	Prof. Deen Bandu University of Science & technology, Murthal Panipat	Intelligent Computational Techniques 4 to 15 July 2011
31.	Dr. Pawan Dahiya	Assitant Professor Deen Bandu University Of Science & Technology Murthal Sonipat	Intelligent Computational Techniques 4 to 15 July 2011
32.	Dr. Manoj Duhan	Professor Deen Bandu University Of Science & Technology Murthal Sonipat	Intelligent Computational Techniques 4 to 15 July 2011
33.	Dr. Nirmal singh	Retired Principal MIMIT, Malout	Intelligent Computational

			Techniques 4 to 15 July 2011
34.	Dr. Anil Rose	Associate Prof. Panipat Institute of Engg. & Technology	Intelligent Computational Techniques 4 to 15 July 2011

12. Percentage of Lectures delivered and practical classes handled (Programme Wise) by temporary Faculty

Percentage of lectures & Tutorials delivered : 21.16
 Practical Classes Handled (Programme Wise) : 16.058
 Total load of temporary faculty (L,T,P): 37.22

13. Student-Teacher Ratio (programmewise):

Sr. No.	Branch	Programme	Batch	Intake
1	ECE	UG	2013	113
2	ECE	UG	2012	113
3	ECE	UG	2011	113 (On training)

No. of Students (2013 , 2012 & 2011) = 289

No. of Faculty Members teaching UG = 18

Student Teacher Ratio = $289/18 = 16:1$

Sr. No.	Branch	Programme	Batch	Intake
1	ECE	PG	2014	18
2	ECE	PG	2013	18

No. of Students (2014 & 2013) = 36

No. of Faculty Members teaching PG = 03

Student Teacher Ratio = $36/3 = 12:1$

14. Number of academic support staff (technical) and administrative staff; sanctioned and

filled

Technical support staff

Sr.	Name	Designation	Sanctioned	Filled
1	Gurmeet Singh	Lab superintendant		1
2	Pardeep Singh	Senior Technician		1
3	Baldev Singh	Junior Technician		1
4	Jaswant Singh	Junior Technician		1
5	Lakhwinder Singh	Lab Attendant		1
6	Maninder Singh	Lab attendant		1

Administrative Staff

Sr.	Name	Designation	Sanctioned	Filled
1	Nand Lal	Junior Assistant		1

15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.

Name	Designation	Qualification	Ph.d	PG
Dr. Sanjeev Dewra	Associate Professor	Ph.D	Yes	Yes
Dr. Satvir Singh	Professor	Ph.D	Yes	Yes
Mrs. Rajni	Associate Professor	M.Tech	-	Yes
Dr. Vishal Sharma	Assistant Professor	Ph.D	Yes	Yes
Mr. Vikram Mutneja	Assistant Professor	M.Tech PhD(Pur.)	-	Yes
Mrs. Jaswinder Kaur	Assistant Professor	M.Tech PhD(Pur.)	-	Yes
Mrs. Geeta Arora	Assistant Professor	M.Tech	-	Yes
Mr. Inderjit Singh Gill	Assistant Professor	M.Tech PhD(Pur.)	-	Yes
Mr. Amit Grover	Assistant Professor	M.Tech PhD(Pur.)	-	Yes
Mr. Chakshu Goel	Assistant Professor	M.Tech	-	Yes

Ms. Navdeep Kaur	Assistant Professor	M.Tech	-	Yes
Mrs. Ramandeep Kaur	Assistant Professor	M.Tech	-	Yes
Mr. Gurpreet Singh	Assistant Professor	M.Tech	-	Yes
Ms. Mini Lumba	Assistant Professor	M.Tech	-	Yes
Ms. Riya	Assistant Professor	M.Tech	-	Yes
Ms. Paras Mani	Assistant Professor	M.Tech	-	Yes
Ms. Aruna Rani	Assistant Professor	M.Tech	-	Yes
Mr. Vivek Soi	Assistant Professor	M.Tech PhD(Pur.)	-	Yes

16. Number of faculty with on going projects from a)National b)International funding agencies and grants received : Nil

17. Departmental projects funded by DST-FIST;UGC, DBT, ICSSR,etc.and total grants received: Nil

18. Research Centre/facility recognized by the University: Nil

19. Publications:

* a) Publication per faculty

*Number of papers published in peer reviewed journals (national/international) by faculty and students

*Number of publications listed in International Database (For Eg:Web of Science, Scopus, Humanities International Complete, Dare Database-International Social Sciences Directory,EBSCOhost,etc.), CitationIndex, SNIP, SJR, Impactfactor, h-index

Sr.	Name of Faculty	Total Number of publications	Number of papers published in peer reviewed journal(national/international) by faculty and students	No of publications listed in International Database[Ex Scopus/EBSCO host]	Citation Index	SNIP	SJR	Impact Factor	h-index
1	Sanjeev Dewra	18	10	8	9				2

		One (1) in National Seminar on Cutting Edge Technologies in Electronic Communication							
		One (1) in National Conference on Embedded Communication Systems and Networks							
		One (1) in National Symposium on Emerging Trends in Networking & Mobile Communication							
		One (1) in National Conference on Electronic Circuits and Communication Systems		2	4	0.925	0.31	0.769	
		TWO (2) in OPTIK-International journal Light and Electron Optics		2	3		0.24	0.24	
		TWO (2) in Journal of Optical Technology		1	1			1.76	

		One (1) in International Journal of Engineering Research & Technology		1	1			1.252	
		One (1) in International Journal of Enhanced Research in Science Technology & Engineering		2					
		Two (2) in national conference on latest developments in science engineering and management							
		Two (2) in International conference on communication, computing and systems							
		One (1) in International Journal of Electronics & Communication Engineering Research						1.77	

		Two (2) in International Journal of Advanced Research in Computer and Communication Engineering						1.686	
		One (1) in International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering							
2	Chakshu Goel	14	13	9	2	0.047	0.034	IJETD-2012 (2.534)	1
						0.24	0.117	IJCA-2012 (0.791)	
								IJAEST (1.15)	
							0.017	IJCA-2013 (0.791)	
								IJETT-2014(2.695)	
								AJER - 2014(0.347)	
								IJARCSSE - 2014(2.80)	
								IJETD-2014(2.534)	

						IJAEECSA		2.08	
						AETA		0.533	
8	Rajni	45	23	13	3				1
	IJCA							[2013] 0.79 [2014] 2.0973 [2012] 0.821	
	IJAIEM							2.379	
	IJECET							5.89	
	IJEEEAPM							0.5	
	IOSRJECE							1.586	
	IOSRJECE							1.452	
9	Dr Satvir Singh	13	13	1	58				5
10	Navdeep Kaur	16	16	12					
	IJCA							2.52	4.9
	IJERA							1.325	2
	IJARCSSE							2.080	0
	IJARCSSE							2.080	2
	IOSRJECE							1.586	
11	Vivek Soi	5		3					
12	Gurpreet Singh	5		3					
13	Riya	2		1					
14	Parasmani	2		1				IJSER:1.4	
15	Ramandeep Kaur	5	-	5				IOSR:1.6	

16	Mini Lumba	2						OPTIK:0.769
17	Aruna	4		2				IJERT-1.76 IJERSTE:1.252

*Monographs, Chapter in Books, Books Edited, Books with ISBN/ISSN numbers with details of publishers

Sr	Name of Faculty	Monographs	Chapter in Books	Books Edited	Books with ISBN/ISSN numbers with details of publishers
1	Amit Grover			3	
				Compression Techniques in Slow Internet Environment	(ISBN: 978-3-659-28103-7)
					LAMBERT Academic Publishing. (19/10/2012)
				Space-Time Block Coded Systems in Wireless Communication	(ISBN: 978-3-659-33719-2)
					LAMBERT Academic Publishing. (31/01/2013)
				Wireless Communication Systems and Networks" First Edition- 2013	(ISBN: 978-81-7700-
					015-3) Published By Dhanpat Rai Publishers Co. Ltd, New Delhi.
2	Dr Satvir Singh	3	1	1	ISBN: 978-93-83-842-68-1

20. Areas of consultancy and income generated: Nil

21. Faculty as members in

a)National committees b)International Committees c)Editorial Boards....

Sr.	Faculty Name	Committee Name	National/International	Role/Capacity
1	Dr. Sanjeev Dewra	a) Member of editorial board of IJCRCE.	International	Editorial board
		b) Member of tech. reviewer committee of Taylor & Francis	National	Tech. reviewer
		c) Life member of ISTE	National	Life member
		d) Associate member of IE	National	Associate member
		e) Editorial board member of ICCCS 2014	International	Editorial board
2	Mrs Rajni	a) Editorial board member & co-cordinator of ICCCS 2014	International	Editorial board
		b) Editorial board member of CAIJ (AIRCCSE)	International	Editorial board
3	Dr. Satvir Singh	a) Corporate Member of Institution of Electronics and Telecommunication Engineers (IETE)	National	Corporate Member
		b) Member Editorial Board of International Journal of Electronics Engineering	International	Editorial Boar
		c) Member, Board of Studies, Electronics & Communication Engineering, Punjab Technical University, Jalandhar	National	Member
		d) Convener, 2014 International Conference on Communication, Computing and Systems (ICCCS-2014)	International	Convener

4	Dr. Vishal Sharma	a) Member of tech. reviewer committee of Journal of Optical Engg., SPIE	International	Member
		b) Member of tech. reviewer committee of OFT, Elsevier	International	Member
		c) Member of tech. reviewer committee of Biomedical Optical, SPIE	International	Member
		d) Member of tech. reviewer committee of Journal of Computational Electronics, Springer	International	Member
		e) Editorial board member of ICCCS 2014	International	Member
7	Mr. Vikram Mutneja	Life member of ISTE	National	Life member
8	Mr. Amit Grover	a) Member of tech. reviewer committee of Journal of Microelectronics, Elsevier	International	Member
		b) Member of tech. reviewer committee of Journal of Computers & Electrical Engg., Elsevier	International	Member
		c) Member of editorial board of IJSER.	International	Member
		d) Member of editorial board of IJAEECA.	International	Member
		e) Life member of ISTE	National	Member

		f) Member of editorial board & Programme Committee, ISCBI'13 g)	International	Member
9	Mr. Chakshu Goel	Life member of ISTE	National	Life member

22. Student projects

- a) Percentage of students who have done in-house projects including interdepartmental/programme 100
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies Nil

23. Awards / Recognitions received by faculty and students

1	Dr. Sanjeev Dewra	a) Rashtriya Gaurav award certificate of excellence b) Best citizen of India award c) Appreciation letter for organizing FDP on digital image, video/medical image processing d) Appreciation letter for organizing FDP on Photonics e) Appreciation letter for organizing FDP on recent trends in optical & wireless comm. f) Appreciation letter for organizing International Conference ICCCS 2014	National National National National International
2	Mrs. Rajni	a) Appreciation letter for organizing FDP on digital image, video/medical image processing b) Appreciation letter for organizing FDP on recent trends in optical	National National

		<p>& wireless comm.</p> <p>c) Appreciation letter for organizing International Conference ICCCS 2014</p>	International
3	Dr. Vishal Sharma	<p>a) Appreciation letter for organizing FDP on Photonics</p> <p>b) Appreciation letter for organizing FDP on recent trends in optical & wireless comm.</p> <p>c) Appreciation letter for organizing International Conference ICCCS 2014</p>	<p>National</p> <p>National</p> <p>International</p>
4	Mrs Jaswinder Kaur	<p>a) Appreciation letter for organizing FDP on Photonics</p> <p>b) Appreciation letter for organizing FDP on recent trends in optical & wireless comm.</p> <p>c) Appreciation letter for organizing International Conference ICCCS 2014</p>	<p>National</p> <p>National</p> <p>International</p>
5	Mr. Inderjit Singh	<p>a) Appreciation certificate from Deputy Comm. Ferozepur for working in Lok Sabha Elections 2009</p> <p>b) Appreciation letter for organizing FDP on Applied Soft Computing</p> <p>c) Appreciation letter for organizing International Conference ICCCS 2014</p>	<p>National</p> <p>National</p> <p>International</p>
6	Mr. Vikram Mutneja	<p>a) Appreciation letter for organizing FDP on digital image, video/medical image processing</p> <p>b) Appreciation letter for organizing FDP on recent trends in optical & wireless comm.</p> <p>c) Appreciation letter for</p>	<p>National</p> <p>National</p>

		organizing International Conference ICCCS 2014	International
7	Mr. ChakshuGoel	a) Appreciation letter for organizing FDP on Photonics	National
8	Ms. Navdeep Kaur	a) Appreciation letter for organizing FDP on digital image, video/medical image processing	National

24. List of eminent academicians and scientists / visitors to the department

S. No.	Name of Visiting Faculty	Designation	Description
1.	Dr. T.S Kamal	Retired Prof. SLIET, Longowal	International Conference of Communication & Computing, SBSSTC, Ferozepur 8 to 9 august 2014
2.	Dr. Shakti Kumar	Director, Yamna Group of Information, Yamunanagar	International Conference of Communication & Computing, SBSSTC, Ferozepur 8 to 9 august 2014
3.	Dr. Surinder Singh Sodhi	Associate Prof. ECE, SLIET Longowal	Photonics 21 st to 25 th oct. 2013

4.	Dr. Rajneesh Talwar	Professor & Principal, CGC Landran	Photonics 21 st to 25 th oct. 2013
5.	Dr. Manjit Singh Bhamrah	Professor ECE, UCOE, Punjabi University, Patiala	Photonics 21 st to 25 th oct. 2013
6.	Dr. R.S Kaler	Sr. Professor, ECE, Thapar University, Patiala	Photonics 21 st to 25 th oct. 2013
7.	Dr. A.K. Tyagi	Professor, DASH, SBSSTC, Ferozepur	Photonics 21 st to 25 th oct. 2013
8.	Dr. Anil Rose	Associate Professor, Panipat Institute of Engg. & Technology	Nature Inspired Computational Intelligence 6 to 17 May 2013
9.	Dr. Pawan Dahiya	Assistant Professor, Deen Bandu University Of Science & Technology Murthal Sonipat	Nature Inspired Computational Intelligence 6 to 17 May 2013
10.	Dr. Manoj Duhan	Professor, Deen Bandu University Of Science & Technology Murthal Sonipat	Nature Inspired Computational Intelligence 6 to 17 May 2013
11.	Dr. Nirmal singh	Retired Principal MIMIT, Malout	Nature Inspired Computational Intelligence 6 to 17 May 2013
12.	Dr. Arun Khosla	Associate Professor, NIT Jalandhar	Nature Inspired Computational Intelligence 6 to 17 May 2013
13.	J.S. Saini	Professor, Deen Bandu University of Science & technology, Murthal	Nature Inspired Computational

		Panipat	Intelligence 6 to 17 May 2013
14.	Dr. Anil Rose	Associate Professor, Panipat Institute of Engg. & Technology	Applied Soft Computing 26 th to 30 th November 2012
15.	Dr. Pawan Dahiya	Assistant Professor, Deen Bandu University Of Science & Technology Murthal Sonipat	Applied Soft Computing 26 th to 30 th November 2012
16.	Dr. Manoj Duhan	Professor, Deen Bandu University Of Science & Technology Murthal Sonipat	Applied Soft Computing 26 th to 30 th November 2012
17.	Dr. Nirmal singh	Retired Principal MIMIT, Malout	Applied Soft Computing 26 th to 30 th November 2012
18.	Dr. Arun Khosla	Associate Professor NIT, Jalandhar	Applied Soft Computing 26 th to 30 th November 2012
19.	J.S. Saini	Professor, Deen Bandu University of Science & technology, Murthal Panipat	Applied Soft Computing 26 th to 30 th November 2012
20.	Dr. Arun Khosla	Associate Professor, NIT, Jalandhar	Intelligent Computational Techniques 4 to 15 July 2011
21.	J.S. Saini	Professor, Deen Bandu	Intelligent

		University of Science & technology, Murthal Panipat	Computational Techniques 4 to 15 July 2011
22.	Dr. Pawan Dahiya	Assitant Professor, Deen Bandu University Of Science & Technology Murthal Sonipat	Intelligent Computational Techniques 4 to 15 July 2011
23.	Dr. Manoj Duhan	Professor, Deen Bandu University Of Science & Technology Murthal Sonipat	Intelligent Computational Techniques 4 to 15 July 2011
24.	Dr. Nirmal singh	Retired Principal MIMIT, Malout	Intelligent Computational Techniques 4 to 15 July 2011
25.	Dr. Anil Rose	Associate Professor, Panipat Institute of Engg. &Technology	Intelligent Computational Techniques 4 to 15 July 2011

25. Seminars/Conferences/Workshops organized & the source of funding

a) National b) International

a)National

Module Description	Any other contributor y Inst./ Industry	Developed / organized by	Duration	Resource Persons	Target Audience	Usage and citation etc.
Organizing Two-Week STC by ECE deptt. 4-15 July 2011	AICTE sponsored	Dr. Satvir Singh (ECE)	Two weeks	Dr. Satvir Singh, Dr J S Saini, Dr Arun Khosla, Dr Rakesh Sharma, Dr A. K Tyagi, Dr Neel Kanth Grover	B.Tech, M.Tech, Phd students and Faculty	Project designing, Research
Organized workshop under the name of "Network security"	Institution	Dr. Vishal sharma	Two Day	Appin Technology, New Delhi	M.Tech, Phd and B.Tech students and Faculty	Practical usage Project designing

One week TEQIP Course organized by ECE Deptt. From (26 th Nov. 2012 to 30 th Nov. 2012)	Department	Dr. Satvir Singh (ECE) Vikram Mutneja Inderjit Singh Gill	One WEEK	Dr. Satvir Singh, Dr J S Saini, Dr Arun Khosla, Dr Rakesh Sharma, Dr .Neel Kanth Grover	M.Tech, Phd and B.Tech students and Faculty	Project designing, Research
Hands on Training on Ansoft HFSS Software	TEQIP Phase-II Sponsored	Mrs. Rajni	Two days	Mr. Raja Innovent Engg. Solutions Pvt. Ltd.,Bangalore	M.Tech, Phd and B.Tech students and Faculty	Project designing, Research
Hands on Training on Labview Software	TEQIP Phase-II Sponsored	Dr. Satvir Singh	Two days	Mr.Vipin Sarin Maffick Instruments, Ambala	M.Tech, Phd and B.Tech students and Faculty	Project designing, Research
One week course by ECE Deptt.on "Recent Trends in Optical and Wireless Communication System Design" (9 th Sept 2013 to 13 th Sept.. 2013)	TEQIP Phase-II Sponsored	Dr.Sanjeev Dewra, Mrs. Rajni, Dr.Vishal Sharma, Ms.Jaswinder Kaur, Mr. Vikram Mutneja	One week	Experts from Industry	M.Tech, Phd and B.Tech students and Faculty	Project designing, Research
One week course by ECE Deptt. on Digital Image, Video and Medical Image Processing (23Sept. 2013 to 27 th Sept.. 2013)	TEQIP Phase-II Sponsored	Dr.Sanjeev Dewra, Mrs. Rajni, Mr. Amit Grover Ms. Navdeep Kaur, Mr. Vikram Mutneja	One week	Experts from Industry	M.Tech, Phd and B.Tech students and Faculty	Project designing, Research
One week course by ECE Deptt. on "Photonics" (21Oct th 2013 to 25 ^h Oct. 2013)	TEQIP Phase-II Sponsored	Dr.Sanjeev Dewra,Mrs. Jaswinder Kaur Dr.Vishal Sharma, Mr.Chakshu Goel	One week	Dr. R.S.Kaler, Dr. A.K. Tyagi, and Experts from Industry	M.Tech, Phd and B.Tech students and Faculty	Project designing, Research

b)International

Module Description	Any other contributor by Inst./ Industry	Developed / organized by	Duration	Target Audience	Usage and citation etc.
International Conference on computing and communication systems	TEQIP Phase-II Sponsored	Dr. Satvir Singh, Dr. Vishal Sharma	2 Days	M.Tech, Phd and B.Tech students and Faculty (Internal & External)	Promoting Research & development

26. Student profile programme/coursewise:

Name of Course /Programming	Applications Received	Selected	Enrolled		Pass Percentage
			*M	*F	

(Refer Question No. 4)					
B.Tech ECE(2009-13)		108	77	31	85%
B.Tech ECE (2010-14)		114	76	38	78%

*M=Male *F=Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from the other state	% of students from abroad
For UG Course			
B.Tech ECE	61.45	38.55	Nil
For PG Course			
M.Tech ECE	82.25	17.75	Nil

28. How many students have cleared national and state competitive examinations such as NET,SLET,GATE,Civil services,Defense services,etc.?

Competitive Exam.	No of student cleared
NET	0
SLET	0
GATE	9
CIVIL Services	0
DEFENSE	2
CAT	2

29. Student progression

Student progression	Against%enrolled
UG to PG	12.28
PG to M.Phil.	Nil
PG to Ph.D.	3
Ph.D. to Post-Doctoral	Nil

Employed	
● Campusselection	11
● Other than campus recruitment	3
Entrepreneurship/Self-employment	Nil

30. Details of Infrastructural facilities

a) Library

b) Internet facilities for Staff & Students

c) Class rooms with ICT facility d) Laboratories

Library :-	Department has one separate library consisting of 150 books , Projects reports , Training reports and Thesis reports of PG students apart from central Library . In department Library have been provided facility of internet access for accessing Journals like IEEE, Science Direct etc.			
Internet Facilities :-	Department has sufficient internet facility with 80 access points in different locations apart from the Wi-Fi facility is available in all over campus			
Laboratories :-	All Labs of ECE Department are well equipped with state of the art infra structural facilities like Multimedia Projectors , Electronic Podiums and Internet accessibility			
(A) DEPARTMENTAL LABS				
Sr. No.	Name of the Course	Name of the laboratory / workshop	Total Area of lab/workshop (Sq. m.)	Major Equipment
1.	B.Tech ECE	AIC/Linear Integrated & Circuit Lab	102	Integrated Circuits Kits, CROs, Function generators, Power Supplies, DMMs
2.	B.Tech ECE	NED/EDC Lab	102	Basic Electronics Kits, CROs, Function generators, Power Supplies, DMMs, DSO
3	B.Tech ECE	Microwave Lab	102	Microwave Trainers, Klystron & Gun Diode based

4	B.Tech ECE	Microprocessor/ Microcontroller Lab	102	Basic Educational Microprocessor Kits (8085 & 8086),Universal Programmer,a wide range of Interface Cards,Microcontrolle r kits,PIC ,AVR & ARM7 Microcintrollers,Micr ocontroller Programme H/W Tools
5	B.Tech ECE	Analog & Digital Communication Lab	102	Communication Trainers,CROs, Function Generators,Digital Storage Oscilloscopes, Audio Frequency Generators , DSO 's
6	B.Tech & M Tech (ECE)	VLSI/ DSP Lab	102	30,IBM,-IV Computers,Software: COMMSIM, PSPICE 9.1, MATLAB- R2006a, Active HDL 6.3 PE.Tanner Tool, Xilinx Software , Lab View software , ansoft HFSS Software
7	B.Tech ECE	Digital Electronics / DCLD lab	102	Digital Electronics Trainer like as ,FF Trainers, Adders, MUX, DEMUX, ALU, ENcoders, Decoders Tainers,CRO

31. Number of students receiving financial assistance from college, university, government or other agencies

Sr. No.	Programme	No. of Students
1	UG	56
2	PG	32

32. Details on student enrichment Programmes (speciallectures/ workshops/ seminar) with external experts

Sr.	Title/Field	Date	Name of Industry
1	Expert Lecture on "Embedded Systems Design & Development"	08-09 Aug. 2013	RAD Innovations, Mohali
2	Expert Lecture on "Training and Placement Guidance"	13 Aug.. 2013	E2matrix, Phagwara
3	Workshop on Robotics	25-28 Oct., 2013	Advance Technology, Chandigarh
4	Expert Lecture on Cloud Computing	9/4/14	Icon Software Technology, Ludhiana
5	Expert Lecture on Telecommunications	2/4/14	Rawelcom Services Pvt. Ltd., Delhi

33. Teaching methods adopted to improve student learning

- a) Lecture delivering with in depth-discussion
- b) Class Quizzes
- c) Tutorials
- d) Assignments
- e) Mid Semester Tests (MSTs)
- f) Demonstration (Projects designing & Lab work)
- g) Presentations
- h) Expert Lectures from Outside world

34. Participation in Institutional Social Responsibility(ISR) and Extension activities: Nil

35. SWOC analysis of the department and Future plans

Strength

1. Well strength qualified & research oriented faculty
2. Furnished and advance facility equipped labs
3. Active Training & placement cell
4. Active counseling & Mentoring system in the department
5. Active technical society "SELCOME" for overall development of students
6. MoUs with MNCs companies

Weaknesses

3. Rural and Border area
4. Student exchange programs in eminent national and international universities/industries

Opportunities

3. Collaboration with eminent national and international universities/industries for institutional industries and placements
4. Collaboration with eminent national and international research labs/industries to make career in research industry

Challenges

3. Average academic-background students from rural and border areas
4. Designing of curriculum according to industry needs

Evaluative Report of Electrical Engineering Department

1. Name of the department *Electrical Engineering*
2. Year of Establishment *2003*
3. Names of Programmes/Courses offered(UG,PG,M.Phil.,Ph.D.,Integrated Masters;Integrated Ph.D.,etc.)

B.Tech in Electrical Engineering

4. Names of Interdisciplinary courses and the departments/units involved

Sr No.	Name of Interdisciplinary courses	Subject / Course Code	Departments/Units involved
1.	Engineering Physics	BTPH101	Deptt. of Science and humanities(DASH)
2.	Engineering Mathematics-I	BTAM101	Deptt. of Science and humanities(DASH)
3.	Communicative English	BTHU101	Deptt. of Science and humanities(DASH)
4.	Human Values and Professional Ethics	HVPE101	Deptt. of Science and humanities(DASH)
5.	Engg.Drawing	BTME 102	Depart. Mech Engg
6.	Engg. Computer Graphics	BTME 103	
7.	Manufacturing Practice	BTMP101	Central Workshop
8.	Engineering Chemistry	BTCH 101	Deptt. of Science and humanities(DASH)
9.	Engineering Mathematics-II	BTAM102	Deptt. of Science and humanities(DASH)
10.	Fundamentals of Computer Programming and IT	BTCS 101	Comp. Engg. Deptt.
11.	Environmental Science	EVSC 101	Deptt. of Science and humanities(DASH)
12.	Communicative English lab	BTHU102	Deptt. of Science and humanities(DASH)
13.	Digital Electronics	BTEE 404	Dept.of Electronics and Com. Engg.
14.	Electronics Circuits Lab	BTEE 409	Dept.of Electronics and Com. Engg.
15.	Mathematics –III	BTAM-301	Deptt. of Science and humanities(DASH)
16.	HRM	BTHU-606	Deptt. of Science and humanities(DASH)

5. Annual/semester/choice based credit system (programmewise) *Semester System*
6. Participation of the department in the courses offered by other departments

Basic Electrical and Electronics Engineering *BTEE101*
 Basic Electrical and Electronics Engineering lab *BTEE102*

7. Courses in collaboration with other universities, industries, foreign institutions, etc.

NIL

8. Details of courses/programmes discontinued (if any)with reasons *NIL*

9. Numberof Teachingposts

	Sanctioned	Filled
Professors	1	0
AssociateProfessors	2	1
Asst.Professors	10	7
Lecturers	0	05 Against the vacancies of Professor-01 Asso. Prof.-01 Asstt. Prof=03

10. Faculty profile with name, qualification, designation, specialization ,(D.Sc./D.Litt. /Ph.D./M.Phil.etc.,)

Sr. No.	Name	Qualification	Designation	Specialization	No.ofYears of Experience	No.ofPh.D. Students guidedforthe last4years
1.	Dr. Kultar Deep Singh	PhD	Associate Professor	Power System	8yrs	3 students regist.
2.	Mrs. Navneet Kaur	M.Tech	Assistant Professor	Power System	13yrs	-

3.	Ms. Anupam Mittal	M.Tech	Assistant Professor	Power System	9 yrs	-
4.	Mrs. Maninder	M.Tech	Assistant Professor	Power System	1yr.+9 month	-
5.	Mr. Harinderpal Singh	PhD (Pursuing)	Assistant Professor	Power System	3yrs 8 months	-
6.	Mr. Shanky Goyal	M.Tech	Assistant Professor	ECE	1yrs 2 months	-
7.	Mr. Inderjeet Singh Sandhu	M.Tech	Assistant Professor	Power System	1yrs10 months	-
8.	Mr. Vishal Puri	PhD (Pursuing)	Assistant Professor	EEE	2yrs	-
9.	Mr. Amandeep Singh	M. Tech.	Lecturer	Power System	2yr	-
10.	Mr. Shammi Bahel	M.Tech (pursuing)	Lecturer		2yrs 6 months	-
11.	Mr. Sandeep Kumar	B.Tech	Lecturer		2yrs	-
12.	Mr. Major Singh	M.Tech (pursuing)	Lecturer		3 yrs 2 months	-
13.	Ms. Nisha	B.Tech	Lecturer			-

11. List of senior visiting faculty: *NIL*

12. Percentage of lectures delivered and practical classes handled (programmewise)
By temporary faculty: 68%

13. Student-Teacher Ratio (programme wise)

According to 1:15 (given by AICTE)

Total no. of sanctioned strength of 2nd, 3rd and 4th year= 180

STR= 180/15 = 12

14. Number of academics up port staff (technical) and administrative staff; sanctioned and filled : *Seven*

15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.

Sr. No.	Name	Qualification	Designation	Specialization	No.ofYears of Experience	No.ofPh.D. Students guidedforthe last4years
14.	Dr. Kultar Deep Singh	PhD	Associate Professor	Power System	8yrs	3 students regist.
15.	Mrs. Navneet Kaur	M.Tech	Assistant Professor	Power System	13yrs	-
16.	Ms. Anupam Mittal	M.Tech	Assistant Professor	Power System	9 yrs	-
17.	Mrs. Maninder	M.Tech	Assistant Professor	Power System	1yr.+9 month	-
18.	Mr. Harinderpal Singh	PhD (Pursuing)	Assistant Professor	Power System	3yrs 8 months	-
19.	Mr. Shanky Goyal	M.Tech	Assistant Professor	ECE	1yrs 2 months	-
20.	Mr. Inderjeet Singh Sandhu	M.Tech	Assistant Professor	Power System	1yrs10 months	-
21.	Mr. Vishal Puri	PhD (Pursuing)	Assistant Professor	EEE	2yrs	-
22.	Mr. Amandeep Singh	M. Tech.	Lecturer	Power System	2yr	-
23.	Mr. Shammi Bahel	M.Tech (pursuing)	Lecturer		2yrs 6 months	-
24.	Mr. Sandeep Kumar	B.Tech	Lecturer		2yrs	-
25.	Mr. Major Singh	M.Tech (pursuing)	Lecturer		3 yrs 2 months	-
26.	Ms. Nisha	B.Tech	Lecturer			-

16. Number of faculty with on going projects from a) National b) International funding agencies and grants received

NIL

17. Departmental projects funded by DST-FIST;UGC, DBT, ICSSR,etc.and total grants received: *NIL*

18. Research Centre/ facility recognized by the University: *NIL*

19. Publications:

Faculty Name: Dr. Kultar Deep Singh

- Kultar Deep Singh and Smarajit Ghosh, "A new efficient method for load flow solution of radial distribution networks", *Przegląd Elektrotechniczny (Electrical Review)*, Vol.12a, pp 66-73, 2011.
- Kultar Deep Singh and Smarajit Ghosh, "Voltage Stability index and line loadability index for radial power distribution networks", *International review of Electrical engineering (IREE)*, Vol.6, No.7, pp-3111-3121, 2011.

Faculty Name: Ms. Anupam Mittal

- Anupam Mittal, Divya Gupta and Rajni, "Genetic algorithm based economic load dispatch solution", *ISPJEE*, ISSN 2250-0537, Vol.1, Issue 1, 2011.
- Anupam Mittal and Divya Gupta, "Comparison of optimization techniques to solve economic load dispatch problem", accepted for presentation and Publication in National Conference on Recent Advancements & Innovations in Science and Engineering (RAISE 2012), to be held at Guru Ramdas Institute of Engineering and Technology, Bathinda, Punjab, India, 2012.

Faculty Name: Mrs. Maninder

- Maninder, Kathuria R. S. and Grover S. "Using agricultural residues as a biomass briquetting: an alternative source of energy", *IOSR Journal of Electrical and Electronics Engineering (IOSRJEEE)*, Volume 1, Issue 5, pp 11-15, ISSN: 2278-1676, 2012, Impact factor: 1.45
- Sonia Grover, Rupinderjit Singh Kathuria and Maninder Kaur, "Energy Values and Technologies for Non woody Biomass: as a clean source of Energy", *IOSR Journal of Electrical and Electronics Engineering (IOSRJEEE)*, Volume 1, Issue 1, pp. 10-14, ISSN : 2278-1676, 2012, Impact factor: 1.45.
- Maninder, Inderjeet Singh Sandhu, "Radius wise Analysis of Biomass for Power Generation in Punjab State", *International Journal of Engineering Research & Technology (IJERT)* Vol. 2 Issue 7, July – 2013, ISSN: 2278-0181, pp. 2163-2167, Impact Factor: 1.76.
- Inderjeet Singh Sandhu, Maninder, " Analysis of losses in power system and its economic consequences in power sector" , *International Journal of Enhanced Research in Science Technology & Engineering*, ISSN: 2319-7463 Vol. 2 Issue 7, July-2013, pp: (90-98), Impact Factor: 1.25.
- Inderjeet Singh Sandhu , Rupinderjit Singh Kathuria , Maninder, "Maximization of Revenue Generation by Analysis of Losses in Distribution System Using Matlab Simulation" , *International Journal of Engineering Research & Technology (IJERT)* Vol. 2 Issue 9, September – 2013, ISSN: 2278-0181, pp. 2113-2118, Impact Factor: 1.76.

Faculty Name: Mr. Harinderpal Singh

- International Conference: H.P. Singh, Y.S. Brar, D.P. Kothari, “ Multiobjective load dispatch using particle swarm optimization, ” Proceeding of 8th IEEE conference on Industrial Electronics and Application(ICIEA2013), Melbourne, VIC, Australia, pp. 272-277, 2013
- International Conference: H.P. Singh, Y.S. Brar, D.P. Kothari, “ Combined active and Reactive power dispatch using particle swarm optimization, ” Proceedings of Informing Science & IT Education Conference (InSITE), Wollongong, NSW, Australia, pp. 295-304, 2014
- International Journal: A. Kaur, H.P Singh, A. Bharadwaj, “Analysis of Economic Load Dispatch Using Genetic Algorithm, ” International Journal of Application or Innovation in Engineering & Management (IJAIEM),Vol.3.(3), pp. 240-246, 2014

Faculty Name: Mr. Inderjeet Singh

- Inderjeet Singh Sandhu, Maninder, “ Analysis of losses in power system and its economic consequences in power sector” ,International Journal of Enhanced Research in Science Technology & Engineering, ISSN: 2319-7463 Vol. 2 Issue 7, July-2013, pp: (90-98), Impact Factor: 1.25.
- Inderjeet Singh Sandhu , Rupinderjit Singh Kathuria , Maninder, “Maximization of Revenue Generation by Analysis of Losses in Distribution System Using Matlab Simulation” , International Journal of Engineering Research & Technology (IJERT) Vol. 2 Issue 9, September – 2013, ISSN: 2278-0181, pp. 2113-2118, Impact Factor:1.76.
- Maninder, Inderjeet Singh Sandhu, “Radius wise Analysis of Biomass for Power Generation in Punjab State”, International Journal of Engineering Research & Technology (IJERT) Vol. 2 Issue 7, July – 2013, ISSN: 2278-0181, pp. 2163-2167, Impact Factor:1.76.

Faculty Name: Mr. Shanky Goyal

- Low Leakage Multi Threshold Level Shifter Design using Sleepy Keeper.D.O.I 10.5120/12671-9038
- Design of Low Leakage Multi Threshold (Vth) CMOS Level Shifter DOI: 10.11591/ijece.v3i5.3166

Faculty Name: Mr. Shammi Bahel

- QOS Estimation of IEEE 802.3 under the Influence of IntraDomain Routing Protocols. Volume 4 Number 2 September 2013 pp.1-7 ISSN-0973-7391

Faculty Name: Mr. Vishal Puri

- Performance analysis matched filter and MMSE filter Volume 2 • Number 2 IRACST 2012

Faculty Name: Ms. Manpreet Kaur

- Harnessing solar energy technologies: Basic review

Total no. of papers published in national/international journals by faculty and students = 20

20. *Areas of consultancy and income generated NIL*

21. *Faculty as members in* a) National committees b) International Committees c) Editorial Boards.... *NIL*

22. *Student projects*

a) Percentage of students who have done in-house projects including inter departmental/ programme *100%*

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories / Industry/ other agencies *100%*

23. *Awards/ Recognitions received by faculty and students*

1. Third Prize at 17th Science Congress Punjab 2014, Organized by PTU Jalandhar. 13th -15th Feb. 2014

Participants

Mr. Manish Kumar Sharma

Miss Sarita Kumari

2. First Prize at ISTE Project Expo 2014 , Organized by SBSSTC Ferozepur.

4-7 March 2014

Participants

Mr. Manish Kumar Sharma

Miss Sarita Kumari

Mr Turan

3. First Prize at VYOM Tech Maha Utsav Organized by Punjab Engineering College Chandigarh.

21-23 March 2014.

Participants

Mr. Manish Kumar Sharma

Mr Turan

Mr.Roshan kumar

4. ISTE best project award 2014 (Northren Region)

Mr Manish Kumar Sharma

24. *List of eminent academicians and scientists/ visitors to the department*

Mr. Jon Borkent in Aug.2013

25. *Seminars/Conferences/Workshops organized & the source of funding* a) National

Workshop

Sr.No	Name	Organized by	Organized for	Dates	Funding
1	Microcontroller and PLC	Electrical Engg Dept with Advance tech Chandigarh	Batch 2011 (EED)	2/04/14 to 4/04/14	TEQIP II

FDP

Sr.No	Name	Organized by	Organized for	Dates	Funding
1	PLC	Electrical Engg Dept with IATC Siemens Chandigarh	Faculty of Electrical and Electronics Engg	2/09/13 to 6/08/13	TEQIP II
2	Moelling and simulation in Advanced Matlab Enviroment	Electrical Engg Dept with Mathworks through Design Tech Jalandhar	All the faculty members of Engg colleges	25/11/13 to 29/11/13	TEQIP II

Industrial visit

Sr.No	Organized by	Name of industry with address	Organized for	Dates	Funding
1	Electrical Engg Dept	IATC SIEMENS, PKL	Students batch 2010-2014	20/09/13	TEQIP II (IIIC)
2	Electrical Engg Dept	IATC SIEMENS, PKL	Students batch 2011-2015	28/10/13	TEQIP II (IIIC)
3	Electrical Engg Dept	220KV SUBSTATION FZR CANT	Students batch 2011-2015	28/01/14	NIL
4	Electrical Engg Dept	ADVANCE TECH CHANDIGARH	Students batch 2012-2014	24/03/14	TEQIP II

b) International Conference

Sr.No	Name	Organized by	Organized for	Dates	Funding
1	International Conference on Communication Computing & Systems (ICCCS)	Department of Electrical Engineering, Department of Electronics & Communication Engg. and Department of Computer Sc.& Engg.		8 th – 9 th August 2014	TEQIP II

26. Student profile programme /coursewise:

Name of the Course/ Programme(refer question no.4)	Applications received	Selected	Enrolled		Pass percentage
			M	F	
B-Tech 2011		74	61	13	39
B-Tech 2012		73	67	6	22
B-Tech 2013		76	72	4	21
B-Tech 2014		62	53	9	

*M=Male *F=Female

27. Diversity of Students

Name of the course	% of students from the same state	% of students from other states	% of students from abroad
B-Tech 2011	55%	45%	NIL
B-Tech 2012	73%	27%	NIL
B-Tech 2013	57%	43%	NIL
B-Tech 2014	42%	58%	NIL

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Gate

Name	Roll No.	Batch	Selection
Shama Bansal	90660518354	2009-2013	M.tech at Punjab University Chandigarh

Defense services

Name	Roll No.	Batch	Selection
Inderpreet Kaur	80406109033	2008-2012	Selection in Air force through SSB

29. Student progression

Student progression	Against % enrolled 2013 pass out batch
UG to PG	7/73 (Batch 2013 pass out)
PG to M.Phil.	
PG to Ph.D.	
Ph.D. to Post-Doctoral	
Employed <ul style="list-style-type: none"> ● Campus selection ● Other than campus recruitment 	Campus Selection-3 Other than campus recruitment-16
Entrepreneurship/Self-employment	

30. Details of Infrastructural facilities

a) Library

Under development

b) Internet facilities for Staff & Students

Yes, Internet facility is there in labs and faculty rooms. And whole Campus is Wi-Fi.

c) Class rooms with ICT facility Two

A106, A107

d) Laboratories

Name of Lab.	Major Equipments
Machine I Lab	<p>Transformer :1-phase,2KVA Transformer :1-phase,3KVA 440/220V Auto Transformer :1-phase,input 230 output 270V,15A DC Shunt Motor Gen. Set :3HP ,220V 1500rpm DC Shunt Motor: 3HP,1500rpm 220V, complete setup DC Series Motor: 3HP, 1500rpm 220V with pony brake loading arrangement complete setup with control panel. DC Compound. Motor :3HP, 1500rpm 220V with pony brake loading arrangement complete setup with control panel. DC Motor Starter : 2 point, 3 point, 4 point DC Power Supply. DC Regulated Power supply 20 KW</p>
Machine II Lab	<p>Induction Motor: 3-phase 415V, 5HP 1440rpm with loading arrangement Kramer Control Slip ring Motor flexible coupled to DC shunt Gen 3-phase 5HP phase wound 415V GEN.-2,2 KW,230V Starter(a)Auto Transformer starter 3phase 415V b) Star-Delta Starter-: 3Phase 415V c) Direct On Line Starter-: 3Phase 415V Slipring Motor: 3 Phase 415V 1440 rpm Single Phase Induction Motor: Single Phase induction motor capacitor start 230v, 1420rpm, 50Hz, 1.0HP, supplied with DOL starter. 3Phase Alternator with dc moter set</p>
Electrical Measurement lab	<p>CRO Function Generator Anderson Bridge Wein Bridge Potentiometer LVDT Function Generator LCR-Q meter Kelvin Bridge Stepper Motor</p>
Control and instrumentation Lab	<p>AC Position Servo System Pressure Transducer Electromagnetic Transducer PID Controller DC Position control Servo System</p>

	<u>Compensating Design</u> <u>Synchro Transmitter Receiver pair</u> <u>Capacitive Transducer</u> <u>RTD Sensor</u> <u>LDR</u> <u>Photo Cell</u>
Power Electronics lab	<u>Micro Processor Based Firing control kit</u> <u>Jones Chopper kit</u> <u>SCR</u> <u>UJT</u> <u>Series Inverter</u> <u>Single phase cyclo- conerter</u> <u>Power Electronics Trainer</u>
Basic Electrical and Electronic Lab	<u>Energy Meter</u> <u>Wattmeter</u> <u>Frequency Meter</u> <u>Variac</u> <u>Power Factor Meter</u> <u>Rheostat</u> <u>Voltmeter</u> <u>Ammeter</u> <u>Inducatnce</u> <u>Capacitor</u> <u>Meggar</u>
Computer lab (CAPSA Lab, PSD lab, MATLAB)	<u>Computer System</u> <u>UPS 5Kva</u> <u>LCD Computer projector & Screen</u> <u>Computer Chairs</u> <u>Printer Lazer</u> <u>Dotmatrix Printer wipro 1070 LQ</u> <u>MATLAB Software R 2012 B</u> <u>Etap Software</u> <u>Projector</u> <u>Screen</u> <u>Air Conditioners 2ton With Stablizer</u>

31. *Number of students receiving financial assistance from college, university, Government or other agencies*

Category	No of receiving assistance
SC/ ST Students	35
Economically weaker Students	11
Exigency Student	2
Bihar Scholarship Students	18
Sikh minority Students	4

Student Aid Found Students	4
Total	74

32. Details on student enrichment programmes (special lectures/workshops/seminar)with external experts

Sr.No	Organized by	Name of industry with address	Organized for	Dates	Funding
1	Electrical Engg Dept	Nestle India Ltd Moga (Ms. Rupika HR manager)	Students batch 2010-2014	12/08/13	TEQIP II (IIC)
2	Electrical Engg Dept	Nestle India Ltd Moga (Mr. Mandip Singh Asstt. Manager Electrical)	Students batch 2010-2014	14/10/13	TEQIP II (IIC)

33. Teaching methods adopted to improve student learning

- i) Video lectures*
- ii) EDUSAT Lectures*
- iii) PPT*
- iv) Seminar*
- v) Industrial Visits*

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

NIL

35. SWOC analysis of the department and Future plans

Swot analysis of Electrical Engineering Department

Strengths

1. Qualified and dedicated faculty and staff.
2. Good team spirit in the department.
3. State of art labs.
4. Good infrastructure
5. Good quality of students.

Weaknesses

1. More permanent faculty members required.
2. Camus placements are less.

Opportunities

1. M. Tech. Programme can be started.

Challenges

1. Placement scenario is not good due to recession.
2. Admission scenario is not good due to mushrooming of private engineering colleges.

Future targets.

- To start M. Tech. programme in Power system Engineering
- To fetch grant from AICTE/DST/PTU for R & D activities
- To strengthen departmental library facility
- To encourage faculty to achieve higher qualification
- Develop interdisciplinary research activities
- Maintaining and utilizing better contact to our alumni to improve placements
- To focus more on campus placements

Evaluative Report Of MECHANICAL ENGINEERING Department

1. **Name of the department :**MECHANICAL ENGINEERING
2. **Year of Establishment :** 1995
3. **Names of Programmes/Courses offered(UG,PG,M.Phil.,Ph.D.,Integrated Masters; IntegratedPh.D.,etc.) :** UG – BTech (Mechanical) & PG- MTech (Mechanical)
4. **Names of Inter disciplinary courses and the departments/units involved:**

Sr No.	Name of Interdisciplinary courses	Subject / Course Code	Departments/Units involved
01	Engineering Physics	BTPH101	Deptt. of Science and humanities(DASH)
02	Engineering Mathematics-I	BTAM101	Deptt. of Science and humanities(DASH)
03	Communicative English	BTHU101	Deptt. of Science and humanities(DASH)
04	Basic Electrical and Electronics Engineering	BTEE 101	Electrical Engg Deptt
05	Human Values and Professional Ethics	HVPE101	Deptt. of Science and humanities(DASH)
06	Manufacturing Practice	BTMP101	Central Workshop
07	Engineering Chemistry	BTCH 101	Deptt. of Science and humanities(DASH)
08	Engineering Mathematics-I	BTAM101	Deptt. of Science and humanities(DASH)
09	Fundamentals of Computer Programming and IT	BTCS 101	Comp. Engg. Deptt.
10	Environmental Science	EVSC 101	Deptt. of Science and humanities(DASH)
11	Engineering Mathematics-II	BTAM102	Deptt. of Science and humanities(DASH)
12	Mathematics -III	BTAM-500	Deptt. of Science and humanities(DASH)
13	HRM	HU-252/HU251/DE13/ME25	Deptt. of Science and humanities(DASH)
14	Total Quality Management	DE/ME2.5	Mech. Engg. Deptt.

5. **Annual/semester/choicebasedcreditsystem(programmewise):**
SEMESTER SYSTEM
6. **Participation of the department in the courses offered by other departments**

Sr No	Courses offered by other departments	Name of the department
01	Strength of Materials- I	Civil, Chemical
02	Total Quality Management	ECE, Chemical

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.** NIL

8. Details of courses / programmes discontinued (if any) with reasons
NIL

9. Number of Teaching posts

	Sanctioned	Filled
Professors	03	01
Associate Professors	06	14
Asst. Professors	21	15

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D./M.Phil.etc.,)

Name of the faculty	Qualification,	Designation and date of joining the institution	Area of Specialization	Teaching Experience	Industrial Experience	PhD Guided (Last 4 Yrs)
Dr. T.S. Sidhu	Ph.D Mechanical Engg, M.Tech Mechanical Engg B.Tech, ME MBA	Professor, 10.12.1996	Material Engg	24	nil	03

Dr. M. K. Kushwaha	Ph.D, Tribology of Nano structured composite, M.Tech-Engg Materials B.Tech, ME	Associate Professor 17.08.1995	Tribology of nano structured composite, Engg materials	24	5.5	
Mr.Nripjit Singh	Ph.D Mechanical Engg, M.Tech Production Engg B.Tech, PE	Associate Professor 30.05.1995	Composite materials and Production	19	nil	
Dr.A. K. Asati	Ph.D Thermal Engg.	Associate Professor 30.06.1995	Thermal engineering	21.5	1.5	
Dr.N. K. Grover	Ph.D.-ME M.Tech-Rotodynamic Engg B.Tech-ME	Associate Professor 16.07.1996	Thermal engineering, modelling and simulation	18.0	1.0	
Dr. Rakesh Sharma	Ph.D.-ME&IE M.Tech-ME B.Tech-ME&PE	Associate Professor 22-06-1996	CAD/CAM/CIMS and Production Engineering	18	NIL	
Dr. Tejeet Singh	Ph.D-ME M.Tech-IE B.Tech-IE	Associate Professor 25-07-1997	Machine Design and Industrial Engg	17	NIL	
Mr. Sukhwant Singh	B.E.- Production Engg	Associate Professor 05-07-1996	----	18	NIL	
Mr. Vivek Sood	B.Tech-IE	Associate Professor 25.06.1996	----	18	NIL	
Mrs. Vaishali Goyal	M.Tech-ME&PE B.Tech-PE	Associate Professor 31.07.1997	Production Engg	17	3	
Mr. Gazal Preet Singh	M.Tech-IE B.Tech-IE	Associate Professor 01.09.1998	Industrial Engg	16	1	
Dr. Rajbir Singh Bhatti	Ph.D-ME M.Tech-IE B.Tech-IE	Associate Professor 07-09-1998	Industrial Engg and Supply chain optimization	15.5	NIL	
Mr. Manjinder Singh	PhD- Industrial& PE M.Tech-IE B.Tech-IE	Associate Professor 01.09.1998	Industrial Engg	15	NIL	

Mr. Ravinder Pal Singh	PhD-Persuing M.Tech-PE B.Tech-ME	Associate Professor 28.08.1998	Production Engineering	16	NIL	
Mr. J.K. Aggarwal	PhD-Persuing M.Tech-ME&PE B.Tech-PE	Associate Professor 15.04.1997	Production Engineering	17.5	7	
Mr. Munish Kumar	M.Tech-ME B.Tech-PE	Assistant Professor 19.10.2001	Mechanical Engg.	12.5	NIL	
Mr. D.P. Kashyap	M.Tech-ME B.Tech-PE	Assistant Professor 24.08.2004	Mechanical Engg.	14	1	
Mr. Gurnam Singh	M.Tech-PE B.Tech-ME	Assistant Professor 02.09.2004	Production Engg.	14	NIL	
Mr. JwalaParshad	PhD-Persuing M.Tech-PE B.Tech-ME	Assistant Professor 14.01.2011	Production Engg.	15	1.5	
Mr. Sukhjinder Singh	PhD-Persuing M.Tech-PE B.Tech-ME	Assistant Professor 16.12.2010	Production Engg.	5.5	NIL	
Mr. Veerpai Soi	M.Tech-Persuing B.Tech-PE	Assistant Professor	---	5.5	5.0	
Nitin Kapoor	M.Tech-ME B.Tech-ME	Assistant Professor	---	1.0	NIL	
Navjotpal Singh	M.Tech-ME B.Tech-ME	Assistant Professor	---	7 month	NIL	
Jaspreet Singh Mann	M.Tech-ME B.Tech-ME	Assistant Professor	---	1 month	NIL	
Hitesh Uppal	M.Tech-Persueing B.Tech-ME	Assistant Professor	---	1 yr 1month	NIL	
Mukesh Kumar	B.Tech-ME	Assistant Professor	---	1 yr 1month	NIL	
Jaskaran Singh	B.Tech-ME	Assistant Professor	---	1 month	NIL	
Ritika	B.Tech-CHE	Assistant Professor	---	1 month	NIL	

11. List of senior visiting faculty : NIL

12. Percentage of lectures delivered and practical classes handled (programmewise)

By temporary faculty :

Percentage of lectures = 36

Percentage of practicals = 45

13. Student-Teacher Ratio(programmewise)

$$\text{STR} = (x + y + z)/N1$$

Where x = Number of students in 2nd year of the program

y = Number of students in 3rd year of the program

z = Number of students in 4th year of the program

N1 = Total Number Faculty Members in the program (by considering fractional load)

Year	x	y	z	x+y+z	N1	STR	Assessment (Max. is 20)
2011-2012	155	143	106	404	16	25.25	11.88
2012-2013	150	155	143	448	18	24.89	12.05
2013-2014	151	150	155	456	21	21.71	13.82
Av. Assessment							12.58

14. Number of academic support staff (technical)and administrative staff; sanctioned and filled

	Sanctioned	Filled
Lab Supdt	01	01
Sr Tech	01	01
Tech Gr1	02	02
Jr Tech	01	01
Lab Att	02	02

Clerk	01	01
Peon	01	01

15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.

Name of the faculty	Qualification,	Designation and date of joining the institution	Area of Specialization	Teaching Experience	Industrial Experience	PhD Guided (Last 4 Yrs)
Dr. T.S. Sidhu	Ph.D Mechanical Engg, M.Tech Mechanical Engg B.Tech, ME MBA	Professor, 10.12.1996	Material Engg	24	nil	03
Dr. M. K. Kushwaha	Ph.D, Tribology of Nano structured composite, M.Tech-Engg Materials B.Tech, ME	Associate Professor 17.08.1995	Tribology of nano structured composite, Engg materials	24	5.5	
Mr.Nripjit Singh	Ph.D Mechanical Engg, M.Tech Production Engg B.Tech, PE	Associate Professor 30.05.1995	Composite materials and Production	19	nil	
Dr.A. K. Asati	Ph.D Thermal Engg.	Associate Professor 30.06.1995	Thermal engineering	21.5	1.5	
Dr.N. K. Grover	Ph.D.-ME M.Tech- Rotodynamic	Associate Professor 16.07.1996	Thermal engineering, modelling and	18.0	1.0	

	Engg B.Tech-ME		simulation			
Dr. Rakesh Sharma	Ph.D.-ME&IE M.Tech-ME B.Tech-ME&PE	Associate Professor 22-06-1996	CAD/CAM/CIMS and Production Engineering	18	NIL	
Dr. Tejeet Singh	Ph.D-ME M.Tech-IE B.Tech-IE	Associate Professor 25-07-1997	Machine Design and Industrial Engg	17	NIL	
Mrs. Vaishali Goyal	M.Tech-ME&PE B.Tech-PE	Associate Professor 31.07.1997	Production Engg	17	3	
Mr. Gazal Preet Singh	M.Tech-IE B.Tech-IE	Associate Professor 01.09.1998	Industrial Engg	16	1	
Dr. Rajbir Singh Bhatti	Ph.D-ME M.Tech-IE B.Tech-IE	Associate Professor 07-09-1998	Industrial Engg and Supply chain optimization	15.5	NIL	
Mr. Manjinder Singh	PhD-Industrial& PE M.Tech-IE B.Tech-IE	Associate Professor 01.09.1998	Industrial Engg	15	NIL	
Mr. Ravinder Pal Singh	PhD-Persuing M.Tech-PE B.Tech-ME	Associate Professor 28.08.1998	Production Engineering	16	NIL	
Mr. J.K. Aggarwal	PhD-Persuing M.Tech-ME&PE B.Tech-PE	Associate Professor 15.04.1997	Production Engineering	17.5	7	
Mr. Munish Kumar	M.Tech-ME B.Tech-PE	Assistant Professor 19.10.2001	Mechanical Engg.	12.5	NIL	
Mr. D.P. Kashyap	M.Tech-ME B.Tech-PE	Assistant Professor 24.08.2004	Mechanical Engg.	14	1	
Mr. Gurnam Singh	M.Tech-PE B.Tech-ME	Assistant Professor 02.09.2004	Production Engg.	14	NIL	
Mr. JwalaParshad	PhD-Persuing M.Tech-PE B.Tech-ME	Assistant Professor 14.01.2011	Production Engg.	15	1.5	
Mr. Sukhjinder Singh	PhD-Persuing M.Tech-PE B.Tech-ME	Assistant Professor 16.12.2010	Production Engg.	5.5	NIL	
Nitin Kapoor	M.Tech-ME B.Tech-ME	Assistant Professor	---	1.0	NIL	
Navjotpal Singh	M.Tech-ME B.Tech-ME	Assistant Professor	---	7 month	NIL	

Jaspreet Singh Mann	M.Tech-ME B.Tech-ME	Assistant Professor	---	1 month	NIL	
Mukesh Kumar	B.Tech-ME	Assistant Professor	---	1 yr 1month	NIL	
Jaskaran Singh	B.Tech-ME	Assistant Professor	---	1 month	NIL	
Ritika	B.Tech-CHE	Assistant Professor	---	1 month	NIL	

16. Number of faculty with on going projects from

a) National

Name of Project	Sponsorig authority	Project Coordinator	Scheme	Amount	Year of receiving	Current status
Total Turnaround strategy for loss making psu	AICTE	RS Bhatti	RPS Project	2.25 Lakhs	2012	In Progress
Paramatric Study of HVOF	AICTE	TS Sidhu	RPS Project	12.00 Lakhs	2008	In Process
Modernization of Material and Metallurgy Laboratory	AICTE	Dharmpal	MODROB Project	15 Lakhs	2008	In Progress

b) International :NIL

17. Departmental projects funded by DST-FIST;UGC, DBT, ICSSR,etc. and total grants received

Name of Project	Sponsorig authority	Project Coordinator	Scheme	Amount	Year of receiving	Current status
Total Turnaround strategy for loss making psu	AICTE	RS Bhatti	RPS Project	2.25 Lakhs	2012	In Progress
Modernization of CAD Lab	AICTE	NK Grover	MODROB project	11.00 Lakhs	2012	Completed in 2013
Paramatric Study of HVOF	AICTE	TS Sidhu	RPS Project	12.00 Lakhs	2008	In Process
Modernization of Material and Metallurgy Laboratory	AICTE	Dharmpal	MODROB Project	15 Lakhs	2008	In Progress
Modernization of Foundry and	AICTE	NM Suri	MODROB	11.00	2005	Completed in 2007

Dr. Tejeet Singh	27	10	9				978-3-659-35725-1 978-3-659-16474-3 978-3-659-20346-6	3			0.5 to 2.5	
Mrs. Vaishali Goyal	08	04										
Mr. Gazal Preet Singh	10											
Dr. Rajbir Singh Bhatti	25											
Mr. Manjinder Singh	09	02										
Mr. Ravinder Pal Singh	02											
Mr. J.K. Aggarwal	02											
Mr. Jwala Parshad	10	2		1 978-3-8465-8118-6 Lambert academy publisher, germany								
Mr. Sukhjinder Singh	02											
Mr. Veerpal Soi	02	02										
Nitin Kapoor	---						978-3-659-35725-1 Lambert academy publisher, germany					

20. Areas of consultancy and income generated: NIL

21. Faculty as members in

DR T S Sidhu

a) National committees

(i) Member of ISTE Section anagement Committee (Pb, HP, Chd, J&K Section) 2003-2004

(ii) Life Member of ISTE (No. LM 17941)

b) International Committees

Member, The Research Board of Advisors, The American Biographical Institute, since 2003.

c) Editorial Boards

a) Surface and Coating Technology (Elsevier)

b) Journal of Materials Research

c) Journal of the American Ceramic Society

d) Wear (Elsevier)

e) Scripta Materialia

f) Corrosion Science,

g) Int. Journal of Physical Sciences.

h) Crystal Growth & Design

22. Student projects- DR Asati

a) Percentage of students who haved one in-house projects including inter departmental/programme

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ otheragencies

23. Awards/Recognitions received by faculty and students

DR T S Sidhu

(i) NACE International India Section has awarded “Best Ph.D.Award”, along with a citation and cash award of Rs. 5000 for meritorious contributions in the field of corrosion sciences.

(ii) Got ‘Student Award’ to attend the “International Conference on Surfaces, Coatings and Nanostructured Materials” held at University of Aveiro, Portugal, on 6-9 September 2005.

(iii) Got appreciation letter from IIT Roorkee for submitting Ph.D. thesis in a record time of 02 years and 04 months, with record number of publications i.e. 18 research papers in international referred journals of repute and 07 research papers in international conferences out of Ph.D. thesis.

(iv) One papers titled “Hot Corrosion of Some Superalloys and role of High-Velocity Oxy-Fuel Spray Coating-A Review, has been rated at 6th position among the top 25 papers of the international journal “Surf. Coat. Technol.” (Elsevier).

(v) Got rare distinction of publication of ‘Bio-data’ in the American Journal “Journal of Thermal

Spray Technology” Vol. 15(3), pp. 320-322, under the column ‘Meet Our New Colleague’. This column of the journal presents selected currently graduating Ph.D. students in the thermal spray field around the world.

Mr Gazalpreet

1 Best Teacher Award given by Lion Club Ashirwad, Ferozepur & AGREED Foundation Ferozepur in Sept2013

2. Awarded by District Administration Ferozepur on 15th August (Independence Day Celebrations) in recognition of services rendered under SVEEP project of election commission of India for Voters awareness campaign in college like, painting competition, Human chain, Debate, Workshop, signature campaign ,slogan writing competition.

3 Award given by Shaheed Bhagat singh , Sukhdev and Rajguru memorial society.

24. List of eminent academicians and scientists/visitors to the department

Name Of Person	Designation & Visited From
Mr Ajay Kumar	Drish India Ltd , Jalandhar
Mr Lovneet Vohra	GS Auto Ltd , Ludhiana
Mr Vishal Mahajan	Gabrial India Ltd, Gurgaon
Dr Gurvinder Singh	Inetrnational Tractors Ltd , Hoshiarpur
Mr A K Singh	Hero Cycles Ltd Ludhiana
Dr Satya Parkash	Professor, IIT Roorkee
Mr Rasik Gupta	Boston Consultancy Services USA
Mr Yogesh Kalia	Medhaavi Enterprises Chandigarh
Mr R C Chopra	Retd Director, MSME
Dr S K Dhamija	Head, EDC, NITTTR Chandigarh
Dr Sunil Dutt	Professor, NITTTR, Chandigarh
Dr Anjan Sil	Professor, IIT Roorkee

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National

S N o	Topic/Title	Date/Year	Source of Funding
1	Role of Communication, Motivation and Team- Building in Enhancing the Performance of Teachers	25 May '2013	TEQIP-II
2	Workshop on Mechatronics by Medhavi Industries, Chandigarh	19.3.2013 to 20.3.2013.	TEQIP-II
3	Workshop on Solidworks by CAD Center Bathinda.		TEQIP-II
4	National Conference on Advances In Manufacturing Systems	5-6 Sept'2014	TEQIP-AICTE-ISTE

26. Student profile programme/coursewise:

Session Jan-Jun 2014:

Name of the Course/ Programme(as per question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			Male	Female	
Engineering Physics	114	106	114	--	93
Engineering Mathematics-II	111	93	11	--	84
Communicative English	114	102	114	--	89
Basic Electrical and Electronics Engineering	114	113	114	--	99
Human Values and Professional Ethics	114	113	114	--	99
Manufacturing Practice	114	114	114	--	100
HRM	145	141	145	--	97

Session June-Dec 2014:

Name of the Course/ Programme(as per question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			Male	Female	
Engineering Mathematics-I	112	82	112	--	73
Engineering Chemistry	108	53	108	--	49
Fundamentals of Computer Programming and IT	109	66	109	--	61
Environmental Science	95	77	95	--	81
Mathematics -III	132	85	132	--	65

*M=Male *F=Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
Batch 2011	68.9	31.1	0
Batch 2012	81.4	18.6	0
Batch 2013	68	32	0
Batch 2014	46.3	53.7	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Sr No	Name of the Student	Univ Roll No	Batch (Passing out Year)	Name of the Degree Obtained after B.Tech	Name of the College from where the Higher Studies have been carried out	Entrance
1	Shyam Dogra	9802074	1999	MBA	MDI Gurgaon	CAT
2	Rahul Chhibber	97040808	2001	M.TECH, Ph.D	IIT Roorkee	GATE
3	Prashant Wadhwa	Do not remember	2001	PhD	Oregon State University	GRE
4	Anchal Sood	97040872	2001	PGDIM	NITIE, Mumbai	NITIE Entrance test
6	Sachin Sood	9802024	2002	MBA	University of Oxford	GMAT
8	Sunil Kumar	9802030	2002	M Tech	IIT Delhi	GATE
11	Rajesh Kumar	9902058	2003	M.Tech	IIT Delhi	GATE
12	Aishwarya Rastogi	0	2003	PG Diploma in Retailing and Merchandising Management	Birla Institute of Management Technology	CAT
15	Charanjit Singh	0	2004	MIS	CQUniversity Australia	
18	RAVINDER KAUR	122124296	2005	M.TECH	GNDEC	GRADUATION MARKS
20	gaurav garg	222 143	2006	MBA	k j somaiya	cat
21	Harshit Madania	222031547	2006	MBA	IIM Kozhikode	
22	Abhishek Kumar Garg	222031533	2006	MBA (F & B)	NIIT University, Neemrana	BLP Test by ICICI Bank
23	Sandeep Bansal	222116984	2006	MBA	Punjabi University, Patiala	MAT & MET

24	Harneet kaur	303030401	2007	masters in business administration	master tara singh memorial college for women	entrance for mbacit
25	Prashant Sharma	322116841	2007	MBA	ICFAI Business School, Hyderabad	IBSAT
26	Mnik Mittal	322116831	2007	MBA	FORE School of Management	CAT

29. Student progression

Studentprogression	Against%enrolled
UGtoPG	Nil
PGtoM.Phil.	NA
PGtoPh.D.	NA
Ph.D.toPost-Doctoral	NA
Employed <ul style="list-style-type: none"> ● Campusselection ● Other than campus recruitment 	08
Entrepreneurship/Self-employment	

30. Details of Infrastructural facilities a)

Library

Carpet area of library (in m2)	494
Reading space (in m2)	208
Number of seats in reading space	120
Number of users (issue book) per day	090
Number of users (reading space) per day	120
Timing: during working day, weekend, and vacation	9:00am to 5:00pm
Number of library staff	06
Number of library staff with a degree in library Management	04
Computerisation for search, indexing, issue return	No
Record Bar coding used	No
Library services on Internet/Intranet INDEST or other similar membership archives	Yes

b) Internet facilities for Staff & Students

Name of the Internet provider:	BSNL, ferozepur
Available bandwidth:	34Mbps(1:1)
Access speed :	

Availability of internet in an exclusive lab:	YES
Availability in most computing labs :	YES
Availability in department and other units :	YES
Availability in faculty rooms:	YES
Institute's own e-mail facility to faculty / students.	YES
Security/privacy to e-mail/internet users :	YES

c) Class rooms with ICT facility: 01 No.

Name of class room	Exclusive/shared	Room No.
Computational Lab	Exclusive	B128

d) Laboratories

Name of Lab.	Area	Major Equipments
Foundry shop		Introduction to Foundry Tools and equipments
Black smithy shop		Introduction to Black smithy tools and furnace
Carpentry shop		Introduction to Carpentry tools
Fitting shop		Introduction to Fitting tools
Machine shop		Introduction to Machine tools like Lathe, Milling, Single point cutting toolset
Electrical & PCB Shop		Electrical Circuits, Wiring, PCB Making
Welding shop		Electric Arc Welding Tools and equipment, Gas welding etc
Sheet Metal Shop		Introduction Sheet Metal Tools and machines
Thermal Engg. Lab	141.92 m ²	<ul style="list-style-type: none"> • Computerized Two Cylinder four stroke diesel engine test rig. • Two stage Reciprocating air compressor test rig. • Various Components of Engine • Models of Various Types of Boilers • Cut section Model of Two & Four stroke diesel engine. • Cylinder, 4 Stroke Petrol Engine Test Rig. • Cut section model of two stroke & four stroke petrol engine. • Three cylinder four stroke petrol engine test rig with hydraulic dynamometer
Automobile Engg. Lab.	141.92 m ²	<ul style="list-style-type: none"> • Old Ambassador car. • Various Parts of an automobile like gear boxes, clutch, Steering system, Braking system, cooling system etc. • Valve refacing M/c.
CAD Lab	141.92 m ²	Hardware <ul style="list-style-type: none"> • Thirty four Computer System with UPS • One Laser printer • Two Dot- Matrix Printer • Plotter, 5 server,6 scanner Software

		<ul style="list-style-type: none"> • Inventor 10.0 & Auto CAD 2006 An sys software (32 Seats)
Refrigeration & Air Conditioning Lab.	141.92 m ²	<ul style="list-style-type: none"> • Ice Plant Tutor • Vapor Compression Test Rig • Window Type Air conditioning Test Rig. • Gas Charging Unit. • Cut Section Models of Various components of Ref. & Air Lab.
Industrial. Automation & Robotics Lab.	141.92 m ²	<ul style="list-style-type: none"> • Pneumatic Trainer • Hydraulic Trainer • Pneumatic Stamping M/c
T.O.M. Lab.	141.92 m ²	<ul style="list-style-type: none"> • Journal Bearing apparatus • Different types of Governors apparatus • Gyroscope apparatus. • Balancing of masses apparatus. • Different type of models of various links & Mechanisms.(45 No.)
S.O.M. Lab.	141.92 m ²	<ul style="list-style-type: none"> • Universal Testing Machine • Torsion Testing Machine • Impact Testing Machine • Spring Testing Machine • Hardness Testing Machine
Engineering Material & Metallurgy	141.92 m ²	<ul style="list-style-type: none"> • Metallurgical Microscope • Specimen cutting Machine • Bench Grinder • Polishing Machine • Belt Grinder
Manufacturing Process Lab-I	141.92 m ²	<ul style="list-style-type: none"> • Sieve Shaker • Sand weighing Scale • Drying Oven • Mould Hardness Teser • Calibration unit Fas • Sand Rammer • Moisture Tester • Sand Surface Tester • Spot welding M/c Project • Tig welding machine • SAW welding machine • Mig welding machine
Manufacturing Process Lab-II	141.92 m ²	<ul style="list-style-type: none"> • Electro Discharge M/c • Solid works 3D Software • CNC Mill Trainer(Techno fort)
N.D.T. Lab.	33.60 m ²	<ul style="list-style-type: none"> • Ultasonic Crack Detector • Ultrasonic Coating Thickness Gauge • Ultrasonic Thickness Gauge • Magnetic Crack Detector
M/c Drawing, & Engg. Graphics Drg.	33.60 m ²	<ul style="list-style-type: none"> • 3-D models available.

Fluid Mechanics Lab.	141.92 m^2	<ul style="list-style-type: none"> • Bernoulli's theorem apparatus • Flow measurement of venture meter and orifice meter. • Pipe friction apparatus. • Orifice and mouthpiece apparatus. • Flow over a notch apparatus. • Losses in pipe fitting apparatus. • Laminar & Turbulent flow apparatus. • Pitot tube apparatus. • Metacentric height apparatus.
Metrology & Mech. Measurement Lab.	141.92 m^2	<ul style="list-style-type: none"> • Tool Makers Microscope • Vernier Height Gauge • Different types of micrometers. • Sine bar. • Slip gauges box set. • Granite surface plate. • Bench centre apparatus. • Box angle plate. • Magnetic V- Block. • Various types of dial indicators. • Vernier calipers • Angle plate. • Potentiometers • LVDT Tutors. • Transducer. • Strain gauges. • Load cells.
Mechanical Vibration Laboratory	141.92 m^2	<ul style="list-style-type: none"> • Universal Vibration Laboratory

31. Number of students receiving financial assistance from college, university, Government to rother agencies

- 67 students with post metric scholarship, 2014 batch
- 27 Students with fee waiver scheme, 2014 batch
- 01 student with AICTE special scholarship scheme, 2014 batch
- 01 student with Exigency fund- 2014 batch

32. Details on student enrichment programmes (speciallectures/workshops/ seminar) with external experts

Technical Society/ Chapters	2012 – 2013 CAY	2013 – 2014 CAY
Industry Institute Interaction Cell	1) Industrial Visit at MAHLE FILTERS PARVANOO on 20.3.2013. 2) Expert Lecture by BOSTON CONSULTANCY SERVICES on 21.3.2013. 3) Industrial Visit at TVS, NALAGARH on 23.3.2013. 4) Industrial Visit at GABRIEL, PARVANOO on 5.4.2013.	1) Expert Lecture by Dr. Gurvinder Singh, Sonalika International Tractors Ltd. Hoshiarpur Tractors Ltd. Hoshiarpur on 14.8.2013. 2) Industrial Visit at Sonalika International Tractors Ltd. Hoshiarpur Tractors Ltd. Hoshiarpur on 17.8.2013. 3) Expert Lecture from Medhavi Industries, Chandigarh on 20.8.2013. 4) Industrial Visit at Hero Cycles Limited Ludhiana and Central Tool room Ludhiana on 27.8.2013. 5) Industrial Visit at Central Tool room Ludhiana on dated 10.10.2013. 6) Expert Lecture by Sh. Vikas Kakkar, from Danone Industries, Lalru, Ambala on dated 14.10.2013. 7) Expert Lecture from Nex Autoparts (P) ltd. Ludhiana on 28.10.2013. 8) Industrial visit at Palampur Tea Factory on 20.1.2014. 9) Industrial visit to science city Kapurthala on 1.3.2014. 10) Workshop on Mechatronics by Medhavi Industries, Chandigarh from 19.3.2013 to 20.3.2013. 11) Workshop on Solidworks by CAD Center Bathinda.

33. Teaching methods adopted to improve student learning

- Use of smart class rooms.
- Interaction of students with industry personal.
- Quiz
- Seminar
- Black-Board Teaching
- Industrial visits
- Special Classes for communication skills.
- Group Discussion

34. Participation in Institutional Social Responsibility(ISR) and Extension activities

Mr Gazalpreet Singh

- 1 Organised many events under SVEEP project of election commission of India for Voters awareness campaign in college like, painting competition, Human chain, Debate, Workshop, signature campaign ,slogan writing competition.
- 2 Organised two blood donation camps in association with LION's Club Ferozepur.
- 3 Organised many tree-plantation camps
- 4 Organised Environment Day
- 5 Given many lectures against Drug –Addiction in different colleges as per directions of district administration.
- 6 Organised motor-cycle rally to celebrate martyrdom day of Shaheed Bhagat Singh.
- 7 Nodal officer , SBSSTC for making Ferozepur district smoke free.

Dr Tejeet Singh

- 1 Member anti-ragging squad.

35. SWOC analysis of the department and Future plans

Strength

- 1 Well Qualified and experienced Faculty and Technical Staff.
- 2 Publications of Faculty in refereed international journals.
- 3 Active Involvement of faculty in research. Most of the faculty members are guiding Ph.D & M Tech students.
- 4 Department is actively involve in fetching the grants in the form projects from many organizations like AICTE
- 5 Well equipped laboratories and class rooms.
- 6 Fully Furnished Seminar Hall and Conference Room.
- 7 Every faculty member is having Laptop/ Tab and other facilities required for teaching and research.

Weakness

- 1 Placements of the students is the area of concern.
- 2 Transition rate needs improvement.
- 3 Lack of communication skills of students

Future Plans

- More expert lectures
- More use of presentations in teaching
- More Industrial Visits will be organized
- E-Class Room will be developed
- Another CAD Lab will be developed

Evaluative Report of Department of Computer Applications and Management

The Self-evaluation of every department may be provided separately in about 3-4 pages, avoiding the repetition of the data.

1. **Name of the department:** Computer Applications/Management studies
2. **Year of Establishment:** 2010
3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):**

UG	BCA	Bachelor of Computer Applications
PG	MCA	Master of Computer Applications
PG	MBA	Master of Business Administration

4. **Names of Interdisciplinary courses and the departments/units involved:** Nil
5. **Annual/ semester/choice based credit system (programme wise) (for I/C Academics)**

UG (BCA):

SEMESTER-I		L	T	P	INT	EXT	TOTAL	Credits
BSBC101	Communication-I	3	1	-	40	60	100	4
HVPE101	Human Values and Professional Ethics	3		-	40	60	100	3
BSBC102	Programming in C	4	1	-	40	60	100	5
BSBC103	Mathematics- I	4	2	-	40	60	100	6
BSBC104	Information Technology	3	1	-	40	60	100	4
BSBC105	Software Lab-I (Programming in C)	-	-	4	60	40	100	2
BSBC106	Software Lab-II (Information Technology)	-	-	4	60	40	100	2
	Total	17	5	8	320	380	700	26
SEMESTER-II		L	T	P	INT	EXT	TOTAL	TOTAL
EVSC 101	Environmental Science	2	-	-	40	60	100	2

BSBC 201	Communication-II	3	1	-	40	60	100	4
BSBC 202	Mathematics-II	4	2	-	40	60	100	6
BSBC 203	OOPS Using C ++	4	1	-	40	60	100	5
BSBC 204	Computer System Architecture	3	1	-	40	60	100	4
BSBC 205	Workshop on Web Development	-	-	4	60	40	100	2
BSBC 206	Software Lab-III (OOPS Using C++)	-	-	4	60	40	100	2
	Total	16	5	10	320	380	700	25
	SEMESTER-III	L	T	P	INT	EXT	TOTAL	TOTAL
BSBC301	System Analysis & Design	3	1	-	40	60	100	4
BSBC302	Data Structures	3	1	-	40	60	100	4
BSBC303	Digital Circuits & Logic Design	3	1	-	40	60	100	4
BSBC304	Workshop on Visual Basic	0	1	6	60	40	100	4
BSBC305	Basic Accounting	3	1	-	40	60	100	4
BSBC306	Software Lab-IV (Data Structures)	-	-	4	60	40	100	2
BSBC307	Hardware Lab-I (Digital Circuits & Logic Design)	-	-	4	60	40	100	2
	Total	13	5	12	340	360	700	24
	SEMESTER-IV	L	T	P	INT	EXT	TOTAL	TOTAL
BSBC401	Software Engineering	4	1	-	40	60	100	5
BSBC402	Microprocessors & Microcontrollers	4	1	-	40	60	100	5
BSBC403	Operating Systems	4	1	-	40	60	100	5
BSBC404	Database Management Systems	4	1	-	40	60	100	5
BSBC405	Hardware Lab-II (Microprocessors & Microcontrollers)	-	-	4	60	40	100	2
BSBC406	Software Lab-V (Database Management)	-	-	4	60	40	100	2

	Systems)							
	Total	16	4	8	280	320	600	24

SEMESTER-V		L	T	P	INT	EXT	TOTAL	Credits
BSBC501	Data Warehousing & Mining	3	1	-	40	60	100	4
BSBC502	Programming in Java	4	1	-	40	60	100	5
BSBC503	Management Information System	3	1	-	40	60	100	4
BSBC504	Workshop on Advanced Web Development	0	0	6	60	40	100	3
BSBC505	Software Lab-VI(Programming in Java)	0	0	4	60	40	100	2
BSBC506	Project Work -I	0	0	6	60	40	100	3
SEMESTER-VI		L	T	P	INT	EXT	TOTAL	Credits
BSBC601	Principles of Management	3	1	-	40	60	100	4
BSBC602	Computer Graphics	4	1	-	40	60	100	5
BSBC603	Computer Networks	4	1	-	40	60	100	5
BSBC604	System Administration	0	0	4	60	40	100	2
BSBC605	Software Lab-VII (Computer Graphics)	0	0	4	60	40	100	2
BSBC606	Project Work-II	0	0	6	120	80	200	3
	Total	11	3	14	360	340	700	21

PG (MCA):**First
Semester****Contact Hours: 33
Hrs.**

Course Code	Course Title	Load Allocation			Marks Distribution		Total Marks	Credits
		L	T	P	Internal	External		
MCA 101	Information Management	4	1	-	50	100	150	5
MCA 102	Object Oriented Programming in C++	4	1	-	50	100	150	5
MCA 103	Computer Organization and Assembly Language	4	1	-	50	100	150	5
MCA 104	Accounting & Financial Management	4	1	-	50	100	150	5
MCA105	Technical Communication	3	1	-	50	100	150	4
MCA 106	Software Lab- I (Information Management)	-	-	4	100	50	150	2
MCA 107	Software Lab –II (Object Oriented Programming in C++)	-	-	4	100	50	150	2
BTHU 102	Communicative English Lab	-	-	2	50		50	1
Total		19	5	10	500	600	1100	29

Second Semester**Contact Hours: 33
Hrs.**

Course	Course Title	Load	Marks Distribution	Total	Credits
--------	--------------	------	--------------------	-------	---------

Code		Allocation					Marks	
		L	T	P	Internal	External		
MCA 201	Mathematical Foundations of Computer Science	4	1	-	50	100	150	5
MCA 202	Relational Database Management System	4	1	-	50	100	150	5
MCA 203	Data Structures	4	1	-	50	100	150	5
MCA 204	Data Communication and Networks	4	1	-	50	100	150	5
MCA 205	Linux Operating System	4	1	-	50	100	150	5
MCA 206	Software Lab –III (Relational Database Management System)	-	-	4	100	50	150	2
MCA 207	Software Lab –IV (Data Structures)	-	-	4	100	50	150	2
MCA 208	Software Lab –V (Based on Linux Operating System)	-	-	4	100	50	150	2
Total		20	5	12	550	650	1200	31

Third Semester

Contact Hours:

32 Hrs.

Course Code	Course Title	Load Allocation			Marks Distribution		Total Marks	Credits
		L	T	P	Internal	External		
MCA 301	Database Administration	4	1	-	50	100	150	5
MCA 302	Computer Based Optimization	4	1	-	50	100	150	5

	Techniques							
MCA 303	Software Engineering	4	1	-	50	100	150	5
MCA 304	Java Programming	4	1	-	50	100	150	5
MCA 305	Elective	4	1	-	50	100	150	5
MCA 306	Software Lab-VI [Database Administration]	-	-	4	100	50	150	2
MCA 307	Software Lab-VII [Java Programming]	-	-	4	100	50	150	2
Total		20	5	8	450	600	1050	29

**Fourth
Semester**

**Contact Hours:
32 Hrs.**

Course Code	Course Title	Load Allocation			Marks Distribution		Total Marks	Credits
		L	T	P	Internal	External		
MCA 401	Data Warehousing & Mining	4	1	-	50	100	150	5
MCA 402	E- Commerce & Web Application Development	4	1	-	50	100	150	5
MCA 403	Interactive Computer Graphics	4	1	-	50	100	150	5
MCA 404	Advanced Operating Systems	4	1	-	50	100	150	5
MCA 405	Software Lab- VIII (E-Commerce & Web Application Development)	-	-	4	100	50	150	2
MCA 406	Software Lab- IX (Interactive Computer Graphics)	-	-	4	100	50	150	2
MCA 407	Software Lab X (Advanced Operating Systems)	-	-	4	100	50	150	2
Total		16	4	12	500	550	1050	26

Fifth Semester

**Contact Hours:
31 Hrs.**

Course Code	Course Title	Load Allocation			Marks Distribution		Total Marks	Credits
		L	T	P	Internal	External		
MCA 501	Embedded Systems	4	1	-	50	100	150	5
MCA 502	Network Security & Administration	4	1	-	50	100	150	5
MCA 503	Web Technologies	4	1	-	50	100	150	5
MCA 504	Object Oriented Analysis & Design with UML	4	1	-	50	100	150	5
MCA 505	Hardware Lab – I (Embedded Systems)	-	-	4	100	50	150	2
MCA 506	Software Lab –XI (Web Technologies)	-	-	4	100	50	150	2
MCA 507	Software Lab –XII (Object Oriented Analysis and Design with UML)	-	-	4	100	50	150	2
Total		16	4	12	500	550	1050	26

Sixth Semester

Course Code	Course Title	Load Allocation	Marks Distribution		Total Marks	Credits
			Internal	External		
MCA 601	Industrial Training	Four Months	80	320	400	28

List of Electives:

Course Code	(MCA 305) Elective	Course Code	(MCA 305) Elective
MCA 305 A	System Programming	MCA305 C	Parallel Processing
MCA 305 B	Theory of Computation		

PG (MBA):

CODE	NAME OF SUBJECT	External Marks	Internal Marks	Total Marks
	SEMESTER I			
MB 101	Principles & Practices of Management	60	40	100
MB 102	Organizational Behaviour	60	40	100
MB 103	Accounting for Management	60	40	100
MB 104	Quantitative Techniques	60	40	100
MB 105	Managerial Economics	60	40	100
MB 106	Seminar on Executive Communication	00	100	100

MB 107	Workshop on Computers for Management	00	100	100
MB 108	Viva-voce			100
	SEMESTER II			
MB 201	Business Environment	60	40	100
MB 202	Production & Operations Management	60	40	100
MB 203	Human Resource Management	60	40	100
MB 204	Marketing Management	60	40	100
MB 205	Financial Management	60	40	100
MB 206	Workshop on Research Methodology	00	100	100
MB 207	Workshop on Information Technology	00	100	100
MB 208	Viva-Voce			100
	SEMESTER III			
MB 301	Applied Operations Research	60	40	100
MB 302	Corporate Legal Environment	60	40	100
MB 303	Major-I	60	40	100
MB 304	Major-II	60	40	100
MB 305	Major-III/ Minor-I	60	40	100
MB 306	Seminar on Management Information Systems	00	100	100
MB 307	Presentation of Training Report	60	40	100
MB 308	Viva-Voce			100
	SEMESTER IV			
MB 401	Strategic Management	60	40	100

MB 402	Project Management & Entrepreneurship	60	40	100
MB 403	Major-IV	60	40	100
MB 404	Major-V	60	40	100
MB 405	Major-VI/ Minor-II	60	40	100
MB 406	Final Research Project (200 Marks)			200
MB 407	Viva-Voce			100

6. Participation of the department in the courses offered by other departments

YES

BRANCH	SUBJECT
CSE	HRM
CSE	PEEMPT

7. Courses in collaboration with other universities, industries, foreign institutions, etc.

Mobile applications using android, Azile Software on collaboration with Infosys

8. Details of courses/programmes discontinued (if any) with reasons:

Course discontinued	Session	Reasons
M Sc (IT)	2011	Low admission
B SC (IT)	2014	Low admission

9. Number of teaching posts

	Sanctioned	Filled
Professors	5	NIL
Associate Professors	11	02
Asst. Professors	31	17

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Mr Anil Bansal	MCA	Associate Professor	Software Engg.	20	-
Dr RP Singh	PhD, MBA	Associate Professor	Marketing	18	5-Guiding
Dr Gulshan Kumar	PhD, MCA, M Tech(CSE)	Assistant Professor	Network Security,	13	Nil
Mr Amardeep Chopra	MCA	Assistant Professor	Networking	09	Nil
Ms.Nisha Gupta	MCA, MS software systems	Assistant Professor	Data Mining	09	Nil
Ms.Bindu Bala	MCA, M.Tech (IT)	Assistant Professor	Programming in C++, Java, Networking	09	Nil
Sheenam Bhola	MCA	Assistant Professor	C++,DBMS.	02	NIL
Anjala	MCA	Assistant Professor	Programming Java.	03	NIL
Sonamdeep Kaur	MCA	Assistant Professor	DBMS,CSA,SE.	01	NIL
Jyoti	MCA	Assistant Professor	Programming In java.	1.5	NIL
Manisha	MCA	Assistant Professor	Java, SE.	03	NIL
Amanjeet Kaur	MCA	Assistant Professor	CCNA, Networking.	04	NIL
Sania	MCA	Assistant Professor	Dot.net, DBMS.	01	NIL
Shivani	MCA	Assistant Professor	Networking, DBMS.	Nil	NIL
Shaina	MCA	Assistant Professor	Networking ,OS	Nil	NIL
Manpreet Kaur	MBA	Assistant Professor	Human resources & Markting.	Nil	NIL
Shabina	MBA	Assistant Professor	Human resource & Marketing.	01	NIL
Heena	MBA	Assistant Professor	Finance, Human resources.	1.5	NIL

Lovedeep Singh	MBA	Assistant Professor	International Business.	03	NIL
Ramandeep Kaur	MBA	Assistant Professor	Human resources&	Nil	NIL

11. List of senior visiting faculty: Nil

12. Percentage of lectures delivered and practical classes handled (programme wise)

By temporary faculty:

Course	%age of Lectures delivered by Temp Faculty	%age of Practical Classes handled by temporary faculty
BCA	74 %	75%
MCA	66 %	62 %
BSC	87 %	75%
MBA	93%	Nil

13. Student -Teacher Ratio (programme wise)

Course	Ratio
BCA/MCA/ B.SC(IT)	1:4
MBA	1:4

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

	Sanctioned	Filled
Academic support staff (technical)	6	3
Administrative staff	12	3

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

Name	Qualification
Mr Anil Bansal	MCA
Dr RP Singh	PhD, MBA
Dr Gulshan Kumar	PhD, MCA, M Tech(CSE)
Mr Amardeep Chopra	MCA
Ms.Nisha Gupta	MCA,MS software systems

Ms.Bindu Bala	MCA, M.Tech (IT)
Sheenam Bhola	MCA
Anjala	MCA
Sonamdeep Kaur	MCA
Jyoti	MCA
Manisha	MCA
Amanjeet Kaur	MCA
Sania	MCA
Shivani	MCA
Shaina	MCA
Manpreet Kaur	MBA
Shabina	MBA
Heena	MBA
Lovedeep Singh	MBA
Ramandeep Kaur	MBA

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil

18. Research Centre /facility recognized by the University: Nil

19. Publications:

a) Publication per faculty

* Number of papers published in peer reviewed journals (National /International) by faculty and students

Name of Faculty	Publication per faculty	Number of papers published in peer reviewed journals (national /international) by faculty	Books Edited
Dr RP Singh	14	5	Nil
Dr Gulshan Kumar	28	11	Nil
Ms Nisha Gupta	5	Nil	01
Ms Bindu Bala	6	Nil	Nil

*Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)

Total Number of publications listed in International Database: 20

* Monographs:	Nil
* Chapter in Books:	01
* Books Edited:	Nil
*Books with ISBN/ISSN numbers with details of publishers:	Yes
* Citation Index:	Yes
* SNIP:	Nil
* SJR	Nil
*Impact factor	Yes
*h-index:	Nil

20. Areas of consultancy and income generated :

Nil

21. Faculty as members in

a) National committees b) International Committees c) Editorial Boards: Nil

22. Student projects

a) Percentage of students who have done in-house projects including inter departmental/programme: 100% in-house projects

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: Nil

23. Awards / Recognitions received by faculty and students: Nil**24. List of eminent academicians and scientists / visitors to the department: Nil****25. Seminars/ Conferences/Workshops organized & the source of funding: Nil**

a. National

b. Inter-national

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
MCA 2012	17	17	7	10	90%
MCA 2013 (leet)	25	25	22	3	95%
MCA 2014(Leet)	27	27	8	19	NA
BCA 2012	42	42	32	10	50%
BCA 2013	21	21	15	6	56%
BCA 2014	31	31	20	11	NA
MBA 2013	09	09	4	5	90%
MBA 2014	16	16	5	11	90%

27. Diversity of Students

Name of the Course	% of students	% of students from other	% of students from abroad
BCA(201?)	95%	5%	Nil
MCA(98%	2%	Nil
MBA	96%	4%	Nil
BSC(IT)(???)	98%	2%	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc. Nil

29. Student progression

Student progression	Against % enrolled
UG to PG (BCA to MCA)	6
PG to M.Phil.	NIL
PG to Ph.D.	NIL
Ph.D. to Post-Doctoral	NIL
Employed	
• Campus selection	10%
• Other than campus recruitment	
Entrepreneurship/Self-employment	40%

30. Details of Infrastructural facilities

- a) Library: No
- b) Internet facilities for Staff & Students: Yes
- c) Class rooms with ICT facility : 01
- d) Laboratories:

Sl.No	Name of The Laboratory	Name of the Softwares use	No. of Computers
1	Computer Applications Lab 1	Windows 7 (Preloaded)	30
2		Linux (Freeware)	
3		Java (Freeware)	
	Total	03	30

31. Number of students receiving financial assistance from college, university, government or other agencies:

Organization/Govt.	Scholarships
Punjab Govt.	Schedule cast(SC)& Schedule Tribe(ST) Scholarships BCA -43, MCA-13, MBA-4,BSC(IT)-3
Other state Govt.	Schedule cast(SC)& Schedule Tribe(ST) Scholarships BCA - 02

32. Details on student enrichment programmes (special lectures / workshops /seminar) with external experts:

Students workshops Topics	Academic Year
2-Day Workshop on “WebSite Development”	Sept 2014
Competition on debugging Techniques	Feb 2014
Quiz Competition (Technical & Non Technical)	March 2014
Guest Lecture on “Cloud Computing”	March 2014

33. Teaching methods adopted to improve student learning:

- LCD projector
- Doubt Clearing class
- Group discussions
- Seminars on latest developments in Technology by students.
- Weekly aptitude test
- Industry visits

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

- Participated in NSS program
- Blood Donation Camps
- Anti-ragging Committee
- NCC

35. SWOC analysis of the department and Future plans

<p>Strength:</p> <ul style="list-style-type: none"> • Offering 2 PG (MCA/MBA) and 1 UG (BCA) courses • HOD has more than 18 Years experience in Teaching and industry. • PhD faculty members. • Qualified and resourceful faculty with experience in teaching. • Experience technical assistant for Lab. • Deputation of faculty members for upgrading knowledge. • Academic excellence both in performance 	<p>Weakness:</p> <ul style="list-style-type: none"> • Intake • Industries institution interaction Institutional tie-up • Academically weak and slow learning students having rural background • Technical students have poor abilities in soft and communicative skills • Academicians with doctorate degrees are less.
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<p>and teaching learning.</p> <ul style="list-style-type: none"> • Well equipped Lab & infrastructure. • Wi-Fi facilitated campus • Established Department society. • LCD projector for conducting Seminars. 	
<p>Opportunity</p> <ul style="list-style-type: none"> • Providing training/summer courses/workshops (Placement Based). • Ample opportunity in doing experiments in the existing sophisticated equipments. • Good Resources. • Providing opportunities to attend seminars and workshops. • Providing better facilities to the employees 	<p>Challenges</p> <ul style="list-style-type: none"> • To get NAAC accreditation • To ensure 100% placement • Lack of sufficient faculties. • Exchange of faculties. • Student quality. • Lack of student admissions

FUTURE PLANS

1. Planning for receiving grants and consultancy from different funding agencies for the development of faculty, lab and resource projects.
2. To establish a full-fledged Entrepreneurship Development Cell this will enable to improve the skills of students to start their own organizations.
3. To establish the consultancy service to the students about their projects and their career guidance.
4. To establish a full fledged Research & Development Cell which will enable to handle the Projects outsourced from the industries.
5. To educate the students with the upcoming Technologies

3. Evaluative Report of Poly Wing

1. Name of the department POLYTECHNIC WING
2. Year of Establishment 2009
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)

Sr. No.	Name of Course	Sanctioned Intake
1	Diploma in Computer Engg.	60
2	Diploma in Electrical Engg.	60
3	Diploma in Mechanical Engg.	120
4	Diploma in Electronics & Comm Engg.	120
	Total	360

4. Names of Interdisciplinary courses and the departments/units involved NIL
5. Annual/ semester/choice based credit system (programme wise) SEMESTER
6. Participation of the department in the courses offered by other departments NIL
7. Courses in collaboration with other universities, industries, foreign institutions, etc. NIL
8. Details of courses/programmes discontinued (if any) with reasons NIL
9. Number of Teaching posts

	Sanctioned	Filled
Professors	NIL	NIL
Associate Professors	NIL	NIL
Asst. Professors	NIL	NIL

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for last 4 Years
Gazal Preet Arneja	M.Tech MBA	Principal (PW)	Industrial Engg	17 years	NIL
Ajay Kumar	M.Tech	Lecturer	MANET	6.5 years	NIL
Anuradha Rani	M.Tech	Lecturer	Computer	11 years	NIL
Gobind	MBA B-TECH	Lecturer	Production management	7 years	NIL
Gurjeevan Singh	M.Tech	Lecturer	MANET, Wireless Network Security	7.3 years	NIL
Kamal Khanna	M.Tech	Lecturer	Facility planning/ scm	5 years	NIL
Manpreet Singh	B.Tech	Lecturer	MANET, Computer Networking	4years	NIL
Rahul Chopra	B.Tech	Lecturer	Automobiles	7 years	NIL
Rahul Sharma	B.Tech	Lecturer	Power system	5.5 years	NIL
Rajesh Singla	B.Tech	Lecturer	Power Engg	6 years	NIL

Rajnish Kumar	M.sc.	Lecturer	Pure Mathematics	8 years	NIL
Retaish Uppal	B-TECH	Lecturer	Thermal/Production management	7 years	NIL
Richa Sawhney	M.Tech	Lecturer	Computer	9 years	NIL
Bohar Singh	B.Tech	Lecturer	Computer	3 years	NIL
Chetan Batra	B.Tech	Lecturer	Computer	2 years	NIL
Mandeep Kaur	B.Tech	Lecturer	Computer	3 years	NIL
Sahil Kumar	B.Tech	Lecturer	Computer	2 years	NIL
Sakshi Gupta	B.Tech	Lecturer	Computer	2.5 years	NIL
Sumanpreet Kaur	B.Tech	Lecturer	Computer	NIL	NIL
Misha Mittal	B.Tech	Lecturer	Computer	NIL	NIL
Benu	B.Tech	Lecturer	PLC	2 years	NIL
Karamjeet Singh	B.Tech	Lecturer	DSP,VLSI	3 years	NIL
Gurinderjit Singh	B.Tech	Lecturer	Controller8051, DE	1year	NIL
Pargat Singh	M.Tech	Lecturer	Wireless Comm.	1year	NIL
Ajay	B.Tech	Lecturer	Electrical Machine	1.6years	NIL
Deepak Kumar	B.Tech	Lecturer	Power Electronic	2.7years	NIL
Sukhpreet Singh	B.Tech	Lecturer	Power system	2.5 years	NIL
Sarabjeet Singh	B.Tech	Lecturer	Power system	0.9 year	NIL
Simrandeep Singh	B.Tech	Lecturer	NCES	NIL	NIL
Akshay Manik	B-TECH	Lecturer	Production	1 year	NIL

Gaurav Chanana	B-TECH	Lecturer	Thermal	1 year	NIL
Rajnesh Kumar	B-TECH	Lecturer	Production management	2 years	NIL
Ajay Sharma	B-TECH	Lecturer	Strength of material	4 years	NIL
Lakhwinder	B-TECH	Lecturer	Strength of material	1 year	NIL
Amarjeet Singh Sandhu	B-TECH	Lecturer	Production	1 year	NIL
Varinder Khurana	B-TECH	Lecturer	Thermal	NIL	NIL
Ankush Batta	B-TECH	Lecturer	Theory of Machines	5 years	NIL
Rajan	M.sc.	Lecturer	Chemistry	1year	NIL
Karamjit Kaur	M.sc. M.Ed	Lecturer	Chemistry	1year	NIL
Manpreet Kaur	M.A B.Ed	Lecturer	English	1year	NIL
Rajni Grover	M.A(Eng)M.A(Ec.)B.Ed M.Ed	Lecturer	English	1year	NIL
Poonam Narang	M.Sc.	lecturer	Physics	3 years	NIL
Navneet Kaur	M.sc. B.Ed	Lecturer	Physics	5 years	NIL
Ms. Poonam Behal	M.sc. B.Ed	Lecturer	Maths	2 years	NIL
Ms. Saloni Arora	M.sc. B.Ed	Lecturer	Maths	1 year	NIL

11. List of senior visiting faculty NIL

12. Percentage of lectures delivered and practical classes handled(programme wise) by temporary faculty 30%

13. Student -Teacher Ratio (programme wise) 1:17

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

STAFF	Sanctioned	Filled
TECHNICAL	10	2
ADMINISTRATIVE	22	4

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG. 17

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for last 4 Years	PG(Y/N)
Gazal Preet Arneja	M.Tech MBA	Principal (PW)	Industrial Engg	17years	NIL	Y
Ajay Kumar	M.Tech	Lecturer	MANET	6.5years	NIL	Y
Anuradha Rani	M.Tech	Lecturer	Computer	11years	NIL	Y
Gobind	MBA B-TECH	Lecturer	Production management	7 years	NIL	Y
Gurjeevan Singh	M.Tech	Lecturer	MANET, Wireless Network Security	7.3years	NIL	Y
Kamal Khanna	M.Tech	Lecturer	Facility planning/ scm	5years	NIL	Y
Rajnish Kumar					NIL	Y
Richa Sawhney	M.Tech	Lecturer	Computer	9 years	NIL	Y
Rajan	M.sc.	Lecturer	Chemistry	1years	NIL	Y

Karamjit Kaur	M.sc. M.Ed	Lecturer	Chemistry	1years	NIL	Y
Manpreet Kaur	M.A B.Ed	Lecturer	English	1years	NIL	Y
Rajni Grover	M.A(Eng) M.A(Ec.) B.Ed M.Ed	Lecturer	English	1year	NIL	Y
Poonam Narang	M.Sc.	Lecturer	Physics	3 years	NIL	Y
Navneet Kaur	M.sc. B.Ed	Lecturer	Physics	5years	NIL	Y
Ms. Poonam Behal	M.sc. B.Ed	Lecturer	Maths	2 years	NIL	Y
Ms. Saloni Arora	M.sc. B.Ed	Lecturer	Maths	1 year	NIL	Y
Pargat Singh	M.Tech	Lecturer	Wireless Comm.	1year	NIL	Y

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received NIL
17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received NIL
18. Research Centre / facility recognized by the University NIL
19. Publications:
- * a) Publication per faculty Mr.Kamal Khanna
 - * Number of papers published in peer reviewed journals (national / international) by faculty and students (NIL /3) 3

- * Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) NIL
- * Monographs NIL
- * Chapter in Books NIL
- * Books Edited NIL
- * Books with ISBN/ISSN numbers with details of publishers NIL
- * Citation Index NIL
- * SNIP NIL
- * SJR NIL
- * Impact factor NIL
- * h-index NIL

b) Publication per faculty Mr.Gurjeevan Singh

- * Number of papers published in peer reviewed journals (national / international) by faculty and students (4/26) 30

- * Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) NIL
- * Monographs NIL
- * Chapter in Books NIL
- * Books Edited NIL
- * Books with ISBN/ISSN numbers with details of publishers NIL
- * Citation Index NIL
- * SNIP NIL
- * SJR NIL
- * Impact factor NIL
- * h-index NIL

20. Areas of consultancy and income generated NIL

21. Faculty as members in

a) National committees 2 b) International Committees 1 c) Editorial Boards....

Faculty Name	National committees	International Committees	Editorial Boards
Mr.Kamal Khanna	2	1	NIL
Mr.Gurjevan Singh	2	1	NIL

22. Student projects

a) Percentage of students who have done in-house projects including inter departmental/programme 80%

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies 20%

23. Awards / Recognitions received by faculty and students NIL

24. List of eminent academicians and scientists / visitors to the department NIL

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National NIL

b) International NIL

26. Student profile programme/course wise: NIL

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	

*M = Male *F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
Diploma in Computer Engg.	70	30	NIL
Diploma in Electrical	50	50	NIL
Diploma in Mechanical Engg.	30	70	NIL
Diploma in Electronics	70	30	NIL

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? NIL

29. Student progression

Student progression	Against % enrolled
UG to PG	NIL
PG to M.Phil.	NIL
PG to Ph.D.	NIL
Ph.D. to Post-Doctoral	NIL
Employed	
• Campus selection	20%
• Other than campus recruitment	10%
Entrepreneurship/Self-employment	10%

30. Details of Infrastructural facilities a) Library CENTRAL FACILITY

b) Internet facilities for Staff & Students CENTRAL FACILITY

c) Class rooms with ICT facility NIL

d) Laboratories CENTRAL FACILITY

31. Number of students receiving financial assistance from college, university, government or other agencies 150

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

Special lectures	Workshops	Seminar
2	1	4

33. Teaching methods adopted to improve student learning
INDUSTRIAL VISIT
E-LEARNING
PROJECTORS

34. Participation in Institutional Social Responsibility (ISR) and Extension activities
NIL

35. SWOC analysis of the department and Future plans NIL

Presentation of Best Practice

1. Title of the Practice:

“Promotion of Research among Faculty & Innovative Student Projects”

2. Objectives of the Practice

What are the objectives/ intended outcomes of this “best practice” and what are the underlying principles or concepts of this practice (in about 100 words)?

The main focus of the higher education in India is to promote research. In accordance with the growing need for the upgradation of the faculty and the students in higher education, enormous efforts are taken by the management of the college to inculcate research culture in the staff and the students to arouse curiosity, develop objectivity and improve critical thinking. It ensures continuous professional growth on the part of teachers and of problem identifying, systematic planning, careful implementing and solution finding abilities on the part of students.

- To keep pace with the latest advancements in respective discipline and thus to update the intellectual calibre of the faculty
- To encourage the faculty to pursue Ph.D. and to acquire more PhD guides/supervisors to have more research scholars.
- To motivate the faculty to apply for the major and minor research projects
- To promote the departments to have more research labs
- To collaborate with other institutions, universities and industries in India and abroad
- To arrange for interface among the institutions, industries and the public to take up research projects of relevance.
- To encourage the faculty and the students to organize and present research papers in the national / international seminars / conferences / workshops
- To publish quality research articles in reputed journals, edit study materials for the prescribed syllabus and author books of high originality
- To provide seed money for research activities

3. The Context

What are the contextual features or challenging issues that needed to be addressed in designing and implementing this practice (in about 150 words)?

In order to keep pace with the latest development the periodic and constant updating of the subject material is very essential. The teaching faculty and staff of the institute are highly conscious of quality enhancement and quality sustenance at par with the progress of technology. The knowledge generation and effective dissemination are the two major focus of our quality research. The congenial research ambience has been created through strengthening infrastructure facilities, motivating faculty and staff members and guiding them to acquire grants from the funding agencies to launch new research projects and assignments - pursuing Ph.D., taking up minor or major research projects, guiding research scholars and publishing research papers and books.

Challenging issues to be addressed while designing and implementing the practice

Following are some of the basic challenges that needed to be addressed while implementing the practice. Requiring sound knowledge of technology development

- Creation of awareness on the need for research to update the knowledge of the students and the staff at international standards
- Passive attitude of the faculty and staff towards the research.
- Creating an interest in research in students through individual or group research projects as part of their syllabus
- Analyzing and addressing the needs of the society through JACEP and submitting reports based on their field research
- Forming linkage with the industries and research centres and collaborating with them for the research projects of staff and students.
- The great demand of the rural based students for the attention of the staff to cope with their studies

4. The Practice

Describe the practice and its uniqueness in the context of Indian higher education. What were the constraints/ limitations, if any, faced (in about 400 words)?

The institution provides opportunities to the faculty and staff for improvement in qualification and skill level. A number of channels like study leave and QIP are in place for doing higher studies M.Tech or Ph.D. on regular basis. The institute rules also allows Part Time registration for a research degree. The institute also motivates its faculty for Post Doc Studies in India or abroad. Special emphasis is given on the sponsored projects (major and minor) of various funding agencies. A Research Monitoring Committee is in place under the Chairmanship of the Dear (PG Studies & Research) for promoting research culture among the staff and students in the campus. It sets the target for achievement in the action plan presented and submitted in the Board of Governors meeting every year. The attainment of the target is reviewed every year.

Support facilities for research

- Special consideration in the form of leave is given to the staff who are on the verge of completing their research work.
- The visits to various Universities and libraries for data collection have enriched their research.
- The management extends co-operation to the staff to go abroad for paper presentation and send proposals to UGC to avail travel grant.
- Steps have been taken to have a linkage with Liverpool Hope University, U.K. to promote teaching, learning and research.
- The management has decided to give financial assistance to the self-finance faculty who make research publications in the journals with high impact factor.
- Rewards of teachers are based on their achievements in research.

Constraints faced in the pursuit of research

- Owing to time constraint and interface, the gap between academia and industries is not adequately bridged to fulfill the needs of industries.
- The students can be further motivated to explore new areas of research and procure funds from various funding agencies.
- Students can be provided hands-on activity based research in the industries to address challenges faced in the job market.
- Extension Programme can focus on neighbourhood oriented research to solve real life problems.

- Interdisciplinary and socio- economic developmental research can be encouraged among the students and the teachers.
- Ph.D. holders can be motivated to publicize their research in the form of books.

5. Evidence of Success

Provide evidence of success such as performance against targets and benchmarks, review results.

What do these results indicate? Describe in about 200 words.

The achievements in the field of research are the main indicators of excellence in research practiced at the institute.

- In last three years 11. faculty members have successfully completed PhD degrees from IITs or some renowned universities and completed their M.Tech in respective areas.
- A good number of faculty have availed the opportunities for presenting papers in National () and International () Conferences.
- Nine faculty members have been sent abroad for attending the International events.
- Director and Chairman Board of Governors visited top raking Universities of USA to see the best practices being followed there.
- Expert from PUM of Netherlands visited the campus to give a thrust to academic activities specially research and industrial collaboration.
- A team of two senior faculty members was sent to Netherlands in connection with the ongoing international interaction and exchange programme inked wit PUM of Netherlands.
- Nine sponsored research projects with a funding of nearly crores are undertaken during the assessment period. The institute was also granted the TEQIP project of MHRD/World Bank for Rs. 10.00 crores.
- 27 faculty members are University-approved supervisors for guiding M.Tech. and Ph.D. scholars.
- Final year UG and PG students undertake mandatory and funded, individual and group projects.
- New Project and Research labs have been established in departments to give a thrust to research activities
- E-journals, DELNET and Internet laboratory are added in the library.
- In addition to the central Computer Centre facility, CAD/CAM and Computational laboratories have been established in 05 departments.
- Separate Computer labs have been established in all the hostels.

- Publication of research papers in reputed journals with high impact factor evinces the keen interest of the faculty in research. The number of publication is continuously increasing .
- A number of teachers have published articles and chapters in research books.
- Competitive grants have been sanctioned to a number of faculty members of the institute by DST or AICTE for research as well as laboratory modernization projects.
- The proceedings of the three conferences organized in the institute are published in the form of books.
- Research is nurtured at the college by strengthening infrastructure facilities in the laboratories and the library.

6. Problems Encountered and Resources Required

Please identify the problems encountered and resources required to implement the practice (in about 150 words).

- More incentives can be given to the teachers by the Government for research activities - publications of books and papers in reputed journals.
- More State of Art Research Intensive Workshops should be organized for faculty to attract them to the Quality Research and participation in Sponsored Research Projects/activities.
- Various technical sessions and seminars can be organized for the young teachers and UG/PG students to create awareness of the requirements for research - preparation of proposals, various funding agencies etc.
- General grants can be provided by UGC under special schemes to strengthen research resources at the college in the form of books and equipments.
- International collaboration and co-operation can be sought to make research more qualitative.
- A research journal can be published by maintaining the standard of the articles and making the peer review process strict.
- Academic audit can formulate quality parameters to ascertain the quality of research of the staff and the students in each department.
- Vacancies can be filled up by the Government to acquire powerful human resource with research acumen to develop research activities.

7. Any additional information regarding Innovations and Best Practices, which the College would like to include.

- The institute is situated at a distance of only 11 KM from the Indo Pak Boarder and caters to the backward boarder belt of the state of Punjab
- The institute is one of the leading destination for technical and professional education in North West part of the country.
- It has a 100 Acre green lush campus on NH-95, 3 km away from Ferozpur Cantt with idea ambience for learning.
- The institute is devoted for the Holistic development for all the students, faculty and staff members.

8. ContactDetails

Name of thePrincipal: Dr. T. S.Sidhu

Name of the Institution: Shaheed Bhagat Sing State technical Campus Ferozpur

City:Ferozpur **PinCode:** 152004

Accredited Status: Applied for

WorkPhone : 01632-242138 **Fax:** 01632-242138

Website: sbsstc.ac.in **E-mail:** tssidhu@rediffmail.com

Mobile : 8288012001

5. Post-accreditation Initiatives

If the college has already undergone the accreditation process by NAAC, please highlight the significant quality sustenance and enhancement measures undertaken during the last four years. Then arrative may not exceed ten pages. (Refer sectionIX of Guidelines for Assessment and Accreditation)

Not Applicable

Declaration by the Head of the Institution

I certify that the data included in this Self-study Report(SSR) are true to the best of my knowledge.

This SSR is prepared by the institution after internal discussions, and no part there of has been out sourced.

I am aware that the Peer team will validate the information provided in this SSR During the peer team visit.

Signature of the Head of the institution

with seal:

Place:

Date:

Annexure I(A)

Guiding students research

Department of Chemical Engg.

Guiding Student research

Name	Designation	Specialization	No.ofM. Tech. Students guidedforthe last4years	No.ofPh.D. Students guidedforthe last4years
Dr. Rajeev Garg	Professor	Modeling and Simulation	07 students completed 02 Students ongoing	03 Students registered
Mrs. Balpreet Kaur	Associate Professor	Environmental Science	02 students completed 02 Students ongoing	-
Mr. Pankaj Kalra	Associate Professor	Modeling and Simulation	01 students completed 02 Students ongoing	-

S. No.	Thesis Title	Name of Student	Joint/ Independent	Name of Co-supervisors	Status
1.	Phase equilibrium Prediction for 2-Component Non-Associating Mixture using Equations of State	Rajiv Arora	Jointly	Dr. N. K. Grover/Dr. Rajeev Garg	Awarded in 2008
2	Treatment of Pulp & Paper Mill Wastewater by Chitosan in Polymer	Balpreet Kaur	Jointly	Prof. A. P. Singh/Dr. Rajeev Garg	Awarded in 2010

	Induced Flocculation				
3	Evaluation of Fatality Risk Dosage for Radon based radiations in Urban Areas of Bathinda District of Punjab	Amit Arora	Jointly	Prof. A. K. Tyagi, Dr. Rohit Mehra/Dr. Rajeev Garg	Awarded in 2011
4	Treatment of Wastewater by Adsorption on Tea Leaves	Raj Kumar	Jointly	Dr. Lalit Sharma/Dr. Rajeev Garg	Awarded in 2013
5	Experimental and Simulation Study of Absorption of CO ₂ using Packed Bed Column	Awadhesh Kumar Pundir	Jointly	Mr. Pankaj Kalra/Dr. Rajeev Garg	Awarded in 2013
6	Analysis of Graetz Problem in Heat Exchangers	Rakhi Vaish	Jointly	Dr. N. K. Grover/Dr. Rajeev Garg	Awarded in 2014
7	Electrolysis Treatment of RO Retentate	Vinod Meena	Jointly	Dr. H. R. Ghatak/Dr. Rajeev Garg	Thesis submission in progress
8	Adsorption removal of zinc from waste water by natural biosorbents	Sunil Rajoria	Independent	Balpreet Kaur	Awarded in 2013
9	A comparative study of mango seeds with wood stalks as a small scale downdraft gasifier feedstock	Rakesh Punia	Jointly	Balpreet Kaur/ Dr Sangeeta Sharma	Awarded in 2013

Department of Electronics & comm. Engg.

Thesis Guided in the Department till date

Serial No.	Name	Roll No.	Date of Viva	Topic	Guide
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1	Manpreet Kaur	96436882801	26-02-2013	Performance evaluation & analysis of VANET by implementing encryption techniques	Mrs. Rajni
2	Meenaxi	96436882803	31-08-2013	Investigation of energy aware routine in wireless sensor networks	Dr. Satvir Singh
3	Puneet Bindra	100666880655	23-12-2013	Expanding ring search based performance evaluation of AODV Algorithm in Mobile ADHOC Networks	Mrs. Jaswinder Kaur
4	Sunil Kumar Gautam	100666880660	22-05-2013	Performance Analysis of Hybrid Raman Amplifier	Dr. Vishal Sharma
5	Ramandeep Kaur	100666880658	27-11-2012	Implementation and Investigation of high speed DWDM Transmission system in the presence of four	Dr. Vishal Sharma

				wave mixing	
6	Sushank	100666880661	26-02-2013	Implementation of OFDM Based High Speed Hybrid Optical Transmission System	Dr. Vishal Sharma
7	Sandeep Kumar	100666880662	23-02-2013	Effect of Particle Non-Sphericity and Hydrated Water Contents on Microwave Signal Attenuation: A Computational Study	Mrs. Jaswinder Kaur
8	Lovish Jaiswal	100666880652	23-02-2012	Performance Analysis of Zigbee Wireless Sensor Networks under Different Network Topologies and Effect of back-off Exponent in Zigbee Sensor Devices	Mrs. Jaswinder Kaur
9	Navneet Kaur	100666880653	13-08-2013	Investigation of OFDM Based Wiremax Network	Dr. Vishal Sharma

10	Rajni	100666880656	27-11-2012	Implementation of High Speed Dispersion compensated DWDM Link	Dr. Vishal Sharma
11	Gaurav Sikri	964636882797	1-12-2012	Reduction of Paper Using Wavelet Tree Structure in WOFDM System	Mrs. Rajni
12	Gurpreet Singh	100666882643	15-02-2014	Design of Triple Microstrip Antenne with defected Ground Structure for wireless Applictions	Mrs. Rajni
13	Kulwinder Kaur	100666880651	27-09-2013	Investigation of Localization of Base Tran receivers Stations Using Artificial Colony Algorithm	Dr. Satvir Singh
14	Gagan Sachdeva	100666880647	27-11-2012	Investigation for improved convergence during Yagi-Uda Antenna Design Optimization using BBO	Dr. Satvir Singh

15	Jagvir Kaur	100666880650	26-02-2012	Xpm Induced Cross Talk in SCM-WDM Transmission Link in the presence of Higher Order Dispersion	Dr. Vishal Sharma
16	Shimpa Sethi	100666882660	3-01-2014	Implementation & analysis of a fused approach for segmentation of Brain MR images for Tumor Extraction	Mrs. Jaswinder Kaur
17	Sumer Singh	100666880659	10-04-2013	MAODV to identify a secure route selection in MANET Under Black-hole	Mr. Chakshu Goel & Mr. Gurjeevan Singh
18	Gurwinder Singh	100666880649	27-09-2013	A modified DSR Protocol to find a secure route in MANET	Mr. Chakshu Goel & Mr. Gurjeevan Singh
19	Puneet Jain	100666880654	27-09-2013	Design analysis & simulation of C-MOS Full Adder for Arithmetic Application at 180 nm Using	Mr. Chakshu Goel & Mr. Gurjeevan Singh

				Tanner Tool	
20	Mandeep Kaur	100666882650	27-08-2013	Bandwidth enhancement of Microstrip Patch antenna with SRR type slot	Mrs. Rajni
21	Navdeep Kaur	100666882653	27-08-2013	Design and Simulation of Microstrip Patch Antenna for On Body Communication using Different Feeding Techniques	Mrs. Rajni
22	Manbir Kaur	1169048	19-07-2013	Performance Evaluation of Quasi and Rotaed Quasi OSTBC Systems	Mr. Amit Grover
23	Pargat Singh	1169053	11-07-2013	Design of an optimal Detector in BLAST Architecture	Mr. Amit Grover
24	Keshav Kumar	1169047	15-02-2014	New design using CLRCL full adder logic in 180nm technology	Mr. Amit Grover
25	Garish Kumar Wadhwa	1169039	11-07-2013	An area efficient carry select	Mr. Amit Grover

				adder design by using 180 mm technology	
26	Rohit Gupta	1169057	29-03-2014	Study and Comparison of Equalization Techniques in MIMO Systems	Mr. Amit Grover
27	Shelja Tayal	1169062	31-08-2013	Investigation of variants of biogeography based optimization algorithm for improved performance	Dr. Satvir Singh
28	Shivangna	1169063	27-09-2013	Range based node localization in wireless sensor network using BBO and PSO	Dr. Satvir Singh
29	Amrita Tyagi	1169033	13-08-2013	Modelling & Simulation of long reach Ethernet Passive Optical network (E_PON)	Dr. Vishal Sharma
30	Gurimandeep Kaur	1169040	12-07-2013	Improved Free Space Optics (FSO) Under Different	Dr. Vishal Sharma

				Weather Condition	
31	Amandeep Kaur	1169030	17-07-2013	Performance Estimation of intersatellite optical wireless communication (ISOWC) system	Dr. Vishal Sharma
32	Etika Mittal	1169038	31-08-2013	Multiobjective gain impedance optimization of wire yagi-uda antenna	Dr. Satvir Singh
33	Shashi Kant	1169060		Performance evaluation of energy efficient VANET Network	Dr. Vishal Sharma
34	Jaspreet Singh	1169044		Performance evaluation of OFDM System over Multipath Fading	Dr. Vishal Sharma
35	Sumit Khurana	1169066	9-4-14	Simulation and Analysis the Performance of AODV and DSR for VOIP and VIDEO Conferencing using OPNET	Mr.Amit Grover
36	Chetinderpal	1169036	11-4-14	Implementation	Mr.Amit Grover

	Singh			of a modified moder-sram using Tanner EDA	
37	Kamalpreet Kaur	100666882647	9-5-14	Detection of low rate distributed denial of service attack and comparison of various queue management algorithms	Ms. Navdeep Kaur and Mr. Gurjeevan Singh
38	Mini Lumba	1269843	1-8-14	Cloud burst sway over optimum OFDM-FSO Transmission link	Dr. Vishal Sharma
39	Inderbir Kaur	1269840	1-8-14	ECG signal analysis and arrhythmia detection using wavelet transformer	Mrs.Rajni
39	Anutam	1269833	1-8-14	Image denoising using wavelet packet transformer and optical wavelet basis	Mrs.Rajni

40	Shivani Sharma	1269847	1-8-14	Simulative realization of DWDM-OFDM- EPON System	Dr. Vishal Sharma
41	Aruna Rani	1269834	2-8-14	Performance evaluation of DWDM system using semiconductor optical amplifier	Mr. Sanjeev Dewra
42	Ekta Khurana	1269836	9-8-14	Radio propagation prediction and mimo channel modeling for IEEE 802.11N in indoor environment	Mrs.Jaswinder Kaur
43	Ashish Arora	1169034	9-8-14	Zig Bee simulation and investigation of star ,mesh and tree topology by varying channel sensing duration	Mr. Amit Grover
44	Jyoti Gupta	1269841	9-8-14	An area efficient approach comparative analysis of multiplier	Mr. Amit Grover

				circuits	
45	Ranjit Singh Momi	100666882658	16-8-14	Design and simulation of triple band meandered monopole antenna incorporating defected ground structure with finite element method	Mrs.Rajni
46	Barinder paul Singh	1169035	16-8-14	Energy enhancement of wireless sensor networks using ant colony based scheduling algorithm	Mrs.Rajni
47	Gurpreet Singh	1269839	25-8-14	Mathematical modeling of wavelet OFDM based wireless network	Dr. Vishal Sharma
48	Gagandep Singh Gill	1269837	6-9-14	Design of low power and efficient carry and select order	Mr. Chakshu Goel

49	Lovepreet Singh	1269842	15-9-14	Black hole attack dominance on Manet protocol over different application	Ms. Navdeep Kaur and Mr. Gurjeevan Singh
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DEPARTMENT OF MECHANICAL ENGINEERING

Guiding student's research:

S.N.	Name of Student	Year	Title of the Dissertation
DR TEJEET SINGH –M TECH			
1.	Mr. Nek Singh	2006	Achieving Business Excellence through Total Productive Maintenance
2.	Rajinder Kumar	2010	Application of Quality Function Deployment in Health Care Sector for Enhancing Consumer Satisfaction-A Case Study
3.	Nitin Kapoor, PEC University	2012	Analysis of Steady State Creep in Functionally Graded Rotating Cylinders.
4.	Paramjit Singh Bhullar, PTU Jalandhar	2012	Creep Deformations In Functionally Graded Cylinders Subjected To High Thermo-Mechanical Loads.
5.	Virat Khanna, PTU Jalandhar	2013	Steady State Creep in Rotating Thick-Walled Composite Cylinders.
6.	Haramnajt Singh, PTU Jalandhar	2013	Creep Analysis of Functionally Graded Polynomial Cylinder Subjected To Internal Pressure.
7.	Parampreet Singh, PTU Jalandhar	2013	CFD Analysis of Multi-Jet Air Impingement on a flat Plate
8.	Pavitor Singh Rai, PTU Jalandhar	2014	Effect of Non-Linear Distribution of Reinforcement and Thermal Gradient on Creep Behavior of FG Cylinder
9.	Aman Bhatia, PTU Jalandhar	2014	Natural Fiber PMC
10.	Ishavneet Singh	2014	Steady state creep behavior of composite cylinder subjected to internal and external pressures

Dr Rakesh Kumar – PhD			
1	GazalPreet		Design of Reconfigurable Manufacturing System
2	ShakunPreet		Flexibility of Manufacturing Systems
3	Kamal Khanna		Design of Manufacturing Systems using RMTs
4	LeenaKakkar		Operational management of NAAC accredited institutions
5	Gitesh		Improvements in Cellular Manufacturing Systems
6	Sunil Kumar Bishnoi		Wire EDM
7	Ajay Kumar Aggarwal		Scheduling in Flexible manufacturing Systems
8	Shivam Arora		Operations management
9	Gurmeet S. Ananad		Electrochemical Honing
10	Umed Kumar Khod		Electrochemical Machining
Dr N K Grover – MTECH			
1	Rajiv arora M-4220201	2008	Phase Equilibrium Prediction for two Component Non-associating mixtures using equation of State
2	Paramjit Singh Bhullar (96437682850)	2012	Creep Deformations in Functionally Graded Cylinders Subjected to High Thermo-mechanical Loads
3	Amandeep Singh (96437682844)	2013	Effect of Cryogenic treated Electrode on EDM Output Parameters
4	Parampreet Singh (100667682932)	2013	CFD Analysis of Multi-Jet Air Impingement on a Flat Plate
5	Baljit Singh (96437682845)	2012	The Wear Behaviour of Detonation Sprayed Coatings on Grey Cast Iron
6	Virat Khanna (96437682854)	2013	Steady State Creep in Rotating Thick Walled Composite Cylinders
7	Rakhi Vaish (100666382007)	2013	Analysis of Graetz Problem in Heat Exchangers

Department of Computer Science & Engg.

Guiding Students Research:

Sr No.	Name	No. of Students	Students Name	Specialization
1.	Dr. Krishan Kumar	2	Kanu & Rajveer Kaur	N/W Security Wireless Networks
2.	Dr. Monika Sachdeva	2	Priya & Reenkamal	N/W Security
3.	Mrs. Daljeet Kaur	1	Isha Chawla	N/W Security
4.	Mrs. Sonika Jindal	3	Navneet Kaur , Sahil Charaya & Rajbir Kaur	Digital Image Processing
5.	Mr. Vishal Arora	2	Shubhi Bansal & Divya	N/W Security Wireless Networks
6	Mr. Pawan Luthra	2	Sonia Arora & Sandeep Kaur	Cloud Computing
7.	Mr. Sarabjit Singh	1	Gaurav Dhawan	Parallel Computing
8.	Mr. Japinder Singh Taneja	2	Karamjeet Kaur & Sukhveer Kaur	Software defined Networking
9.	Mr. Navtej Ghuman	2	Amanpreet Chawla & Ramande ep Kaur	Cloud Computing

Department of Applied Sc. & Humanities

Guiding Students Research:

Dr. Sangeeta Sharma

1	Savinder Kaur	Study of material for fabrication of intermediate temp . solid oxide fuel cell electrolyte using microwave energy	Ph.D	2011	Co supervisor
2	Amit Dhir	Root zone bio tech plant: present prospective. Studies on decolourisation of dye effluents using advanced oxidation systems	M.Tech (minor project) M.Tech Thesis	2006	Supervisor
3	Sunita Rani	Assessment of drinking water quality at Moga . (punjab) . a mathematical approach	M .Phil	2008	Supervisor
4	Anchal Sood	Environmental consideration for planning of industrial area in Ludhiana city.	M. Tech.	2009	Supervisor
5	Navneet Kaur	Removal of synthetic dyes from aqueous streams. Employing adsorption and advanced oxidation systems	M..Tech.	2010	Supervisor

6	Bhajan Dass	Environmental Assessment and Remediation strategies for the treatment of effluents of recycled paper mills	M.Tech.	2010	Supervisor
7	Sarabjit Singh	Analysis and treatment of effluents released from agro based paper mills.	M.Tech	2012	Supervisor
8	Rakesh Punia	A comparative study of Mango seed with wood stalks as a small scale downdraft Gasifier feed stock	M.Tech.	2013	Co-supervisor
9	Davinder Kumar	Assessment of heavy metal contents in vegetables grown in the vicinity of Sirsa and their effects on human health.	M.Tech.	2014	Supervisor

Annexure I (B)

Details of student's research projects.

Department of chemical Engg.

S. No.	Name	Title	Event	Venue	Remarks
1	Ashish Koundle, Amit Arora, Jatinder Singh Gill	Supported Liquid Membrane for the separation of the Cu ²⁺ ions	RACEE 2012, 20-21 January 2012	NIT Rourkela	--
2	Ashish Koundle, Amit Arora,	Fabrication Technologies of	MOLMED 2012, 19-22 February,	Vellore, Tamil	--

	Bhawna Wasson, Rakesh Sehgal	biodegradable nanoparticles	2012	Nadu	
3	Rakesh Tangri, Amit Arora, Sandeep Kaur	Conversion of biomass into biocoal	National Conference on Material Science Application in energy and environment, 2-3 March,2012	DAV college Jalandhar	--
4	Harpreet Kaur, Balpreet Kaur et al.	Reduction in COD of pulp and paper effluent mill on treatment with bio-degradable polymer" in held at	National conference on Recent Advances in Chemical and Environmental Studies(RACES- 2012) 3 March,2012	Multani Mal Modi college, Patiala	Won second prize

Department of Mechanical Engg.

DETAILS OF STUDENTS RESEARCH PROJECTS:

JULY-DEC 2012

Title of Project	Project Guide
Vehicle suspension system for battery charge	Ms. Vaishali Goyal
Thermoacoustic Heat Engine	Mr. Gurnam Singh
Automatic object rejection using conveyor belt	Mr. Gurwinder Singh
Topic Switch robotic Arm	Mr. Sukhwant Singh
Multy Function Machine	Mr. Gurwinder Singh
Hydraulic ram	Mr. Lalit Kapoor
Pneumatic Brake	Mr. Lalit Kapoor
Safety Measures in Automobiles	Ms. Vaishali Goyal
Air Compressor	Mr. Sukhjinder Singh
Vertical Axis Wind Turbine	Mr. Lalit Kapoor AND Mr Shivam Sharma
Hydraulic Brakes	Dr. Tejeet Singh
Conveyor Belt used in Industry	Mr. Munish Dhir
Pneumatic Based Robotic Arms	Mr. Gurwinder Singh
Pneumatic Punching Machine	Mr. D.P.Kashyap
Design, Analysis, Implementation of Hydel Power Project	Mr. Sukhwant Singh
Walking Robot	Dr. R.S. Bhatti and Mr J P Singla
Mechanical Blackboard Cleaner	Dr. Tajeet Singh

Hand operated of Hydraulic Press	Dr.R.S.Bhatti
Desert Cooler cum Air Conditioner	Mr. Gurnam Singh
Hydraulic Arm	Mr. Sukhjinder Singh
Ram Pump	Mr. Sukhjinder Singh
Automatic Car Jack	Mr. Sukhjinder Singh
Fire Fightinh Robot	Mr. Gurnam Singh
ABSys.(Anti Breath system)	Mr. Sukhjinder Singh
Blade Less Fan	Vaishali Goyal
Step Up Lifter	Dr. Rakesh Kumar and Mr Munish Kumar
Energy through Busy Road	Mr. Veerpal Soi and Mr Shivam sharma
Tesla Turbine (Design & Fabrication to home	Mr. Jawala parshad singla
Hubless- Spokeless Bicycle Wheel	Mr. Jwala Prasad Singla
Pedal Operated Vaccum Cleaner	Mr. Jwala Prasad Singla
Air Compressor	Mr. Sunkhjinder Singh

JAN-JUN 2014

Name of Project	Name of Project
Dr. M. K. Kushwaha	Spring Based shoker with Electricity generation
Dr. Arun Kumar Asati	Design Calculation fo 50 KW solar panel system for mechanical block A Dissertation
Dr. Rakesh Kumar	Plant re- layout of Cement Pipe Making
Prof. Vivek Sood	Plant re-layout study for combine harvestopt manufacturing Plant
Prof. Sukhwant Singh	Automatic Braking System
Dr. Neelkanth Grover	Leaf Collector Machine
Prof. J. K. Agarwal	Syringe Based Hydraulic Ram
Dr. Tejeet Singh	Solar Pump
Prof. Vaishali Goyal	Re -genrative Braking system
Prof. R. P. Singh	Steam Engine
Prof. Gazalpreet	Electro Colouring and Tribological Testing of commercial Grade A. C. Anodized Aluminium
Prof. Manjinder	Regenerative Shock Absorber
Dr. Rajbir Singh	Design & Fabrication of Solar Grass Cutter
Prof. Munish Kumar	Single Paddle Control Vehicle with Electricity Generaion
Prof. Dharampal	Electricity Generaion by Dancing Floor
Prof. Gurnam Singh	Pnematic Based Soil Pressing machine
Prof. Sukhjinder S.	Rain activated Wiper System
Prof. Jwala Prasad	Automatic fooding System of Poultry Farm
Prof. Veerpal Soi	Hydraulic Bridge
Prof. Ankush Batta	Ball Grinding Machine
Prof. Hitesh Uppal	Automated Multi Stage Car Parking System
Prof. Harish Mittal	Shoe Polish Machine
Prof. Mukesh Kumar	Can Crusher with Pnematic System
Prof. Jyoti	Double Stage Evaporative Cooling Tower
Prof. Sheenam	Eddy Current Brakes
Prof. Sandeep Kaur	Automatic Menthol Oil Boiler
Prof. Supriya	Hydraulic Crane
Prof. Gurnam Singh	Experimental optimization of parameters of EDM on En24 by using different tool Material

Prof. Sukhjinder S.	Hydraulic Press
Prof. Jwala Prasad	Advance Railway Crossing System
Prof. Veerpal Soi	Anti Runaway design Diesel engine
Prof. Sukhwant Singh	Leaf Collecting Machine

Department of Computer sc. & Engg.

List of Students' Research Work

1. Performance analysis of multicasting protocols.
2. Evaluating differentiated services on NS-2.
3. Evaluating impact of DDoS attacks against internet services on DETER testbed.
4. Intrusion detection system using Honeypots.
5. Detection of DDoS attacks using Source IP Address and network address based entropy.
6. Analysis of Selective Forwarding Attacks in Wireless Sensor Networks.
7. Simulation and Performance Analysis of DSR, GRP, OLSR (MANET). Routing Protocol using OPNET.
8. Location Based Services in Mobile Communication Using GPS and Cell-ID.
9. Emulation of DDoS Defenses using DETER Testbed.
10. Distinguishing DDoS attack from Flash Event using Real World Datasets.
11. The ROI Segmentation technique for feature extraction from human facial image.
- 12.A COMPOSITIONAL APPROACH OF RELIABLE AND EFFICIENT CLOUD SERVICE SELECTION
13. Detection and prevention of wormhole attack in MANET using DSR protocol.
14. Phishing Defense Mechanism using LinkGuard Algorithm.
15. An improved Method of Biorthogonal Wavelet families for Image Compression.
16. An improved Median Filter for Denoising Grey Scale Images.
17. Detection & Prevention of Sink Hole Attacks on MANET Reactive Protocols.
18. Ant Colony Optimization for Improving Network Lifetime in Wireless Sensor Networks.
19. Efficiency Measurement for Stress Management in Heterogenous 2D Mesh Processor.
20. Advanced Memory Reusing Mechanism for Virtual Machines.
21. Detection of IRC based Botnets.

22. Multistage Steganography for secure Data communication using Least Significant Bit Edge Detection (LSB-ED).
23. Optimization of Wireless Sensor Networks using Bacteria Foraging Optimization.
24. Implementation and Analysis of Image Segmentation using Bacteria Foraging Optimization Technique.
25. A Systematic Way of Hybrid Model Design and Comparative Analysis of EBGM and Eigen Values for Biometric Face Recognition Using Neural Network.
26. Fuzzy Logic Based Edge Detection Technique for Gray Scale Images.
27. Evaluation of Refactoring Opportunities for Different Source Codes in a Machine Learning Environment.
28. Comparative Investigation of Different Transform Coding Techniques for Lossy Image Compression.
29. Comparative Assessment of Exact and Evolutionary Techniques for Solving Knapsack Problem.
30. Implementation and Analysis of DWT-SVD based Digital Image Watermarking Technique under Various Attacks.
31. Image Steganography Using Hybrid Edge Detection and First Component Alteration Technique.
32. Semi Blind DWT-SVD Video Watermarking using High Frequency Band.
33. Random Selection of Frames using Secret Key for the Implementation of SVD-3 Level DWT Video Watermarking.
34. Design of artificial intelligence based intrusion detection technique.
35. Extrusion Based Detection System.
36. Detecting Intrusions in Educational Institutes: Case Study
37. Measuring impact of DDoS Attacks against Web Services using trace driven simulations.
38. Comparison and implementation of AQM techniques in routers to prevent aggressive flows in networks.
39. Characterization of DDoS attacks distributions from real data sets and emulation based experiments on DETER testbed.
40. Comparative Study of various DDoS Defense schemes using DETER testbed.
41. IP traceback using Port marking in IPv6 for flooding based DDoS attacks.
42. Feature Selection approach for Intrusion Detection
43. An Effective Combination for AI based ensembles for intrusion detection.
44. A Comparative analysis of AI based techniques to detect social engineering Attacks.

45. Defending from RREQ flooding attacks in MANETS in military applications under group mobility.
46. QoS improvement in AOMDV through backup and stable path routing .
47. Multiphase graphical based authentication in cloud computing
48. Detection of HELLO flood attack on the LEACH protocol in WSN.
49. Detection and prevention of sink hole attack on MANET reactive protocols
50. Analysis of traffic engineering based security technologies in wireless mesh networks under flooding attacks.
51. Mitigating impact of black hole attack in MANET
52. Analysis of peer to peer multimedia streaming.
53. Supervised Machine Learning techniques for intrusion detection : A Comparative study
54. Characterizing impact of Black-Hole Attack on Elastic and Inelastic Applications in MANETs
55. Study of Hacking techniques and ways to prevent
56. Design of QoS-Aware ODMRP with limited control overheads
57. Detection and avoidance of blackhole attack in AOMDV protocol in MANETs
58. Characterization of malicious head against hello flood attacks in LEACH protocol.
59. Traffic aware load balancing in AOMDV in mobile adhoc networks

Annexure II

Training programmes for faculty & students

Department of Chemical Engg.

Details of Workshops/ training programs organized by the dept.



One week Faculty Development Program titled "Recent Trends in Polymers, Composites & Their

Engineering Applications” in collaboration with CIPET Amritsar from 16-20 September 2013 under TEQIP.

Department of Civil Engg.

Details of workshops training programmes organised by the Department

Sr. No.	Topic of Faculty development Programme	Period	Conducted by
1	Managerial Skills	09/09/2013 to 13/09/2013	N.I.T.T.T.R., Chandigarh

Department of Electrical Engg.

Seminars/Conferences/Workshops organized & the source of funding

a) National

Workshop

Sr.No	Name	Organized by	Organized for	Dates	Funding
1	Microcontroller and PLC	Electrical Engg Dept with Advance tech Chandigarh	Batch 2011 (EED)	2/04/14 to 4/04/14	TEQIP II

FDP

Sr.No	Name	Organized by	Organized for	Dates	Funding
1	PLC	Electrical Engg Dept with IATC Siemens Chandigarh	Faculty of Electrical and Electronics Engg	2/09/13 to 6/08/13	TEQIP II
2	Moelling and simulation in Advanced Matlab Environment	Electrical Engg Dept with Mathworks through Design Tech Jalandhar	All the faculty members of Engg colleges	25/11/13 to 29/11/13	TEQIP II

Industrial visit

Sr.No	Organized by	Name of industry with address	Organized for	Dates	Funding
1	Electrical Engg Dept	IATC SIEMENS, PKL	Students batch 2010-2014	20/09/13	TEQIP II (IIIC)
2	Electrical Engg Dept	IATC SIEMENS, PKL	Students batch 2011-2015	28/10/13	TEQIP II (IIIC)
3	Electrical Engg Dept	220KV SUBSTATION FZR CANT	Students batch 2011-2015	28/01/14	NIL
4	Electrical Engg Dept	ADVANCE TECH CHANDIGARH	Students batch 2012-2014	24/03/14	TEQIP II

b)International

Conference

Sr. No	Name	Organized by	Organized	Dates	Funding
1	International Conference on Communication Computing & Systems (ICCCS)	Department of Electrical Engineering, Department of Electronics & Communication Engg. and Department of Computer Sc.& Engg.		TEQIP II	TEQIP II

Department of Mechanical Engg.

DETAILS OF WORKSHOPS/TRAINING PROGRAMMES ORGANISED BY THE DEPARTMENT:

S No	Topic/Title	Date/Year	Source of Funding
1	Role of Communication, Motivation and Team- Building in Enhancing the Performance of Teachers	25 May ' 2013	TEQIP-II
2	Workshop on Mechatronics by Medhavi Industries, Chandigarh	19.3.2013 to 20.3.2013.	TEQIP-II
3	Workshop on Solidworks by CAD Center Bathinda.		TEQIP-II
4	National Conference on Advances In Manufacturing Systems	5-6 Sept'2014	TEQIP- AICTE- ISTE

LIST OF SHORT TERM COURSES ARRANGED

S NO	TITLE	VENUE	DATE
1.	Multi Criterion Optimization Tools In Research	SBSSTC, FZR	21.5.12 TO 1.6.12
2.	Research Methodology- Tools And Techniques	SBSSTC, FEROZEPUR	3.12.12 TO 7.12.12
3.	Soft Skills For Technical Teachers	SBSSTC, FEROZEPUR	2.9.13 TO 6.9.13
4.	Role Of Industrial Engineering And Design In Present Scenario	SBSSTC, FEROZEPUR	16.9.13 TO 20.9.13
5.	Strengthening Industry Institute Interaction	SBSSTC, FEROZEPUR	23.9.13 TO 27.9.13
6.	Futuristic materials	SBSSTC, FEROZEPUR	30.9.13 TO 05.10.13

Department of Computer Science & Engg.

List of STC/Workshops organized

Sr. No.	Title of STC/Workshop	Duration	No of Participant
7.	Workshop on “Mobile Application Development” from 18-19 th Feb 2014.	2 Days	57
8.	STC on “Cloud Computing” from 28 th Oct- 1 st Nov 2013.	5 Days	30
9.	STC on “New Computing and Emerging Technologies in the ICT and Modern Teaching Tools” on 26 th -30 th Aug 2013.	5 Days	90
10.	Expert Lecture on “Current Technology Awareness” on 21-08-2013 by Navjot Singh, Technical Director, Weavebytes, Chandigarh.	1 Day	90
11.	Expert Lecture on “Mobile Application n Development” on 19-08-2013 by Manu Mehra, Director, V-Serv Solutions, Ludhiana.	1 Day	73
12.	Expert Lecture on “Software Safety” on 09-08-2013 by PankajVyas, Asso. Professor, CSE, BITS, Pilani.	1Day	35

Department of Electronics & Comm.

Seminars/Conferences/Workshopsorganized&thesourceoffunding

a) National b) International

a)National

Module Description	Any other contributory Inst./ Industry	Developed / organized by	Duration	Resource Persons	Target Audience	Usage and citation etc.
Organizing Two-Week STC	AICTE sponsore	Dr. Satvir Singh (ECE)	Two weeks	Dr. Satvir Singh, Dr J S Saini, Dr Arun Khosla,	B.Tech, M.Tech,	Project designi

by ECE deptt. 4-15 July 2011	d				Dr Rakesh Sharma, Dr A. K Tyagi, Dr Neel Kanth Grover	Phd students and Faculty	ng, Researc h
Organized workshop under the name of "Network security"	Institutio n	Mr Vishal sharma	Two Day		Appin Technology, New Delhi	M.Tech, Phd and B.Tech students and Faculty	Practica l usage Project designi ng
One week TEQIP Course organized by ECE Deptt. From (26 th Nov. 2012 to 30 th Nov. 2012)	Departm ent	Dr. Satvir Singh (ECE) Vikram Mutneja Inderjit Singh Gill	One WEEK		Dr. Satvir Singh, Dr J S Saini, Dr Arun Khosla, Dr Rakesh Sharma, Dr .Neel Kanth Grover	M.Tech, Phd and B.Tech students and Faculty	Project designi ng, Researc h
Hands on Training on Ansoft HFSS Software	TEQIP Phase-II Sponsore d	Mrs. Rajni	Two days		Mr. Raja Innovent Engg. Solutions Pvt. Ltd.,Bangalore	M.Tech, Phd and B.Tech students and Faculty	Project designi ng, Researc h
Hands on Training on Labview Software	TEQIP Phase-II Sponsore d	Dr. Satvir Singh	Two days		Mr.Vipin Sarin Maffick Instruments, Ambala	M.Tech, Phd and B.Tech students and Faculty	Project designi ng, Researc h
One week course by ECE Deptt.on "Recent Trends in Optical and Wireless Communication System Design" (9 th Sept 2013 to 13 ^h Sept.. 2013)	TEQIP Phase-II Sponsore d	Mr. Sanjeev Dewra, Mrs. Rajni, Mr. Vishal Sharma, Ms. Jaswinder Kaur, Mr. Vikram Mutneja	One week		Experts from Industry	M.Tech, Phd and B.Tech students and Faculty	Project designi ng, Researc h
One week course by ECE Deptt. on Digital Image, Video and Medical Image Processing (23Sept. 2013 to 27 th Sept.. 2013)	TEQIP Phase-II Sponsore d	Mr. Sanjeev Dewra, Mrs. Rajni, Mr. Amit Grover Ms. Navdeep Kaur, Mr. Vikram Mutneja	One week		Experts from Industry	M.Tech, Phd and B.Tech students and Faculty	Project designi ng, Researc h

One week course by ECE Deptt. on "Photonics" (21Oct th 2013 to 25 ^h Oct. 2013)	TEQIP Phase-II Sponsore d	Mr. Sanjeev Dewra, Mrs. Jaswinder Kaur Mr. Vishal Sharma, Mr. Chakshu Goel	One week	Dr. R.S.Kler, Dr. A.K. Tyagi, and Experts from Industry	M.Tech, Phd and B.Tech students and Faculty	Project designi ng, Researc h
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Department of Applied Sciences & Humanities

Seminars/Conferences/Workshops organized & the source of funding

- A National Level One Week Short Term Course on Engineering Materials under TEQIP (Phase-II) during December 17-21, 2012. **(National /TEQIP)**
- A National Level One Week Short Term Course on "Soft Skills for Technical Teachers under TEQIP (Phase-II) during September 2 - 6, 2013. **(National /TEQIP)**
- A National Level Two Week Short Term Course on "Analytical Techniques for detection of Environmental Pollutants" from December 16-27, 2013 at SBS STC, Ferozepur. **(National/TEQIP).**

Annexure III

Details of prioritized research area of the faculty

Department of chemical Engg.

Name	Qualification	Designation	Specialization
Dr. Rajeev Kumar Garg	B.E. (Chem Engg.), PU Chandigarh, 1992 M.E. (Chem Engg.), PU Chandigarh, 1995 Ph.D. (Chem Engg.), IIT Delhi, 2009	Professor	Modelling and Simulation
Mrs. Balpreet Kaur	B. Tech. (Chem Engg), PTU Jalandhar, 1998 M.Tech. (Env. Sc Engg), PTU Jalandhar, 2010	Associate Professor	Environmental Science
Mr. Rajiv Arora	B.Tech. (Chem & Bio), GNDU Amritsar, 1995 M.Tech. (Chem Engg.), PTU Jalandhar, 2008 Pursuing PhD from PU Chandigarh	Associate Professor	Modeling and Simulation
Mr. Pankaj Kalra	B.E. (Chem Engg.) PU Chandigarh, 1997 M.Tech. (Chem Engg.), PTU Jalandhar, 2008 Pursuing PhD from PTU Jalandhar	Associate Professor	Modeling and Simulation

Mr. Raj Kumar	B.E. (Chem Engg.), PU Chandigarh, 1991 M.Tech. (Env. Sc Engg), PTU Jalandhar, 2011	Associate Professor	Environmental Science
Mr. Amit Arora	B.Tech. (Chem Engg), PTU Jalandhar, 2000 M.Tech. (Env. Sc Engg), PTU Jalandhar, 2011 Pursuing PhD from IIT Roorkee	Assistant Professor	Environmental Science

Department of Civil Engg.

Details of prioritized research area of faculty:

Sr. No.	Name of Faculty	Area of research
1	Er. Parampreet Kaur	Geotechnical Engg.
2	Er. Boharsingh	Geotechnical Engg.
3	Er. Dapinderdeep Singh	Environmental Engg.
4	Er. Gurpreet Singh	Highway Engg.
5	Er. Gurtej Singh	Soil Mechanics & Foundation Engg.

Department of Electrical Engg.

Faculty profile with name, qualification, designation, specialization,

Sr. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1.	Dr. Kular Deep Singh	PhD	Associate Professor	Power System	8yrs	3 students regst.
2.	Mrs. Navneet Kaur	M.Tech	Assistant Professor	Power System	13yrs	-
3.	Ms. Anupam Mittal	M.Tech	Assistant Professor	Power System	9 yrs	-
4.	Mrs. Maninder	M.Tech	Assistant Professor	Power System	1yr.+9 month	-

5.	Mr. Harinderpal Singh	PhD (Pursuing)	Assistant Professor	Power System	3yrs 8 months	-
6.	Mr. Shanky Goyal	M.Tech	Assistant Professor	ECE	1yrs 2 months	-
7.	Mr. Inderjeet Singh Sandhu	M.Tech	Assistant Professor	Power System	1yrs10 months	-
8.	Mr. Vishal Puri	PhD (Pursuing)	Assistant Professor	EEE	2yrs	-
9.	Mr. Shammi Bahel	M.Tech (pursuing)	Lecturer		2yrs 6 months	-
10.	Mr. Sandeep Kumar	B.Tech	Lecturer		2yrs	-
11.	Mr. Major Singh	M.Tech (pursuing)	Lecturer		3 yrs 2 months	-
12.	Ms. Manpreet Kaur	M.Tech (pursuing)	Lecturer	Power System		-

DEPARTMENT OF MECHANICAL ENGG.

DETAILS OF PRIORITIZED AREA OF RESEARCH:

Name of the faculty	Qualification,	Area of Research/Specialization
Dr. T.S. Sidhu	Ph.D Mechanical Engg, M.Tech Mechanical Engg B.Tech, ME MBA	Material Engg
Dr. M. K. Kushwaha	Ph.D, Tribology of Nano structured composite, M.Tech-Engg Materials B.Tech, ME	Tribology of nano structured composite, Engg materials
Mr.Nripjit Singh	Ph.D Mechanical Engg, M.Tech Production Engg B.Tech, PE	Composite materials and Production
Dr.A. K. Asati	Ph.D Thermal Engg.	Thermal engineering
Dr.N. K. Grover	Ph.D.-ME M.Tech-Rotodynamic Engg B.Tech-ME	Thermal engineering, modelling and simulation, heat transfer

Dr. Rakesh Sharma	Ph.D.-ME&IE M.Tech-ME B.Tech-ME&PE	Manufacturing Systems, Design of Manufacturing systems, Industrial Engineering and Operations
Dr. Tejeet Singh	Ph.D-ME M.Tech-IE B.Tech-IE	Machine Design and Industrial Engg
Mrs. Vaishali Goyal	M.Tech-ME&PE B.Tech-PE	WELDING
Mr. Gazal Preet Singh	M.Tech-IE B.Tech-IE	Industrial Engg
Dr. Rajbir Singh Bhatti	Ph.D-ME M.Tech-IE B.Tech-IE	Industrial Engg and Supply chain optimization
Mr. Manjinder Singh	PhD-Industrial& PE M.Tech-IE B.Tech-IE	Total Productive Maintenance (TPM)
Mr. Ravinder Pal Singh	PhD-Persuing M.Tech-PE B.Tech-ME	WELDING
Mr. J.K. Aggarwal	PhD-Persuing M.Tech-ME&PE B.Tech-PE	WELDING
Mr. Munish Kumar	M.Tech-ME B.Tech-PE	Mechanical Engg.
Mr. D.P. Kashyap	M.Tech-ME B.Tech-PE	MATERIALS
Mr. Gurnam Singh	M.Tech-PE B.Tech-ME	Production Engg.
Mr. JwalaParshad	PhD-Persuing M.Tech-PE B.Tech-ME	TRIBOLOGY
Mr. Sukhjinder Singh	PhD-Persuing M.Tech-PE B.Tech-ME	DESIGN

Department of Computer Sc. & Engg.

Priortized Research Area:

- a) Network Security
- b) Image Processing
- c) Cloud Computing
- d) WSN

e) Parallel Computing

Department of Electronics & Comm.

Facultyprofilewithname,qualification,designation,specialization

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D students guided for the last 4 years
Mr. Sanjeev Dewra	M.Tech, PhD(Pur.)	Associate Professor	Optical Fiber Communication	21yrs	Nil
Dr. Satvir Singh	PhD.	Professor	Soft Computing	14yrs	Nil
Mrs. Rajni	M.Tech PhD(Pur.)	Associate Professor	Wireless Communication and Antenna Design	16yrs	Nil
Dr. Vishal Sharma	PhD.	Assistant Professor	Optical & Wireless Communication Systems & network	10yrs	Nil
Mr. Vikram Mutneja	M.Tech PhD(Pur.)	Assistant Professor	Image Processing ,Embedded Systems	12yrs	Nil
Mrs. Jaswinder Kaur	M.Tech PhD(Pur.)	Assistant Professor	Wireless Communication Systems	9yrs	Nil
Mrs. Geeta Arora	M.Tech	Assistant Professor	Embedded Systems	17yrs	Nil
Mr. Inderjeet Singh Gill	M.Tech PhD(Pur.)	Assistant Professor	Digital System Design/Imaging Processing /WSN	12yrs 8 months	Nil
Mr. Amit Grover	M.Tech PhD(Pur.)	Assistant Professor	Wireless Communication Systems	13yrs	Nil

Mr. Chakshu Goel	M.Tech	Assistant Professor	VLSI	12yrs	Nil
Ms. Navdeep Kaur	M.Tech	Assistant Professor	Neural Network /Wireless Communication systems/VLSI	6.5yrs	Nil
Mrs. Ramandeep Kaur	M.Tech	Assistant Professor	Embedded systems	1yr	Nil
Mr. Gurpreet Singh	M.Tech	Assistant Professor	Wireless Communication systems	Nil	Nil
Ms. Mini Lumba	M.Tech	Assistant Professor	Optical Communication Systems	1yr	Nil
Ms. Riya	M.Tech	Assistant Professor	Wireless Sensor Networks	1yr	Nil
Ms. Paras Mani	M.Tech	Assistant Professor	VLSI	Nil	Nil
Ms. Aruna Rani	M.Tech	Assistant Professor	Optical Fiber Communication	Nil	Nil
Mr. Vivek Soi	M.Tech PhD(Pur.)	Assistant Professor	Wireless Communication systems	5yrs	Nil

Annexure IV

Research Projects

Dept. of chemical Engg.

Research Projects till date

S.No.	Project Title	File No. and Date	Coordinators	Amount	Period	Status
1	Modernization of Computational Lab	AICTE-MODROB 12/AICTE/RIFD/MOD(Policy-2)-99/2012-13 dated 5.02.2013	Dr Rajeev Kumar Garg	5.75 Lac	2013-2014	In Progress
2	Modernization of Heat	AICTE-MODROB 8024/RIFD/MOD-264/2011-	Dr Rajeev Kumar Garg	1.5 Lac	2011-2012	Completed

	Transfer Lab	12 dated 21.12.2011				
3	Modernization of Mass Transfer Lab	AICTE-MODROB 8023/RID/BOR/MOD-97/2005-06 dated 17.02.2006	Dr Pushpa Paul	10 Lac	2005-2006	Completed
4	Waste Management, Effluent Treatment and Recycling	AICTE-RPS 8021/RID/NPROJ/TAP-17/2002-03 dated 21.12.2002	Dr Pushpa Paul Mr Raj Kumar	20 Lac	2002-2003	-

DEPARTMENT OF MECHANICAL ENGINEERING

1. Research projects till date:

Name of Project	Sponsorig authority	Project Coordinator	Scheme	Amount	Year of receiving	Current status
Total Turnaround strategy for loss making psu	AICTE	RS Bhatti	RPS Project	2.25 Lakhs	2012	In Progress
Modernization of CAD Lab	AICTE	NK Grover	MODROB project	11.00 Lakhs	2012	Completed in 2013
Paramatric Study of HVOF	AICTE	TS Sidhu	RPS Project	12.00 Lakhs	2008	In Process
Modernization of Material and Metallurgy Laboratory	AICTE	Dharpal	MODROB Project	15 Lakhs	2008	In Progress
Modernization of Foundry and Welding Laboratory	AICTE	NM Suri	MODROB Project	11.00 Lakhs	2005	Completed in 2007
Development of Manufacturing Process Laboratory	AICTE	TS Sidhu	MODROB Project	10.00 Lakhs	2003	Completed in 2005
Modernization of Thermal Engg Laboratory	AICTE	NK Grover	MODROB Project	4.00 Lakhs	2002	Completed in 2004

Department of Computer Sc.& Engg.

Research Projects:

Sr. No.	Faculty Name	R&D /Consultancy Project Title	Year	Amount
1.	Dr. Krishan Kumar	Development of Test Bed facility for evaluation of Defense techniques against DDoS Attack	2012	7.5 lacs
2.	Dr. Monika Sachdeva	Modernization of Networking lab	2012	8.5 lacs

Department of Applied Sciences & Humanities

Research Projects :

- DST Project entitled "Synthesis characterization and use of d-glucose based non-ionic Gemini surfactantants as micellar and reverse miceller mimics " from 2007 – 2011 (13.00 Lakhs).
- 2. DST Project entitled "A Study of Microwave Processing of partially Stabilized Zirconia (PSZ) Ceramics" from 2002 – 2004 (12.00 Lakhs).
- 3. AICTE Project entitled "Material Engineering High Temperature Investigation Lab" rom 1999-2002 (15 Lakhs)
- 4. AICTE Project entitled "Processing of Solid Electrolytes for ITSOFC by Microwave Energy" from 1999-2002 (15 Lakhs)
- 5. AICTE Project entitled "Laser Technology & Fibre Optics Lab" from 2005 – 2007 (5 Lakhs)
- 6. AICTE Project entitled "Development of Colloidal & Surface Chemistry Lab" from 2003 - 2005 (12 Lakhs)
- 7. AICTE Project entitled "Investigations on Molecular Chem. of Zr & Hf in lower oxidation states " from 2003 - 2006 (6 Lakhs)

8. AICTE Project entitled "Industry Institute Interaction Partnership Cell" in 2003 (7 Lakhs)
9. AICTE Project entitled "Industry Institute Interaction Partnership Cell" in 2003 (7 Lakhs)
10. AICTE Project entitled "Numerical Analysis Lab" in 2007- 12 (8 Lakhs)
11. UGC sponsored Project entitled "Environmentally Benign Protocol using plant based Biomass for Pollutant removal from Waste Water" from 2013 (8 Lakhs Contd.....)

Annexure V

Research facilities available in the Institute

Department of Chemical Engg.

➤ MICRO PROCESSOR GAS CHROMATOGRAPH

Department of Civil Engg.

	Laboratory	Major Equipments
1	Concrete Technology Lab.	2000 KN capacity compression testing machine, Equipment for non-destructive tests, Concrete Mixer Pan Type, Flexure Testing Machine, Automatic Mortar Mixer, Vibrating Table
2	Geotechnical Engg. Laboratory	Triaxial testing apparatus, Direct Shear Test Apparatus, Consolidation Test Apparatus, Electronic Balances of different capacities, Sieves and Automatic sieve shaker, Electrical Oven, Unconfined Compression Testing Machine, Lab 3 Permeability Apparatus, Universal Automatic Compactor
3	Transportation Engg. Laboratory	Marshall stability test equipment with digital display, Modified Marshall test equipment with automatic compactor, Bitumen Extractor, Digital Ductility Apparatus, Benkelman Beam Test Equipment, CBR Machine, Abrasion Value Test Equipment, Impact Value Test Equipment
4	Strength of Materials Lab.	UTM, Rockwell & Brinell Hardness Testing Machine, Spring testing Apparatus, Torsion Testing Machine, Charpy & Izod Testing Machine
5	Environmental Engineering Lab	BOD Incubator, pH meter, COD setup, Digital Dissolved oxygen meter, Muffle furnace, High Volume Sampler

Department of Mechanical Engg.

RESEARCH FACILITIES AVAILABLE IN THE DEPTT:

1. Hot mounting apparatus
2. Cold mounting apparatus
3. Precision balance
4. Micro hardness Tester
5. Temperature controlled Silicon carbide tube furnace
6. Tribometer
7. Image analyzer
8. Air jet erosion tester equipments
9. Mitutoyo portable surface tester (Roughness Tester)
10. Metal Inert gas Welding machine
11. Tungsten Inert gas Welding machine
12. Submerged gas welding Machine

Department of computer Sc.& Engg.

Qualnet, Rational SEED program are available in Department for research work.

Department of Applied Sc & Humanities

1) Simultaneous Thermal Analyzer System (DTA/TGA/DSC)	2) Atomic Absorption Spectrometer.
3) Particle size Analyzer	4) UV, visible IR spectrophotometer (02)
5) FTIR	6) Gas Chromatograph
7) Impedance Analyzer	8) Nano-voltmeter.
9) Precision Pico-ammeter/power supply unit.	10) Fibre optic & data transfer lab module.
11) Fringe Capture Michelson Interferometer	12) Hardness Tester
13) Tensile testing machine for polymers	14) High Temperature Furnaces
15) Hydraulic Press.	16) Precision Electronic Balance
17) Digital MP Apparatus	18) Vacuum Film Evaporator

19) Digital MP Apparatus	20) Vacuum Film Evaporator
21) Muffle furnace 1200 C	22) Muffle furnace 1450 C
23) Digital Balance	

Annexure VI

List of Publications

Department of Chemical Engg.

Details of publications of each faculty member along with Impact factor & ISSN No. and books published or chapter in books.

Name	No. of Journal publications	No. of National Conference publications (last three years)	No. of International Conference publications (last three years)
Dr. Rajeev Kumar Garg	5 Journal +2 book chapters	08	07
Mrs. Balpreet Kaur	3 Journal	05	01
Mr. Rajiv Arora	2 Journal	06	08
Mr. Pankaj Kalra	3 Journal +1 book chapter	02	01
Mr. Surinder Singh	--	--	--
Mr. Raj Kumar	--	--	03
Mr. Amit Arora	1 Journal +1 book chapter	18	15

Name	List of Publications	National/ International	Name of Journal
Dr. Rajeev Kumar Garg	Garg R.K., Krishnan V.V., Srivastava V.K., Prediction of Concentration and Temperature Profiles for Non Isothermal Ethane Thermal Cracking in a Pipe Reactor	International	Korean J. Chem. Engg. 23(4), 531-539, 2006
	Garg R.K., Srivastava V.K., Modeling and Simulation of Non Isothermal Thermal Cracker	International	J. Chem. Engg. of Japan 39(10), 1057-4 2006

	Garg R.K., Vashishta, M., Srivastava V.K., A Modeling Approach to Reaction of Non Newtonian Fluids in Tubular Reactor	International	Polymer-Plastics Technology and Engg
	Kalra P., Garg R. K., Grover N. K., Structural Properties of Anode Composite Precursor of a Solid Oxide Fuel Cell Prepared via Combustion Synthesis Route	International	Asian Journal of Engineering and Applied Technology ISSN 2249-068X Vol-1 No. 2 July-Dec 2012
	Kalra P., Garg R. K., Kumar A. , Singh A.P., Electrical characterization of NiO-CGO composites- SOFC anode precursor- prepared via combustion synthesis route	International	International Journal of Innovative research in Science, Engineering & Technology, Vol-3, Issue 5, May 2014.
Mrs. Balpreet Kaur	Rajoriya S., Kaur B. , Saharan V. K. 3, Kinetics and Isotherm on the Adsorption of Zn (II) from Aqueous Solutions by Natural Bio-sorbents	International	International journal of engineering sciences & research technology, ISSN : 2277-9655
	Singh Harjinder, Kaur Balpreet, Pandey O.P., Reduction of Wolframite Ore with Activated Charcoal to Produce Nano Tungsten Carbide	International	INROADS- An International Journal of Jaipur National University Year : 2014, Volume : 3, Issue : 1s2
	Rajoriya S., Kaur B. , Adsorptive Removal of Zinc from Waste Water by Natural Biosorbents	International	International Journal of Engineering Science Invention ISSN (Online): 2319 – 6734, ISSN (Print): 2319 – 6726 Volume 3 Issue 6, June 2014 PP.60-80
Mr. Rajiv Arora	Grover N. K., Arora R., Numerical Studies on Droplet Evaporation at High Ambient Temperature and Pressures	International	International Journal of Advances in Thermal Science & Engineering Vol. 1 (2), 2010, 133-137
	Arora R., Kapoor V., Kumar V., Agnihotri S. Jaiswal M., Esterification of Free fatty acids in waste cooking oil by carbonaceous sulfated acid catalyst: optimization & kinetic study	International	International Journal of Engineering Research Science & Technology, Vol-3, No. 3, August 2014 ISSN 2319-5991
Mr. Pankaj Kalra	Kalra P., Kumar A. , Singh A.P., Structural Properties of NiO-CGO Composites Precursor prepared via Combustion Synthesis Route	International	Asian Journal of Chemistry Vol. 21, No. 10 (2009), S157-161
	Kalra P., Garg R. K., Grover N. K., Structural Properties of Anode Composite Precursor of a Solid Oxide Fuel Cell Prepared via Combustion Synthesis Route	International	Asian Journal of Engineering and Applied Technology ISSN 2249-068X Vol-1 No. 2 July-Dec 2012
	Kalra P., Garg R. K., Kumar A. , Singh A.P., Electrical characterization of NiO-CGO composites- SOFC anode precursor- prepared via combustion synthesis route	International	International Journal of Innovative research in Science, Engineering & Technology, Vol-3, Issue 5, May 2014.
Mr. Amit Arora	Nanotechnology and Its Applications in Drug Delivery: A Review	International	International Journal of Medicine and Molecular Medicine ISSN:2046 1690 2012;3(1):WMC002867

Name of Faculty	Title of paper	Journal Name &	Impact factor	SJR
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		volume		
Dr. Rajeev Kumar Garg	A Modeling Approach to Reaction of Non-Newtonian Fluids in Tubular Reactor	Polymer-Plastics Technology and Engineering, <u>Volume 46</u> , Issue 10, 2007, pg 965-971 2012	1.481 (©2013 Thomson Reuters, 2012 Journal Citation Reports®)	
	Prediction of Concentration and Temperature Profiles for Non Isothermal Ethane Thermal Cracking in a Pipe Reactor	Korean Journal of Chemical Engineering	1.24 (2013) Thomson Reuters	0.46
	Modeling and Simulation of Non Isothermal Thermal Cracker	Journal of Chemical Engineering of Japan	0.61 Thomson Reuters	0.31

As available from internet google scholar

Name of Faculty	Citation indices All Since 2009		
	Citations	h-index	i10-index
Dr. Rajeev Kumar Garg	4	1	0

Department of Civil Engg.

Details of Publications of each faculty member alongwith Impact factor & ISSN no. and Books published or chapter in Books:

Sr. No.	Name of Faculty Member	Title of Publication
1	Er. Parampreet Kaur	Dynamic cone penetrometer based CBR value ISBN : 978-93-80697-63-5 page no.:852-856, 18-19 Feb 2011
		Correlation Between soaked CBR value and CBR Value obtained with Dynamic cone penetrometer ISSN-2249-3905, I JREAS, Volume -2, issue-2, page no.:1243-1250, Feb2012
		Soil Improvement with Lime ISSN: 2278-1684, 10SR, Volume-1, Issue-1, page no: 51-53, May-June 2012

		Use of geosynthetics in Leachate (MSW) management. ISBN: 978-81923777-8-0, Waste and Characterization, Volume-1, page no.: 43-48, 15-16Feb 2013
		Concrete self – Healing Capability using Bacterial Action – A Comparative Study: i-manager”s journal on Structural Engg, Vol-2- no.3,Sept- Nov2013
		Corelation between DCPT and Other Testsd- A Critical Review, International Sceince Index, (ICSMGE2014)vol-8 no-8, part-vi, in 21-22aug2014
		Poster in 17 th Punjab Science Congress on 14-16 feb2014
2	Er. Bohar Singh	Effect of Lime and Coir Fibre Reinforcement on Soil, National Conference on Trends in Geotechnical Engineering (TGE-2005), page no.: 43-56, April 30, 2005
		Effect of Coir Fibre Reinforcement and Lime on Strength and Shear Parameters of Clayey Soil, National Conference on Trends in Geotechnical Engineering (TGE-2005), page no.: 125-139, April 30, 2005
		Rice Husk Ash- A useful Engineering Material, National conference on Smart Electronic and Engineering Materials 2010 (SEEMS'10) March 5th-6th, 2010
3	Er. Dapinder Deep Singh	Effect on environment by burning different agricultural waste, March-April 2013 in International origination of scientific research journal
		Study the different parameters of sewage treatment with UASB&SBR technologies, March- April in International origination of scientific research journal
		Effect of polutted surface water on ground water :A case study of BudhaNullah, March-April in International origination of scientific research journal
		National conference on advancements in construction technology and management at Indo Global college of Engineering on 17 April,2013, on topic- Ambient air quality – A case study of Ludhiana city

Publications:

Faculty Name: Dr. Kultar Deep Singh

- Kultar Deep Singh and Smarajit Ghosh, "A new efficient method for load flow solution of radial distribution networks", *Przeglad Elektrotechniczny (Electrical Review)*, Vol.12a, pp 66-73, 2011.
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Faculty Name: Ms. Anupam Mittal

- Anupam Mittal, Divya Gupta and Rajni, "Genetic algorithm based economic load dispatch solution", *ISPJEE*, ISSN 2250-0537, Vol.1, Issue 1, 2011.
- Anupam Mittal and Divya Gupta, "Comparison of optimization techniques to solve economic load dispatch problem", accepted for presentation and Publication in National Conference on Recent Advancements & Innovations in Science and Engineering (RAISE 2012), to be held at Guru Ramdas Institute of Engineering and Technology, Bathinda, Punjab, India, 2012.

Faculty Name: Mrs. Maninder

- Maninder, Kathuria R. S. and Grover S. "Using agricultural residues as a biomass briquetting: an alternative source of energy", *IOSR Journal of Electrical and Electronics Engineering (IOSRJEEE)*, Volume 1, Issue 5, pp 11-15, ISSN: 2278-1676, 2012, Impact factor: 1.45
- Sonia Grover, Rupinderjit Singh Kathuria and Maninder Kaur, "Energy Values and Technologies for Non woody Biomass: as a clean source of Energy", *IOSR Journal of Electrical and Electronics Engineering (IOSRJEEE)*, Volume 1, Issue 1, pp. 10-14, ISSN : 2278-1676, 2012, Impact factor: 1.45.
- Maninder, Inderjeet Singh Sandhu, "Radius wise Analysis of Biomass for Power Generation in Punjab State", *International Journal of Engineering Research & Technology (IJERT)* Vol. 2 Issue 7, July – 2013, ISSN: 2278-0181, pp. 2163-2167, Impact Factor: 1.76.
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Faculty Name: Mr. Harinderpal Singh

- International Conference: H.P. Singh, Y.S. Brar, D.P. Kothari, "Multiobjective load dispatch using particle swarm optimization", *Proceeding of 8th IEEE conference on Industrial Electronics and Application (ICIEA2013)*, Melbourne, VIC, Australia, pp. 272-277, 2013

- International Conference: H.P. Singh, Y.S. Brar, D.P. Kothari, “ Combined active and Reactive power dispatch using particle swarm optimization, ” Proceedings of Informing Science & IT Education Conference (InSITE), Wollongong, NSW, Australia, pp. 295-304, 2014
- International Journal: A. Kaur, H.P Singh, A. Bharadwaj, “Analysis of Economic Load Dispatch Using Genetic Algorithm, ” International Journal of Application or Innovation in Engineering & Management (IJAIEM),Vol.3.(3), pp. 240-246, 2014

Faculty Name: Mr. Inderjeet Singh

- Inderjeet Singh Sandhu, Maninder, “ Analysis of losses in power system and its economic consequences in power sector” ,International Journal of Enhanced Research in Science Technology & Engineering, ISSN: 2319-7463 Vol. 2 Issue 7, July-2013, pp: (90-98), Impact Factor: 1.25.
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Faculty Name: Mr. Shanky Goyal

- Low Leakage Multi Threshold Level Shifter Design using Sleepy Keeper.D.O.I 10.5120/12671-9038
- Design of Low Leakage Multi Threshold (Vth) CMOS Level Shifter DOI: 10.11591/ijece.v3i5.3166

Faculty Name: Mr. Shammi Bahel

- QOS Estimation of IEEE 802.3 under the Influence of IntraDomain Routing Protocols. Volume 4 Number 2 September 2013 pp.1-7 ISSN-0973-7391

Faculty Name: Mr. Vishal Puri

- Performance analysis matched filter and MMSE filter Volume 2 • Number 2 IRACST 2012

Faculty Name: Ms. Manpreet Kaur

- Harnessing solar energy technologies: Basic review

Total no. of papers published in national/international journals by faculty and students = 20

Department of Electronics & Comm.

List of Publications

Sh. Sanjeev Dewra

1. Sanjeev Dewra, "Effect of Fiber non-linearities on the Optical Fiber Communication", National Seminar on Cutting Edge Technologies in Electronic Communication, pp. 32-33, Sant Harchand Singh Longowal Central institute Of Engineering and Technology, Longowal, March 14, 2004.
2. Sanjeev Dewra, " Comparative Study of 3G Technologies", National Conference on Embedded Communication Systems and Networks, pp. 137-138, Institute of Engineering & Technology, Bhaddal, 31st October & 1st November, 2003.
3. Sanjeev Dewra, "Mobile Communication Technologies", National Symposium on Emerging Trends in Networking & Mobile Communication, pp. 38-39, Institute of Electronics & Telecommunication Engineers, Chandigarh, 5th-6th september, 2003.
4. Sanjeev Dewra, R.S. Kaler, Hardeep Singh, "Analytical-Approach to Higher Order Dispersion through GVD", National Conference on Electronic Circuits and Communication Systems, pp. 257-259, Thapar Institute of Engineering and Technology, 23rd-24th September, 2004.
5. Sanjeev Dewra, R.S. Kaler, "Crosstalk analysis in an optical network based on optical cross connects with different MZI techniques" pp. 55-59, Optik 124, 2013, doi:10.1016/j.ijleo.2011.11.042, Impact Factor:0.730, SNIP: 0.925, SJR: 0.31, h-index:
6. Sanjeev Dewra, R.S. Kaler, "Performance analysis of optical network based on optical add drop multiplexers with different MZI techniques" pp. 347- 351, Optik 124, 2013, doi:10.1016/j.ijleo.2011.12.060, Impact Factor:0.730, SNIP: 0.925, SJR: 0.31, h-index:
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8. Sanjeev Dewra, R. S. Kaler "Performance evaluation of optical add drop multiplexers with Mach-Zehnder interferometer techniques for dense wavelength division multiplexed system" Vol. 80 No. 9, Journal of Optical Technology, September 2013, <http://dx.doi.org/10.1364/JOT.80.000502>, Impact Factor: 0.24, SJR: 0.24, h-index:15.
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10. Aruna Rani, Mr. Sanjeev Dewra, "Performance evaluation of DWDM system using Semiconductor optical amplifier in the presence of fiber non-linearities" International Journal of Enhanced Research in Science Technology & Engineering, ISSN: 2319-7463, Vol. 3 Issue 2, February-2014, pp: (301-305), Impact Factor: 1.252.
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12. Aruna Rani, Mr. Sanjeev Dewra "Analysis of confinement factor of SOA for optical communication System" International conference on communication, computing and systems, pp. 247-249, July-2014
13. Garima Arora, Mr. Sanjeev Dewra, "A review on optical Amplifier and its Hybrid configurations" International Journal of Electronics & Communication Engineering Research (IJECER), ISSN: 2321-9718, Vol. 1 Issue 6, November- 2013
14. Garima Arora, Sanjeev Dewra, "Comparison of conventional optical amplifiers at different transmission distance in an optical communication system" proceeding of PTU SPONSORED national conference on latest developments in science engineering and management, pp.259-262, March 2014.
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16. Garima Arora, Sanjeev Dewra, "Analysis of 64x10 Gbps dense wavelength division multiplexing system using optimized RAMAN-EDFA hybrid optical amplifier" International conference on communication, computing and systems, pp. 250-253, July-2014
17. Sumanpreet, Mr. Sanjeev Dewra, "A review on Gigabit Passive Optical Network (GPON)", International Journal of Advanced Research in Computer and Communication Engineering, ISSN: 2319-5940, Vol. 3, Issue 3, March 2014, impact factor: 1.770, ISSN: 2278-1021.
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Ms Rajni

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3. **Rajni** & Gaurav Sikri, "Reducing Peak to Average Power Ratio by Classical Clipping over BPSK and QPSK in OFDM System," published for proceedings of International Conference on Recent Advances and Future Trends in Information Technology (IRAFIT 2012) by IJCA Journal Impact factor 0.83) , Issue 8, pp.26-28, March 2012
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6. Puneet Kr. Sharma and **Rajni**, "Analysis of Image Watermarking using Least Significant Bit Algorithm", International Journal of Information Sciences and Techniques (IJIST) Vol.2, No.4, pp. 95-101, July 2012, **DOI : 10.5121/ijist.2012.2409**
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9. Sunisha Rani, **Rajni** and Anupma Marwaha, "Equiangular Spiral Slot Antenna for C-band Applications", International Journal of Computer Applications, Foundation of Computer Science, New York, USA, Vol. 76, Issue 11, pp. 37-41, August 2013. **(DOI: 10.5120/13293-0833) (ISBN:973-93-80877-41-6)**
10. Gurpreet Singh, **Rajni** and Anupma Marwaha, "Design of G-Shaped Defected Ground Structure for Bandwidth Enhancement", International Journal of Computer Applications, Foundation of Computer Science, New York, USA, Vol. 75, Issue 9, pp. 7-11, August 2013 **(DOI: 10.5120/13137-0516) (ISBN: 973-93-80877-09-1)**
11. **Rajni**, Anupma Marwaha, "Role of Geometry of Split Ring Resonators in Magnetic Resonance of Metamaterials", Proceedings of International Conference on Communication Systems (ICCS-2013) October 18-20, 2013 at B K Birla Institute of Engineering & Technology (BKBIET), Pilani, India published in International Journal of Electronics and Communication Engineering & Technology (IJECET), Volume 4, Issue 7, pp. 279-285, Dec. 2013 **(ISSN 0976 – 6472(Online))**
12. **Rajni** and Inderbir Kaur, "Electrocardiogram Signal Analysis - An Overview", International Journal of Computer Applications, Vol. 84, Issue 7, pp. 22-25, December 2013. Published by Foundation of Computer Science, New York, USA **(DOI: 10.5120/14590-2826) (ISBN: 973-93-80879-27-5)**
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14. Alisha Luna, **Rajni** , "Hyperthermia, An Initiative to treat Cancer and Tumour: A Review" International Journal of Engineering Trends and Technology (IJETT) – Vol. 9, No. 11, pp. 528-531, March 2014. **(ISSN No. 2231-5381) (DOI:10.14445/22315381/IJETT-V9P301)**
15. Inderbir Kaur, **Rajni**, "Analysis of Denoising of Image with different wavelets", International Journal of Engineering Trends and Technology (IJETT) – Vol. 9, Issue no. 13, pp.658-661, March 2014. **(ISSN No. 2231-5381) (DOI:10.14445/22315381/IJETT-V9P324)**
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18. Anutam, **Rajni**, "Performance Analysis of Image Denoising with Wavelet Thresholding Methods for different levels of decomposition," International Journal of Multimedia & Its

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19. Ranjit Singh Momi, **Rajni**, "A Novel Triple-Band Microstrip-Fed Meandered Monopole antenna with Defected Ground Structure,"IOSR Journal of Electronics and Communication Engineering (IOSR-JECE), pp. 21-26, Volume 9, Issue 4, Ver. 1, Jul - Aug. 2014 (e-ISSN: 2278-2834)(Impact Factor :1.586)
20. **Alisha, Rajni**, Anupma Marwaha "Hyperthermia Applicator for Electromagnetic interaction with Human tissue at 434 MHz", IOSR Journal of Electrical and Electronics Engineering (IOSR-JEEE), e-ISSN: 2278-1676, Volume 9, Issue 4, Ver. 1, pp. 32-36 Jul – Aug. 2014, (Impact Factor :1.452)

International Conferences:

1. Sonika Jindal, **Rajni**, Richa Jindal, "Nanotechnology: A Bliss or Curse", International Conference on Research in Management & Technology on 23rd-24th March, 2007 at Gyan Jyoti Institute of Management & Technology, Mohali, pp. 526-531. (*Published as a book chapter in "Research in Management and Technology"(ISBN : 978-81-8450-082-0))
2. **Rajni**& S. S. Pattnaik, "Channel Modeling: An Important issue in radio system design", International Conference on Challenges and developments in IT on May, 2008 at PCTE, Baddowal(Ludhiana), 13th – 14th, Jan 2008.
3. **Rajni**, Surabhi & Vikrant," Spectrum planning in GSM Network and Related Issues," International Conference on Wireless networks and Embedded Systems (WECON-2008)" at Chitkara Institute of Engineering & Technology, Rajpura on Oct.18-19, pp. 572-575, 2008
4. **Rajni**& Anupma Marwaha, "Analysis of magnetic resonance in Metamaterial structure"InternationalConference of COMSOL Multiphysics 'Comsol Conference 2011' held on 4th -5th Nov. 2011, at Bangalore. (available at www.comsol.com) (ISBN: 978-0-9839688-6-3)
5. Gaurav Sikri, and **Rajni**, "Peak to Average Power Ratio Reduction in OFDM System over PAM, QAM and QPSK Modulation," The Fourth International Conference on Wireless & Mobile Networks (WiMoN-2012), pp. 685-690, July 13 ~ 15, 2012. Chennai [*Published in Advances in Computing and Information Technology (Book Chapter), (Available on springerlink)DOI: 10.1007/978-3-642-31513-8_69
6. Manpreet Kaur, **Rajni** and Parminder Singh, "Performance Evaluation of V2V Communication by Implementing Security Algorithm in VANET," The Second International Workshop on Peer-to-Peer Networks and Trust Management (P2PTM-2012), July 13 ~ 15,

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7. Manpreet , **Rajni** and Parminder Singh, "Analytical Study of the Performance of Vehicular Adhoc Nodes over 802.11 Networks" 6th International Multi- conference on Intelligent Systems, Sustainable, New and Renewable Energy Technology & Nanotechnology (IISN-2012), March 16-18, 2012
8. Puneet Kr. Sharma and **Rajni**, "Information security through Image Watermarking using Least Significant Bit Algorithm" The Second International Conference on Computer Science, Engineering and Applications (CCSEA-2012) at Delhi, on May 27,2012, pp. 61–67, 2012 published by CS & IT-CSCP 2012 (DOI:10.5121/csit.2012.2208, ISBN : 978-1-921987-03-8)
9. Gaurav Sikri, **Rajni** and Surabhi Sahai , "A Study of PAPR Reduction techniques for Orthogonal Frequency Division Modulation", Gurukul Vidyapeed, Banur, Rajpura, June 8-9, 2012
10. **Rajni**, Anupma Marwaha, "Investigation of Electromagnetic Performance of Metamaterial loaded Microstrip Patch Antenna," 2nd International Conference on Biomedical Engineering and Assistive Technologies - BEATS 2012 at National Institute of Technology, Jalandhar, INDIA , pp.361-363, 6-7 December 2012. (ISBN-13: 978-81-925454-1-7)
11. Mandeep Kaur, **Rajni**, "Bandwidth Enhancement of Microstrip Patch Antenna with SRR Type Slot", 2nd International Conference on Biomedical Engineering and Assistive Technologies - BEATS 2012 at National Institute of Technology, Jalandhar, INDIA, pp. 513-515,6-7 December 2012 (ISBN-13: 978-81-925454-1-7)
12. Navdeep Kaur, **Rajni**, "Design of Microstrip Patch antenna for On-body Communication," 2nd International Conference on Biomedical Engineering and Assistive Technologies - BEATS 2012 at National Institute of Technology, Jalandhar, INDIA, pp. 655-657, 6-7 December 2012, (ISBN-13: 978-81-925454-1-7)
13. Manpreet Kaur, **Rajni** and Parminder Singh, "New Proxy Re-Encryption method to evaluate performance of V2V communication in a straight road scenario," **Fifth International Conference on Advances in Recent Technologies in Communication and Computing (ARTcom-2013)**, Bangalore, pp. 84-90, Sep. 20-21, 2013,(DOI:10.1049/cp.2013.2201), (Published by IET) (available at ieeexplore.ieee.org) (ISBN- 978-1-84919-842-4)
14. Navdeep Kaur, **Rajni**, "Design and simulation of microstrip patch antenna for On-body communication using different feeding techniques", Second International Conference on Advances in Electronics, Electrical and Computer Engineering (EEC – 2013), Dehradun, India, 22-23rd June 2013 (ISBN: 978-981-07-6935-2, DOI:10.3850/ 978-981-07-6935-2_61)
15. Mandeep Kaur, **Rajni**, "Design and simulation microstrip patch antenna for bandwidth enhancement through slotting", Second International Conference on Advances In Electronics,

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17. Anutam, **Rajni**, “Comparative Analysis of Filters And Wavelet based Thresholding Methods for Image Denoising”, Sixth International Conference on Wireless & Mobile Networks (WiMoN-2014) at Delhi, India, pp. 137–148, May 24-25, 2014 (published by CS & IT-CSCP 2014)
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1. Richa Jindal, Sonika Jindal, **Rajni**, “Principle and Applications of Nanotechnology”, National Conference on Innovative Developments in Engineering Applications at Bhai Gurdas Institute of Engineering & Technology, Sangrur, pp. 281, 2nd-3rd March 2007
2. Sonika Jindal, Richa Jindal, **Rajni**, “Evolution of Networked Storage”, National Conference on Challenges and Opportunities in Information Technology at RIMT- Institute of Engineering & Technology, Mandi Gobindgarh, pp. 122- 126, 23rd March, 2007
3. Amit Grover and **Rajni**, “Role of Mathematical Modeling and Differential Equations in Electronics and Communication”, National Conference on Innovative Developments in Engineering Applications on Mathematics in Engg. And Tech., MIMIT, Malout, pp.45-47, 26-28th March 2008
4. **Rajni**, Sonika Jindal, Richa Jindal, “Nano-computing: Speed Booster in the Field of Computing”, National Conference on ‘Trends in Computing’ at SVIET, Banur, pp 424, 18th – 19th May, 2007
5. **Rajni**, Gurpreet Singh & Surabhi, “Challenges in Mobile Computing”, National Conference on “Issues and Challenges in Mobile Computing” on 28th March, 2008 at IMR, Ghaziabad, pp 164-165.
6. Surabhi & **Rajni**, “OFDM and its interferences, “National Conference on ‘Trends in Internetworking and communication” at GLAIT, Mathura, pp-205-215, 2008 (published as a book chapter in ‘Trends and Networking and Communication’ by Atlantic publishers and distributors Ltd.) (ISBN No.: 978-81-269-1052-6)

7. **Rajni& Anupma Marwaha,**” Metamaterial Antennas: Challenges and Applications, National Conference on ‘Communication and Networking’ at SLIET, Longowal , pp. 231-233, 4th -5th March 2011

Vishal Sharma

International Journals

1. **Vishal Sharma**, Amarpal Singh, and Ajay K Sharma “Analysis and Simulation of the effect of spectral width over Intensity noise and Power penalty under the impact of higher order dispersion parameters in Optical Communication Systems” **Optics Communication**, Elsevier Science, Volume 281, Issue 13, pp.3495-3500,1 July 2008, DOI: 10.1016/j.optcom.2008.02.056.
2. **Vishal Sharma**, Naresh Kumar, “Improved Analysis of 2.5Gbps-Inter-Satellite Link (ISL) in Inter-Satellite Optical Wireless Communication (OWC) System”, **Optics Communication, Elsevier**, Volume 286, 1 January 2013, Pages 99-102, DOI: 10.1016/j.optcom.2012.08.055
3. **Vishal Sharma**, Amarpal Singh, Ajay K. Sharma “Simulative Investigation on the Impact of Laser-Spectral Width in Single-tone Optical Single Side-band Radio over Fiber Transmission System incorporating Dual Electrode Mach Zehnder Modulator” **Optics & Laser in Engineering**, Elsevier, Volume 47, Issue 11, Pages 1145-1149, November 2009, DOI: 10.1016/j.optlaseng.2009.06.012.
4. Ajay K Sharma, Amarpal Singh, T S Kamal and **Vishal Sharma**, “Investigations on Power Penalty at Different Spectral Width using Small Signal Analysis with Higher-order Dispersion”, **Optik**, International Journal for Light and Electron Optics, Germany, Elsevier Science, vol. 119, Issue 2, pp. 53-56, Feb. 2008, DOI: 10.1016/j.ijleo.2006.06.015.
5. **Vishal Sharma**, Amarpal Singh, and Ajay K Sharma “Analysis of the impact of Laser line width over RIN, Power Penalty and Bit Rate including higher order dispersion in WDM Systems” in **Optik**, International Journal for Light and Electron Optics, Germany, Elsevier Science, Volume 120, Issue 15, Pages 741-745, October 2009, DOI: 10.1016/j.ijleo.2008.04.001.
6. **Vishal Sharma** , Amarpal Singh , Ajay K. Sharma “Simulative Investigation of Non linear distortion in single- and two- tone RoF System using Direct- and External- Modulation Techniques” **Optik**, International Journal for Light and Electron Optics, Germany, Elsevier Science, Volume 121, Issue 17, pages: 1545-1549, September 2010, DOI: 10.1016/j.ijleo.2008.12.038.
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48	Sidhu ,T. S. "Scarcity of Energy and Waste-to-Energy (WTE) plant: A Review", I-manager's Journal on Mechanical Engineering, Vol. 1, No. 1, pp. 1-15.	2011-12	National	2230-9055	--
49	Sidhu, T. S., "Low- pressure cold sprayed coatings process parameter optimization using Taguchi multi-response", International Journal of Surface Engineering and Materials Technology (IJSEM), Vol. 1, No. 1, pp. 5-11.	2011-12	International	2249-7250	--
50	Sidhu, T. S., "Effect of nozzle geometry on exit velocity, temperature and pressure for cold spray process", International Journal of Materials Science and Engineering (IJMSE), Vol. 2, No. 1-2, pp. 65-72.	2011-12	International	0976-6243	--
51	Kushwaha, M K et al, "carbon nano tube/nano fibre embedded nano porous modified aluminium oxide surface and its tribological properties"	2011-12	international	1533-4880	1.33
52	Asati, A.K., "Multi absorber stand alone liquid desiccant air-conditioning systems for higher performance", International journal of solar energy, Volume 83, Issue 5, May 2009, Pages 761-772	2009	International		
53	Asati, A.K., "Drift and Wetting Characteristics of Falling Film Absorber and Regenerator", ACRECONF 2003 International Conference Proceedings organized by ISHRAE in	2003	international		

	Association with ASHRAE, Pages 16-25				
54	Asati, A.K., "Desiccant Augmented Evaporative Cooling: Status and Trends", ACRECONF 2001 International Conference Proceedings organized by ISHRAE in Association with ASHRAE, Pages 112-122	2001	International		
55	Grover, N.K., "Numerical Studies on Droplet Evaporation at High Ambient Pressures & Temperatures", International Journal of Advances in Thermal sciences and Engineering PP133-137		International	ISSN: 0976-6820	Peer Reviewed
56	Grover, N.K., "Evaporation of a Hydrocarbon Fuel in a High Pressure Environment", International Journal of Industrial Engineering and Technology PP: 335-342		International	ISSN:0974-3146	Peer Reviewed
57	Grover, N.K., "Structural Properties of Anode Composites Precursor of a Solid Oxide Fuel Cell Prepared Via Combustion Synthesis Route", Asian Journal of Engineering and Applied Technology		international	ISSN:2249-068X	Peer Reviewed
58	Kumar, Rakesh, " Part Families and Machine Cell Formation in Reconfigurable Manufacturing System ", The IUP Journal of Mechanical Engineering, Volume III, Issue 4. 2010 Co-authors: Uma Mahesh Kumar K., Jain P.K.		International		
59	Kumar, Rakesh, " A framework for simultaneous recognition of part families and operation groups for driving a Reconfigurable Manufacturing System ", Advances in Production Engineering & Management Journal, Volume 5, Issue 1, Feb. 2010. Co-authors: Jain P.K., Mehta N.K.		International		
60	Kumar, Rakesh, " A Dynamic RMS framework for a highly dynamic environment of a subcontracting manufacturing enterprise ", Journal of Mechatronics and Intelligent Manufacturing, Volume 1, Issue ¾.		International		

Co-authors: Jain P.K., Mehta N.K.

List of Research Publications: Conferences

S.No.	Publication	Year	International /National
1.	Singh, Tejeet, "Steady State Creep Behavior of Functionally Graded Thick Cylinder", Presented at International Conference on Aerospace, Mechanical, Automotive and Materials Engineering, Melbourne, Victoria, Australia, December 16–17.	2013-14	International
2	Bhatti, R.S., "Implementation of Autonomous Maintenance for the Improvement of OEE of machines in SMEs – In Context of Indian Enterprises", Proceedings of International Conference on Smart Technologies for Mechanical Engineering, Paper no. 17, (ISBN: 978-93-83083-35-0), Oct. 25-26, 2013, pp. 537-544, DTU Delhi.	2013-14	International
3	Sidhu, T.S., "Characterization of Cold Sprayed Copper Coatings on ASTM B 435 Alloy", proceedings of AES-ATEMA' 2013 14 th International Conference on Advances and trends in Engineering Materials and their Applications, Toronto, Canada, 05-09 August 2013, pp 171-182.	2013-14	International
4	Sidhu, T.S., "Optimization of Corrosion Test And Wear Test on Alsic/ MMC Using Taguchi Method", Proceedings Of AES-ATEMA' 2013 1 st International Conference on Reliability and safety of Engg systems and structures, Vancouver, Canada, 12-16 August 2013, pp 49-55.	2013-14	International
5	Nripjit, "Analysis of 384.1 Al Alloys Based Composites Using MgO Doping" Program Schedule of ISTE Delhi Section Convention, Sep-5-6, 2013, DTU, Delhi.	2013-14	National

6	Grover, N.K., "Simulation Of Evaporation of a Fuel Droplet In High Pressure Environment" International Conference on recent advanced in mechanical engineering and interdisciplinary developments ISBN 978-93-80609-17-1.	2013-14	International
7	Grover, N.K. "Surface Modification Of EDM Process Using Cryogenic Treatment" National conference on latest developments in mechanical manufacturing and quality control. GZSCET, Bathinda, ISBN: 978-93-5156-187-3	2013-14	National
8	Kushwaha, M.K. "Growth of Carbon Nanostructure in Anodic Alumina Oxide Templates Based on Highly Pure & Commercial Pure Alumina Substrate" presented in NWIET Dhudike.	2013-14	National
9	Kushwaha, M. K., "A Review on Studies of Mechanical Properties of Anodized Alumina Oxide", presented in NWIET Dhudike.	2013-14	National
10	Kumar Rakesh, "Surface modification of EDM process using cryogenic treatment" National conference on latest developments in mechanical manufacturing and quality control. GZSCET, Bathinda, ISBN: 978-93-5156-187-3.	2013-14	National
11	Bhatti, R.S. "Productivity Improvement through 5S Implementation in Indian Manufacturing Industries", Proceedings of International Conference on Research and Innovations in Mechanical Engineering (ICRIME-2013), (Paper ID-ICRIME 2013-703), Oct. 24-26, 2013, SOUVENIR pp. no. 50, GNDEC Ludhiana.	2013-14	International
12	Singh, Tejeet, "Processing Techniques	2013-14	International

	of Functionally Graded Materials: A Review”, International conference on Advancement in Engineering and Technology at BGCJET, Sangrur from 21.02.2014 to 22.02.2014.		
13	Sidhu, T.S., “A review of thermal spraying processes used for bioceramic coatings”, 3 rd International Conference on Production and Industrial Engg 2013, NIT, Jalandhar.	2013-14	International
14	Nripjit “Simulation of temperature distribution for chips during turning operation using 2D-DEFORM” NABSET, March1-2, 2013, Guwahati	2012-13	National
15	Singh, Tejeet, “Modeling Steady State Creep Behavior of Functionally Graded Thick Cylinder in the Presence of Residual Stress”, Presented at 6 th International Conference on Creep, Fatigue and Creep-Fatigue Interaction, Mamallapuram, India, January 22–25, pp 1055-1061.	2012-13	International
16	Grover, N.K. “Review paper on enhancing the wear resistance of grey cast iron using D-spray process.” ICARME 2012, Trivandrum.	2012-13	International
17	Grover, N.K. “Structural properties of anode composites precursor of a solid oxide fuel cell prepared via combustion synthesis route”. International Conference on Advancements and Futuristic Trends on Mechanical and Materials Engg., PTU Jalandhar.	2012-13	International
18	Grover, N.K. “Analysis of wear properties of detonation sprayed coatings on grey cast iron” International Conference on Advancements and Futuristic Trends on Mechanical and Materials Engg., PTU Jalandhar.	2012-13	National
19	Kumar, Rakesh, “Analysis of wear	2012-13	International

	properties of detonation sprayed coatings on grey cast iron” International Conference on Advancements and Futuristic Trends on Mechanical and Materials Engg., PTU Jalandhar		
20	Asati, A.K., “Study of Desiccant cooling Technology: An Overview” Int Conference on Advancements and Futuristic Trends in Mechanical and Materials Engg, October 5-7, 2012, PTU Jalandhar.	2012-013	International
21	Parshad, Jwala, “Effect of D-sprayed Alumina-Titania coatings on frictional properties of grey cast iron” NCAMT-2013 on 23-24 May 2013 at NITTTR, Chandigarh	2012-13	National
22	Singh, Manjinder, “Analyzing the CSF’s for successful implementation of TPM”. CPIE2013, at NIT, Jalandhar	2012-13	International
23	Singh, Manjinder, “Evaluating the performance effectiveness of TPM & other quality improvement strategies”. CPIE2013, NIT Jalandhar.	2012-13	International
24	Goyal, Vaishai, “Themo-chemical characterization of agro-residues for its effective utilization as a source of renewable energy”. Int Con on Advance in Renewable Energy.	2012-13	International
25	Goyal, Vaishali, “Hazardous wastes-detrimental to the environment.” GRDIET, Bathinda. ISBN:978-93-81583-16-6.	2012-13	National
26	Bhatti, R. S. Work-life balance”, Proc. of 3rd National Conference of "Trends and Issues in Product and Brand Management", Baba Farid College Of Management & Technology" Bathinda March 20-21, ISBN 978-93-5104-993-7.	2012-13	National
27	Bhatti, R.S., “ Role of branding in developing Green Products Market:	2012-13	National

	Challenges and Benefits" Proc of 3rd National Conference on "Trends and Issues in Product and Brand Management", Baba Farid College Of Management & Technology" Bathinda, March 20-21, 2013, ISBN978-93-5104-993-7.		
28	Singh, Tejeet, "Steady state creep in rotating thick-walled composite cylinders", International conference on Advancements and Futuristic Trends in Mechanical and Materials engineering, PTU Kapurthalla, from October 3-6, pp. 246-252.	2012-13	International
29	Singh, Tejeet, "Risk Husk reinforced Composites: A review", International conference on research and innovations in mechanical engineering, GNDEC, Ludhiana from October, 24-26.	2012-13	International
30	Singh, Tejeet, "Functionally Graded Materials: A Review", International conference on Advancement in Engineering and Technology at BGCJET, Sangrur from 12.10.2012 to 13.10.2012.	2012-13	International
31	Sidhu, T.S., "An overview of the effect of hot corrosion in waste to energy plant environment" Int. conference on Advancements and futuristic trends in Mechanical and Materials Engg. October 5-7, 2012, PTU, Jalandhar.	2012-13	International
32	Sidhu, T.S., "An overview of corrosion resistant coating in waste to energy boiler environment" Int. conference on Advancements and futuristic trends in Mechanical and Materials Engg. October 5-7, 2012, PTU, Jalandhar.	2012-13	International
33	Bhatti, R.S., Factoring Terror into the Selection of 3PL Providers In Global Supply Chains: A Robust Design, 5th	2011-12	International

	Knowledge Globalization Conference (15th To 17th October, 2011) Suffolk University, Boston (Massachusetts), USA.		
34	Bhatti, R. S. Total Productive Maintenance (TPM) is An Effective Tool for Minimization of Downtime of Machine, Production Losses And Scrap – In Context Of Indian Industries, Proceedings of International Conference on Emerging Trends in Engineering and Technology, April 6-7, 2012, (Paper no. ME-120), (ISBN: 978-93-8137804-5) Teeranthkar Mahaveer University, Moradabad (U.P).	2011-12	International
35	Sidhu, T.S. “Studies of the Microstructural and Mechanical Properties of HVOF Sprayed Ni-Al Coating on Ni-Based Superalloys” proceedings of AES-ATEMA’ 2011 Ninth International Conference on Advances and trends in Engineering Materials and their Applications, Montreal, Canada, 01-05 August 2011, pp 95-102.	2011-12	International
36	Sidhu, T.S., “Characterization of cold sprayed copper coatings on ASTM B 36 alloy”, proceedings of AES-ATEMA’ 2011 Ninth International Conference on Advances and trends in Engineering Materials and their Applications, Montreal, Canada, 01-05 August 2011, pp 227-238.	2011-12	International
37	Sidhu, T.S., “An overview of hot corrosion in waste to energy boiler environment and its remedies”, International conference on Material science and technology, conference and exhibition, MS and T’11, 2011; 2: 1125-1134, Conf. code: 88218, ISBN: 9781618392619, MST, Columbus, Ohio, USA.	2011-12	International

38	Nripjit, "Properties of (A384.1)1-x [(SiC)p] x Composites by Keeping Particle Size at 0.220 μm " during July 6 - 8, 2011, London, U.K.	2011-12	International
39	Sidhu, T.S., "Introduction to cold gas dynamic thermal spray coating technique and its prospective use for electro-technical applications", International Conference on Advances in Mechanical Engineering (ICAME 2011), SVNIT, Surat, 6-8 June, 2011.	2011-12	International
40	Grover, N.K. "Calculation of thermo physical properties of N-heptane & nitrogen mixture using vapour liquid equilibrium" in National conference on global trends in Mechanical Engineering.	2011-12	National
41	Kumar, Rakesh, "The status of manufacturing sector in India: A survey" International conference on Advances in Materials and Manufacturing Technology, October 3, 2011, School of ME, Chitkara University, Rajpura.	2011-12	International
42	Kumar, Rakesh "Evolution of manufacturing systems: An overview" 2 nd international conference on Advances in materials and Manufacturing technology, October 6 th , 2012, School of ME, Chitkara University, Rajpura.	2011-12	International
43	Singh, Tejeet, "Role of Teachers in Moral Development of Engineering Students", 1 st National Conference on Moral and Ethical Values for Professionals at IET Bhaddal, India, 15-16 April.	2011-12	National
44	Sidhu, T.S., "Effect of nozzle geometry on exit velocity, temperature and pressure for cold spray process", National Conference on	2011-12	National

	Advancements and Futuristic Trends in Mechanical and Materials Engineering (AFTMME'11), 6-8 October 2011, Punjab Technical University, Kapurthala.		
45	Sidhu, T.S., "Low- pressure cold sprayed coatings process parameter optimization using Taguchi multi-response", National Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering (AFTMME'11), 6-8 October 2011, Punjab Technical University, Kapurthala.	2011-12	National
46	Parshad Jwala, "Improving slurry erosion wear resistance of hydro-turbine steels using detonation gun sprayed coatings- a review."	2014-15	National
47	Parshad Jwala, "Effectiveness of Al ₂ O ₃ -13TiO ₂ & 20NiCr coatings on given cast iron for improving wear resistance".	2014-15	National
48	R P Singh, "High Temperature corrosion Resistance of HVOF sprayed Ni-Al coating on Ni- based superalloys"	2007	National
49	Goyal Vaishali, "Review paper on hazardous waste management".	2011-12	National
50	Goyal Vaishali, "Toxic wastes-sources, health hazards and need of managing".	2011-12	National
51	Goyal Vaishali, "Hospital waste-management and handling".	2011-12	National
52	Grover, N.K. "Hydrocarbon Liquid		International

	Droplet Evaporation and Ignition Studies at High Pressure”, 84		
53	Grover, N.K. “Various Research trends in Electric Discharge Machining”, PP 348-355		National
54	Grover, N.K. “Detonation Sprayed Wear Resistance Coatings-A Review”. PP 111-116		National
55	Grover, N.K. “Comparison of Wear Properties of WC– 12CO and Stellite-6 on Grey Cast Irons Deposited by Detonation Spray Process”. PP 31-36		National
56	Kumar, Rakesh, “The Status of Manufacturing Sector in India: Parts I and II”, National Conference on Advances in Manufacturing Systems: Technology, Materials and Management, September 05-06, 2014, Department of Mechanical Engineering, SBS State Technical Campus, Ferozpur Co-authors: ShakunPreet Kaur, Jatinder Kumar and RohitMonga		National
57	Kumar, Rakesh, “Enhancement of EDM Surface Characteristics using Carbon Nano Tubes as dielectric- A Review ”, National Conference on Advances in Manufacturing Systems: Technology, Materials and Management, September 05-06, 2014, Department of Mechanical Engineering, SBS State Technical Campus, Ferozpur Co-authors: Amandeep Singh and Neel Kanth Grover		National
58	Kumar, Rakesh, “A critical review of Electrochemical Machining”, National Conference on Advances in Manufacturing Systems: Technology,		National

	<p>Materials and Management, September 05-06, 2014, Department of Mechanical Engineering, SBS State Technical Campus, Ferozepur</p> <p>Co-authors: J.P. Misra and UmedKhod</p>		
59	<p>Kumar, Rakesh, "Simulation of Evaporation of Fuel Droplet in high pressure environment", International conference on Recent Advances in Mechanical Engineering and Interdisciplinary Developments, March 07-08, 2014, Department of Mechanical Engineering, PomjeslyColleger of Engineering, Nagercoil, Tamilnadu, India.</p> <p>Co-authors: Neelkanth Grover and Rajiv Arora</p>		International
60	<p>Kumar, Rakesh, "The Status of Manufacturing Sector in India: A Survey", 2nd International Conference on Advances in Materials and Manufacturing Technology, October 06, 2012, School of Mechanical Engineering, Chitkara University, Rajpura.</p> <p>Co-authors: ShakunPreet Kaur and Jatinder Kumar</p>		International
61	<p>Kumar, Rakesh, "Various Research Trends in Electric Discharge Machining", National Conference on Advances in Manufacturing Technology, 15-16 Mar, 2012, NITTTR Chandigarh.</p> <p>Co-authors: Amanpreet Singh, and Neelkanth Grover</p>		National
62	<p>Kumar, Rakesh, "Evolution of Manufacturing Systems: An Overview", 1st International Conference on Advances in Materials and Manufacturing Technology,</p>		International

	<p>October 03, 2011, School of Mechanical Engineering, Chitkara University, Rajpura.</p> <p>Co-authors: ShakunPreet Kaur and Jatinder Kumar</p>		
63	<p>Kumar, Rakesh, "Manufacturing Planning for a Reconfigurable Manufacturing System: A new approach", International Conference on Emerging Trends in Mechanical Engineering (ICETME-2011), February 24-26, 2011, Department of Mechanical Engineering, Thapar University Patiala.</p> <p>Co-Authors: Jain P.K., Mehta N.K.</p>		International
64	<p>Kumar, Rakesh, "Cleaner Production Management: Research Issues", UGC International Conference on India in Emerging Order – A Potential Market for World, February 25-26, 2011, Department of Economics, DAVC, Malout.</p> <p>Co-Authors: Preety Sharma, Sangeeta Arora</p>		International
65	<p>Kumar, Rakesh, "Introduction to Social Media: A new marketing platform", UGC International Conference on India in Emerging Order – A Potential Market for World, February 25-26, 2011, Department of Economics, DAVC, Malout.</p> <p>Co-Authors: Preety Sharma, Raminder Pal Singh</p>		International
66	<p>Kumar, Rakesh, "Six Sigma: A continuous process improvement technique", UGC International Conference on India in Emerging Order – A Potential Market for World, February 25-26, 2011, Department of Economics, DAVC, Malout. Co-</p>		International

	Author: GazalPreetArneja.		
67	Kumar, Rakesh, "Soft Computing for Management Research: A Glance", UGC International Conference on India in Emerging Order – A Potential Market for World, February 25-26, 2011, Department of Economics, DAVC, Malout. Co-Author: GazalPreetArneja.		International
68	Kumar, Rakesh, " A proposal for a new manufacturing strategy based on Reconfigurable manufacturing system paradigm ", Proceedings of 3 rd International and 24 th All India Manufacturing Technology, Design and Research (AIMTDR-2010) Conference, Dec 13-15, 2010, Andhara University, Andhara Pradesh, India. Co-Authors: Uma Mahesh Kumar K., Jain P.K.		National
69	Kumar, Rakesh, " Reconfiguration planning for a manufacturing system with movable machines ", Proceedings of International Conference on Advances in Mechanical Engineering (ICAME-2010), Jan 4-6, 2010, SVNIT, Surat, Gujrat, India. Co-Authors: Jain P.K., Jain Pooja		International
70	Kumar, Rakesh, " An Adaptation of Hierarchical Clustering for Simultaneous Recognition of RMS Part Families and Operation Groups Considering Alternative Operation sequences ", Symposium on Group Technology and Cellular Manufacturing (GT/CM 2009) incorporating The 5th International Conference on Intelligent		International

	<p>Manufacturing and Logistics Systems (IML 2009), Feb. 16-18, 2009, Waseda University, Kitakyushu, Japan.</p> <p>Co-Authors: Jain P.K., Mehta N.K.</p>		
71	<p>Kumar, Rakesh, "Reconfigurable Manufacturing Paradigm: A Bird's Eye View", National Conference on Robotics and Intelligent Manufacturing Process (RIMP-2009), Jan., 5-6, 2009, Centre for Intelligent Machines and Robotics, Corporate R&D Division, BHEL, Vikasnagar, Hyderabad, India.</p> <p>Co-Authors: Jain P.K., Uma M.K.</p>		National
72	<p>Kumar, Rakesh, "A Proposal for a Reconfigurable Subcontracting Manufacturing Enterprise and its Manufacturing Planning", XII Annual International Conference of Society of Operations Management (AICSOM 2008), Dec. 19-21, 2008, Indian Institute of Technology, Kanpur, India.</p> <p>Co-Authors: Jain P.K., Mehta N.K.</p>		International
73	<p>Kumar, Rakesh, "A Dynamic RMS framework for a highly dynamic environment of a subcontracting manufacturing enterprise", International Conference on Advances in Mechanical engineering (AME 2008), Dec. 15-17, 2008, SVNIT, Surat, India.</p> <p>Co-Authors: Jain P.K., Mehta N.K.</p>		International
74	<p>Kumar, Rakesh, "A systematic approach for selection and sequencing of part families in Reconfigurable Manufacturing Systems", 2nd International & 23rd All India Manufacturing Technology Design and Research Conference (AIMTDR 2008), Dec. 15-17, 2008, IIT,</p>		International

	<p>Madras, Chennai, India.</p> <p>Co-Authors: Jain P.K., Mehta N.K., Kumar M.</p>		
75	<p>Kumar, Rakesh, "Manufacturing cycle planning for a Reconfigurable Manufacturing System: A Genetic Algorithm based approach", 2008 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM 2008), 8-11 Dec., 2008, Singapore.</p> <p>Co-Authors: Jain P.K., Mehta N.K.</p>		International
76	<p>Kumar, Rakesh, "Manufacturing of 'Fast Moving Industrial Goods' in Reconfigurable Manufacturing Systems: An Overview", 3rd National Conference of Recent Developments in Mechanical Engineering (NVME 2008), Nov 14-15, 2008, Thapar University, Patiala, India.</p> <p>Co-Authors: Jain P.K., Uma M.K.</p>		National
77	<p>Kumar, Rakesh, "Various Manufacturing System Paradigms: A Bird's Eye View", National Conference on Recent Developments in Mechanical Engineering (MANTHAN 2008), Nov. 8, 2008, GRKIST, Jabalpur, India.</p> <p>Co-Authors: Jain P.K., Uma M.K.</p>		National
78	<p>Kumar, Rakesh, "An approach for simultaneous part families recognition and operation sequence selection for Reconfigurable Manufacturing systems", ISPE 24th International Conference on CAD/CAM, Robotics & Factories of the Future (CARS & FOF 2008), 29-31 July 2008, Nihon University, Koriyama, Japan.</p>		International

	Co-Authors: Jain P.K., Mehta N.K.		
79	<p>Kumar, Rakesh, “A review of evolution of ‘Reconfigurable Manufacturing System’ paradigm on the landscape of business globalization”, 5th International Conference on Business Challenges & Strategies in Emerging Global Scenario (ICBCS 2008), 30 May 2008, PCET, Ludhiana, India.</p> <p>Co-Authors: Jain P.K., Mehta N.K.</p>		International
80	<p>Kumar, Rakesh, “‘Reconfigurable Manufacturing System’- a manufacturing paradigm to meet global business challenges”, 5th International Conference on Business Challenges & Strategies in Emerging Global Scenario (ICBCS 2008), 30 May 2008, PCET, Ludhiana, India.</p> <p>Co-Authors: Jain P.K., Mehta N.K., Kumar M.</p>		International
81	<p>Kumar, Rakesh, “Reconfigurable Manufacturing Systems-An Emerging Manufacturing Paradigm”, Global Conference on Production and Industrial Engineering (CPIE 2007), 22-24March, 2007, DIE, NIT, Jalandhar, India.</p> <p>Co-Author: Jain P.K.</p>		International
82	<p>Kumar, Rakesh, "Recent Progress in Interactive Droplet Vaporization and Combustion", National Conference on Recent Developments in Mechanical Engineering, 31Oct-01Nov., 2003, Department of Mechanical Engineering, Thapar Institute of Technology, Patiala, India.</p> <p>Co-Author: Grover N.K.</p>		National
83	Kumar, Rakesh, "Cleaner production-		National

	<p>A Potential Tool to Waste Minimization", National Seminar on Science and Technology in Present Perspective, 26Oct., 2002, S.B.S. College of Engineering and Technology, Ferozepur, India.</p> <p>Co-Aothors: Saluja K.K., Singh S.B.</p>		
84	<p>Kumar, Rakesh, "Cleaner Production - Issues and Recommendations", 17th National Convention of Environment Engineers, ENVI-2001, 23-25 November, 2001, The Institution of Engineers Hall, Vellayambalam, Trivendaram, Kerala, India.</p> <p>Co-Aothor: Singh S.B.</p>		National

Department of Computer Sc. & Engg.

Publications By Faculty Members												
Sr. No.	Name of Faculty	Number of papers published in peer reviewed journal	No of publications listed in International Database	Monographs	Chapter in Books	Books Edited	Books with ISBN/ISSN numbers	Citation Index	SNI P	SJR	Impact Factor	h-index
1	Dr. Krishan Saluja	48	90	Nil		4	3	315			14 paper	10

2	Dr. Monika Sachdeva	24	48	Nil	Nil	Nil	Nil	175			6 paper	8
3	Ms. Daljeet Kaur	1	5	Nil	Nil	Nil	Nil					
4	Mr. Japinder Singh		2	Nil	Nil	Nil	Nil					
5	Mr. Navtej Singh Ghuman	1	5	Nil	Nil	Nil	Nil					
6	Ms. Sonika Jindal	20		Nil	Nil	Nil	Nil	40			13 paper	3
7	Mr. Sunny Behal	12	26	Nil	Nil	Nil	Nil	35			7 papers	3
8	Mr. Pawan Luthra	5	8	Nil	Nil	Nil	Nil					
9	Mr. Vishal Arora	7	11	Nil	Nil	Nil	Nil					
10	Mr. Sarabjeet Singh	1	5	Nil	4	Nil	Nil					
11	Mr. Gurjeet Singh	1	1	Nil	Nil	Nil	Nil					
12	Mr. Gurbhej Singh	4	4	Nil	Nil	Nil	Nil					

13	Mr. Jabarw eer Singh	1	1	Nil	Nil	1	Nil					
14	Ms. Surinderjit Kaur	3	3	Nil	Nil	Nil	Nil					
15	Ms. Kiranve er Kaur	3	3	Nil	Nil	Nil	Nil					
17	Ms. Prabhj ot Kaur	2	2	Nil	Nil	Nil	Nil					
22	Mr. Jagdeep Singh	2	2	Nil	Nil	Nil	Nil				1 pap er	
23	Ms. Tan ia Nagp al		1	Nil	Nil	Nil	Nil					

Department of Applied Sciences & Humanities

Papers in National/International Conferences, Seminars, Workshops etc. from 2011 – 2013 (49 no.)

Dr AK Tyagi

Nanophase Ceramic Dielectric Resonator for Mobile Communication Technology.	National Conference On Advancement Of Nano Materials & Its Applications, ,	February 15-16, 2011	Department Of Physics, D.A-V. College, Kanpur-208001 (U.P.)	National
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Electoceramic Dielectric Resonator Materials for Microwave Communication,	National Conference 'Advancements & Futuristic Trends in Material Science' (AFTMS 2011) on	March 26 – 27, 2011,	M.J.P. Rhohilkhand University, Bareilly, 243001	National
CONDENSED MATTER & MATERIALS PHYSICS (Key Note Address)	National Conference on Condensed Matter & Materials Physics (CMMP-2011),	13-14 Oct.2011,	MLB Govt. PG College (Auto), Barkatulla University, Bhopal (MP) India.	National
Di-Barium Nonatitanate Dielectric Ceramic Resonator for Mobile Communication Technology,	National Conference on Condensed Matter & Materials Physics (CMMP-2011),	13-14 Oct.2011,	MLB Govt. PG College (Auto), Barkatulla University, Bhopal (MP) India.	National
Synthesis of Di-Barium Nonatitanate Dielectric Ceramic Resonator for Mobile Communication using Nano-phase Precursor Method.	International Conference on Frontiers of Nano-Science, Nanotechnology and their Applications (NanoSciTech-2012), ,	Feb. 15-18, 2012	Panjab University, Chandigarh, India	International

Dr Ajay Kumar

1	Comparision of properties of YSZ prepared by microwave and conventional processing	Kanchan Singh, Anirudh P Singh, Ajay Kumar, S.S. Sekhon C	International conference and expo on advanced ceramics and composites	Jan 26-31, 2014	American Ceramics Society, Daytona Beach, Florida, USA	National
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2	Characterization of microwave and conventionally processed magnesium stabilized zirconia ceramics	Ajay Kumar, Navdeep Kaur and A.P. Singh	International Conference on Science & Engineering Materials	Jan 6-8, 2014	School of Engg. & Tech, Sharda University, Greater Noida (India)	International
3	Nano NiO-CGO SOFC anode composites precursor combustion synthesis and characterization	Pankaj Kalra, Rajeev Garg and Ajay Kumar	International Conference on Frontiers of Nanoscience, nanotechnology and their applications (Nanoscitech-2012)	Feb 15-18, 2012	Panjab University, Chandigarh (India).	
4	Effect of fuel concentration on electrical properties of NiO-CGO composites – SOFC anode precursor – prepared via combustion synthesis route	Pankaj Kalra, Rajeev Garg and Ajay Kumar	2 nd National Conference on advanced Materials & Radiation Physics	Nov. 4-5, 2011	Department of Physics, SLIET, Longowal (India)	

Dr. Lalit Sharma

1.	<u>Lalit Sharma</u> & Subhash Chander Sharma	Poly sorbate-20 modified Sugarcane Bagasse (Saccharum officinarum) charcoal and Kekar saw dust (Acacia nelotica) charcoal for Phenol remediation in aqueous environment-A Comparative Study.	2014	17 th Punjab Science Congress at PTU, Jalandhar from Febraury 14-16, 2014.	Poster Presented Conferred BEST POSTER AWARD
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2.	Nirmal Singh & <u>Lalit Sharma</u>	Encapsulation of poorly water soluble drugs by micellization with d-glucose based non-ionic surfactants.	2014	17 th Punjab Science Congress at PTU, Jalandhar from Febraury 14-16, 2014.	Poster Presented
3.	<u>Lalit Sharma</u>	Solubility enhancement studies for poorly water soluble drugs norfloxacin and glinbenclamide by micellar encapsulation using d-glucose based non-ionic surfactants	2014	27 th International Carbohydrate Symposium at Indian Institute of Science, Bangalore from January 12-17,2014.	Poster Presented
4.	<u>Lalit Sharma</u> and Nirnal Singh	Use of d-glucose derived non-ionic Gemini surfactant reverse micelles to encapsulate poorly soluble drugs and nucleobases.	2013	16 th Punjab Science Congress Feb. 7-9, 2013 At BFUHS, Faridkot	Poster Presented
5.	Lalit Sharma and Saroj	Encapsulation of some nucleobases in apolar media using carbohydrate derived non-	2013	16 th Punjab Science Congress Feb. 7-9, 2013 At BFUHS, Faridkot	Poster Presented

		ionic Gemini surfactants with flexible spacer as reverse micellisation probes.			
6.	<u>Lalit Sharma</u> , Saroj and Nirmal Singh	Use of d-glucose derived non-ionic Gemini surfactant reverse micelles to encapsulate nucleobases in neat n-hexane	2012, PP181	Chemical Constellation Cheminar-2012 An International Conference at NIT Jalandhar Sep10-12,2012	Poster Presented
7.	<u>Lalit Sharma</u> and Subhash Chander Sharma	Enhanced bio-sorption of non-ionic surfactants coated plant based biomass for hexavalent chromium in aqueous environment	2012, PP182	Contd..... Chemical Constellation Cheminar-2012 An International Conference at NIT Jalandhar Sep10-12,2012	Poster Presented
8.	Raj Kumar, Lalit Sharma, Rajeev Garg, Subhash Chander Sharma & Amit Arora	Adsorption of congo red on flyash.	2012, PP46	Chemical Constellation Cheminar-2012 An International Conference at NIT Jalandhar Sep10-12,2012	Poster Presented

9.	<u>Lalit Sharma</u> and Saroj	Carbohydrate based non-ionic Gemini surfactants with flexible spacer as reverse micellar probes for encapsulation of -amino acids in non polar medium	2012, E 43	International conference on frontiers in nanoscience, nanotechnology and their applications at Panjab University , Chandigarh Feb. 16-18,2012	Poster Presented
10.	<u>Lalit Sharma</u> and Subhash Chander Sharma	Local plant based novel bio-adsorbents for hexavalent chromium remediation in aqueous environment – A comparative study	2012, B 218	15 th Punjab Science congress at G.N.D.Univ., Amritsar from Feb. 7-9, 2012	Poster Presented
11.	<u>Lalit Sharma</u> and Saroj	Carbohydrate based non-ionic Gemini surfactants as reverse micellar probes for encapsulation of -amino acids in non polar medium	2012, B 146	15 th Punjab Science congress at G.N.D.Univ., Amritsar from Feb. 7-9, 2012	Poster Presented
12.	Amit Arora, A.K.Sinha Shashi Kumar, Nitin Sharma and <u>Lalit Sharma</u>	Green Diesel production through hydrotreating of vegetable oil	2011, P 10 Poster	Second International conference on recycling and reuse of materials	Centre for nanoscience and nanotechnology, Mahatma Gandhi University, Kottayam, kerala

				Aug. 5-7	
13.	<u>Lalit Sharma</u>	Synthesis of Gemini surfactants to remove organic pollutants from waste water.	2011	National Conference on emerging trends in medical biotechnology & nano-technology Dec. 3-4	At ARNI School of basic sciences, ARNI University, Kangra Poster presented

Dr Sangeeta Sharma

Sr. No	Title of paper	Authors	Name of seminar/ conference	Date and year
1	Study of treatment strategies for effluents of recycled waste paper mills of Malwa region of Punjab	Bhajan Dass, Dhiraj Sood, Sangeeta Sharma	National conference on Technological advancements in Chemical and Environmental Engg. at BITS, Pilani	23-24 March,2012
2	Conversion of Biomass into Biofuels	Amit Arora, Rajeev Garg, Sangeeta Sharma	National Conference on Material Science at DAV College, Jalandhar	2-3 March,2012
3	Removal of fluoride from water of Muktsar Region of unjab using Rice Husk Ash.	Amit Arora, Sangeeta Sharma	National Seminar on Environmental Degradation at Dayanand Post graduate College, Hisar	28 Feb.,2012

4	Treatment of waste water by using green Technology	Amit Dhir, Dhiraj Sood, Sangeeta Sharma	National Symposium on Frontiers in Chemical Sciences at P.U. Chandigarh	24-25 Feb.,2012
5	Removal of Arsenic(III) from contaminated ground water by Iron nanoparticles.	Sangeeta Sharma	National Seminar on Chemistry at Punjabi University, Patiala	15-16 Feb.2012
6	Electrochemical fabrication of Zero valent Iron nanowires for removal of Ground water contaminants.	Sangeeta Sharma	National Conference on Recent Advances in chemistry at Arya Postgraduate College, Panipat	4-5 Feb.,2012
7.	Investigations of the Effluents of Recycled Waste Paper Industries in Punjab	Bhajan Dass, Dhiraj Sood, Sangeeta Sharma	International Conference on Innovations in Chemistry at P.U. Chandigarh	1-3 Dec.,2011
8	Study of effect of various oxidants on Decolourization and COD Reduction of Dye Effluents	Amir Dhir, Dhiraj Sood, Sangeeta Sharma	National Conference on Thermodynamics at M.D.U. Rohtak	2-4 Nov,2011
9	Synthesis of some Novel Iron and Iron alloys nanowires by anodisation and electrodeposition method	Sangeeta Sharma	National Seminar on Ecological Crisis at Punjabi University, Patiala	8-9 Sept.,2011

Dr. Anila Gupta

- A new method for solving generalized assignment problem, Amit Kumar, Anila Gupta, International Congress on Productivity, Quality, Reliability, Optimization and Modelling, Delhi, Feb. 7-8, 2011.

Dr Kulbhushan Agnihotri

Sr. No.	Title	Author(s)	Conferences Details/Publishers	Date and year	Published/oral Presentation/ Poster Presentation
1	A Holling Type II SIS Predator-Prey Model With Disease in Prey Only	Kulbhushan Agnihotri, Nishant Juneja	17 th Punjab Science Congress on theme Sci. and Tech for Sustainable Growth held at PTU, Jalandhar	14-16Feb, 2014	Oral Presentation
2	Ecological Modelling Based On Cellular Automata: A Review	Kulbhushan Agnihotri Natasha Sharma	17 th Punjab Science Congress on theme Sci. and Tech for Sustainable Growth held at PTU, Jalandhar	14-16Feb, 2014	Oral Presentation
3	Mathematical Modelling of Predator-Prey Interactions	Kulbhushan Agnihotri Harpreet Kaur	17 th Punjab Science Congress on theme Sci. and Tech for Sustainable Growth held at PTU, Jalandhar	14-16Feb, 2014	Poster Presentation
4	Use of Optimisation Technique in Solving Real World Problems	Kul bhushan Agnihotri., Sheenu Nayyar Co-author	17 th Punjab Science Congress on theme Sci. and Tech for Sustainable Growth held at PTU, Jalandhar	14-16Feb, 2014	Poster Presentation
5	Effect of Disease on Harvested Prey-Predator System	Kulbhushan Agnihotri ,Nishant Juneja	International Conference on Information & Mathematical Sciences . IMS 2013 pp 97-99 (Elsevier)	24-28, Oct, 2013	Published
6	The Age of Optimization Solving Large Scale Real World Problems,	Kul bhushan Agnihotri., Sheenu Nayyar,	Proc. of UGC sponsored National Workshop on Statistics,Optimisation and Mechanism Learning , Balbir Singh Centre for Sciences, Lyallpur Khalsa College	30-31, March 2013	Published

			Jalandha (Pb)		
7	Use of Mathematical Modelling in Prey Predator system	Kulbhusan Agnihotri, Nishant Juneja	Proc. of UGC National Seminar, sponsored by UGC on Advance Mathematics: Its Implications in Modern Era held at D.A.V College Batala, Punjab	25 Feb, 2012	Published
8	Application of Operation Research in Socio, Economic growth of Industry	Kul bhushan Agnihotri., Sheenu Nayyar,	Proc. of UGC National Seminar, sponsored by UGC on Advance Mathematics: Its Implications in Modern Era held at D.A.V College Batala, Punjab	25 Feb, 2012	Published
9	Use of Mathematical Modelling in Ecology	Kulbhusan Agnihotri, Nishant Juneja	UGC sponsored National Conference on Emerging Trend in Mathematics & its Applications held at D.A.V College Jalandhar	4-6, Feb, 2012	Published
10	Emerging Trends in Mathematical Modelling	Kul bhushan Agnihotri., Sheenu Nayyar	UGC sponsored National Conference on Emerging Trend in Mathematics & its Applications held at D.A.V College Jalandhar	4-6, Feb, 2012	Oral Presentation
11	The Dynamicsof Disease Transmission in a Prey Predator System With Harvesting of Prey	Sunita Gakkhar Kulbhusan Agnihotri	National Conference On Recent Frontiers in Applied Dynamical System held at Karunya University, Coimbatore	21-22Jan, 2011	Oral Presentation

Dr. Kiranjeet Kaur

Conferences

Sr. no.	Title of Research Paper	Authors	Name of the Conference	National/International	Month/Year
1	Socio-cognitive Correlates of Achievement Motivation among engineering	Kiranjeet Kaur	Austalasian Association of Engineering	International	Dec.2013

	students.		Education		
2	Building a Humane and Sustainable Society: Need for Reorienting Engineering Education Curriculum	Kiranjeet Kaur	Spirituality and Education	International	Sept.2013
3	Gender Differences in Achievement Motivation among Engineering Students	Kiranjeet Kaur	Women And Development	International	Oct.2013
4	Understanding Relationship Between Personality Factors and Achievement Motivation for Enhancing Quality of Engineering Education	Kiranjeet Kaur		Natonal Seminar	Feb 2013
5	Role of Parents in relation to Achievement Motivation among Engg Students	Kiranjeet Kaur and Suninder Tung	International Conference of Applied Psychology, Punjab University, Chandigarh	International	Feb., 2012
6	Role of Teachers in Moral Development of Engineering Students.	Kiranjeet Kaur and Tejeet Singh	Moral and Ethical Values for Professionals	National	April 2011

- Number of papers published in peer reviewed journals (national/international)by faculty and students
- Faculty publications (2011 – 2014) in International/ National Journals (46 no.)

Publications in Refereed Journals

Dr AK Tyagi

1	Analysis of Properties For SiC,Al ₂ O ₃ And MgO as Reinforcement Keeping Particle Size At 0.220 in (A384.1) _{1-x} [P] _x	Int. Journal of Advanced Engg. Technology, II (III), pp. 312-319, 2011	E-ISSN 0976-3945	---	Nrip Jit, Anand K. Tyagi , Nirmal Singh
2	Micro-hardness and Macro-hardness for SiC,Al ₂ O ₃ and MgO as reinforcement in Al Alloys using Mamdani FIS Approach	Int. Review of Applied Engg. Research, 1 (3), pp.189-199 (2011).	ISSN- 2248-9967		Nripjit, A.K. Tyagi , Jagdev Singh & Nirmal Singh
3	Comparison of porosity and density for (A384.1) _{1-x} [(reinforcement) _p] _x MMC system using Adaptive Neuro-Fuzzy Infernce system	Advances in Applied Science Research, (USA) AASRFC, 2 (4), pp. 240-250, 2011	ISSN 00976-8610 CODEN (USA): AASRFC		Nripjit, A.K. Tyagi , Jagdev Singh & Nirmal Singh
4	An overview of metal matrix composite: Processing and SiC based mechanical properties	Journal of Engineering Research and Studies II (IV), pp.75-83, 2011.	E-ISSN 00976-7916 ISSN 1819-6608	0.7120	Nripjit, A.K. Tyagi , Jagdev Singh & Nirmal Singh
5	Metal Casting- A General Review	Advances in Applied Science Research, 2 (5): 360-371, 2011	ISSN: 0976-8610 CODEN (USA): AASRFC		H. Pal, Nrip Jit, Anand K Tyagi, S. Sidhu
6	INVESTIGATION OF TENSILE STRENGTH OF Al 384.1 BASED SiCp REINFORCED METAL MATRIX COMPOSITE (MMC)	Journal of Engineering Research and Studies III (I), 149-151, 2012	E-ISSN0976-7916	0.7120	Harinder Pal Singh , Nripjit, Sarabjeet, A.K. Tyagi
7	Effect of Grain-Size of Starting Materials on Synthesis of Nano/Micro-Phase Dibarium	Asian J. of Exp. Sciences, 25 (2), p.54, 2011	ISSN 0971-5444		Parul & Anand K Tyagi

	Nonatitanate Based Dielectric Ceramics				
8	Di-Barium Nonatitanate Dielectric Ceramic Resonator for Mobile Communication Technology	Asian J. of Exp. Sciences 25 (2), p.31, 2011	ISSN 0971-5444		Anand K. Tyagi & Parul
9	Synthesis of Nonatitanate based Dielectric Ceramic using various Grain Size of Starting Materials,	Ind. J. Appl. Res. 1 (6) pp.230-232, 2012.	ISSN 2249-555X		Parul and Anand K Tyagi

Dr Ajay Kumar					
Sr. No.	Author / s	Title of the paper	Year, Volume, page no.	Journal Name	ISSN No. & Impact Factor
1.	Pankaj Kalra, Rajeev Garg, Neel Kanth Grover and Ajay Kumar ;	Structural properties of anode composites precursor of a solid oxide fuel cell prepared via combusten synthesis route;	2012 1(2), 36	Asian J. Engg. & Applied Tech	ISSN: 2249-068X
2.	Pankaj Kalra, Rajeev Garg, Ajay Kumar and A.P. Singh;	Electrical characterization of NiO-CGO composites-SOFC anode precursor-prepared via combustion synthesis route;	2014 3 (5) 12071	International J. Innovative Research in Science, Engineering and Technology;	ISSN: 2319-8753

Dr. Lalit Sharma					
Research Papers in Peer Reviewed International / National Journals					
Sr. No.	Author / s	Title of the paper	Year, Volume, page no.	Journal Name	ISSN No. & Impact

					Factor
1.	<u>Lalit Sharma</u> , Saroj & Nirmal Singh	Reverse micellar encapsulation of D- and L- enantiomers of some aromatic α -amino acids and nucleobases by glucose derived non-ionic gemini surfactants in neat n-hexane	2014	Journal of Surfactants and Detergents Springer, USA	ISSN: 0932-3414 Imp. Factor 1.52
2.	<u>Lalit Sharma</u> and Subhash Chander Sharma	Tween-20 modified acacia nilotica and oryza sativa biomass for enhanced biosorption of Cr(VI) in aqueous environment Tenside Surfactants Detergents	2014 Accepted	Tenside Surfactants Detergents Hanser, Germany	ISSN: 1097-3958 Imp. Factor 1.00
3.	<u>Lalit Sharma</u> , Saroj & Nirmal Singh	Micellar encapsulation of some polynuclear aromatic hydrocarbons by glucose derived non-ionic gemini surfactants in aqueous medium	2013 Accepted	Tenside Surfactants Detergents Hanser, Germany	ISSN: 1097-3958 Imp. Factor 1.00
4.	<u>Lalit Sharma</u> and Subhash Chander Sharma	Tween 20 modified sugarcane bagasse (saccharum officinarum) and sheesham sawdust (dalbergia sissoo) for Cr(VI) remediation in aqueous environment	2013, 2(2), 1-13.	International Journal of Applied Research & Studies	ISSN: 2278-9480
5.	A. Kaura, <u>Lalit Sharma</u> and Monika	Synthesis and comparative	2013, 2(2), 560-565	International Journal of	ISSN: 2277-

	Kaura	antimicrobial study of beta-lactam derivatives		Pharmaceutical and Chemical Sciences	5005
6.	<u>Lalit Sharma</u> and Saroj	Novel glucose derived non-ionic gemini surfactants as reverse micellar systems for encapsulation of D- and L- enantiomers of some aromatic - amino acids in n-hexane	2012, 74, 251-256 DOI: 10.1007/s10847-012-0107-y	Journal of Inclusion Phenomena and Macrocyclic Chemistry Springer, USA	ISSN: 0923-0750 Imp. Factor 1.886
7.	A. Kaura, <u>Lalit Sharma</u> and V.J.Dhar	Spectral and antimicrobial study of some novel schiff's bases and -lactam derivatives	2012, 5(1), 129-132	Research Journal in Pharmacy and Technology	ISSN: 0974-3618
8.	<u>Lalit Sharma</u> , N.K.Grover, Manvendra Bhardwaj and Ishant Kaushal	Comparison of Engine Performance of Mixed Jatropa and Cottonseed derived Biodiesel blends with conventional diesel.	2012. 3(1), 29-32.	International Journal of Emerging Technologies	ISSN: 0975-8364
9.	A. Kaura, <u>Lalit Sharma</u> and V.J.Dhar	Synthesis, spectral and antimicrobial study of some novel schiff's bases and beta-lactam derivatives	2011, 9(4), 2009-2015	International Journal of Chemical Sciences	ISSN: 0972-768X Imp. Factor 0.063
10.	<u>Lalit Sharma</u>	Synthesis of glucose based water soluble	2011, 8(1),	E. Journal of Chemistry	ISSN: 0973-

		Molecular Tweezers as molecular recognition scaffolds.	319-325		Hinwai, USA	4945 Imp. Factor 0.716
11.	<u>Lalit Sharma</u> , Subhash Chander Sharma and Saroj	Studies in the Asymmetric epoxidation of chalcone using quaternary salts and non-ionic surfactants based on 6-amino-6-deoxy-glucose as phase transfer catalysts.	2011, 8(3), 1293-1297		E. Journal of Chemistry Hinwai, USA	ISSN: 0973-4945 Imp. Factor 0.716

Dr Sangeeta Sharma						
S. No	Title of Research Paper	Authors	DOI ISSN no.	I.F	Journal name (Publisher)	M / Yr (Vol., Pg.)
1	Environmental Assessment and Remedial Strategies for Treatment of Effluents of Recycled Waste Paper Mills.	Bhajan Dass, Sangeeta Sharma & Dheeraj Sood	ISSN: 09702083	H.Index: 08	Journal of Industrial Pollution Control	26(2), 2011, 185-189
2.	Decolourization of Methylene Blue Based on The Surface of Biomass Adsorbent	Navneet Kaur, Sangeeta Sharma	ISSN:0257-8050	H.Index: 14	Pollution Research	In Press
3.	Ground Water Quality in Residential Colonies of Moga(Punjab)	Sunita Mittal & Sangeeta Sharma	ISSN: 0970-0420	-	Environment & Ecology	29(2), 2011, 658-662

4	Study of effect of various oxidants on Decolourization and COD reduction of dye effluents	Amit Dhir, Sangeeta Sharma & Dhiraj Sood			Communicated	
5.	A study on the treatment strategies for the effluents of recycled waste paper mills of Malwa region of Punjab	Bhajan Dass, sangeeta Sharma & DhirajSood			Communicated	

Dr Anila Gupta

Sr. no.	Title of Research Paper	Authors	Journal name (Publisher)	Volume
1	Mehar's method to find exact fuzzy optimal solution of unbalanced fully fuzzy multi-objective transportation problems	Anila Gupta, Amit Kumar, Amarpreet Kaur	Optimization Letters (Springer)	6(2012) 1737-1751
2.	A new method for solving linear multi-objective transportation problems with fuzzy parameters	Anila Gupta, Amit Kumar	Applied Mathematical Modelling (Science Direct)	36 (2012) 1421-1430
3.	Application of tabu search for solving the bi-objective warehouse problems in fuzzy environment	Anila Gupta, Amit Kumar, Mahesh Kumar Sharma,	Iranian Journal of Fuzzy Systems	10 (2012) 1-19

4.	Methods for solving Fuzzy assignment problems and fuzzy traveling salesman problems with different membership functions	Amit Kumar, Anila Gupta	Fuzzy Information and Engineering	1 (2011) 3-21
5.	Method for solving fully fuzzy assignment problems using trapezoidal fuzzy numbers	Amit Kumar, Anila Gupta, Amarpreet Kaur	Advances in Fuzzy Mathematics	6 (2011) 39-51
6.	A new method for solving fuzzy generalized assignment problems with L-R type fuzzy parameters	Amit Kumar, Anila Gupta	Journal of Advanced Research in Applied Mathematics	3(2011) 74-84
7.	Applications of fuzzy linear programming with generalized <i>LR</i> flat fuzzy parameters	Anila Gupta, Amit Kumar, Mahesh Kumar Sharma,	Fuzzy Information and Engineering	4 (2013) 475-492

Dr. Kulbhushan Agnihotri					
Sr. No.	Author / s	Title of the paper	Vol, Year, page no.	Journal Name	ISSN No. & Impact Factor
1	Amit Sharma Anuj Sharma Kulbhushan Agnihotri	The Dynamics of Plankton Nutrients Interaction with Delay	231 (2014)503-515	Applied Mathematics and Computation (Elesvier)	ISSN No. 2010376x Imp Factor: 1.5
2	Anuj Sharma Amit Sharma Kulbhushan Agnihotri	Bifurcation Analysis of a Plankton Model with discrete delay	Vol.8 No.1 (2014) 77-86	WASET Int. J of Mathematical, Computational Sci. & Engg.	ISSN No. 2010376x International Sci. Index 85, 2014
3	Kulbhushan Agnihotri S. Gakkhar	The Dynamics of Disease Transmission in a Prey Predator System with Harvesting of Prey	1 (2012) 1-17	Int. J. of Adv Res comp Engg & Tech	ISSN: 2278 – 1323 Imp Factor: 2.793
4	Kulbhushan Agnihotri N. Juneja	Prey Predator System with Differential Predation Rate	1 (2012), 1-8	V. Int. Res. J. of Sc. & Tech	ISSN: 2277-999X
5	Kulbhushan Agnihotri , S.Gakkhar, N. Juneja	Disease Transmission in Prey to Predator System: Effect of Immigration	1 (2012), 39-45	V. Int. Res. J. of Sci. & Tech	ISSN: 2277-999X

Dr. Kiranjeet Kaur					
S. No.	Title of Research Paper	Authors	ISSN no.	Journal	Year
1	Gender Difference in Learning Style among Engineering Students	Kiranjeet Kaur	2320-9526	Pedagogy of Learning: International Journal of An of	2013

				Education	
2.	Parental Relationship with Children, Parental Involvement and Parental Pressure to Achieve High as Correlates of Achievement Motivation among Engineering Students	Kiranjeet Kaur	0976-1160	EDUSEARCH	2013
3	Gender differences in learning styles among engineering students.	Kiranjeet Kaur	2320-9526	Pedagogy of Learning: An international journal of education	2013
4	A study of the relationship between self beliefs and achievement motivation.	Kiranjeet Kaur	0976-8203	MIER journal of education studies Trends & Practices	2013
5.	Do personality factors differentiate between high achievers and low achievers among Engineering Students?	Kiranjeet Kaur	2320-009X	Educationia Confab	2013
6	Role of Attitude towards the Area of Study in Relation to Achievement Motivation.	Kiranjeet Kaur and Suninder Tung	0972-3803	Personality Study and Group Behavior	2011
7	Psychosocial correlates of Achievement Motivation in students.	Kiranjeet Kaur and Suninder Tung	0973-5755	Journal of Indian Health Psychology	2011

Annexure VII

Books published

Department of Mechanical Engg.

Title of Book	Authors	Publisher	ISBN No.
Functionally Graded Rotating Cylinder	Dr. Tejeet Singh and Nitin Kapoor	Lambert Academic	978-3-659-35725-1
Simulation Of Tool Flank Wear	Dr. Tejeet Singh	Lambert Academic	978-3-659-16474-3
Achieving Business Excellence Through Total Productive Maintenance	Dr. Tejeet Singh and Dr. Vinod Kumar	Lambert Academic	978-3-659-20346-6
Wear Behavior-Some Detonation Gun Sprayed Coatings On Grey Cast Iron	Mr Jwala Parshad	LAP LAMBERT Academic	978-3-8465-8118-6

Department of Applied Sciences & Humanities

Books published as author/ editor

S.N.	Title with page no.	Type of Book & Authorship	Publisher & ISSN/ISBN No.	Whether Peer	No. of Coauthors and date of
1	Fundamentals of Engineering Physics	Text Book (2 authors)	Dhanpat Rai & co. Pvt. Ltd. New Delhi	yes	01 co-author First Edition 2003

Annexure VIII

RESEARCH AWARDS / RECOGNITION RECEIVED BY THE FACULTY.

Department of Chemical Engg.

- i). Varun Suri, Vikram kumar, Harpreet kaur; Students of Final Year under Ms. Balpreet Kaur won second prize in National conference on Recent Advances in Chemical and Environmental Studies(RACES-2012) 3 March, 2012 held at Multani Mal Modi college Patiala, for their paper titled "Variation in COD of Pulp And Paper mill Effluent on treatment with Bio Degradable Polymer".
- ii) Amit Kumar, Avinash Kumar, Shamsher Singh Rawat, Ishan Manchanda, Jaskaran Singh, Ramandeep under Ms. Balpreet Kaur won second prize in TECHNO OPUS 2014 held at SBSSTC Ferozepur for their paper titled "Removal and Recovery of Phosphorous from Waste Water by using Magnetite" based upon environmental pollution control.

Department of Mechanical Engg

DR T S Sidhu

- i. NACE International India Section has awarded "Best Ph.D.Award", along with a citation and cash award of Rs. 5000 for meritorious contributions in the field of corrosion sciences.
- ii. Got 'Student Award' to attend the "International Conference on Surfaces, Coatings and Nanostructured Materials" held at University of Aveiro, Portugal, on 6-9 September 2005.
- iii. Got appreciation letter from IIT Roorkee for submitting Ph.D. thesis in a record time of 02 years and 04 months, with record number of publications i.e. 18 research papers in international referred journals of repute and 07 research papers in international conferences out of Ph.D. thesis.
- iv. One of my papers titled "Hot Corrosion of Some Superalloys and role of High-Velocity Oxy-Fuel Spray Coating-A Review, has been rated at 6th position among the top 25 papers of the international journal "Surf. Coat. Technol." (Elsevier).
- v. Got rare distinction of publication of 'Bio-data' in the American Journal "Journal of Thermal Spray Technology" Vol. 15(3), pp. 320-322, under the column 'Meet Our New Colleague'. This column of the journal presents selected currently graduating Ph.D. students in the thermal spray field around the world.

Mr Gazalpreet

- (i) Best Teacher Award given by Lion Club Ashirwad, Ferozepur & AGREED Foundation Ferozepur in Sept2013
- (ii) Awarded by District Administration Ferozepur on 15th August (Independence Day Celebrations) in recognition of services rendered under SVEEP project of election commission of India for Voters awareness campaign in college like, painting competition, Human chain, Debate, Workshop, signature campaign ,slogan writing competition.
- (iii) Award given by Shaheed Bhagat singh , Sukhdev and Rajguru memorial society.

Mr R P Singh

Received the alumni appreciation award at NIT Jalandhar