

# Annual Quality Assurance Report (AQAR)

(For Autonomous Colleges)

2015-2016

By

**SHAHEED BHAGAT SINGH STATE TECHNICAL CAMPUS**

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**राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद**

विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

*An Autonomous Institution of the University Grants Commission*

P. O. Box. No. 1075, Opp: NLSIU, Nagarbhavi, Bengaluru - 560 072 India



Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1 <sup>st</sup>	B	2.75	2015	From: 25/06/2015 to: 24/06/2020

6. Date of Establishment of IQAC: 28-08-2015 in 3<sup>rd</sup> Academic Council

#### 7. Internal Quality Assurance System

7.1 Quality initiatives by IQAC during the year for promoting quality culture		
Item /Title of the quality initiative by IQAC	Date & duration	Number of participants/beneficiaries
Implementation of OBE advocated by NBA	14/01/2016 (1 <sup>st</sup> IQAC)	2400
Education quality improvement through teaching of courses of courses using ppts	14/01/2016 (1 <sup>st</sup> IQAC)	2400
Marking of student attendance on ERP	14/01/2016 (1 <sup>st</sup> IQAC)	1500

**Note: Some Quality Assurance initiatives of the institution are:**

*(Indicative list)*

- Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback from all stakeholders collected, analysed and used for improvements
- Academic Administrative Audit (AAA) conducted and its follow up action
- Participation in NIRF
- ISO Certification
- NBA etc.
- Any other Quality Audit

8. Provide the list of Special Status conferred by Central/ State Government-

UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/ Department/Faculty	Scheme	Funding agency	Year of award with duration	Amount
Institution	TEQIP-II	Centre Govt.	2012 5 Years	10.0 Crore

9. Whether composition of IQAC as per latest NAAC guidelines: Yes/No: Yes (Uploaded in the website).

10. No. of IQAC meetings held during the year: 02

The minutes of IQAC meeting and compliance to the decisions have been uploaded on the institutional website. Yes/No: Yes <https://www.sbsstc.ac.in/policyIQAC.php>

11. Whether IQAC received funding from any of the funding agency to support its activities during the year? No

If yes, mention the amount:

Year:

12. Significant contributions made by IQAC during the current year (maximum five bullets)

IQAC's objective has always been to improve the academic performance of the institution and promote measures for institutional functioning towards quality enhancement.

- Up gradation of Departmental libraries and strengthening of central library
- Marking of student attendance on ERP
- Grace marks in the end semester examination
- Moderation of mid semester marks.
- Academic audit of the Departments in the BOG.

13. Plan of action chalked out by the IQAC in the beginning of the Academic year towards Quality Enhancement and the outcome achieved by the end of the Academic year

Plan of Action	Achievements/Outcomes
Approval of academic calendar	Approved in IQAC meeting
Approval of credit allocation	Approved in IQAC meeting
Implementation of OBE advocated by NBA	Approved in IQAC meeting
Education quality improvement through teaching of courses of courses using ppts	Approved in IQAC meeting

14. Whether the AQAR was placed before statutory body? : Yes

Name of the statutory body : Academic Council Date of meeting(s): 19-02-2016

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning?

Yes/No: No

Date:

16. Whether institutional data submitted to AISHE: Yes/No: Yes

Year: 2015-16

Date of Submission: 16-03-2016

17. Does the Institution have Management Information System? Yes

If yes, give a brief description and a list of modules currently operational.

(Maximum 500 words)

The Institute has adopted a Management Information System for Academics, HRMS, Finance & Accounts and for grading students in examinations. The MIS has been used in practice to store student

data such as personal data, Fee, Exam records and library details. There is an online system of filling examination forms by students in their logins and viewing of their results. Continuous Internal and external assessment is uploaded by faculty in MIS through their logins based upon which the performance of students performance is analyzed .It also helps to view fee category wise student data, admission status for all classes, cast category wise statistical report, admission fee summary report, library status details etc. Apart from this it let you know exact status of admitted and vacant seats of any class. Details of fee collected, class wise, and fee category wise analysis.

The faculty and staff mark their attendance on Biometric system, their data, payroll and leaves are managed by MIS. The institute also promotes online system of fee management through payments of fee of students and receipt directly through their Institute logins.

The institute used the following modules of ERP

**ACADEMICS:**

Student data management

Timetable, attendance

**HRMS**

Employee data management

Biometric attendance, Leave Management

Payroll

**FINANCE AND ACCOUNTS**

Fee Management

Receipts and Payments

**EXAM AND GRADING**

Exam form filling,

Conduct of exam

Declaration of Result

## Part-B

### CRITERION I – CURRICULAR ASPECTS

#### 1.1 Curriculum Design and Development

##### 1.1.1 Programmes for which syllabus revision was carried out during the Academic year

Name of Programme	Programme Code	Date of Revision
UG	CSE	27/08/2015
PG	CSE	27/08/2015
UG	ECE	30/05/2016
UG	EE	20/05/2016
UG	CE	25/08/2015
PG	MCA	17/05/2016
PG	MBA	17/05/2016
UG	BCA	17/05/2016
UG	CHE	21/08/2015, 12/10/2015 & 31/5/2016
UG	Architecture	25/08/2015

##### 1.1.2 Programmes/ courses focussed on employability/ entrepreneurship/ skill development during the Academic year

Programme with Code	Date of Introduction	Course with Code	Date of Introduction
B.Tech ECE	30/05/2016	Professional Skills-1 (BTHU-301A)	30/05/2016
B.Tech (CE)	25/08/2015	Fluid Mechanics Lab-I (BTCE -306) Strength of Materials Lab (BTCE-307) Surveying Lab (BTCE-308) Workshop Training (BTCE- 309)	25/08/2015
B.Tech (CE)	11/01/2016	Concrete Technology Lab (BTCE-407) Structural Analysis Lab (BTCE-408)	11/01/2016

B.Tech (CE)	25/08/2015	Transportation Engineering Lab (BTCE-506) Geotechnical Engineering Lab(BTCE-507) Computer Aided Structural Drawing-I (BTCE-508) Survey Camp (BTCE-509)	25/08/2015
B.Tech (CE)	11/01/2016	Environmental Engineering Lab (BTCE-607) Computer Aided Structural Drawing II (BTCE-608)	11/01/2016
B. Tech.CHE	18/05/2015	Professional Skills (BTHU-101A) - (BTHU-601A)	18/05/2015

## 1.2 Academic Flexibility

### 1.2.1 New programmes/courses introduced during the Academic year

Programme/Course	Date of introduction
Professional Skills-1 (BTHU-301A)	30/05/2016
M.Tech (Power Systems)	21/07/2015
Human Values and Professional Ethics (HVPE101)	25/08/2015

### 1.2.2 Programmes in which Choice Based Credit System (CBCS)/Elective Course System implemented at the College level during the Academic year.

Name of Programme adopting CBCS	Date of implementation of CBCS / Elective Course System		Date of implementation of CBCS / Elective Course System	
	UG	PG	UG	PG
All B. Tech ,M.Tech, BCA,MCA,MBA and B.Arch Courses	08	06	15/06/2015	08 06

## 1.3 Curriculum Enrichment

### 1.3.1 Value-added courses imparting transferable and life skills offered during the year

Value added courses	Date of introduction	Number of students enrolled
Soft Skills (ECE)	10/07/2015	61
	07/01/2016	254
Soft Skill (CE)	01/09/2015	73

Plant Utilities BTCH-412A	15/07/2015	33
Work Study	15/07/2015	143
NSS	01/06/2015	200
Drill - NCC (Convocation )	30/03/2016	20
67th Republic day 2015 celebration by NCC Wing	26/01/2016	30

#### 1.3.2 Field Projects / Internships under taken during the year

Project/Programme Title	No. of students enrolled for Field Projects / Internships
Industrial Training	572
Survey Camp	140
Major Project	31

#### 1.4 Feedback System

##### 1.4.1 Whether structured feedback received from all the stakeholders.

1) Students	2) Teachers	3) Employers	4) Alumni	5) Parents
Yes	Yes	Yes	Yes	Yes

##### 1.4.2 How the feedback obtained is being analyzed and utilized for overall development of the institution? (maximum 500 words)

The feedback from the students for each subject being taught to them is obtained at least thrice in a semester to evaluate teaching-learning process. The feedback collected from the students is anonymous. Feedback forms of a particular subject teacher are evaluated on the basis of marks given by the students. The feedback for all the subjects is then analyzed by the Head of the respective department. In case of any major finding from the feedback, the faculty members are provided necessary inputs for further improvement and corrective course of action. Thus the feedback apprises each faculty member of the institute about their weak areas in order to inculcate within themselves appropriate changes in their teaching methodology and build upon these to provide a better teaching-learning experience.

Faculty mentors have been appointed for a batch of 20-30 students of a department. A weekly meeting is scheduled in their time table, in which students can discuss with their mentor, the problems faced by them in the institution. The faculty mentor in turn conveys the crucial issues to their HOD who in discussion with the Director of the institute finds an amicable solution to their grievances.

Further, the overall academic, administrative, professional development and research contributions of every teacher are analyzed by the HOD and the Director once in a year and feedback from the teacher is obtained about difficulties and suggestions with regard to academic assignments and self growth. The feedback from alumni is also collected to get their suggestions for improvement of overall working of the department. Further, the feedback from designated faculty members, industry persons and alumni is obtained for revision of curriculum to keep the study scheme updated with new emerging technologies.

All these measures based on feedback from students, alumni, employers and parents are incorporated for development of this institution.



**CRITERION II -TEACHING-LEARNING AND EVALUATION****2.1 Student Enrolment and Profile**

## 2.1.1 Demand Ratio during the year

Name of the Programme	Number of seats available	Number of applications Received	Students Enrolled
B. Tech. CSE	126	126	124
M.Tech CSE	18	17	17
B. Tech ECE	94	43	43
M.Tech. ECE	18	10	08
B.Tech EE	63	56	42
M.Tech PS	18	05	05
B. Tech CE	126	115	109
MCA	63	23	21
BCA	60	25	23
MBA	63	10	9
B. Tech CHE	32	11	10
B.Arch	40	18	18
B. Tech ME	252	163	163
M.Tech ME	18	—	—

**2.2 Catering to Student Diversity**

## 2.2.1. Student - Full time teacher ratio (current year data)

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of full time teachers available in the institution teaching only UG courses	Number of full time teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2015-16	1956	77	115	6	11

**2.3 Teaching –Learning Process**

## 2.3.1 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS),

E-learning resources etc. (current year data)

Number of teachers on roll	Number of teachers using ICT ( <i>LMS, e-Resources</i> )	ICT tools and resources available	Number of ICT enabled classrooms	Number of smart classrooms	E-resources and techniques used
132	117	LCD Projectors, Internet, Laptop, NPTEL Video Lectures, mobile/web learning	35	34	PPTs, NPTEL Video Lectures, E-Library, E-Books Software's, online data bases, e-reference books, e-thesis, Swayam, Lectures through PPT, Using ICT enabled classroom for teaching, Using online LMS Platforms Google classroom, Zoom, Google meet

2.3.2 Students mentoring system available in the institution? Give details. (maximum 500 words)

In recent years, Mentoring System has emerged as a strong response to the plight of students at-risk. All departments in Shaheed Bhagat Singh State Technical Campus, Ferozpur offers highly-efficient Mentoring system through which a group of students consisting of 20-30 students are assigned to a faculty member at the commencement of the program. Mentors meet their students and guide them with their studies and extra-curricular activities. They also provide advice relating to selection of major, career guidance and personal problems. The mentors act as guides to the students during their summer and final projects. The mentoring system of each department ensures that the students adapt to the dynamic learning environment and lead their ways into highly successful careers.

All the departments in the institute have an integrated mentoring system where the faculty acts as a link between the students and the institution and perform the following functions-

- Mentors are assigned to monitor and guide students all through the four years.
  - Mentors coordinate with the parents regarding the progress of the students.
  - Mentors also keep track of the mentees' performance during the Summer internship by continuous interaction with the industry guide designated to the student by the company.
  - Mentors communicate with fellow faculty and promote mentees at the time of difficulty / opportunity to help them develop further in their areas of interest.
- Further, Female faculty members are also assigned task as mentors to take care about the difficulties faced by girl students.

Heads of Departments also act as a mentor and monitor different activities of the assigned mentors and the students. The HOD holds meetings with all mentors of the department at least once a month for the reviewing of proper implementation of the system. He suggests and advise mentors whenever required. He initiates administrative action on a student when there is a need. Further, he provides periodic detailed report of the mentoring system to the Director of the Institute time to time.

The Academic Committee of the Institute discusses the mentoring related issues at least twice in a semester and revises or upgrade the system if necessary.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor: Mentee Ratio
2033	132	1:15

## 2.4 Teacher Profile and Quality

### 2.4.1 Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
161	132	29	36	16

### 2.4.2 Honours and recognitions received by teachers

(received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year)

Year of award	Name of fulltime teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2015-16	Dr Rajni (International level)	Professor	Appreciation letter received from Editor-in-Chief for reviewing paper submitted to Journal of Engineering Science and Technology (JESTEC, Malaysia (Scopus indexed))
2015-16	Dr Rajni (International level)	Professor	Biography is included for 2015-16 edition of "Marquis Who's who in science and Engineering" of U.S.A. for publication.
2015-16	Dr Rajni (National level)	Professor	Appreciation letter received from Director for organizing National conference on Communication, Computing and Control System (NCCCS-15) on 24 <sup>th</sup> -25 <sup>th</sup> August 2015 at SBSSTC, Ferozepur (as Editorial Board Member, Reviewer and Coordinator)
2015-16	Dr Rajni (National level)	Professor	Appreciation letter for chairing a session in National Student conference on Emerging Trends in Engineering, Science and Management (ETES &M-2016) on April 29 <sup>th</sup> 2016 by ISTE chapter (National level)
2015-16	Dr Rajni (State Level)	Professor	Received Certificate of Appreciation from Company "APTRON SOLUTIONS PVT. LTD" for organizing state level technical workshop "Robotics and ARM "for students
2015-16	Dr. Sanjeev Dewra (State Level)	Associate Professor	Appreciation letter for the successful conduct of National Conference NCCCS-2015 as Convenor

			during August 24-25,2015
2015-16	Dr. Sanjeev Dewra (International Level)	Associate Professor	Member of Advisory Committee in International Conference of Technology, management and Social science (ICTMS-15), London, United Kingdom, 29-30 Dec-2015
2015-16	Dr. Sanjeev Dewra (National Level)	Associate Professor	Appreciation letter /Award as Coordinator in National Student conference on Emerging Trends in Engineering, Science and Management (ETES &M-2016) on April 29th 2016 by ISTE chapter
2015-16	Dr. Sanjeev Dewra (National Level)	Associate Professor	Reviewer/Committee Member in IEEE-International Symposium on Advanced Computing and Communication, Assam University, Silchar, 14-15 Sep-2015
2015-16	Dr. Sanjeev Dewra (National Level)	Associate Professor	PC Member of International conference on Computing, Communication and Automation as Reviewer, Galgotias university, Uttar Pradesh, India, 29-30 Apr-2016
2015-16	Dr. Sanjeev Dewra (National Level)	Associate Professor	Editorial Board Member of different Journals like RTECS,IJCRC,JTSSN
2015-16	Dr. Vikram Mutneja (National level)	Associate Professor	Received Certificate of Appreciation for organizing Team of National Conference on Communication, Computing and Systems (NCCCS-2015) as Session Chair, held at SBSSTC, Ferozepur under TEQIP (II) during 24-25 August, 2015
2015-16	Dr. Vikram Mutneja (State Level)	Associate Professor	Received Certificate of Appreciation from Company "APTRON SOLUTIONS PVT. LTD" for organizing state level technical workshop for students dated 23-24 April, 2016
2015-16	Inderjeet Singh Gill (National level)	Associate Professor	Got certificate of appreciation for being member of organizing committee of National conference on Communication, Computing and Systems (NCCCS-2015) held at SBSSTC, Ferozepur during August 24-25, 2015 and also for session chair.
2015-16	Amit Grover (National level)	Assistant Professor	Appreciation letter from the Director of the institute for the successful conduct of National Conference on Communication, Computing & Systems as Co-Coordinator During August 24-25, 2015
2015-16	Amit Grover (National level)	Assistant Professor	Appreciation letter from the Director of the institute for the successful conduct of National Conference on Communication, Computing & Systems as member of Editorial Board During August 24-25, 2015

2015-16	Amit Grover (International Level)	Assistant Professor	Editorial Board Member of different Journals like IJRET, IJSER
2015-16	Dr. Amit Arora	Associate Professor	Best Paper Award in 6th World Renewable Energy Technology Congress, New Delhi, India.
2015-16	Dr. Pankaj Kalra	Associate Professor	Certificate of Appreciation for delivering an Invited talk in STC on Advances in Renewable Energy Technologies at Adesh Institute of Engg. & Tech., Faridkot.
2015-16	Dr. A. K. Tyagi	Professor	Invited by World Scientific & Engg. Academy, Italy for delivering Invited Talk & Chairing Technical Session in International Conference
2015-16	Ms Anupam Mittal (National level)	Assistant Professor	Appreciation letter received from Director for organizing National conference on Communication, Computing and Control System (NCCCS-15) on 24 <sup>th</sup> -25 <sup>th</sup> August 2015 at SBSSTC, Ferozepur (as Editorial Board Member, member of organizing committee)

## 2.5 Evaluation Process and Reforms

2.5.1 Number of days from the date of semester-end/ year- end examination till the declaration of results during the year					
Programme Name	Programme Code	Examination Session	Semester/ year	Last date of the last semester-end/ year-end examination	Date of declaration of results of semester-end/ year- end examination
B. Tech.	ME	Nov./ Dec. - 2015	1 <sup>st</sup> Semester	28.12.2015	12.10.2016
			3 <sup>rd</sup> Semester	07.12.2015	04.01.2016
			5 <sup>th</sup> Semester	08.12.2015	30.03.2016
			7 <sup>th</sup> Semester	01.01.2016	30.03.2016
		May/June - 2016	2 <sup>nd</sup> Semester	01.06.2016	17.06.2016
			4 <sup>th</sup> Semester	19.05.2016	22.08.2016
			6 <sup>th</sup> Semester	23.05.2016	05.08.2016
			8 <sup>th</sup> Semester	18.05.2016	16.06.2016
B. Tech.	EE	Nov./ Dec. - 2015	1 <sup>st</sup> Semester	28.12.2015	12.10.2016
			3 <sup>rd</sup> Semester	07.12.2015	30.03.2016

			5 <sup>th</sup> Semester	08.12.2015	30.03.2016
			7 <sup>th</sup> Semester	08.12.2015	30.03.2016
		May/June 2016	2 <sup>nd</sup> Semester	01.06.2016	17.06.2016
			4 <sup>th</sup> Semester	21.05.2016	12.07.2016
			6 <sup>th</sup> Semester	23.05.2016	12.07.2016
			8 <sup>th</sup> Semester	01/01/2016	10.06.2016
B. Tech.	CE	Nov./ Dec. - 2015	1 <sup>st</sup> Semester	28.12.2015	12.10.2016
			3 <sup>rd</sup> Semester	07.12.2015	28.03.2016
			5 <sup>th</sup> Semester	08.12.2015	22.03.2016
			7 <sup>th</sup> Semester	01.01.2016	22.03.2016
		May/June 2016	2 <sup>nd</sup> Semester	01.06.2016	10.07.2016
			4 <sup>th</sup> Semester	21.05.2016	22.07.2016
			6 <sup>th</sup> Semester	23.05.2016	21.07.2016
			8 <sup>th</sup> Semester	23.05.2016	16.06.2016
B. Tech.	ECE	Nov./ Dec. - 2015	1 <sup>st</sup> Semester	28.12.2015	12.10.2016
			3 <sup>rd</sup> Semester	07.12.2015	30.03.2016
			5 <sup>th</sup> Semester	08.12.2015	30.03.2016
			7 <sup>th</sup> Semester	01.01.2016	30.03.2016
		May/June 2016	2 <sup>nd</sup> Semester	01.06.2016	16.06.2016
			4 <sup>th</sup> Semester	21.05.2016	11.07.2016
			6 <sup>th</sup> Semester	23.05.2016	22.07.2016
			8 <sup>th</sup> Semester	23.05.2016	16.06.2016

B. Tech.	CHE	Nov./ Dec. - 2015	1 <sup>st</sup> Semester	28.12.2015	30.08.2016
			3 <sup>rd</sup> Semester	07.12.2015	22.03.2016
			5 <sup>th</sup> Semester	08.12.2015	22.03.2016
			7 <sup>th</sup> Semester	08.12.2015	22.03.2016
		May/June 2016	2 <sup>nd</sup> Semester	01.06.2016	16.06.2016
			4 <sup>th</sup> Semester	21.05.2016	11.07.2016
			6 <sup>th</sup> Semester	23.05.2016	11.07.2016
			8 <sup>th</sup> Semester	01/01/2016	10.06.2016
B. Tech.	CSE	Nov./ Dec. - 2015	1 <sup>st</sup> Semester	28.12.2015	12.10.2016
			3 <sup>rd</sup> Semester	07.12.2015	04.01.2016
			5 <sup>th</sup> Semester	08.12.2015	04.01.2016
			7 <sup>th</sup> Semester	08.12.2015	04.01.2016
		May/June 2016	2 <sup>nd</sup> Semester	01.06.2016	16.06.2016
			4 <sup>th</sup> Semester	21.05.2016	22.07.2016
			6 <sup>th</sup> Semester	23.05.2016	21.07.2016
			8 <sup>th</sup> Semester	01/01/2016	10.06.2016
BCA	BCA	Nov./ Dec. - 2015	1 <sup>st</sup> Semester	23.12.2015	30.03.2016
			3 <sup>rd</sup> Semester	07.12.2015	30.03.2016
			5 <sup>th</sup> Semester	03.12.2015	30.03.2016
		May/June 2016	2 <sup>nd</sup> Semester	24.05.2016	19.07.2016
			4 <sup>th</sup> Semester	17.05.2016	20.07.2016
			6 <sup>th</sup> Semester	16.05.2016	20.07.2016
MCA	MCA	Nov./ Dec. -	3 <sup>rd</sup>	09.12.2015	30.03.2016

		2015	Semester		
			5 <sup>th</sup> Semester	08.12.2015	30.03.2016
		May/June 2016	4 <sup>th</sup> Semester	18.05.2016	20.07.2016
			6 <sup>th</sup> Semester	01/01/2016	16.06.2016
MBA	MBA	Nov./ Dec. - 2015	1 <sup>st</sup> Semester	24.12.2015	30.03.2016
			3 <sup>rd</sup> Semester	22.12.2015	30.03.2016
		May/June 2016	2 <sup>nd</sup> Semester	23.05.2016	12.07.2016
			4 <sup>th</sup> Semester	01.06.2016	22.07.2016
B.Sc (IT)	B.Sc (IT)	Nov./ Dec. - 2015	5 <sup>th</sup> Semester	05.12.2015	30.03.2016
		May/June 2016	6 <sup>th</sup> Semester	25.05.2016	12.07.2016
B. Arch	B. Arch	Nov./ Dec. - 2015	1 <sup>st</sup> Semester	23.12.2015	14.10.2016
		May/June 2016	2 <sup>nd</sup> Semester	25.05.2016	17.11.2016

2.5.2 Average percentage of Student complaints/grievances about evaluation against total number appeared in the examinations during the year *\*Do not include re-evaluation/ re-totalling*

Number of complaints or grievances about evaluation	Total number of students appeared in the examination	Percentage
19	2033	0.93

## 2.6 Student Performance and Learning Outcomes

2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

CSE	<a href="https://www.sbsstc.ac.in/dptCSengg.php?dept=%27CSE%27">https://www.sbsstc.ac.in/dptCSengg.php?dept=%27CSE%27</a>
ECE	<a href="https://www.sbsstc.ac.in/dptECengg.php">https://www.sbsstc.ac.in/dptECengg.php</a>
EE	<a href="https://www.sbsstc.ac.in/dptEEengg.php">https://www.sbsstc.ac.in/dptEEengg.php</a>
CE	<a href="https://www.sbsstc.ac.in/dptCEengg.php">https://www.sbsstc.ac.in/dptCEengg.php</a>
CHE	<a href="https://www.sbsstc.ac.in/dptCHengg.php">https://www.sbsstc.ac.in/dptCHengg.php</a>
ME	<a href="https://www.sbsstc.ac.in/dptMEengg.php">https://www.sbsstc.ac.in/dptMEengg.php</a>
CA	<a href="https://www.sbsstc.ac.in/CO.php">https://www.sbsstc.ac.in/CO.php</a>



**2.6.2 Pass percentage of students**

Programme Code	Programme name	Number of Students appeared in the final year examination	Number of students passed in final Semester /year examination	Pass Percentage
CSE	B.Tech CSE	148	148	100
ECE	B.Tech ECE	114	78	68.4
ECE	M.Tech ECE	17	15	88
EE	B.Tech EE	72	66	91.67
CE	B. Tech. CE	60	57	95
MCA	MCA	42	42	100
MBA	MBA	15	11	73.3
BCA	BCA	39	13	36
CHE	B.Tech CHE	32	31	97
Architecture	B.Arch.	18	12	66.67
ME	B.Tech ME	145	54	37.2

**2.7 Student Satisfaction Survey**

2.7.1 Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

A feedback survey to assess the students' satisfaction on the curriculum, teaching learning processes and infrastructure is made. Opinion of all the students is collected using a questionnaire of structured feedback forms. Students' feedback is rated on 5-point scale from 1 to 5. There are a number of closed and open-ended questions in the feedback questionnaire. Most of the students are satisfied with the

syllabus covered and the teaching style of the teachers. Students also find teachers fair in internal evaluation process. The teaching, mentoring process, Academics, placement and library facilitates, social and emotional growth is shown satisfactory. Students are satisfied with the illustrations of teachers for explaining concepts through examples and applications. Most of the students are fully satisfied with the teachers' identification of students' strengths and weaknesses to encourage them with providing right level of challenges. The students' feedback also shows that they also agree that the institution makes effort to engage them in the monitoring, review and continuous quality improvement of the teaching learning process. The weblink for the Students Satisfaction Survey (SSS) of the institute is

<https://docs.google.com/forms/d/e/1FAIpQLSd9IcfRHSqUZxNpk3teYnwR5w5488L1B4CwSFQWvpcR5pi7SA/viewform>

### CRITERION III- RESEAECH, INNOVATIONS AND EXTENSION

#### 3.1 Promotion of Research and Facilities

3.1.1 The institution provides seed money to its teachers for research

Yes

Name of the teacher getting seed money	The amount of seed Money	Year of receiving grant	Duration of the grant
Dr.Sunny Behal	5000/-	12/05/2015	6 Month
Dr.Vihal Arora	5000/-	12/05/2015	6 Month
Sh.Rakesh Kumar	5000/-	12/05/2015	6 Month
Sh.Pankaj Kalra	5000/-	12/05/2015	6 Month
Sh.Gazal Preet Arneja	5000/-	12/05/2015	6 Month
Sh.Dharampal Kashyap	5000/-	26/08/2015	6 Month
Sh.Navtej Singh Gumman	5000/-	26/08/2015	6 Month
Dr.Sunny Behal	6000/-	22/12/2015	6 Month
Dr.Vihal Arora	6000/-	22/12/2015	6 Month
Sh.Rakesh Kumar	6000/-	22/12/2015	6 Month
Sh.Rakesh Kumar	4400/-	25/06/2015	3 Year
Dr. Sunny Behal	6000/-	14/01/2016	6 Month
Dr.Vishal Sharma	6000/-	14/01/2016	6 Month
Sh.Rakesh Kumar	6000/-	14/01/2016	6 Month
Sh.Sarabhjit Singh	17000/-	29/01/2016	6 Month
Sh. Rakesh Kumar	4946/-	24/05/2016	One Year
Dr. Rajiv Arora	5496/-	19/04/2016	One Year

3.1.2 Teachers awarded National/International fellowship for advanced studies/ research during the year

	Name of the teacher awarded the fellowship	Name of the Award	Date of Award	Awarding Agency
National	-	-	-	-
International	-	-	-	-

#### 3.2 Resource Mobilization for Research

3.2.1 Research funds sanctioned and received from various agencies, industry and other organizations

Nature of the Project	Duration	Name of the funding Agency	Total grant sanctioned	Amount received during the Year
Major projects	—	—	—	—
Minor Projects	—	—	—	—
Interdisciplinary Projects	—	—	—	—
Industry sponsored Projects	—	—	—	—
Projects sponsored by the University/ College	—	—	—	—
Students Research Projects ( <i>other than compulsory by the College</i> )	—	—	—	—
International Projects :- TEQIP-II	05 Year	MHRD	World bank	10 Crore
Any Other (Specify)	—	—	—	—
Total	05 Year	—	—	10 Crore

3.2.2 Number of ongoing research projects per teacher funded by government and non-government agencies during the years

—

### 3.3 Innovation System

3.3.1 Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry Academia Innovative practices during the year

Title of Workshop/Seminar	Name of Dept.	Dates
ROBOTICS & ARM	ECE	23/04/2016-25/04/2016
Elements of House Design and Their Orientation towards their Climatic Conditions	CE	09/09/2015
Introduction to Basic Design and its Objectives	CE	02/09/2015
Earthquake Resistant Structures	CE	20/09/2015
Waste Water Management	CE	11/01/2016
Elements of House Design and Their Orientation towards their Climatic Conditions	Architecture	09/09/2015
Introduction to Basic Design and its Objectives	Architecture	02/09/2015
Earthquake Resistant Structures	Architecture/ CE	20/09/2015
Waste Water Management	Architecture / CE	11/01/2016

3.3.2 Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of the Awardees	Awarding Agency	Date of Award	Category
Outstanding Technical Institution Award	SBSSTC, FZR	NITTTR, Chandigarh	07/09/2015	Best Polytechnic Colleges among states of northern region comprising of J&K, HP, Punjab, Haryana, Chandigarh, Delhi, UP, Utrakhand, and Rajasthan

### 3.3.3 No. of incubation centre created, start-ups incubated on campus during the year

Incubation Centre	Name	Sponsored By
—	—	—
Name of the Start –up	Nature of Start-Up	Date of Commencement
—	—	—

## 3.4 Research Publications and Awards

### 3.4.1 Ph.Ds awarded during the Year

Name of Department	No. of Ph.Ds awarded
Chemical Engineering	01
Applied Sciences and Humanities	02

### 3.4.2 Research Publications in the Journals notified on UGC website during the year

	Department	No. of Publication	Average impact factor, if any
International	CSE	02	—
International	ECE	35	0.33
National	EE	03	—
International	EE	06	—
International	CA	03	—
International	CHE	04	3.56
International	DASH	26	—
International	ME	08	1

### 3.4.3 Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	No. of Publication
CSE	33
ECE	17
EE	06
CE	42
DASH	1
CHE	25

### 3.4.4 Patents published/awarded during the year

Patent Detail	Patent Status/Published Filed	Patent Number	Date of Award
Inhibition of Gas Hydrate Formation by a Novel Green Kinetic Inhibitor	Filed on 02-03-2016 with Application No. 201611007370	—	—

3.4.5 Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or Pub Med/ Indian Citation Index

Title of Paper	Name of the Author	Title of the journal	Year of Publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citations
DDoS attacks in cloud and mitigation techniques	Chawla Isha,luthra Pawan , Kaur Daljeet	International journal of innovative science, engineering & technology	2015	—	SBSSTC, Ferozepur	—
Three way mechanism to enhance the data security on cloud	Chawla Isha,luthra Pawan , Kaur Daljeet	International journal of current engineering and scientific research (ijcesr)	2015	—	SBSSTC, Ferozepur	—
A Survey and Comparison of Various Cloud Simulators Available for Cloud Environment	Kaur Ramandeep ,Ghumman Navtej Singh	International Journal of Advanced Research in Computer and Communication Engineering	2015	—	SBSSTC, Ferozepur	—
Accelerating cbir system using graphics processing unit in open cv environment	Kaur Bhavneet, Jindal Sonika	International journal of computer applications	2015	—	SBSSTC, Ferozepur	—
Dual image watermarking algorithm with svd-dwt and edge detection on different layers of colored image	Kathpal Anjali, Jindal Sonika	International journal of computer applications	2015	—	SBSSTC, Ferozepur	—
Dual Image Watermarking Algorithm with SVD-DWT and Edge Detection on	Anjali Kathpal, Sonika Jindal	International Journal of Computer Applications	2015	—	SBSSTC, Ferozepur	—

Different Layers of Colored Image						
Accelerating CBIR System using Graphics Processing Unit in OPEN CV Environment	Bhavneet Kaur, Sonika Jindal	(IJCA) International Journal of Computer Applications	2015	—	SBSSTC, Ferozepur	—
Designing a secure text-based captcha	Kaur Kiranjot, Behal Sunny	Elsevier procedia computer science	2015	—	SBSSTC, Ferozepur	9
Advanced Memory Reusing Mechanism for Virtual Machines in Cloud Computing	Singh Gursharan, Behal Sunny	Elsevier procedia computer science	2015	—	SBSSTC, Ferozepur	18
An improvement of network life time using dlqar protocol in wireless sensor network	Singh Kulvir, Behal Sunny, Arora vishal Kumar	International journal of computer applications	2015	—	SBSSTC, Ferozepur	—
Distributed and centralized clustering approaches: leach vs. c-leach	Bansal Shubhi Arora vishal Kumar	International journal of technology innovations and research (ijtir)	2015	—	SBSSTC, Ferozepur	3
Red strategy for improving performance in manet: a review	Batra Chetan Arora vishal Kumar	Journal of information sciences and computing technologies	2015	—	SBSSTC, Ferozepur	—
A modified leach algorithm using hard and soft threshold in wireless sensor network: a review	Kaur Gurpeet Arora vishal Kumar	International journal of computers & technology	2015	—	SBSSTC, Ferozepur	2
Performance and security evaluation by using sha3 in wep	Kumar Ashish Arora vishal Kumar	International journal of engineering sciences & research technology	2015	—	SBSSTC, Ferozepur	5
Refinement of wpa using sha3	Monga Kashish	International journal of	2015	—	SBSSTC, Ferozepur	—

	Arora vishal Kumar	engineering sciences & research technology				
An improvement of network life time using dlqar protocol in wireless sensor network	Singh Kulvir, Behal Sunny Arora vishal Kumar	International journal of computer applications	2015	—	SBSSTC, Ferozepur	—
Bandwidth Aware Heterogeneous Task Scheduling in Cloud Computing	Pawan Luthra Sandeep Kaur	International Journal of Current Engineering and Scientific Research (IJCESR)	2015	—	SBSSTC, Ferozepur	—
Security Storage Model in Cloud	Pawan Luthra, Sonia Arora	International Journal of Current Engineering and Scientific Research (IJCESR)	2015	—	SBSSTC, Ferozepur	
Performance Evaluation in Situation Based Routing Protocol in Wireless Sensor Network	Deepak Sharma, Khushjeet Kaur, Gurpal Singh	International Journal of Innovative Science, Engineering and Technology	2015	—	SBSSTC, Ferozepur	
Modeling and Simulation of CSMA/CA Slotted and Unslotted Mode in Zigbee Routing Schemes	Amritpal Kaur, Jaswinder Kaur, Gurjeevan Singh	International Journal of Computer Applications	2015	3	SBSSTC, Ferozepur	3
Heterogeneous Configuration: A Better Approach to Analyze VANET	Pankaj Joshi, Jaswinder Kaur and Inderjeet Singh Gill	International Journal of Computer Applications	2015	3	SBSSTC Ferozepur	3
Contrast enhancement	Vikram Mutneja,	International Journal of	2014	01	Shaheed Bhagat Singh State	01

analysis of video sequence in the temporal-based (TB) method	Deepak Kumar Behera	Electronics Engineering (IJEE)			Technical Campus, Ferozepur	
Methods of Image Edge Detection: A Review	Dharampal and Vikram Mutneja	Journal of Electrical & Electronic Systems (IISN: 2332-0796)	2015	07	Shaheed Bhagat Singh State Technical Campus, Ferozepur	07
Fabrication and Applications of Fiber Bragg Grating-A Review	Sanjeev Dewra, Vikas Plaha, Amit Grover	Advance Engineering Technology and Application- An International Journal	2015	23	Shaheed Bhagat Singh State Technical Campus- Ferozepur.	22
Duobinary Modulation Format for Optical System- A Review	Rupinder Kaur, Sanjeev Dewra	International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering	2015	14	Shaheed Bhagat Singh State Technical Campus- Ferozepur.	14
A Review on Passive Optical Network	Ravneet Kaur, Sanjeev Dewra	International Journal of Innovative Research in Computer and Communication Engineering	2015	04	Shaheed Bhagat Singh State Technical Campus- Ferozepur.	04
Placement of dynamic reconfigurable optical add/drop multiplexer using dynamic channel equalizer in an optical communication system	Sanjeev Dewra, Rajinder Singh Kaler	Optoelectronics and Advanced Materials- Rapid Communications	2015	03	Shaheed Bhagat Singh State Technical Campus- Ferozepur.	02
A review on optical	Garima	International	2015	02	Shaheed	02



Amplifier and its Hybrid configurations	Arora, Sanjeev Dewra	Journal of Electronics & Communication Engineering Research			Bhagat Singh State Technical Campus-Ferozepur.	
Evaluation of Wavelength Division Multiplexing using Different modulation formats	Rupinder Kaur, Sanjeev Dewra	International journal of advanced research in computer and communication engineering	2015	01	Shaheed Bhagat Singh State Technical Campus-Ferozepur.	01
Design of Low Power and Efficient Carry Select Adder Using 3-T XOR Gate	Chakshu Goel	Advances in Electronics, Hindawi Publications	2015	3	SBSSTC, Ferozepur	3
Reversible Multiplier- A Review	Chakshu Goel	International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering	2015	1	SBSSTC, Ferozepur	1
Quantum Cost efficient Reversible multiplier	Chakshu Goel	International Journal of Advanced Research in Computer Engineering & Technology (IJARCET),	2015	2	SBSSTC, Ferozepur	2
Design of a power efficient reversible adder/ subtractor	Chakshu Goel	International Journal of Advanced Research in Computer Engineering & Technology (IJARCET)	2015	7	SBSSTC, Ferozepur	7
Performance Evaluation of Different	Chakshu Goel	International Journal of Computer	2015	2	SBSSTC, Ferozepur	2

Modulation Techniques for Different Mobility Pattern by using SVC Code over Wimax		Applications				
Study and Analysis of Dictionary attack and Throughput in WEP for CRC-32 and SHA-1	Amit Grover	International Journal of Computer Applications	2014	03	SBSSTC, Ferozepur	03
AOMDV with Multi-Tier Multi-Hop Clustering in Wireless Sensor Networks	Amit Grover	International Journal of Advance Engineering Technology and Application	2014	04	SBSSTC, Ferozepur	04
On limits of Wireless Communications in a Fading Environment: a General Parameterization Quantifying Performance in Fading Channel	Amit Grover	Indonesian Journal of Electrical Engineering and Informatics	2014	05	SBSSTC Ferozepur	05
A Multi-objective Genetic Algorithm Based Approach for Effective Intrusion Detection Using Neural Networks	Gulshan Kumar	Intelligent Methods for Cyber Warfare	2015	10	SBSSTC, Ferozepur	10
4G Wireless technologies	Gulshan Kumar	International Journal of Science Technology & Management	2015	—	SBSSTC, Ferozepur	—
Internet Threats and Prevention – A Brief Review	Gulshan Kumar	IJCA Proceedings on International Conference on Advancements in Engineering	2015	—	SBSSTC, Ferozepur	—
Experimental study	Rakesh	Heat and	2015	—	SBSSTC,	—

on Performance of Celdek Packed Liquid Desiccant Dehumidifier	Kumar & Arun Kumar Asati	Mass Transfer Springer			Ferozepur	
Solid Waste Based Hybrid Natural Fibre Polymeric Composites	Kumar R., Singh Tejeet Singh H.	Journal of Reinforced Plastics and Composites.	2015	—	SBSSTC, Ferozepur	—
Review of Functionally Graded Materials	Kohli G., Singh Tejeet Singh H	Journal of Production Engineering	2015	—	SBSSTC, Ferozepur	—
Improving Wear Resistance of Grey Cast Iron using Detonation Gun Sprayed Coatings- A Review	Gobind, Jwala Parshad, Dr Neelkanth Grover	International Journal of Engineering and Management Research	2015	—	SBSSTC, Ferozepur	—
Recent Advancements in Thermal Spray Coatings	Rajiv Kumar Ranjan, Jwala Parshad, Dr Neelkanth Grover	IOSR Journal of Mechanical and Civil Engineering	2015	—	SBSSTC, Ferozepur	—
Modren Proficiency in Thremal Spray Coatings to Enhance Wear Resistance of Material	Gobind, Jwala Parshad, Dr Neelkanth Grover	IOSR Journal of Mechanical and Civil Engineering	2015	—	SBSSTC, Ferozepur	—
Techniques of Measuring Wear for Bulk Materials and Advanced Surface Coatings	Rajiv Kumar Ranjan, Jwala Parshad, Dr Neelkanth Grover	IOSR Journal of Mechanical and Civil Engineering	2015	—	SBSSTC, Ferozepur	—
Enhancing Wear Resistance of Grey Cast Iron using Al <sub>2</sub> O <sub>3</sub> -3TiO <sub>2</sub> & Al <sub>2</sub> O <sub>3</sub> -13TiO <sub>2</sub> coatings	Gobind, Jwala Parshad, Dr Neel kanth Grover	International Journal of Science, Technology & Management	2015	—	SBSSTC, Ferozepur	—

Tribological Investigation of detonation sprayed Al <sub>2</sub> O <sub>3</sub> , Al <sub>2</sub> O <sub>3</sub> -3TiO <sub>2</sub> & Al <sub>2</sub> O <sub>3</sub> -13TiO <sub>2</sub> coatings on grey cast iron to enhance its wear resistance	Gobind, Jwala Parshad, Dr Neelkanth Grover	International Journal of Advance Research in Science and Engineering	2015	—	SBSSTC, Ferozepur	—
Biosurfactant as a Promoter of Methane Hydrate Formation: Thermodynamic and Kinetic Studies	Amit Arora, Swaranjit Singh Cameotra, Rajnish Kumar, Chandrajit Balomajumder, Anil Kumar Singh, B. Santhakumari, Pushpendra Kumar & Sukumar Laik	Scientific Reports- (Nature Publishing Group)	2016	—	IIT, Roorkee	28
Effect of Different Fixed Bed Media on the Performance of Sodium Dodecyl Sulfate for Hydrate based Carbon dioxide Capture	Amit Arora, Asheesh Kumar, Gaurav Bhattacharjee, Pushpendra Kumar, Chandrajit Balomajumder	Journal of Material and Design	2015	—	IIT, Roorkee	7
Esterification of high free fatty acid rice bran oil: parametric and kinetic study	Rajiv Arora, A P Toor, R K wanchoo	Chemical and Biochemical Engineering Quarterly	2015	—	Dr S S Bhatnagar University Institute of Chemical Engg. & Tech.	11

					PU, Chandigarh, India and SBSSTC, Ferozepur	
Modelling of a High temperature Solid oxide Fuel cell	Pankaj Kalra, Rajeev Kumar, Ajay Kumar	Journal of Energy Technologies and Policy	2015	—	SBSSTC, Ferozepur/ IKGPTU, Jalandhar	—

3.4.6 h-index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of Paper	Name of the Author	Title of the journal	Year of Publication	h-index	Number of citations excluding self citations	Institutional affiliation as mentioned in the publication
DDoS attacks in cloud and mitigation techniques	Chawla Isha, luthra Pawan , Kaur Daljeet	International journal of innovative science, engineering & technology	2015	—	—	SBSSTC, Ferozepur
Three way mechanism to enhance the data security on cloud	Chawla Isha,luthra Pawan , Kaur Daljeet	International journal of current engineering and scientific research (ijcesr)	2015	—	—	SBSSTC, Ferozepur
A Survey and Comparison of Various Cloud Simulators Available for Cloud Environment	Kaur, Ramandee, Ghumman Navtej Singh	International Journal of Advanced Research in Computer and Communication Engineering	2015	—	—	SBSSTC, Ferozepur
Accelerating cbir system using graphics processing unit in open cv environment	Kaur Bhavneet, Jindal Sonika	International journal of computer applications	2015	—	1	SBSSTC, Ferozepur
Dual image watermarking algorithm with	Kathpal Anjali, Jindal, Sonika	International journal of computer	2015	—	1	SBSSTC, Ferozepur

svd-dwt and edge detection on different layers of colored image		applications				
Dual Image Watermarking Algorithm with SVD-DWT and Edge Detection on Different Layers of Colored Image	Anjali Kathpal, Sonika Jindal	International Journal of Computer Applications	2015	—	1	SBSSTC, Ferozepur
Accelerating CBIR System using Graphics Processing Unit in OPEN CV Environment	Bhavneet Kaur, Sonika Jindal	(IJCA) International Journal of Computer Applications	2015	—	1	SBSSTC, Ferozepur
Designing a secure text-based captcha	Kaur Kiranjot, Behal Sunny	Elsevier procedia computer science	2015	—	9	SBSSTC, Ferozepur
Advanced Memory Reusing Mechanism for Virtual Machines in Cloud Computing	Singh Gursharan, Behal Sunny	Elsevier procedia computer science	2015	—	18	SBSSTC, Ferozepur
An improvement of network life time using dlqar protocol in wireless sensor network	Singh Kulvir, Behal Sunny Arora vishal Kumar	International journal of computer applications	2015	—	—	SBSSTC, Ferozepur
Distributed and centralized clustering approaches: leach vs. c-leach	Bansal Shubhi Arora vishal Kumar	International journal of technology innovations and research (ijtjr)	2015	—	3	SBSSTC, Ferozepur
Red strategy for improving performance in manet: a review	Batra Chetan Arora vishal Kumar	Journal of information sciences and computing technologies	2015	—	—	SBSSTC, Ferozepur
A modified leach algorithm using	Kaur Gurpeet Arora vishal	International journal of	2015	—	2	SBSSTC, Ferozepur

hard and soft threshold in wireless sensor network: a review	Kumar	computers & technology				
Performance and security evaluation by using sha3 in wep	Kumar Ashish, Arora vishal Kumar	International journal of engineering sciences & research technology	2015	—	5	SBSSTC, Ferozepur
Refinement of wpa using sha3	Monga Kashish, Arora vishal Kumar	International journal of engineering sciences & research technology	2015	—	—	SBSSTC, Ferozepur
An improvement of network life time using dlqar protocol in wireless sensor network	Singh Kulvir, Behal Sunny, Arora vishal Kumar	International journal of computer applications	2015	—	—	SBSSTC, Ferozepur
Bandwidth Aware Heterogeneous Task Scheduling in Cloud Computing	Pawan Luthra, Sandeep Kaur	International Journal of Current Engineering and Scientific Research (IJCESR)	2015	—	—	SBSSTC, Ferozepur
Security Storage Model in Cloud	Pawan Luthra, Sonia Arora	International Journal of Current Engineering and Scientific Research (IJCESR)	2015	—	—	SBSSTC, Ferozepur
Performance Evaluation in Situation Based Routing Protocol in Wireless Sensor Network	Deepak Sharma, Khushjeet Kaur, Gurpal Singh	International Journal of Innovative Science, Engineering and Technology	2015	—	—	SBSSTC, Ferozepur
Modeling of split ring resonators loaded	Rajni	International Journal of Electrical and Computer	2015	4	3	SBSSTC, Ferozepur

microstrip line with different orientations		Engineering				
Metamaterial inspired patch antenna for ISM band by adding single-layer complementary split ring resonators	Rajni	International Journal of Electrical and Computer Engineering	2015	4	3	SBSSTC, Ferozepur
Complementary split ring resonator based sensor for crack detection	Rajni	International Journal of Electrical and Computer Engineering	2015	4	6	SBSSTC, Ferozepur
Metamaterial inspired circular patch antenna using complementary split ring resonator and 32complementary spiral resonator	Rajni	International Journal of Applied Engineering Research	2015	4	1	SBSSTC, Ferozepur
Detection of sub-millimetre crack on metal surface using complementary spiral resonator	Rajni	International Journal of Applied Engineering Research	2015	4	1	SBSSTC, Ferozepur
Magnetic resonance in spiral resonators	Rajni	International Journal of Applied Engineering Research	2015	4	3	SBSSTC, Ferozepur
Resonance Characteristics and Effective Parameters of New Left Hand Metamaterial	Rajni	TELKOMNIKA Indonesian Journal of Electrical Engineering	2015	4	2	SBSSTC, Ferozepur
A modified ant colony optimization	Amit Grover	International Journal for Light and	2016	2	18	PTU, Jalandhar



algorithm (Maco) for energy efficient wireless sensor networks		Electron Optics				
CSC-SR structure loaded electrically small planar antenna	Rajni	Applied Computational Electromagnetic Society Journal	2016	4	3	SBSSTC, Ferozepur
Biosurfactant as a Promoter of Methane Hydrate Formation: Thermodynamic and Kinetic Studies	Amit Arora, Swaranjit Singh Cameotra, Rajnish Kumar, ChandrajitBaloma jumder, Anil Kumar Singh, B. Santhakumari, Pushpendra Kumar&Sukumar Laik	Scientific Reports- (Nature Publishing Group)	2016	3.3	28	IIT, Roorkee
Effect of Different Fixed Bed Media on the Performance of Sodium Dodecyl Sulfate for Hydrate based Carbon dioxideCapture	Amit Arora, Asheesh Kumar, Gaurav Bhattacharjee, Pushpendra Kumar, ChandrajitBaloma jumder	Journal of Material and Design	2015	—	7	IIT, Roorkee
Esterification of high free fatty acid rice bran oil: parametric and kinetic study	Rajiv Arora, A P Toor, R K wanchoo	Chemical and Biochemical Engineering Quarterly	2015	—	11	Dr S S Bhatnagar University Institute of Chemical Engineering Technology, PU, Chandigarh, SBSSTC, Ferozepur
Modelling of a High temperature	Pankaj Kalra, Rajeev Kumar,	Journal of Energy	2015	—	—	SBSSTC, Ferozepur/

Solid oxide Fuel cell	Ajay Kumar	Technologies and Policy				IKGPTU, Jalandhar
3.4.7 Faculty participation in Seminars/Conferences and Symposia during the year :						
No. of Faculty	International level	National Level	Sate Level	Local Level		
Attended Seminars/Workshops	22	49	03	----		
Presented Papers	25	67	02	----		
Resource Persons	01	----	----	----		
<b>3.5 Consultancy</b>						
3.5.1 Revenue generated from consultancy during the year						
Name of the consultant(s) department	Name of the consultancy Project	Consulting/Sponsoring Agency	Revenue generated (in Rs.)			
Civil Engineering	Geotechnical Investigations, Material Testing and Structural Design	Various Government, Semi-Government and Private Organisations	Rs.5,47,847			
3.5.2 Revenue generated from Corporate Training by the institution during the year						
Name of the consultant(s) department	Title of Programme	Agency Seeking Training	Revenue generated (in Rs.)	No. of Trainees		
—	—	—	—	—		
<b>3.6 Extension Activities</b>						
3.6.1 Number of extension and outreach programmes conducted in collaboration with industry, community and Non-Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year						
Title of the Activities	Organising unit/ agency/collaborating agency	Number of teachers co-ordinated in such activities	Number of students participate in such activities			
Blood donation camp 2015	5 PB girls BN NCC MOGA & 13 PB Boys BN NCC Ferozepur	6 ANOs	118			
Cancer Awareness rally 2015	5 PB girls BN NCC MOGA & SBSSTC Ferozepur	1 ANO	15			
Shaheedi Diwas 2015	SBSSTC Ferozepur	1 ANO	40			
Drawing ,Painting & Slogan competition	NSS, RRC	3	100			

Seminar Drug de-addiction	NSS, RRC	4	100
Mega Blood donation camp	NSS, RRC, Youth service Department	6	100
Seminar on road safety	NSS	2	60
Blood donation camp was organized.	NSS, RRC	3	48
Blood Donation Camp	Red Cross Club	01	04
Cancer Awareness Rally 2015	13 Pb Bn. NCC Ferozepur	1 ANO	90
Shahidi Divas 2015	13 Pb Bn. NCC Ferozepur with local administration	1 ANO	100
International Yoga Day 2015	13 Pb Bn. NCC Ferozepur	10 ANOs	175

3.6.2 Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of The Activity	Award/recognition	Awarding Bodies	No. of Students benefited
Displaying exceptional talent in Cultural activities from 10 <sup>th</sup> august 2015 to 7 <sup>th</sup> November 2015	Commandant's certificate	National Cadet Corps Training Academy, Gwalior	01 ANO
Technical Event	ISCE NIRMAAN 2K16	SBSSTC, FEROZEPUR	21
6 <sup>th</sup> World Renewable Energy Technology Congress	Best Paper Award	Ministry of New and Renewable Energy, Government of India/ Energy and Environment Foundation	1
International Conference on Recent Advances in Bio-energy Research (ICARBER), Sardar Swaran Singh National Institute of Renewable Energy, Kapurthala, Punjab, India.	Best Paper Award	Springer	2
Technoopus 2016	Second Position Project Display	SBSSTC	2
Technoopus 2016	Third Position Project Display	SBSSTC	2

3.6.3 Students participating in extension activities with Government Organisations, Non Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the Scheme	Organising unit/agency/Collaborating Agency	Name of the activity	Number of teachers co-ordinated in such activities	Number of students participated in such Activities
Drug de-addiction & AIDS awareness	NSS, RRC, Youth service Department	Drug de-addiction & AIDS awareness rally organized.	6	300
Swachh Bharat Abhyan	NSS, EFG	Cleanliness camp Swachh Bharat Abhyan.	4	100
Swachh Bharat Abhiyan	SBSSTC	Cleanliness of Institute	02	20
Technoopus 2016	ISTE	Second Position Project Display Technoopus 2016, SBSSTC Ferozepur	2	2
Technoopus2016	ISTE	Third Position Project Display Technoopus 2016, SBSSTC Ferozepur	2	2
Swachh Bharat Abhiyan	SBSSTC	Cleanliness of Institute	02	20

### 3.7 Collaborations

3.7.1 Number of Collaborative activities for research, faculty exchange, student exchange during the year

Nature of Activity	Participant	Source of Financial Support	Duration
—	—	—	—

3.7.2 Linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the year

Nature of Linkage	Title of Linkage	Name of the partnering institution/ industry/research lab with contact details	Duration (From-to)	Participant
Use of laboratory HFSS software for thesis and project work	M.Tech. thesis	Govt Polytechnic, Ferozepur	July 2015- Jun 2016	Gurwinder singh
Sharing of research facilities	M.Tech. thesis	Electronics & Communication Engineering Department, Giani Zail Singh PTU Campus, Bathinda	July 2014-June 2016	Ms. Heena Goyal

3.7.3 MoUs signed with institutions of national, international importance, other institutions, industries, corporate houses etc. during the year			
Organization	Date of MoU signed	Purpose and Activities	Number of students/teachers participated under MoUs
MoU signed between SBSSTC, Ferozpur and NHL Univ. of Applied Sciences, Leeuwarden, The Netherlands for a period of three years	18/06/ 2015	Faculty and student exchange programme	—
MOU signed with Department of Rural Development and Panchayats, Punjab	02/05/2016	Desk Review and Onsite visits for providing independent assessment on the quality of all the works to be executed under the entire project at different stages of construction.	10 Faculty members have participated in this MOU.

#### **CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES**

##### **4.1 Physical Facilities**

###### 4.1.1 Budget allocation, excluding salary for infrastructure augmentation during the year

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
400 lacs	638.95 lacs

###### 4.1.2 Details of augmentation in infrastructure facilities during the year

Facilities	Existing	Newly added
Campus area	98.4 Acre	—
Classrooms	61	16
Laboratories	94	—
Seminar Halls	04	—
Classrooms with LCD facilities	14	04
Classrooms with Wi-Fi/ LAN	61	16
Seminar halls with ICT facilities	01	01
Video Centre	01	—
No. of important equipments purchased ( $\geq$ 1-0 lakh) during the current year.	—	15
Value of the equipment purchased during the year (Rs. In Lakh)	—	4680558/-
Others	—	—

##### **4.2 Library as a Learning Resource**

###### 4.2.1 Library is automated {Integrated Library Management System (ILMS)}

Name of the ILMS Software	Nature of automation (fully or partially)	Version	Year of automation
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SOUL		Partially			--	2015-16			
4.2.1 Library Services:									
		Existing		Newly added		Total			
		No.	Value	No.	Value	No.	Value		
Text Books		21064	1785000/-	208	622295/-	21272	2407295/-		
Reference Books		2400	--	300	--	2700	--		
e-Books		130000	--	--	--	--	--		
Journals		53	--	--	--	--	--		
e-Journals		275	494722/-	--	--	--	--		
Digital Database		02	--	--	--	--	--		
CD & Video		410	--	--	--	--	--		
Library automation		Yes							
Weeding (Hard & Soft)		--	--	--	--	--	--		
Others (specify)		--	--	--	--	--	--		
4.2.2 E-content developed by teachers such as: e-PG-Pathshala, CEC (under e-PG-Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & Institutional (Learning Management System (LMS)) etc									
Name of the Teacher		Name of the module		Platform on which module is developed		Date of launching e - content			
--		--		--		--			
<b>4.3 IT Infrastructure</b>									
4.3.1 Technology Up gradation (overall)									
	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Available bandwidth (MGBPS)	Others
Existing	100	04	01	100	01	03	09	34 MBPS from BSNL	
Added	----	----	----	----	----	----	----	----	----
Total	100	04	01	100	01	03	09	34	----
4.3.2 Bandwidth available of internet connection in the Institution (Leased line)									
34 MBPS									
4.3.3 Facility for e-content									

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
----	----

#### 4.4 Maintenance of Campus Infrastructure

4.4.1 Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

Assigned budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurred on maintenance of physical facilities
Rs.451.00 Lacs	Rs.519.84 Lacs	Rs.72.00 Lacs	Rs.55.74 Lacs

4.4.2 Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words)(information to be available in institutional Website

Maintaining and utilizing physical, academic and support facilities -laboratory, library, sports complex, computers, classrooms carried out by the following committees/Offices:

- Grievance Committee
- Anti Ragging Committee
- Discipline Committee
- Institutional Development Committee
- Student Affairs/Welfare Committee
- Library Committee
- Anti Sexual Harassment Committee
- Public Relation Department
- Public Information Cell
- Legal Cell
- Estate Office

#### CRITERION V - STUDENT SUPPORT AND PROGRESSION

##### 5.1 Student Support

##### 5.1.1 Scholarships and Financial Support

	Name/Title of the scheme	Number of Student	Amount in Rupees
Financial support from institution	Student Exigency Fund(SEF)	18	9,35,192/-
	Student Aid Fund(SAF)	161	10,26,500/-

Financial support from other sources

a) National	Bihar Govt. Scholarship	66	3,332704/-
	Scholarship Scheme for J& K	11	8, 532250/-
	UP Govt. Scholarship	78	4680000 /-

	E-Kalyan Welfare Deptt., Govt. of Jharkhand	17	1020000/-
	PMSS Scholarship	208	1,59,46450/-
b) International	----	----	----

5.1.2 Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implementation	Number of students enrolled	Agencies involved
Human Values and professional ethics	15/07/2015	127	SBSSTC Ferozepur
Professional Skills-I	15/07/2015	127	SBSSTC Ferozepur
International Yoga Day	21/06/2015	40	Bharti Yog Sansthan, Ferozepur
Soft Skill development	15/07/2016	254	Central agency at institute level
Soft skill classes	15/07/2016	75	SBSSTC Ferozepur
Human Values and professional ethics	15/07/2016	109	SBSSTC Ferozepur
Human Values and professional ethics	15/07/2016	06	SBSSTC Ferozepur
Soft Skill development	15/07/2016	143	Central agency at institute level

5.1.3 Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students by Guidance for Competitive examination	Number of benefited students by Career Counselling activities	Number of students who have passed in the competitive exam	Number of students placed
2015	Competitive examinations and Career counselling	10	30	2	13
2015	Career Counselling	02	08	02	06

5.1.4 Institutional mechanism for transparency, timely redressal of student grievances, Prevention of



sexual harassment and ragging cases during the year					
Total grievances received		No. of grievances redressed		Average number of days for grievance redressal	
NIL		NIL		NIL	
<b>5.2 Student Progression</b>					
5.2.1 Details of campus placement during the year					
<b>On Campus</b>				<b>Off Campus</b>	
Name of Organizations Visited		Number of Students participated	Number of Students Placed	Number of Students Placed	
Cetpa Infotech		16	5	----	
Gtech Software		20	3	----	
Hewlett Packard		50	2	----	
Infosys		140	12	----	
Netmax Tech.		29	6	----	
KineticX Tech Solutions Pvt. Ltd.		18	2	----	
Step Consultancy		20	5	----	
TCS		75	1	----	
Virtusa Cop.		23	4	----	
Webcom Sys.		45	4	----	
Total		436	44	----	
5.2.2 Student progression to higher education in percentage during the year					
Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of Programme admitted to
2015-16	01	B-Tech	CSE	SBSSTC, Ferozepur	M-Tech CSE
2015-16	01	B-Tech	CSE	PEC, Chandigarh	M-Tech CSE
2015-16	02	B- Tech	CSE	UIET, Chandigarh	ME. CSE

2015-16	02	B-Tech	CSE	GNDU, Amritsar	M-Tech CSE
2015-16	03	B-Tech	CSE	Punjabi University, Patiala	M-Tech CSE
2015-16	05	B-Tech	CSE	University Of Victoria Canada	MS in Computer Science
2015-16	01	B. Tech	ECE	PEC, Chandigarh	ME
2015-16	01	B. Tech	ECE	Punjabi University Patiala	Ph.D.
2015-16	01	B. Tech	ECE	Sunrise University Rajasthan	MBA
2015-16	01	B. Tech	ECE	University Of Victoria Canada	Master in Electrical and Computer engineering
2015-16	01	B. Tech	ECE	IIT, Bombay	M. TECH
2015-16	01	B. Tech	ECE	IIT, New Delhi	M. TECH
2015-16	02	B.Tech	EE	AIET, Faridkot	M.Tech
2015-16	03	B.Tech	EE	SBSSTC, Ferozepur	M.Tech
2015-16	02	B.Tech.	CE	GNDEC, Ludhiana	M.Tech
2015-16	02	B.Tech.	CE	GZSCET, Bathinda	M.Tech
2015-16	01	B.Tech.	CE	CQUniversity Sydney	MS
2015=16	02	B.Tech.	CE	Carleton University Ottawa	MS
2015-16	01	B. Tech.	CHE	NIT, Jaipur	ME CHE
2015-16	02	B. Tech.	CHE	UICET-PU, Chandigarh	ME CHE
2015-16	01	B. Tech.	CHE	Thapar University, Patiala	ME CHE
2015-16	01	B. Tech.	CHE	University of Waterloo, Canada	ME CHE
2015-16	08	B.Tech	ME	Fleming College Canada	M.Tech; MBA; Diploma courses
2015-16	07	B.Tech	ME	Cegep de la Gaspédie et des lies, Canada	M.Tech; MBA; Diploma courses

2015-16	04	B.Tech	ME	Western Sydney University Australia	M.Tech; MBA; Diploma courses
5.2.3 Students qualifying in state/ national/ international level examinations during the year (e.g.: NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)					
Items	No. of Students selected/ qualifying		Registration number/Roll number for the exam		
NET	-		-		
SET	-		-		
SLET	-		-		
GATE	23		-		
GMAT	-		-		
CAT	-		-		
GRE	-		-		
TOFEL	-		-		
Civil Services	-		-		
State Government Services	02		-		
Any Other	-		-		

5.2.4 Sports and cultural activities / competitions organised at the institution level during the year		
Activity	Level	Participants
Department Society Function Nirmaan 2K16	Institute level	105 (Boys and Girls)
Teej Celebration	Institute level	30 (Girls)
Debate	Institute level	40 (Boys and Girls)
Lohri Celebration	Institute Level	80 (Boys and Girls)
Diwali Celebration	Institute level	80 (Boys and Girls)
Department Level Cultural Events	Institute level	300 (Boys and Girls)
Jashan 2K16	Institute level	600 (Boys and Girls)
Freshers Welcome Function	Institute level	300 (Boys and Girls)
Virsa 2k16	Institute level	200 (Boys and Girls)
Fare Well Function	Institute level	150 (Boys and Girls)

Annual Athletic Meet /Inter Year College Tournament 1) Cricket 2) Football 3) Table Tennis 4) Basket Boll 5) Volley Boll 6) Chess 7) Lawn Tennis 8) Hockey	Institute level	380 (Boys and Girls)
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### 5.3 Student Participation and Activities

5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one)

Year	Name of the award/ medal	National/ International	Sports	Cultural	Student ID Number	Name of the student
2015-16	Bronze Medal	University level	Basket ball	—	160390114 B.Tech ECE	Jayshree sarkar
2015-16	Silver Medal	University level	Basket Ball	—	1514286 B.Tech ECE	Simranjeet Kaur
2015-16	Silver Medal	University Level	Basket Ball	—	1514285 B.Tech ECE	Reena Rani
2015-16	Gold Medal	University level	Lawn Tennis	—	1514286 B.Tech ECE	Simranjeet Kaur
2015-16	Gold Medal	University Level	Lawn Tennis	—	1514285 B.Tech ECE	Reena Rani
2015-16	Gold Medal	University Level	Lawn Tennis	—	15110741 B.Tech ECE	Sharanjeet Kaur
2015-16	Bronze Medal	University level	4*100 relay race	—	1421583 B.Tech CSE	Rohit Kumar
2015-16	Bronze Medal	University Level	Basket Ball	—	160280617 B.Tech CSE	Anshika Singh
2015-16	Silver Medal	University level	400 m race	—	15110953 B.Tech ME	Sudhir Kumar Singh
2015-16	Gold Medal	University level	4*100 m race	—	15110953 B.Tech ME	Sudhir Kumar Singh
2015-16	Gold Medal	University level	1500 m race	—	15110810 B.Tech ME	Ajeet Kumar Singh
2015-16	Gold Medal	University level	800 m race	—	15110810 B.Tech ME	Ajeet Kumar Singh
2015-16	Bronze Medal	University Level	Basket Ball	—	160390114 B.Tech ECE	Jayshree Sarkar
2015-16	Bronze Medal	University Level	Basket Ball	—	160390109 B.Tech ECE	Sakshi Dhaliwal

2015-16	Bronze Medal	University Level	Basket Ball	_____	1514286 B.Tech ECE	Simranjeet Kaur
2015-16	Bronze Medal	University Level	Basket Ball	_____	1514285 B.Tech ECE	Reena Rani
2015-16	Bronze Medal	University Level	Basket Ball	_____	1514213 B.Tech CHE	Bharti Rani
2015-16	Bronze Medal	University Level	Basket Ball	_____	1514212 B.Tech CHE	Anita
2015-16	Bronze Medal	University Level	Basket Ball	_____	160280668 B.Tech CSE	Needhi Kaur
2015-16	Bronze Medal	University Level	Basket Ball	_____	1421991 MCA	Manpreet Kaur

5.3.2 Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

Students are a part of anti-ragging committee for the prevention of ragging in the campus. Students Grievance redressal committee is also functioning properly in the campus for addressing and effectively resolving grievances of students and in this committee also, one of the member is from student committee.

#### 5.4 Alumni Engagement

5.4.1 Whether the institution has registered Alumni Association? Yes/No, if yes give details (maximum 500 words): Yes, The Alumni Association was registered under Registration No. FZR3585 on dated 08/10/2009

- The college holds Alumni Meet of the passed out students annually.
- Department-wise Online Alumni Surveys are conducted for the passed out batches.
- A number of Groups on the Social Websites like facebook [SBSSTC alumni page] etc. are used to disseminate the information to the Alumni.
- Alumni Registration is done through one online form published on college Website [www.sbsstc.ac.in](http://www.sbsstc.ac.in) and one LinkedIn account

5.4.2 No. of registered Alumni:

257 till date on web portal, 700 on LinkedIn

5.4.3 Alumni contribution during the year (in Rupees):

\_\_\_\_\_

5.4.4 Meetings/activities organized by Alumni Association:

01

<b>CRITERION VI –GOVERNANCE, LEADERSHIP AND MANAGEMENT</b>
<b>6.1 Institutional Vision and Leadership</b>
6.1.1 Mention two practices of decentralization and participative management during the last year (maximum 500 words)
The college believes in decentralized governance and Participative management. Teaching and non-teaching staff members share the administrative responsibility of the college and contribute in smooth working of administrative machinery. The following are the practices being carried out to ensure that the classes are engaged properly viz: 1) All of the class rooms and labs have CCTV. 2) Associate Director monitors the engagement of classes through CCTV
6.1.2 Does the institution have a Management Information System (MIS)? Yes/No/Partial:
Partial
<b>6.2 Strategy Development and Deployment</b>
6.2.1 Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):
<b>Curriculum Development:-</b> <ul style="list-style-type: none"> <li>• Updated syllabus of common and core courses across all disciplines</li> <li>• Implementing credit based evaluation system</li> <li>• Introducing open electives in all disciplines</li> <li>• Introduced special courses</li> <li>• Finishing school</li> <li>• Personality development</li> <li>• Aptitude development courses for final year student</li> </ul>
<b>Teaching and Learning :-</b> <ul style="list-style-type: none"> <li>• Implementation of outcome based inclusive system of knowledge dissemination.</li> <li>• Modular course structure with provisions to address the problems of slow learners by arranging remedial classes.</li> <li>• Online Courseware, Webinars, Video lectures and intensive laboratory training.</li> <li>• Choice Based Credit System with uniformity in credits across disciplines.</li> <li>• Introduction of non-credit courses for Professional Development.</li> <li>• Wide choice of elective courses Inclusion of e-books, courseware, tutorial modules for each course.</li> <li>• CO – PO mapping and Bloom’s Level attainment for each course.</li> <li>• Modernization of labs to accommodate the latest trends in technical education</li> <li>• Compulsory two Industry internship windows.</li> <li>• Introduction of Value Added courses.</li> </ul>
<b>Examination and Evaluation:-</b> <ul style="list-style-type: none"> <li>• Academic Calendar is prepared in the beginning of each Academic Year and published on institute website.</li> <li>• Comprehensive continuous mode of internal Assessment Monitoring is done through DQAC and IQAC.</li> <li>• The question papers are in accordance with the Course outcomes defined in curriculum of each course which in turn are mapped with Programme outcomes.</li> <li>• The Examination pattern, grading and any amendments after the approval of the Academic Council, is informed to all stake holders by the Dean (Academics) through the respective HoDs.</li> <li>• The final End-Term Examination is coordinated and conducted by the Office of the Controller of</li> </ul>

Examinations.

### **Research and Development:-**

- The faculty are allowed to register for Ph. D. programme in various universities/ IITs/ NITs/ own institute under QIP, study leave or part time basis.
- Each department has its own computer laboratory equipped with software for the research purpose apart from other laboratories.
- Research oriented books, journals and e-journals are available in the Central Library.
- Conferences, faculty development programmes/ short term courses and guest lectures are organised time to time for the researchers/ students.

### **Library, ICT and Physical Infrastructure / Instrumentation:-**

- The Central library is a multimedia Enabled Digital Library with large number of e-books, e-journals and other online course material equipped with 10 computers, two laser printers and soul software.
- The Central library has ICT and Physical Infrastructure / Instrumentation, Barcode / RF Enabled Circulation and Surveillance in its premises.
- Institute has ICT Enabled classrooms
- The Computer centre has a number of working environments & Packages; Windows, Matlab, Statistica, Mathematica etc
- Campus wide networking through Optical Fibre Backbone Reading Rooms in Central Library and various hostels.

### **Human Resource Management:-**

- Separate Establishment Branch for maintaining record, performance appraisal etc of available human resource Grievance redressal mechanism in place for faculty, staff, students,
- Transportation facility for faculty staffs and students.
- Reimbursement of TA/DA for official travel, attending conference, seminar, or any special training.
- On campus health centre with ambulance

### **Industry Interaction / Collaboration:-**

- Institute has signed Memorandum of Understanding (MoU) with following industries for the purpose of enriching the technical education process:
  - Infosys Ltd
  - Metro Tyres Ltd., Ludhaiana
  - CETPA Infotech Pvt Ltd., Noida
  - P.P. Industries Pvt Ltd., Bathinda
  - Itenic Technology Pvt Ltd., Noida
- The Industry Institute Interaction Partnership Cell (IIIPC) has been established in our Campus under an AICTE scheme with following objectives:
  - (i) To organize activities with the involvement of industry people for the benefit of students.
  - (ii) To conduct such programmes evolving interaction between industry and the institute.
  - (iii) To spread awareness in the society regarding industry and engineering education

<b>Admission of Students:-</b>				
<ul style="list-style-type: none"> <li>The Institute follows a highly transparent admission process strictly adhering to the rules and regulations of the affiliated University IKGPTU, Kapurthala and Punjab State through Centralized counselling conducted by the University.</li> <li>The vacant seats are then advertised and filled purely on merit basis.</li> </ul> <p>Candidates are required to fill the online Registration form. Each application is processed and verified for their admission.</p>				
6.2.2 : Implementation of e-governance in areas of operations:				
<ul style="list-style-type: none"> <li>Planning and Development:-Student data management, Timetable, attendance modules are working.</li> <li>Administration:- Employee data management, Biometric attendance, Leave Management, and Payroll Modules are working</li> <li>Finance and Accounts:-Fee Management, Receipt and Payments modules are working.</li> <li>Student Admission and Support:- Student admission is through centralized Online counselling conducted by the affiliating University</li> <li>Examination: - Examination department is completely computerized. Results are displayed Online individually in the Login of student. Exam form filling, Conduct of exam, Declaration of Result modules are working.</li> </ul>				
<b>6.3 Faculty Empowerment Strategies</b>				
6.3.1 Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year				
Year	Name of teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2015-16	Dr. Sanjeev Dewra	National Conference on Communication, Computing and Systems	TEQIP/SBSSTC, Ferozepur	100000/-
2015-16	Dr. Sanjeev Dewra	Workshop cum Conference Recent Trends in Emerging Technologies (RTET-2015)/ SPIE & OSA	DIT-University, Dehradun	2000/-
2015-16	Dr. Rajiv Arora	National Conference on 'New Frontiers in Chemistry-from Fundamentals to Applications' BITS Pilani Goa Campus	TEQIP/SBSSTC, Ferozepur	18,000/-
2015-16	Dr. Anand K Tyagi	13th International Conference on Heat Transfer, Thermal Engg. & Environment (HTE'15), June 27-29, 2015, World Scientific & Engg.	TEQIP/SBSSTC, Ferozepur	70,000/-



		Academy, & University of Salerno, Italy		
2015-16	Dr. Anand K Tyagi	3rd National Conference On Nanoscience And Instrumentation Technology, June 06-07, 2015, National Institute of Technology, Kurukshetra - 136119 (India)	TEQIP/SBSSTC, Ferozepur	7000/-
2015-16	Dr. Lalit Sharma	18th European Carbohydrate Symposium Eurocarb 18 at Moscow (Russia) from Aug. 2-6, 2015	TEQIP/SBSSTC, Ferozepur	70,000/-
2015-16	Dr. Lalit Sharma	CARBO-XXX Conference at University of Pondicherry, Pondicherry from Dec. 29-31, 2015.	TEQIP/SBSSTC, Ferozepur	33,000/-

6.3.2 Number of professional development / administrative training programmes organized by the Colleges for teaching and non teaching staff during the year

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	Dates (from-to)	No. of participants (Teaching staff)	No. of participants (Non-teaching staff)
2015-16	Research Techniques	--	25/05/2015-05/06/2015	20	–
2015-16	Image Processing and Its Applications	–	08/06/2015-12/06/2015	02	–
2015-16	Organized technical workshop on “ROBOTICS & ARM” 23-25 April, 2016	–	23/04/2016-25/04/2016	02	–
2015-16	FDP (“Material Technology & Characterization Techniques”	–	21/12/2015 - 25/12/2015	64	–
2015-16	One Day workshop on “Application of Chemical Engineering in alternative sources of Energy” In collaboration with IChE Doaba	–	30/10/2015-30/10/2015	42	–

6.3.3 No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	Date and Duration (from – to)
Image Processing and Its Applications	02	08/06/2015 to 12/06/2015

AICTE Sponsored & TEQIP supported Faculty Development Programme on Research Techniques, Organized at SBSSTC, Ferozepur	20	25/05/2015 to 05/06/2015	
TEQIP Sponsored One-Week Faculty Development Programme on Material Technology and Characterization Techniques Organized at SBSSTC, Ferozepur	20	21/12/2015 to 25/12/ 2015	
PTU sponsored one week FDP NBA Accreditation Process	01	06/07/2015 to 10/07/2015	
Automation and Digital Library organized at MIMIT, Malout	01	01/06/2015 to 05/06/2015	
Vulnerabilities in Cyberspace and Adopting Security Policies	01	20/07/2015 to 31/07/2015	
Short Term Course – “Operationalisation of NSQF”	01	17/08/2015 to 21/08/2015	
Innovation and Creativity Development in Teachers and Students	02	09/05/2016 to 13/05/2016	
AICTE & TEQIP-II supported FDP on “Research techniques” organized by Dept. of Mech. Engg. , SBSSTC, Ferozepur	03	25/05/2015 to 05/06/2015	
Shale Gas & Oil	01	28/01/2016 to 29/01/2016	
<b>6.3.4 Faculty and Staff recruitment (no. for permanent recruitment):</b>			
Teaching		Non-teaching	
Permanent	Fulltime	Permanent	Fulltime
66	66	83	83
<b>6.3.5 Welfare schemes for</b>			
Teaching		02	
Non teaching		02	
Students		06	
<b>6.4 Financial Management and Resource Mobilization</b>			
<b>6.4.1 Institution conducts internal and external financial audits regularly (with in 100 words each)</b>			
Yes, The institute external financial audit is done by Punjab Government Accountant General office and internal audit is done by internal Audit Committee			
<b>6.4.2 Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year(not covered in Criterion III)</b>			
Name of the non government funding agencies/ individuals	Funds/ Grants received in Rs.	Purpose	
—	—	—	
<b>6.4.3 Total corpus fund generated 35 Crore</b>			
<b>6.5 Internal Quality Assurance System</b>			
<b>6.5.1 Whether Academic and Administrative Audit (AAA) has been done?</b>			
Audit Type	External		Internal
	Yes/No	Agency	Yes/No Authority
Academic	Yes	PTU Jalandhar	Yes IQAC

Administrative	Yes	Punjab Govt./External CA	Yes	Internal Various Committees
6.5.2 Activities and support from the Parent – Teacher Association (at least three)				
The PTA also aims at enhancing the interaction among the various stakeholders.				
<ul style="list-style-type: none"> <li>• Providing valuable suggestion for development of the institution</li> <li>• Pointing out the weaknesses of the college &amp; related Departments and suggesting rectification.</li> <li>• Communicating views which the students feel shy to communicate directly to the teachers about the College and the department.</li> </ul>				
6.5.3 Development programmes for support staff (at least three)				
1.Computer Training 2.Yoga training & stress management 3.Soft skill training				
6.5.4 Post Accreditation initiative(s) (mention at least three)				
1. Various batches of alumni have been contacted for strengthening the alumni contribution. 2. Up gradation of syllabi to suit the need of employability through board of studies 3. Planning is underway to adopt nearby villages to enhance water conservation, social upliftment etc.				
<b>6.5.5</b>				
a. Submission of Data for AISHE portal : (Yes /No) Yes				
b. Participation in NIRF : (Yes /No) Yes				
c. ISO Certification : (Yes /No) No				
d. NBA or any other quality audit : (Yes /No) Yes				
6.5.6 Number of Quality Initiatives undertaken during the year				
Year	Name of quality initiative by IQAC	Date of conducting activity	Duration (from--to--)	Number of participants
2015-16	Implementation of OBE advocated by NBA	14/01/2016 (1st IQAC)	14/01/2016- 14/01/2016	2400
2015-16	Education quality improvement through teaching of courses of courses using ppts	14/01/2016 (1st IQAC)	14/01/2016- 14/01/2016	2400
2015-16	Marking of student attendance on ERP	14/01/2016 (1st IQAC)	14/01/2016- 14/01/2016	1500

## CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

### 7.1 - Institutional Values and Social Responsibilities

7.1.1 Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)			
Title of the programme	Period (from-to)	Participants	
		Female	Male
Celebration of International Women's Day	8 March 2016	43	50

7.1.2 Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:  
Percentage of power requirement of the College met by the renewable energy sources :

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7.1.3 Differently abled (Divyangjan) friendliness		
Items Facilities	Yes/No	No. of Beneficiaries
Physical facilities	Yes	All Differently-abled students.
Provision for lift	Yes	All Differently-abled students.
Ramp/ Rails	Yes	All Differently-abled students.
Braille Software/facilities	No	---
Rest Rooms	Yes	All Differently-abled students.
Scribes for examination	Yes	All Differently-abled students.
Special skill development for differently abled students	Yes	All Differently-abled students.
Any other similar facility	Yes	All Differently-abled students.

7.1.4 Inclusion and Situatedness

Enlist most important initiatives taken to address locational advantages and disadvantages during the year

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date and duration of the initiative	Name of the initiative	Issues addressed	Number of participating students and staff
2015-16	3	3	27/08/2015	Blood Donation Camp	Voluntary Blood Donation	80

2015-16	3	3	25/01/2016	Voter awareness under SVEEP	Voter awareness	60
2015-16	3	3	16/03/16	Blood Donation Camp	Voluntary Blood Donation	48

#### 7.1.5 Human Values and Professional Ethics

Code of conduct (handbooks) for various stakeholders

Title	Date of Publication	Follow up (maximum 100 words each)
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#### 7.1.6 Activities conducted for promotion of universal Values and Ethics

Activity	Duration (from-----to-----)	Number of participants
Drawing, Painting and Slogan Writing Competition on Blood Donation and Drug De-addiction	20/08/2015 - 20/08/2015	100
Seminar on Drug De-addiction	02/09/2015 - 02/09/2015	80
Seminar on Road Safety	11/02/2016 - 11/02/2016	60
Rally on Drug De-addiction on AIDS Awareness	15/03/2016 - 15/03/2016	300

#### 7.1.7 Initiatives taken by the institution to make the campus eco-friendly (at least five)

1. Tree Plantation on Regular Basis.
2. Swatch Bharat Abhiyan is going on.
3. Painting Competition on environment conservation on regular basis.
4. Seminar on Environmental Conservation on regular Basis.
5. Swachhata Pakhwada to clean campus for 15 days is going on regular basis.

#### 7.2 Best Practices

Describe at least two institutional best practices

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

1. The institute is using computerized modules for managing activities related to Academics, Finance And Accounts and Grievances of students  
<https://forms.eduqfix.com/sbstconlineform/add>  
<https://sbsstc.edugrievance.com/>

2. The institute has automated Exam And Grading module for Exam form filling, Conduct of exam and Declaration of Result  
<http://10.11.11.11> (MySBSEExam intranet website)
3. Institute has fully computerized Library through Koha Library Module

### 7.3 Institutional Distinctiveness

Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust:-

- Education Quality Improvement through Propagation of Outcome Based Education (OBE) as advocated by NBA

Provide the weblink :- <http://10.11.11.11> (MySBSEExam intranet website)

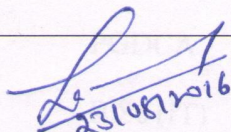
### 8. Future Plans of action for next academic year (500 words)

The following are the future plans for the forthcoming Academic year 2016-17:

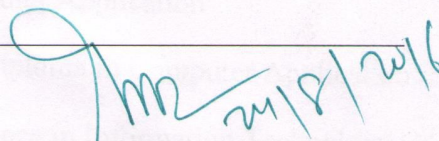
- Approval for credit allocation to students admitted during August 2015
- Up-gradation of Departmental Libraries and Strengthening of Central Library
- Education Quality Improvement through teaching of courses (Theory and Practical) using ppt slides
- Feasibility review of existing courses and start of new courses from academic year 2016-17.
- To enhance coaching for competitive examination, counselling for career guidance and Placement cell.
- To introduce innovative process in teaching, learning & evaluation.
- To stimulate IQAC's contribution to Student Support Services.
- To boost student activities in cultural and games and sports at state, national and International level.
- To promote Extension Activities and Social Responsibilities.

Name Dr. Lalit Sharma

Name Dr. T. S. Sidhu

  
23/08/2016

Signature of the Coordinator, IQAC

  
24/8/2016

Signature of the Chairperson, IQAC

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**Abbreviations:**

IQAC	-	Internal Quality Assurance Cell
SBSSTC	-	Shaheed Bhagat Singh State Technical Campus
CBCS	-	Choice Based Credit System
OBE	-	Outcome Based Education
NBA	-	National Board of Accreditation
ERP	-	Enterprise Resource planning
UG	-	Under Graduate
PG	-	Post Graduate
B.Tech	-	Bachelor of Technology
M.Tech	-	Master of Technology
B.Arch	-	Bachelor of Architecture
CSE	-	Computer Science and Engineering
ECE	-	Electronics and Communication Engineering
CE	-	Civil Engineering
EE	-	Electrical Engineering
CHE	-	Chemical Engineering
ME	-	Mechanical Engineering
CA	-	Computer Application
MBA	-	Master of Business Administration
MCA	-	Master of Computer Application
PGDCA	-	Post Graduate Diploma in Computer Application
B.Sc (IT)	-	Bachelor of Science in Information Technology
MHRD	-	Ministry Human Resource Development
TEQIP	-	Technical Education Quality Improvement Programme

ANOs	- Associate NCC officer
MoU	- Memorandum of Understanding
GATE	- Graduate Aptitude Test
CCTV	- Closed-circuit television
FDP	- Faculty Development Programme
ISTE	- Indian Society of Technical Education
EFG	- Eco -Friendly Group
RRC	- Red Ribbon Club
NSQF	- National Skills Qualification Framework
SVEEP	- Systematic Voter's Education and Electoral Participation

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