SANT LONGOWAL INSTITUTE OF ENGINEERING & TECHNOLOGY LONGOWAL
(Deemed to be University under Ministry of Education, Govt. of India)
OFFICE OF ELECTRICAL & INSTRUMENTATION ENGG. DEPTT.

REF. NO. EIE/2022/1176   DATED:10.10.2022

From: HOD (EIE)

To: Dean (Academics)

Subject: **Academic Audit.**

In reference to Office Order No. SLIET/DIR/148 dated 19th April 2022 and letter No. SLIET/Dean(A)/2022-353 dated 19th April 2022, the Academic Audit of this Department for the Academic year 2021-22 has been conducted on 7th October 2022. The report and recommendations of the committee in original, is forwarded please.

HOD (EIE)

Enclosed as above.

Please, provide the rubrics to authenticate the report.

10.10.2022

HOD(EIE)

Forwarded

Coordinator IQAC   compile pl.

10.10.2022

11/10/2022

D.No. D... n (Acad.)... 172

Dated 10/10/22

MINUTES OF MEETING (ACADEMIC AUDIT : 2021-22)

Minutes of Meeting held on 7th October 2022 at 10.30 AM in the office of HOD (EIE) pertaining to Academic Audit 2021-22. The recommendations of committee is as under.

➤ The committee appreciated the initiative taken to develop IoT Kits in the Departmental Lab. This will further enhance the culture of indigenous equipment development in the Department.

➤ Committee suggested to increase the Industry Institute interaction and encourage research on the basis of Industry Sponsored Projects.

➤ The committee emphasized the need to develop Centre of Excellence in core engineering.

➤ The committee pointed out to chalk out strategies to improve branch perception among the stakeholders.

➤ The committee emphasized the need to find out avenues for enhancing soft skills, personality development, and aptitude to increase the placements of students. This will attract students and help to increase admission to ICD, UG and PG programmes.

➤ The committee suggested to make effort to fetch Research Projects from Government funding Agencies to increase the Research culture in Department.

➤ The committee suggested to train the faculty for new introduced subjects in the curriculum.

The meeting ended with vote of thanks to the chair.

HOD (EIE)

Prof. A. S. Dhaliwal,
Dean R&C

Prof. A. S. Arora,
Deptt. of EIE

Prof. A. P. Singh,
Deptt. of ECE
7/10/22

Prof. J.K. Bhangu,
Deptt. of M&H
07/10/2022

Prof. Ashwani Kumar,
NIT Kurushetra
07.10.2022

SANT LONGOWAL INSTITUTE OF ENGINEERING & TECHNOLOGY
ACADEMIC AUDIT (2021 - 2022)
PROFORMA OF ASSESSMENT

1. **Name of the Department** : Electrical & Instrumentation Engineering

2. **Reviewer (Name, Designation & Address) :**

   Prof. Ashwani Kumar, NIT Kurukshetra

   Prof. A. S. Dhaliwal, Dean R&C, SLIET, Longowal

   Prof. A. P. Singh, SLIET, Longowal

   Prof. Japreet Kaur Bhangu, SLIET, Longowal

   Prof. Ajat Shatru Arora

3. **Date of Review:** 07-10-2022

NOTE:
  i. Please grade in the box provided for the following parameters in the range of 1-10 with 10 being the highest.
  ii. Leave 'blank' for 'No Comment'.
  iii. Kindly give your opinion on the strength and weakness of the Department and your suggestions for future growth.

A. ACADEMICS

A.1	ICD Program	Score	
		Self assessment	Expert assessment
1.	Curriculum (Structure, Course Syllabi, Flexibility), Theory/ practical (contents/ratio).	10	10
2.	Equivalence and Relevance of curriculum at national level	8	06
3.	Formal Academic Load on Students [Teaching, Laboratory/Practical, Projects(minor/major)]	10	08
4.	Evaluation Process (Continuing Evaluation, and End-Term Evaluation)	8	08
5.	Tour/Training/Industrial visits/Internship opportunities provided during the year	10	09
6.	Effectiveness of Assisted Learning, Tutorial System for ICD Students/ Seminars (Refer Course File)	8	06
7.	Faculty Mentoring/Faculty Advisor System for Students/Class of Students	10	07
8.	Practical activities, non-academic and totally related to a specific trade for skill development and *developing expertise in a particular group of techniques.*	9	07
9.	Linkage of ICD programs to outcome based vocational	8	06

		education (Industry linkage)		
	10.	Availability of workshop type lab/laboratory for providing hand on training to the students for skill development	10	09
		Total Score (out of 100)	91	76

UG Program

			Score	
			Self assessment	Expert assessment
1.		Curriculum (Structure, Course Syllabi, Flexibility)	8	08
2.		Status of study material developed by faculty for students	10	07
3.		Relevance of contents of courses taught to the students and scope of improvement (revision of syllabus, addition of new experiments)	8	07
4.		Formal Academic Load on Students [Teaching, Laboratory/Practical, Projects(minor/major)]	10	07
5.		Modern teaching methods in practice other than the conventional methods E-Assisted Learning (i) Availability of Library Resources (ii) Multi-Media Assisted Teaching	8	08
6.		Evaluation Process (Continuing Evaluation, and End-Term Evaluation) (i) Theory and tutorial (ii) Practical (case studies)	10	10
7.		Faculty–Student Interaction (Whether any slot is fixed for the students to interact with a teacher, after classes/labs	10	08
8.		Tour/Training/Industrial visits/Internship opportunities	10	09
9.		Effectiveness of Assisted Learning in Tutorial classes/seminars for Students	8	06
		Faculty Mentoring/Faculty Advisor System for Students/Class of Students	2	02
10		Placement %age/higher studies options (last three years)	7	06
		Total Score (out of 100)	91	78

PG Program (Separate for each program)

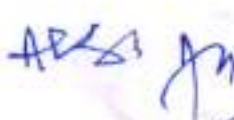|			Score	
			Self assessment	Expert assessment
1.		Curriculum (Structure, Course Syllabi, Flexibility)	8	08
2.		Formal Academic Load on Students [Teaching, Laboratory/Practical, Projects(minor/major)]	9	08
3.		Evaluation Process (Continuing Evaluation, and End-Term	10	10

2

	Evaluation)		
4.	Relevance of contents of courses taught to the students and scope of improvement	9	07
5.	Modern teaching methods in practice other than the conventional method E-Assisted Learning i. Availability of Library Resources and Major Search Engines (like Scopus, Web of Science) ii. Multi-Media Assisted Teaching	8	07
6.	Technical Societies/ Colloquium for Students i. Departmental Society ii. Student Chapter(s) of Professional Societies	6	06
7.	Tour/Training/Industrial visits/Internship opportunities	8	07
8.	Collaboration with other departments (within institute)	7	06
9.	Faculty Mentoring/Faculty Advisor System for Students/Class of Students	8	07
10.	Monitoring and continuous evaluation of the project work assigned to the students (mechanism)	8	07
	Total Score (out of 100)	81	73

A.4	Doctoral (Ph.D) Programmes	Score	
		Self assessment	Expert assessment
1.	Intake of Ph.D Students	9	08
2.	Admission Process	10	10
3.	Pre-Ph.D Courses and Evaluation Process	8	08
4.	Breadth and Depth of Knowledge of Students	8	07
5.	Seminar/ Presentations and Technical Communication	8	07
6.	Research Facilities available in the Department	8	06
7.	Average No. of Research Students/Faculty	8	06
8.	Average No. of Research Papers of Ph. D Students (Indexed Journals)	6	05
9.	Average Duration to Complete Ph.D (years)	8	07
10.	Participation of Research Scholars in Conferences/Workshops	8	07
	Total Score (out of 100)	81	71

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B. RESEARCH

		Score	
		Self assessment	Expert assessme
1.	Research Ambience in the Department	8	07
2.	Research Awareness among Doctoral Students	9	08
3.	Thrust areas of research in the department	8	08
4.	Quality of Research	8	07
5.	Collaborations with other departments (within the institute) and at National, and International levels.	6	05
6.	Impact and Quality of Publications	8	07
7.	Relevance of Research to Knowledge Generation and Social Relevance	8	07
8.	Student Exposure for Attending Quality Conferences/Symposia	8	07
9.	Inter departmental collaborations	10	08
10.	Industry/externally funded sponsored research (Numbers and amount)	6	04
	Total Score (out of 100)	79	68

General Comments on,

1. Plan of action of the department for the next five years (in view of NEP 2020)
2. Significant achievements of the department (faculty/Staff/Students)
3. Placement record of the department (Last three years)
4. Scope for training of faculty/staff for further strengthening the teaching-learning process for strengthening the curriculum with the addition of new courses having relevance at National and International levels.
5. Effective/Continuous monitoring of faculty/staff in delivery of the course contents (at departmental level) for enhancing the teaching-learning process.
6. Technical Societies/ Colloquium for Students
   (i) Departmental Society
   (ii) Student Chapter(s) of Professional Societies
7. Scope of improvement in the presenting teaching –learning process
8. The skill and expertise of the faculty/Technical staff in the department (specific)
9. Strengthening laboratory infrastructure (adding of new equipment's and use of present facility for optimum use)
10. Any other point

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C. Departmental Infrastructure

		Score	
		Self assessment	Expert assessment
1	Adequacy of Class Rooms and Multi-Media Facility	9	09
2	Availability of Laboratories	8	08
3	Availability of Conference/Seminar Room, etc	9	09
4	Availability of Seating Space for Faculty and Research Students	10	10
5	Availability of Internet Services in Research Labs and Class Rooms	10	10
6	Departmental Library and E-Resources	9	09
7	Computing Facilities and Software	9	08
8	Adequacy of Offices and Furnishing for Faculty	9	08
9	Faculty- Student Ratio	8	06
10	Support Staff (Technical/Administrative) Adequacy	9	07
	Total Score (out of 100)	90	84

SWOT analysis by the department

Strengths:

1. Well qualified, experienced and dedicated faculty and staff.
2. Significant contribution of faculty at Administrative level of the institute.
3. Good departmental library.
4. The department has ICD, UG, PG and PhD programmes for both Electrical Engineering and Instrumentation & Control Engineering.
5. The department has well equipped laboratories for the students to get hands-on experimentation.
6. State-of-the-art laboratories have been established like automation lab; in addition many industry-collaborated labs are in pipe-line.
7. The department has adequate smart classrooms equipped with smart board and sound system for online seminar, conferences and classes.
8. SCI publications are increasing every year.

Weaknesses:

9. Student placement in core companies is not satisfactory.
10. Very few graduation students are opting for higher studies in India, whereas more number of students are opting for higher studies in abroad.
11. Externally funded and consultancy projects are less in number.

Opportunities:

12. The Fee structure and location of the institute can attract the students from weaker section and local people complementing the slogan "Aatam Nirbhar Bharat"

13. Collaboration and Innovation walk in the nearby villages gives the students a lot of opportunities to think explore the innovative ideas, the demand of present scenario.
14. Precision agriculture is the new upcoming field to strengthen the agriculture and department has offered subject on this.

Threats:

15. The location of the institute is not much attractive to fetch quality students and convince companies for placement.

Suggestions for improvement:

1. Industry Collaborated Lab has to be established.
2. Idea to Implementation (i2i) Lab has been planned.
3. ICD restructuring in Process. The Qualification Pack (QP) has been identified in alignment with National Education Policy (NEP).

D. Outcomes

		Score	
		Self assessment	Expert assessment
1	i. Placements for ICD ii. Placement of B.Tech iii. Placement of Masters Student iv. Placement of Ph.D Students	7	05
2	Average No. of Ph.Ds Awarded per Year	7	06
3	Publications per Faculty in Indexed Journals/Year (Average of last three years)	8	07
4	Average Citations per Faculty/Year (Last-Three Years) (Web of Science/Scopus)	8	07
5	Recognitions; Awards(National/International) to Faculty/Students	8	06
6	Consultancy and Externally Funded Projects	8	05
7	No. of Ph.D. graduates who took Academics as Career (Last 5 Years)	8	06
8	Students offered for higher studies	8	06
9	No. of qualified students NET/GATE/CAT etc (State/Central Civil Services)	8	06
10	Entrepreneurship	8	06
	Total Score (out of 100)	78	60
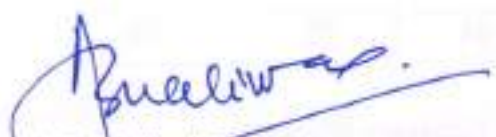
Comments & Suggestions for Improvement

1. Industry Collaborated Lab has to be established.
2. Idea to Implementation (i2i) Lab has been planned.
3. ICD restructuring in Process. The Qualification Pack (QP) has been identified in alignment with National Education Policy (NEP).

Prof. Ajat Shatru Arora

SLIET, Longowal

Prof. Japreet Kaur Bhangu,
7/10/2022

SLIET, Longowal

Prof. A. P. Singh,

SLIET, Longowal

Prof. A. S. Dhaliwal, Dean

R&C, SLIET, Longowal

Prof. Ashwani Kumar,
07.10.2022

NIT Kurukshetra

7/10/22

H.O.D (EIE)

SANT LONGOWAL INSTITUTE OF ENGINEERING & TECHNOLOGY

ACADEMIC AUDIT (2021 - 2022)

SUMMARY SHEET

1.	Name of the Department	Electrical and Instrumentation Engineering	
2.	Name of Reviewer Designation & Address	**From Academia**	**From Industry**
		Prof. Ashwani Kumar, NIT Kurukshetra	
3.	Date of Meeting	07-10-2022	

Score Summary (Self)							
Academic				Research (Max Score 100)	Departmental Infrastructure (Max Score 100)	Outcome (Max Score 100)	Total Score (700)
ICD Program (Max Score 100)	UG Program (Max Score 100)	PG Programs (Max Score 100) (Average of all PG programs)	Doctoral Program (Max Score 100)				
91	91	81	81	79	90	78	591

Score Summary (Expert)							
Academic				Research (Max Score 100)	Departmental Infrastructure (Max Score 100)	Outcome (Max Score 100)	Total Score (700)
ICD Program (Max Score 100)	UG Program (Max Score 100)	PG Programs (Max Score 100) (Average of all PG programs)	Doctoral Program (Max Score 100)				
76	78	73	71	68	84	60	510

Note: 1. Marks mentioned above is the average of the marks given by the experts.

2. If marks have not been allotted for some attributes by the experts, total score can be scaled to maximum marks.

Name & Signature of HOD

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ACADEMIC AUDIT REPORT

2021-22

DEPARTMENT OF ELECTRICAL & INSTRUMENTATION ENGINEERING

संत लोंगोवाल अभियांत्रिकी एवं प्रौद्योगिकी संस्थान

SANT LONGOWAL INSTITUTE OF ENGINEERING

& TECHNOLOGY

(DEEMED-TO-BE-UNIVERSITY, UNDER MHRD, GOVT. OF INDIA)

LONGOWAL-148106

DEPARTMENT OF ELECTRICAL & INSTRUMENTATION ENGINEERING

SANT LONGOWAL INSTITUTE OF ENGINEERING &TECHNOLOGY,

LONGOWAL

ACADEMIC AUDIT

PURPOSE OF THE AUDIT:

The objective of AA is to evaluate the performance of the departments/institution and to identify the issues need attention to improve the quality of Teaching and Research.

The main objectives of AA are:

1. To assess the strengths and weaknesses of the Departments and to suggest the methods for improvement and for overcoming the weaknesses related with teaching, learning and evaluation.

2. To ascertain whether the Departments are functioning efficiently and effectively with proven records of capacity building, research projects and publications and extension over a period of time.

3. To identify the bottlenecks in the existing academic mechanisms and to identify the opportunities for reforms in academic, administration, and examination system for a long-term progression with excellence and to face the challenges of globalization in Higher Technical Education (HTE).

4. To evaluate the optimum utilization of financial and other resources, issues concerning with leadership and organization, functional autonomy and financial management of Departments/Centers.

5. To suggest the methods of improvement for maintaining quality in HTE.

METHODOLOGY:

Department Profile

- The Institute, through a well-structured format, collects the necessary primary data and information from all the Departments/Centers of Studies on Programs Offered, Students Enrolment, Faculty Strength, Infrastructure, Research Projects, Consultancy, Publications, FDPs and other programmes/students activities conducted during the last year as well as last **three** years.

- The system of evaluation and internal assessment and the results of students, placement and further progression of students in HTE are assessed using these details.

Profile of Teachers

- To assess Faculty Qualification, Experience, Research Publications during the last three years, number of Research Projects, and Resource Generation by the faculty, Conferences Attended and Papers

Presented, Foreign Academic Visits, Fellowships Obtained, Countries Visited, Organizations of Conferences, Membership of Academic Societies, etc.

- To evaluate the performances of faculty and their capability matrix under the context of their Teaching, Learning, Research and Development, and Extension Activities.

Feedback of Students

- To elicit the views of the students regarding the general facilities available in the Department, their opinion about the teaching and research commitment and capability of the Faculty, delays and denials of justice, and for providing better amenities and care on campus with modern tools and techniques.
- Questions regarding teacher's regularity in conducting classes, providing up-to-date information on the subject, their orientation to the assigned part of the curriculum, style and efficiency of teaching, clarity in imparting information, availability of the teacher before and after the class hours for consultation, general ability of the teachers, their capabilities in motivating students for progression, etc are normally included in such exercises.

Departmental Visit by Academic Audit Committee (AAC)

- Presentation of Departmental Profile: The details of their programs, accomplishments, achievements of Faculty and the perspective plans.
- Visit of the Department(s), and Facilities for the purpose of understanding the Department, Faculty and their activities.
- This exercise is carried out in all Departments/Centers to offer valuable suggestions to improve their performances both individually and collectively.
- In addition, the AAC shall also meet the teaching faculty, non-teaching and technical staff to obtain their feedback and suggestions for improvement.
- The AAC shall visit all the laboratories, museums, student amenities, halls of residence, and facilities made available to its stakeholders.

Head of Audit

- Teaching & Learning Processes
- Research & Facilities, Professional Activities, Collaborative Performance
- Graduation Outcome
- Perception

SANT LONGOWAL INSTITUTE OF ENGINEERING & TECHNOLOGY

PROFORMA OF ASSESSMENT

1. NAME OF THE DEPARTMENT :	Electrical & Instrumentation Engineering
2. YEAR OF ESTABLISHMENT :	1991
3. MEMBERS OF THE COMMITTEE:	Prof. Ashwani Kumar, NIT Kurushetra
	Prof. A. S. Dhaliwal, Dean R&C, SLIET, Longowal
	Prof. A. P. Singh, SLIET, Longowal
	Prof. Japreet Kaur Bhangu, SLIET, Longowal
	Prof. Ajat Shatru Arora
DRC MEMBERS (EIE):	Prof. J. S. Dhillon
	Prof. Sanjay Marwaha
	Prof. Manpreet Kaur

4. DATE OF REVIEW : **07/10/2022**

5. COURSES OFFERED: (Branch and specialization, year of start)

	ICD	UG	PG	Ph.D.
	DEE-CEN	B.E (GEE, 4 Yrs)	ICE	
	DIN-CSMM	B.E (GIN, 4 Yrs)		
Year of Start	2014	2014	2002	2007

6. INTAKE OF THE STUDENTS:

Name of Course(s)		2016 Batch Admit	2016 Batch Grad.	2017 Batch Admit	2017 Batch Grad.	2018 Batch Admit	2018 Batch Grad.	2019 Batch Admit	2019 Batch Grad.	2020 Batch Admit	2020 Batch Grad.	2021 Batch Admit	2021 Batch Grad.
DIN (2 Years)		--	--	--	--	--	--	--	--	--	--	--	--
ICD/DIN		62	33	64	36	63	41	36	Conti	39	Conti	22	Conti
ICD/DEE		64	44	64	45	65	47	33	Conti	39	Conti	40	Conti
UG/GIN		08 + 39(LEET)	37	01 + 45(LEET)	36	07+40 (LEET)	Conti	19+45 (LEET)	Conti	15 + 45 (LEET)	Conti	19	Conti
UG/GEE		15 + 48(LEET)	53	25 + 39(LEET)	61	24+39 (LEET)	Conti	27+40 (LEET)	Conti	27 + 40 (LEET)	Conti	30	Conti
PG/ICE		14	11	11	09	18	17	05	Conti	04	Conti	04	Conti
Ph.D	Full Time	--	--	03	01	11	01	04	Conti	02	Conti	02	Conti
	Part Time	01	Conti	--	--	01	Conti	01	Conti	01	Conti	01	Conti
No. of Ph.D.'s awarded since 2007 till date - 26													

7. LABORATORY FACILITY:

(i) Summary of Laboratories

S. No.	Name of the lab (Lab In charge)	Status of Lab (Quite modernized/Need to be modernized)	Status of Lab Equipment (Functioning properly/ Need maintenance/ up-gradation)	No of experiments (Adequate /Need to be increased)
1	Electrical Workshop (Lab I/C--Er. AB)	Need to be modernized	Functioning properly and up-gradation is under process	14
2	Digital Electronics Lab (Lab I/C--Dr. AKA)	Need to be modernized	Functioning properly and need up-gradation	15
3	Micro-controllers & Embedded Systems Lab (Lab I/C--Dr.AKA)	Need to be modernized	Functioning properly and need up-gradation	15
4	Microprocessor Applications Lab (Lab I/C--Dr. AKA)	Quite modernized	Functioning properly and need up-gradation	13
5	Biomedical Lab (Lab I/C--Dr. MK)	Quite modernized	Functioning properly and up-graded through MODROB-Rural Project by AICTE (Rs. 11,82,500/-)	12
6	Power Electronics (Lab I/C--Dr. RV)	Quite modernized	Functioning properly	10
7	Measurement Lab (Lab I/C--Dr. BM)	Need to be modernized	Functioning properly and need up-gradation	21
8	Virtual Instrumentation &DAQ (Lab I/C--Dr. RKG)	Quite modernized	Functioning properly	21
9	Analytical Lab (Lab I/C--Er. SK)	Quite modernized	Functioning properly and need up-gradation	10
10	Transducer Lab/ (Lab I/C--Dr. JS)	Self sustained modernized	Functioning properly. To increase hands-on culture, consumable including Arduino, raspberry pi and sensors have been procured.	12
11	Process Control (Lab I/C--Dr. AAK)	Modernized	Functioning properly and need maintenance	09

12	Control Engg. Lab (Lab I/C--Dr. MS)	Quite modernized	Functioning properly	14
13	Basic Electrical Engg. (Lab I/C--Dr. MSM)	Need to be modernized	Functioning properly	10
14	Electrical Machines Lab (Lab I/C--Dr. GS)	Quite modernized	Functioning properly	13
15	Computational Lab (Lab I/C--Dr. CG)	Quite modernized	Functioning properly and augmented with 80 computers.	10
16	Research Lab (Lab I/C--Dr. ASA)	Need to be modernized	Functioning properly and need up-gradation	N/A
17	DSP Lab (Lab I/C--Dr. AKA)	Need to be modernized	Functioning properly and need up-gradation	12
18	Instrumentation Project Lab (Lab I/C--Dr. PT)	Need to be modernized	Functioning properly and need up-gradation	N/A
19	Power System Lab (Lab I/C--Dr. DS)	Quite modernized	Functioning properly (to be housed in new block)	15
20	Automation Laboratory (Centre for Training and Research in Automation) (Lab I/C—Dr. RKG)	Advanced modernized	Functioning properly (new block)	16

(ii) Recent Lab Equipments

S. No.	Name of the lab (Lab In charge)	Equipment	Year of Purchase	Qty.	Price per unit
1	Analytical Lab (Lab I/C--Dr. AKA)	Viscometer	2021	1	1,48,000/-
		Respirable Dust Sampler	2021	1	75,000/-
		Digital Flame Photometer	2021	1	35,000/-
2	Biomedical Lab (Lab I/C--Dr. MK)	Portable X-Ray Machine	2021	1	1,50,000/-
		Pulse Oximeter	2021	1	24,000/-
		Automated Blood Pressure Machine	2021	10	1130/-
		Multi Physiological Signals System	2021	1	20,39,715/-
		Digital Glucometer	2021	10	460/-
3	Research Lab (Lab I/C--Er. ASA)	MP-160 BIOPAC System	2021	1	10,00,00/-

4	Electrical Workshop (Lab I/C--Er. DS)	MCB and HRC Fuse Testing System	2021	2	59,400/-
		Single Phase Electronic Energy Meter	2021	2	31,200/-
		Electrical Safety Demonstrator	2021	2	12,500/-
		Calibration System for a Voltmeter and Ammeter Using DC Potentiometer	2021	2	18,850/-
5	Microprocessor Lab (Lab I/C--Er. DS)	Microprocessor 8085 Kits	2020	4	5,280/-
6	Power Electronics (Lab I/C--Dr. RKG)	High Voltage Power Electronics Workbench	2021	2	2,92,000/-

(iii) Major Equipments

S. No.	Major Equipment	Qty.	Year of Purchase	Laboratory
1	dSPACE 1104	1	2015	Power Electronics Laboratory
2	3-phase Power Analyzer	1	2015	
3	Mixed Signal Oscilloscope (4 analog channels and 16 digital channels)	1	2014	
4	FPGA controller boards (Spartan and Xilinx)	2	2016	
5	3-phase diode bridge rectifier + brake chopper +3-phase IGBT based PWM inverter	3	2016	
6	3-phase Voltage source inverter	1	2016	
7	Motor-Generator Sets (PMSM, PMBLDCM, Induction Motor coupled with DC Generators)	4	2016	
8	High Voltage Power Electronics Workbench	2	2021	

9	Multi Physiological Signals System with sensors	1	2021	Bio-medical Laboratory
10	MP-160 BIOPAC Systems	2	2020	
11	FLIR E-60 Thermal Camera	1	2016	
12	Static VAR Controller by FC-TCR	1	2018	Power System Laboratory
13	Vacuum Circuit Breaker under fault conditions	1	2018	
14	Air Circuit Breaker Study Equipment	1	2018	
15	Radial and Ring main distribution system	1	2018	
16	Transformer Protection Simulation Experimental Unit	1	2018	
17	Generator Protection Simulation Experimental Unit	1	2018	
18	Feeder Protection Simulation Experimental Unit	1	2018	
19	Micro-controller based percentage biased differential relay	1	2018	
20	Sequence Impedance of an Alternator by Fault analysis	1	2018	
21	Power Factor Control of a system Excited by Single-phase Supply	1	2018	
22	Electrical Power Transmission Line Simulator	1	2018	
23	Feedback Coupled Tank System	1	2013	Process Control Laboratory
24	Feedback Temperature Process Training System	1	2013	
25	Virtual Instrumentation and Data Acquisition Suite Bundle	1	2013	Data Acquisition & Virtual Instrumentation

26	Advanced Data Acquisition Measurement & Instrument Bundle	1	2013	Laboratory
27	Robotics real-time Control System	1	2013	
28	Real-time Embedded Control Platform	1	2013	

8. FACULTY MEMBERS

S. No	Name	Qualification	Designation	Specialization	Experience
1	Dr. J.S. Dhillon	Ph.D.	Professor	Power System Optimization	35
2	Dr. S. Marwaha	Ph.D.	Professor	Power Systems	32
3	Dr. A.S. Arora	Ph.D.	Professor	Biomedical Engineering	29
4	Dr. Surita Maini	Ph.D.	Professor	Antenna and Biomedical Engineering	27
5	Dr. Manpreet Kaur	Ph.D.	Professor	Biomedical Signal and Image Processing, Machine Learning	27
6	Dr. Prathiba Tyagi	Ph.D.	Associate Professor	Biomedical Engineering	29
7	Er. Rajinder Kaur	M.Tech	Associate Professor	Electrical and Biomedical Engineering	27
8	Dr. Diljinder Singh	Ph.D.	Associate Professor	Electrical Engineering	27
9	Er. Anshuka Bansal	M.Tech	Associate Professor	Electrical Engineering	25
10	Dr. Asim Ali Khan	Ph.D.	Associate Professor	Instrumentation, Biomedical Imaging	24
11	Dr. Charanjiv Gupta	Ph.D.	Associate Professor	Electrical Engineering	26
12	Dr. Manpreet Singh	Ph.D.	Associate Professor	Electrical Engineering	24
13	Dr. Gurmeet Singh	Ph.D.	Associate Professor	Electrical Engineering	26
14	Dr. Manmohan Singh	Ph.D.	Associate Professor	Power System Optimization	23

15	Dr. A. K. Aggarwal	Ph.D.	Associate Professor	Computer Vision	25
16	Dr. Raj Kumar Garg	Ph.D.	Associate Professor	Signal Processing, Power Quality, Industrial Process control	21
17	Er. Sunil Kumar Bansal	M. E.*	Assistant Professor	Instrumentation & Control	9
18	Dr. Barsha Mali	Ph.D.	Assistant Professor	Instrumentation & Control	6
19	Dr. Jaspreet Singh	Ph.D.	Assistant Professor	Biomedical Engineering	1.5
20	Dr. Rishabh Verma	Ph.D.	Assistant Professor	Power System	1.5
21.	Dr. Mohan Kashyap	Ph.D.	Guest Faculty	Electrical Engineering	02
22.	Dr. Mohit Kumar	Ph.D.	Guest Faculty	Electrical Engineering	1.6
23.	Dr. Jitender Singh	Ph.D.	Guest Faculty	Electrical Engineering	0.2
24.	Er. Nimish Bhatt	M. Tech.	Guest Faculty	Electrical Engineering	--

*- Pursuing Ph.D.

9. RESEARCH GROUP(S)/ INTERDISCIPLINARY GROUP(S):

Research Groups	Thrust Area	Faculty
Instrumentation	• [1]Biomedical Engineering • [2]Medical Thermography • [3]Microprocessor Based Systems • [4]Brain Computer Interface • [5]Microwave Thermal Ablation • [6]Bio-Optics • [7]Design of Electromagnetic Devices • [8]Instrumentation and Control • [9]AI in Biomedical • [10]Biosensors	a) Dr. A.S. Arora (1,2,3,11) b) Dr. Surita Maini (1,4,5,6,9, 12) c) Dr. Manpreet Kaur (1,9,10) d) Dr.Prathiba Tyagi (1,11) e) Er. Anshuka Bansal (10) f) Dr. Asim Ali Khan (11) g) Dr. A. K. Aggarwal (9,10,11) h) Er. Sunil Kumar Bansal (1,8,10)

	• [11]Signal and Image Processing • [12]Internet of Things (IoT)	i) Dr. Barasha Mali (1,8,9,10) j) Dr. Jaspreet Singh (1,2,11, 12)
Electrical	• [1] Power System • [2] Power Apparatus and Electrical Drives • [3] Design of Electromagnetic Devices • [4] Industrial Electronics and Power Quality • [5] Optimization • [6] AI in Power System • [7] Machine Designing • [8] Power Quality • [9] Signal Processing • [10] Process Control • [11] Energy Management & Renewable Energy	a) Dr. J.S. Dhillon (1,5,6,11) b) Dr. S. Marwaha (2,3,7,11) c) Dr. Diljinder Singh (1,5) d) Dr. Charanjiv Gupta (11) e) Dr. Manpreet Singh (2,3,4,6) f) Dr. Gurmeet Singh (3,7) g) Dr. Manmohan Singh (1,5,6) h) Dr. Raj Kumar Garg (8,9,10) i) Dr. Rishabh Verma (1,11)

10. Ph.D. Awarded (Last 3 years)

S. No.	Name of Research Fellow	Name of Supervisor	Year of Completion
1.	Vibhor K Bharadwaj	Dr Surita Maini	2021
2.	Diljinder Singh	Dr. J. S. Dhillon	2021
3.	Asim Ali Khan	Dr. A.S. Arora	2021
4.	Gurinder Pal Singh	Dr. Sanjay Marwaha	2019
5.	Satyajit Sen	Dr. V. K. Jain	2019
6.	Jaspreet Singh	Dr. Sanjeev Singh	2019

7.	Gurmeet Singh	Dr. A.S. Arora & Dr. Sanjay Marwaha	2020
8.	Jaspreet Singh	Dr. A.S. Arora	2020
9.	Jatinder Singh	Dr. J. S. Dhillon	2020
10.	Manoj Kumar	Dr. Sanjeev Singh	2020
11.	Charanjiv Gupta	Dr. Sanjeev Singh	2020
12.	Sukhjit Singh	Dr. V. K. Jain	2020
13.	Rajat Kumar	Dr. Sanjay Marwaha & Dr. Raj Kumar Garg	2021
14.	Mohit Kumar	Dr. J. S. Dhillon	2021

11. CONTRIBUTION OF FACULTY AND STAFF (Last three years):

(i) Research Publications/ Projects

Name of Faculty/ Staff	Designation/ Qualification/Status	Contribution in Teaching (punctuality/ innovation/ use of ICT)	Contribution in B. Tech. or ICD projects	Contribution in Research (Publications/ Projects/Ph.D. & M. Tech. Guidance/ Consultancy/ Patent)	Other (Department/Institute/ National/ International)
Dr. J.S. Dhillon	Professor/ Ph.D./ Regular	Use of ICT	-	13 (SCI)/ 3(Scopus)/ 01(others)/ 16(conferences)/ 03 (Ph.D.) awarded 04 (M.Tech.)	Dean (Acad), Ex-Dean (FSW), Ex-HOD (EIE), Chairman BOS (IKGPTU), Member BOS (MRSPTU), Chairman ACOFOR, Convener IQAC
Dr. Sanjay Marwaha	Professor/ Ph.D./ Regular	Use of ICT	-	11 (SCI)/ 1(Scopus)/ 14(conferences)/ 03 (Ph.D.) awarded 03 (M.Tech.)	Ex-HOD (EIE), FI (A&A), Coordinator (PMKVY), Member BOS (PTU & GNEC), Expert (NAAC), Expert NEQIP (AICTE)

Dr. A.S. Arora	Professor/ Ph.D./ Regular	Use of ICT	Guiding B. Tech. projects (02)	5 (SCI)/ 02(conferences)/ 01(book chapter) 03 (Ph.D.) awarded 01 (M.Tech.)	Dean(FSW), Ex-Dean (Acad), Ex-Dean (SFW), Member BOS (IKGPTU & MRSPTU), Expert (NBA), Member (Committee of Academics and Governance, ABVIET Pragati Nagar, Member Secretary ACOFOR, Chairman Estimation Committee (Electrical), President IIC
Dr. Surita Maini	Professor /Ph.D./ Regular	Use of ICT	Guiding ICD projects (03)	07(SCI)/ 01(Scopus)/ 02 (conference)/ 01 (Ph.D.)awarded/ 01 (M.Tech.)/ 01 (Patent)	HOD (EIE), Ex-Chief Warden (GH), Ex-Chairperson (SPICMACAY), Ex-Class Counselor, Member IIC, Member CSAB, Core committee Member TEQIP, Board Member KV
Dr. Manpreet Kaur	Professor/Ph. D./ Regular	Use of ICT	Guiding B.Tech projects (03)	05(SCI)/ 02(Scopus)/ 06(conference)/ 02(M.Tech.)	Class Counselor, Training Coordinator (GIN), NBA Coordinator (GIN), Coordinator (Cohort-2) Pilot program under AICTE CSED Cell, Member core committee Madhuram 2019, Member CSED cell Coordinator (Degree)
Dr. Pratibha Tyagi	Assoc. Prof./P h.D./ Regular	Use of ICT	Guiding B.Tech projects (02)/ ICD projects (02)	01(Scopus)/ 01(others)/ 01 (M.Tech.)	Chief Warden (GH), ATPO (EIE), Ex-Editor (Anshumat), Core Committee Member, Techfest-18 and Madhuram, Member (Creche Committee) Organized one day workshop, PhD thesis co-ordinator

Er. Anshuka Bansal	Assoc. Prof./ M.Tech./ Regular	Use of ICT	Guiding B.Tech projects (03) ICD projects (05)	01(conference)/ 01 (Patent)	Vice Chairperson Techfest 20, Member War room outreach and inclusivity, Senate member, Member energy conservation committee, Member Jal shakti Abhiyaan, Ex-Department Time Table committee convener
Dr. Diljinder Singh	Assoc. Prof./ PhD / Regular	Use of ICT	Guiding B.Tech projects (04)/ ICD projects (01)	01 (SCI)/ (02) conference/ 02 (M.Tech.)	Ex-Warden (BH), Member Library Committee, Class Counselor, Ex-MTech thesis co-ordinator
Dr. M.S. Manna	Assoc. Prof./ Ph.D./ Regular	Use of ICT	Guiding B.Tech projects (03)	03(conference)/ 01(M.Tech.)/ 04 (Patent)/ 01(Consultancy)	Industry and Academic collaboration committee convener, Ex-Director AICTE, Coordinator SWAYAM, MTech thesis co-ordinator
Dr. Charanjiv Gupta	Assoc. Prof./ Ph.D./ Regular	Use of ICT	Guiding B.Tech projects (05)	01(M.Tech.)	Deptt Purchase committee convener, Ex-FI (Electrical), Class Counselor, BTech project Co-ordinator, Departmental purchase committee convener
Dr. A.A. Khan	Assoc. Prof./ Ph.D/ Regular	Use of ICT	Guiding B.Tech projects (03)/ ICD projects (01)	01 (M.Tech.)	FA (SRAC), Class Counselor, Nodal Officer (EPF), Departmental Examination committee convener
Dr. Gurmeet Singh	Assoc. Prof./ Ph.D./ Regular	Use of ICT	Guiding B.Tech projects (01)/ ICD projects (01)	02 (M.Tech.)	Class Counselor, Member (EDPC)

Dr. Manmohan Singh	Assoc. Prof./ Ph.D./ Regular	Use of ICT	Guiding B.Tech projects (15)/ ICD projects (05)	05(SCI)/ 01(Scopus)/ 01 (conference)/ 04 (M.Tech.)	Faculty Advisor SRAS, Mentor for National Level event: Smart India Hackathon org. by MHRD, SLIET Internal Hackathon-2020 Coordinator, Trainer in Internet of Things by NPIU, Department Time Table committee convener
Dr. A.K. Aggarwal	Assoc. Prof./ Ph.D/ Regular	Use of ICT	Guiding B. Tech projects (03)	10(SCI)/ 02(Scopus)/ 04(conference)/ 01 (M.Tech.)/ 04(Sponsored projects)	Branch Counselor (IEEE Chapter), Class Counselor, Department Time Table committee Member, Coordinator (HBCH Sangrur), BTech project Co-ordinator, Departmental Placement committee convener
Dr. Raj Kumar	Assoc. Prof./ Ph.D./ Regular	Use of ICT	Guiding B.Tech projects (04)/ ICD projects (06)	01 (Ph.D.) awarded, 01 (M.Tech.)	FI (Electrical), Class Counselor, Training Coordinator, Member (BOM)
Er. Sunil Kumar	Asstt. Prof./ PhD. Pursuing./ Regular	Use of ICT	Guiding B.Tech projects (02)/ ICD projects (4)	02(conferences)/ 01 (M.Tech.)/ 01 (Patent)	Class Counselor, Department Time Table committee Member, Departmental Placement committee member
Dr. Barasha Mali	Asstt. Prof./ Ph.D./ Regular	Use of ICT	Guiding B.Tech. projects (06)/ ICD projects (12)	01(Scopus)/ 02(book chapter)/ 03 (conference)/ 01 (M.Tech.)	Class Counselor, Warden (GH), Member IIC, NCC committee
Dr Jaspreet Singh	Asstt. Prof./ Ph.D./ Regular	Use of ICT	Guiding B.Tech. projects (03) ICD projects (03)	03(SCI)/ 01 (conference)	Class Counselor, Warden (BH), Department Time Table Committee Member, Departmental website committee member

Dr. Rishavh Verma	Asstt. Prof./ Ph.D./ Regular	Use of ICT	Guiding B.Tech. projects (03)/ ICD projects (06)	01 (SCI)/ 02 (conference)/ 01 (M.Tech.)	Class Counselor, Warden (BH), T&P Committee Member, Departmental Placement committee member
Mr. S.S. Rathore	Sr. Tech. Diploma (Inst. and Control Engg.) BA (25 Yrs. Exp.)		Yes		
Mr. S.S. Bhullar	Technician Diploma in ECE (28 Yrs. Exp.)		Yes	Yes	
Mr. Vipan Kumar	Technician Diploma in Elect. Engg. (26 Yrs. Exp.)		Yes		
Mr. Amarjit Singh	Technician (23 Yrs. Exp.)				
Mr. Navdeep Kumar	Technician Diploma in Elect. Engg. M.Sc. (IT)(18 Yrs. Exp.)		Yes		
Mr. Ranvijay Kr. Singh	Clerk B.Com. (24 Yrs. Exp.)				Handling PMKVY work
Mr. Kila Ram	MTS,+2 (20 Yrs. Exp.)				
Mr. Mahraj Din Verma	MTS,BA (20Yrs. Exp.)				
Ms. Harinder Kaur	MTS,+2 (13 Yrs. Exp.)				

(ii) Awards

a) Visiting Professor in AIT Bangkok in the Year 2021-22--- **Dr. Ashwani Kumar Aggarwal**

b) Shastri Mobility Program by "Shastri Indo Canadian Institute" in the Year 2019-20. --- **Prof. Surita Maini.**

c) Visiting Professor in "University of Alberta" in the Year 2019-20. --- **Prof. Surita Maini.**

d) Shastri Membership Development Grant by "Shastri Indo Canadian Institute" in the Year 2019-20--- **Dr. Barasha Mali.**

e) Revenue generated of 40000/- AMIE - Lab Experiments by IEI – Kolkata in the year 2021- **Dr. Diljinder Singh.**

f) Award/Certificate of honor by Homi Bhabha Cancer Hospital and Research Centre (A Unit of Department of Atomic Energy, Govt. of India) during the year 2021 --- **Prof. A.S. Arora (co-PI)**

g) Award/Certificate of honor by Homi Bhabha Cancer Hospital and Research Centre (A Unit of Department of Atomic Energy, Govt. of India) during the year 2021 --- **Dr. Ashwani Kumar Aggarwal (co-PI).**

h) Award/Certificate of honor by Asia-Pacific Network, Japan during the year 2021 --- **Dr. Ashwani Kumar Aggarwal (co-PI).**

i) SLIET Quality Publication Award (SQPA) by SLIET during the year 2021 --- **Dr. Ashwani Kumar Aggarwal (co-PI).**

j) SLIET Research Project Award (SRPA) by SLIET during the year 2021 --- **Dr. Ashwani Kumar Aggarwal (co-PI).**

k) SLIET Quality Publication Award (SQPA) by SLIET during the year 2021.--- **Prof. Surita Maini.**

l) Symbiosis 2022 award by BIDH, PGIMER, Chandigarh during the year 2021.--- **Prof. Surita Maini.**

m) Tech Saksham Ambassador 2022 by Microsoft & TechSaksham during the year 2022.--- **Prof. Surita Maini.**

(iii) Patents

Detail Filed

- **Surita Maini**, "An Apparatus and Method For Determining Relative Concentration of a Sample", Patent Reference No. 202111006773, Application No.: Temp/E-1/7231/2021-Del

- **Anshuka Bansal**, Priti Prabhakar, **Sunil Bansal**, "A System for Battery optimization for automatic vehicle and method thereof", Patent Reference No. 202111023672, June 2021.

Published

- **Manpreet Singh Manna** "Anti-Theft System For Bags" Patent Reference No. 202011051091, 1 Jan 2021

- **Manpreet Singh Manna** "Hybrid Electricity Generation System" Patent Reference No. 202111003000, 29 Jan 2021

- **Manpreet Singh Manna** "Sustainable Electricity Generation" Patent Reference No.

- **Manpreet Singh Manna** "Health Monitoring System" Patent Reference No. 202111003009, 29 Jan 2021
- **Manpreet Singh Manna** "Machine Learning and IOT Based Autonomous Car Jack" Patent Reference No. 2021100050, 15 Oct 2021

Awarded

- **Manpreet Singh Manna** "Secure Secret Key Sharing Based Asymmetric Cryptography With Blockchain For Internet Of Things" Patent Reference No. 202011038111, 25 Sept 2020
- **Manpreet Singh Manna** "Customized Identity Management Systems (CIMS) For Smart City Infrastructure Platform Through Blockchain" Patent Reference No. 2020101845, 18 Aug 2020

12. Subjects Taught by Faculties

Sl no.	Session	Faculty	Class/Batch	Subject Code	Number of Students appeared in exam	Pass percentage
01	July-Dec 2019	Dr. V.K. Jain	PG-19	PCIE-812	5	100
			GEE-18	PCEE-511	63	100
			GEE-18	PCEE-515	63	100
		Dr. J.S.Dhillon	PGICE-19	PEIE-811	05	100
			GEE-17	EET-615	62	100
			GEE-16	EET-713	53	100
		Dr. Sanjay Marwaha	PGICE-19	PCIE-811	5	100
			PGICE-19	PCIE-813	5	100
			CEN-18	EE-214	58	100
		Dr. A.S. Arora	GIN-17	IET-611	37	100
			CEN/CSMM-19	EE-113	77	68.8
			CEN/CSMM-19	EE-113lab	77	68.8
			GIN-17	IEP-611	37	100
		Dr. Surita Maini	CSMM-17	IET-213	56	94.6
			GIN-16	IET-712	38	100
			GIN-16	IEP-712	38	100
			CSMM-17	IEP-213	56	100

		Dr. Manpreet Kaur	GIN-17	IET 615	37	97.3
			PGICE-19	PEIE-812	5	100
			CSMM-17	IE 312	36	100
			CSMM-18	IE 212 Lab	57	98.24
		Dr. Pratibha Tyagi	GIN-18	PCIE-513	49	91.8
			CSMM-17	IE-313	36	100
			CSMM-17	IE-313 lab	36	100
			GIN-18	PCIE-515 lab	49	95.9
		Er. Rajinder Kaur	On Medical Leave			
		Dr. Diljinder Singh	GEE-18	PCEE-513	63	100
			GEE-18	PCEE-514	63	100
			CEN-17	EE-311	54	100
			CEN17	EE-311 lab	54	100
		Er. Amiteka Bansal	CEN-18	EE-213	57	80
			GEE-17	EET-616	62	98
			CEN-19	EE-112	37	90
			CEN-18	EE-213 lab	57	85.9
		Dr. M.S. Manna	GIN-17	IET 618	37	100
			CEN-18	EE 312	57	94
			CSMM-19	IE 214	33	100
		Dr. Charanjiv Gupta	GEE/GEC/GIN- 19	ESEE401	66	100
			GEE/GEC/GIN- 19	ESEE-402	66	100
			CEN/DEE-17	EE-212	58	85
		Dr. A. A. Khan	PG-18	PEIE-911	17	94
			GIN-16	IET-713	39	100
			CTD-18	EE-211 Lab	--	100
		Dr. Gurmeet Singh	CSMM-17	IE-215	57	75.4

			GEE-16	EEP-611	62	95.1
			CSMM-17	IE-215 Lab	57	75.4
			GEE-16	EEP-617 Lab	62	98.3
		Dr. Manmohan Singh	GEE-16	EET-713	53	100
			GEE-17	EET-612	62	100
			GEE-18 B	PCEE-514	31	100
			CEN-19	EE-113	37	100
			CSMM-19	EE-113	33	100
		Dr. A.K. Aggarwal	Ph.D.-19	RM-10000	19	100
			PG-19	RM-811	46	100
			ALL.	OEIE-911	07	100
			CSMM-18	IE-214 Lab	27	94
			CWG/CAC-18	EE-211 Lab	27	94
		Dr. Raj Kumar	GIN-17	IET-613	37	86.5
			CSMM-17	IE-211	57	82.5
			CSMM-17	IE-211 Lab	57	82.5
		Er. Sunil Kumar Bansal	GIN-18	PCIE-512	47	41
			GEE-18	PCEE-512	63	55
			GIN-18	PCIE-514	47	47
			PG-19	PCIE-814	05	05
		Dr. Barasha Mali	GIN-18	IET-612	37	36
			GIN-18	IEP-612	37	37
			CEN-17	EE-315	47	44
			CSMM-19	IE-111	33	32
02	Jan-June 2020	Dr. V.K. Jain	PGICE-19	PEIE-822 A	5	100
			GEE-17	EET-622	62	100
		Dr. J.S. Dhillon	PGICE-19	PCIE-821	5	100
			GEE-17	EEP-623	62	100
		Dr. Sanjay Marwaha	PGICE-19	PEIE-821D	5	100

		Dr. A.S. Arora	PGICE-19	IE-822	5	100
			PGICE-19	IE-823 Lab	5	100
		Dr. Surita Maini	GIN-17	IET-623	37	100
			GIN-17	IEP-623	37	100
			CSMM-18	IE-221	55	100
			GIN-16	IEP-722	37	100
		Dr. Manpreet Kaur	GIN-16	IET-724	12	100
			CSMM-18	IE-223	58	100
			CSMM-18	IE-223 Lab (A and B)	58	100
		Dr. Pratibha Tyagi	GIN-18	PCIE-522	47	100
			GIN-18	PCIE-525	47	100
			GEE-17	EEP-625	62	100
			CSMM-19	IE-121	36	86
		Er. Rajinder Kaur	On Medical Leave			
		Dr. Diljinder Singh	GIN-17	IET-621	37	100
			GIN-17	IEP-621	37	100
			CEN-18	EE-227	58	100
			PGICE-18	PCIE-921	19	100
			CEN-17	EE-327	47	100
		Er. Anshuka Bansal	CPT-18	EE-221	62	98
			CEN-17	EE-326	47	100
			CEN-18	EE-223	58	100
		Dr. M. S. Manna	CEN-18	EE-225	52	100
			GIN-17	IET-626	37	100
			GIN-16	IEP-723	36	100
			CEN-19	EE-121	57	100
		Dr. Charanjiv Gupta	CEN-18	EE-224	58	100
			CEN-17	EE-323	47	100

			GCT/GFT-19	ESEE-401	32	96.87
			GCT/GME/GFT- 19	ESEE-402	88	98.86
		Dr. A.A. Khan	CEN-18	EE-222	58	80
			GCT-17	OE	04	100
		Dr. Gurmeet Singh	GEE-18	PCEE-522	63	100
			GEE-18	PCEE-525	63	100
			GEE-17	EET-612	62	100
		Dr. Manmohan Singh	GEE-16	EET-723	53	100
			GEE-18	PCIE-523	47	100
		Dr. AK Aggarwal	GIN-16	IET-723	25	100
			CSMM-18	IE-224	34	100
		Dr. Raj Kumar	GIN-17	IET-622	37	100
			GEE-17	EET-626	15	100
			CSMM-18	IE-222	55	100
		Er. Sunil Bansal	CSMM-17	IE-322	36	100
			GIN-18	PCIE-521	47	100
			GIN-18	PCIE-524	47	100
			PGICE-19	PCIE-825	05	100
		Dr. Barasha Mali	GEE-16	EEP-722	52	100
			GEE-18	PCEE-521E	63	100
			GEE-18	PCEE-524	63	100
			CSMM-17	IE-321	36	100
03	July-Dec 2020	Dr. J.S. Dhillon	GEE-18	PCEE-612	62	100
			GEE-18	PCEE-613	62	100
			GEE-17	EET-711	62	96.77
		Dr. Sanjay Marwaha	GEE-19	PCEE-513	68	98.53
			PGICE-20	PEIE-811	4	100
		Dr. A.S. Arora	PGICE-20	PEIE-812D	4	100

			GCS-20A	ESEE-401		
		Dr. Surita Maini	GIN-18	TPIN-521	46	100
			GIN-17	IEP-712	38	100
			PGICE-20	PEIE-811D	4	100
		Dr. Manpreet Kaur	CEN-20	EE-112	38	97.37
			GIN-18	PEIE-611A	46	100
			PGICE-20	PCIE-814	4	100
			PGICE-20	PEIE-812	4	100
		Dr. Pratibha Tyagi	CSMM-19	IE-212	36	91.67
			CSMM-18	IE-311	57	100
		Er. Rajinder Kaur	On Medical Leave			
		Er. Anshuka Bansal	CEN-19	EE-213	39	92.3
			CEN-19	EE-216	39	84.61
			CEN-19	TP-301	58	100
			CSMM-20	IE-111	39	87.17
		Dr. M. S. Manna	CEN-19	EE-215	39	87.17
			CSMM-19	IE-214	36	80.55
			GIN-17	IET-716	38	100
			GIN-17	TPS-701	38	100
		Dr. Charanjiv Gupta	CEN-19	EE-212	39	94.87
			GEE-20	ESEE-402	28	92.85
			GEE-18	PCEE-611	62	100
			GIN-20	ESEE-402	15	100
		Dr. Diljinder Singh	CEN-19	EE-213	39	97.43
			GEE-20	ESEE-401	28	92.85
			GEE-18	TPIN-521	62	100
			GIN-20	ESEE-401	15	93.33
		Dr. A.A. Khan	GIN-17	IET-711	38	100
			PGICE-19	PEIE-911A	5	80

		Dr. Gurmeet Singh	CEN-19	EE-314	58	96.55
			CSMM-19	IE-215	36	100
			GEE-19	PCEE-514	68	100
		Dr. Manmohan Singh	GEE-19	PCEE-511	68	100
			GEE-19	PCEE-515	68	100
			GEE-17	EEP-715	62	100
			GEE-17	EET-715	62	100
			GEE-17	TPS-701	62	100
		Dr. AK Aggarwal	CSMM-19	IE-213	36	100
			GEE-17	EEP-713	62	100
			GIN-18	PCIE-611	46	100
			PGICE-20	RMAL-811	4	100
		Dr. Raj Kumar	CEN-19	EE-312	58	91.37
			GIN-18	PCIE-612	46	97.82
			GIN-18	PCIE-613	46	100
		Er. Sunil Bansal	CSMM-19	IE-211	36	83.33
			CSMM-18	TP-301	57	100
			GIN-19	PCIE-513	65	96.92
			GIN-19	PCIE-515	65	96.92
		Dr. Barasha Mali	CEN-19	EE-315	58	100
			CSMM-18	IE-312	57	100
		Dr. Jaspreet Singh	CSMM-18	IE-314	57	100
			GEE-19	PCEE-512	68	98.53
			GIN-19	PCIE-512	65	98.46
			GIN-19	PCIE-514	65	96.92
			PGICE-20	PEIE-813	4	100
		Dr. Rishabh Verma	CEN-18	EE-311	58	96.55
			CSMM-18	IE-315	57	98.24
			GIN-18	OEEE-612 II	46	100

04	Jan-June 2021	Dr. J.S. Dhillon	PGICE-20	PEIE-822	4	100
			PGICE-20	PCIE-825	4	100
		Dr. Sanjay Marwaha	PGICE-20	PEIE-821D	4	100
			GEE-17	EEP-722	62	100
		Dr. A.S. Arora	PGICE-20	PCIE-822	4	100
			PGICE-20	PCIE-823	4	100
		Dr. Surita Maini	PGICE-20	PCIE-824	4	100
			GIN-18	PCIE-622	46	100
		Dr. Manpreet Kaur	CSMM-19	IE-224	36	100
			GEE-19	PCEE-521	66	100
			GEE-19	PCEE-524	66	100
		Dr. Pratibha Tyagi	CEN-19	EE-222	38	97.36
			CSMM-19	IE-222	36	100
			CSMM-20	IE-121	39	100
			GEE-20	TPIN-421	26	96.15
			GEE-20	TPIN-422	26	96.15
		Er. Rajinder Kaur	On Medical Leave			
		Dr. Diljinder Singh	CEN-18	EE-322	58	100
			CEN-18	EE-324	58	100
		Er. Anshuka Bansal	CEN-18	EE-326	58	100
			GEE-17	EET-724	62	100
			GME-20	ESEE-402	67	98.5
		Dr. M. S. Manna	CEN-19	EE-223	38	92.10
			GIN-19	PCIE-521	63	100
			GIN-19	PCIE-524	63	100
			GIN-17	IET-721	38	100
		Dr. Charanjiv Gupta	GFT-20	ESEE-401	17	100
			GCT-20	ESEE-401	25	92
			GFT-20	ESEE-402	17	100

			GCT-20	ESEE-402	25	92
			GME-20	ESEE-401	67	98.5
		Dr. A.A. Khan	GIN-18	PCIE-621	46	100
			GIN-18	PCIE-623	46	100
			PGICE-20	PCIE-821	4	100
		Dr. Gurmeet Singh	CEN-20	TP-201	37	100
			CEN-19	EE-226	38	94.73
			GEE-19	PCEE-522	66	100
			GEE-19	PCEE-525	66	100
		Dr. Manmohan Singh	GEE-19	PCEE-523	66	100
			GEE-18	PCEE-622	62	98.38
			GEE-18	PCEE-623	62	98.38
			GEE-17	EEP-721	62	100
		Dr. A.K. Aggarwal	CEN-19	EE-227	38	97.36
			GEE-18	PEEE-621A	62	98.38
			GIN-17	IEP-721	38	100
			GIN-17	IEP-722	38	100
			GIN-17	IEP-723	38	100
		Dr. Raj Kumar	GIN-19	PCIE-522	63	96.82
			GIN-19	PCIE-523	63	95.23
			GIN-19	PCIE-525	63	100
		Er. Sunil Bansal	CSMM-19	IE-226	36	91.67
			CSMM-18	IE-323	57	94.73
			CSMM-18	IE-326	57	100
			GEE-18	PCEE-621	62	98.38
		Dr. Barusha Mali	CEN-18	EE-321	58	100
			CEN-18	EE-327	58	100
			CSMM-19	IE-223	36	97.22
			CSMM-18	IE-321	57	100

		Dr. Jaspreet Singh	CSMM-20	TP-201	39	87.17
			CSMM-19	IE-221	36	97.22
			CSMM-18	IE-322	57	100
			CSMM-18	IE-325	57	100
		Dr. Rishabh Verma	CEN-20	EE-121	37	97.29
			CEN-18	EE-323	58	100
			CSMM-19	IE-225	36	94.44
05	July-Dec 2021	Dr. J.S. Dhillon	GEE-19	PCEE-612	66	100
			PGICE-21	PCIE-812	4	100
		Dr. Sanjay Marwaha	GEE-20	PCEE-513	71	92.95
			PGICE - 21	PCIE - 811	4	100
			PGICE - 21	PCIE - 813 Lab	4	100
		Dr. A.S. Arora	PGICE-21	PEIE-812D	4	100
			ALL TRADES	OEIE-711B	12	100
			CEN-19	EE-312 Lab	36	91.66
		Dr. Surita Maini	GIN-18	PCIE-711	45	100
			GIN-18	PCIE-713 Lab	45	100
			PGICE-21	PEIE-811D	4	100
		Dr. Manpreet Kaur	CSMM-19	IE-313	36	100
			CSMM-19	IE-313 Lab	36	100
			GIN-19	PEIE-611A	63	100
			PGICE-21	PCIE-814 Lab	4	100
		Dr. Pratibha Tyagi	CEN-19	EE-313	36	100
			CEN-19	EE-313 Lab	36	100
			CSMM-19	IE-311	36	100
			CSMM-19	IE-311 Lab	36	100
		Er. Rajinder Kaur	On Medical Leave			
		Er. Ambuka Bansal	GEE-21	ESEE-402	30	96.67
			ALL TRADE	OEEE-612A	150	100

			GEE-19	PCEE-613 Lab	66	100
		Dr. Raj Kumar	GIN20	PCIE-511	50	92
			CDE/CWG/CFF-20	EE-211 Lab	98	91.83
			CSMM-19	IE-314	36	83.33
			CSMM-19	IE-314 Lab	36	83.33
		Er. Sunil Bansal	CSMM-20	IE-212	37	91.89
			CSMM-20	IE-212 Lab	37	91.89
			GIN-20	PCIE-513	50	100
			GIN-20	PCIE-515 Lab	50	100
		Dr. Barasha Mali	GIN-19	PCIE-611	63	98.41
			CEN-19	EE-315	36	100
			CEN-19	EE-315 Lab	36	100
			CSME-21/ CTV-21	EE-111	38	89.47
			GIN-21	ESEE-402 Lab	19	100
		Dr. Jaspreet Singh	GIN-18	PEIE-712C	45	100
			GIN-20	PCIE-512	50	98
			GIN-20	PCIE-514 Lab	50	98
			GEE-20	PCEE-515 Lab	68	97.06
		Dr. Rishabh Verma	GEE-18	PCEE-712	62	100
			GEE-18	PCEE-714 Lab	62	98.38
			CEN-21	EE-113	40	72.5
			CEN-21	EE-113 Lab	40	72.5
			CSMM-21	EE-113 Lab	22	90.90
06.	Jan-June 2022	Dr. J.S. Dhillon	PGICE-21	PEIE-821	4	100
			GEE-20	PCEE-521	66	100
			GEE-20	PCEE-524 Lab	66	100
		Dr. Sanjay Marwaha	PGICE-21	PEIE-821D	4	100
			GEE-18	PEEE-722B	59	98.30

			CEN-20	EE-224 Lab	37	97.29
			CSMM-20	IE-226 Lab	38	76.31
		Dr. A.S. Arora	PGICE-21	PCIE-821	4	100
			GIN-19	PCIE-621	63	96.82
			GIN-19	PCIE-623 Lab	63	100
		Dr. Surita Maini	GIN-19	PCIE-622	63	100
			GIN-18	PCIE-722B	43	100
			PGICE-21	PCIE-823 Lab	4	100
		Dr. Manpreet Kaur	PGICE-21	PEIE-822D	4	100
			PGICE-21	PCIE-824 Lab	4	100
			GIN-20	PCIE-521		100
			CSMM-20	IE-222 Lab	38	94.73
		Dr. Pratibha Tyagi	CEN-20	EE-222	37	97.29
			CEN-20	EE-222 Lab	37	97.29
			CPT-20	EE-221 Lab	37	89.18
			CSMM-21	IE-121	22	95.45
			CSMM-20	IE-223 Lab	38	81.57
		Er. Rajinder Kaur	On Medical Leave			
		Dr. Diljinder Singh	CEN-20	EE-227	37	97.29
			CEN-20	EE-226 Lab	37	97.29
			CEN-19	EE-324 Lab	58	100
			CEN-19	EE-324	58	100
		Er. Anshuka Bansal	CEN-19	EE-323	36	91.67
			CEN-19	EE-326	36	91.67
			CEN-20	EE-223 Lab	36	100
		Dr. M. S. Mannu	CEN-19	EE-322	36	94.44
			CEN-19	EE-322 Lab	36	94.44
			CEN-19	EE-223	38	92.11
			CEN-21	EE-121 Lab	35	100

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			GEE-18	PEEE-721B	59	100
			CEN-21	TP-201	35	100
		Dr. Charanjiv Gupta	GEE-19	PEEE-621A	66	98.48
			GCT-21/GFT-21	ESEE-401	29	100
			GCT-21/GFT-21	ESEE-402 Lab	29	100
			CEN-20	EE-224 Lab	37	97.29
		Dr. A.A. Khan	GEE-20	PCEE-523	66	86.36
			GIN-19	PCIE-623 Lab	46	100
			CEN-19	EE-321	36	86.11
			CSMM-19	IE-322 Lab	36	97.22
		Dr. Gurmeet Singh	GEE-20	PCEE-522	66	98.48
			CEN-20	EE-226	37	97.29
			GEE-20	PCEE-525 Lab	66	100
			CPT-20	EE-221 Lab	37	89.18
		Dr. Manmohan Singh	GIN-20	PCIE-523	49	100
			GEE-19	PCEE-622	66	98.48
			GEE-18	EEP-721	62	100
			GEE-19	PCEE-623 Lab	66	100
		Dr. A.K. Aggarwal	GIN-19	PEIE-621C	63	100
			GIN-18	PEIE-721B	43	100
			CSMM-19	IE-323 Lab	36	97.22
			PGICE-21	PCIE-825	4	100
		Dr. Raj Kumar	CSMM-19	IE-324	36	83.33
			CSMM-19	IE-324 Lab	36	83.33
			GIN-20	PCIE-522	49	79.59
			GIN-20	PCIE-523	63	95.23
			GIN-20	PCIE-525 Lab	49	100
		Er. Sunil Bansal	GEE-19	PCEE-621	66	98.48
			CSMM-19	IE-325	35	91.67

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			CSMM-20	IE-224	38	84.21
			CSMM-20	IE-224 Lab	38	84.21
			CSMM-18	IE-326	36	97.22
		Dr. Barasha Mali	GIN-18/GIN-19	HDIE-621	19	94.73
			CSMM-19	IE-321	36	86.11
			CEN-19	IE-327	36	100
			GIN-20	TPID-521	49	97.95
			GIN-20	EAA-521+	49	97.95
			CSMM-20	IE-223	38	81.57
		Dr. Jaspreet Singh	GIN-18	HDIE-711	11	90.91
			CSMM-20	IE-226	38	71.05
			CSMM-20	IE-226 Lab	38	71.05
			CEN-19	EE-325 Lab	36	97.22
			GCS	OEIE-622D	9	100
		Dr. Rishabh Verma	GEE-18	HDEE-711	2	100
			GIN-20	PCIE-524 Lab	49	100
			GCT-18	EEO-721	20	100
			GEE-18/GEE-19	HDEE-621	11	81.82

13. INFRASTRUCTURE

Special Facilities in the Department (if any)	1. The building of the department has been designed keeping in view the interest of PWD students. 2. Department has industrial grade temperature and pressure calibration facility. 3. Department has inhouse developed IoT kits, modernized Automation Lab and Power System Lab, which could cater the needs of adjoining institutes. 4. Computational Lab of the department is well equipped with commercial licensed softwares, like MATLAB, LABVIEW etc. 5. Advance instruments for research purpose are available. 6. Department has smart classroom which is equipped with advance equipments.
Unique features of the department	1. Department has expertise in the diverse fields viz Biomedical Engineering, Industrial Automation, Power System Operation and Reliability, Electrical Machines. 2. MOU has been signed with Homi Bhabha Cancer Hospital, Sangrur to facilitate the research in the area of cancer detection.
Shortage in department (if any)	1. Department has less number of sponsored research projects and consultancy work.

14. ANNUAL BUDGET OF THE DEPARTMENT (Allocated and Expenditure, in Lakhs):

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Equipment	40.04	47.04	01.25	17.50 (OH-35) 03.00 (OH-31)	70* (Total allocation)	70.00 (OH-35)
Consumable				03.00		13.50 (OH- 31)
Maintenance	04.00	04.00	03.25			
Tour & Training			01.00			
Research & Development			01.00			

15. NO. OF SEMINARS/CONFERENCES/SHORT TERM COURSES ATTENDED/ORGANIZED
(last 3 years):

	Name of Faculty	2019-2020	2020-2021	2021-2022
	Dr. J. S. Dhillon	NIL	01	NIL
	Dr. S. Marwaha	NIL	01	NIL
	Dr. A.S. Arora	NIL	01	1
	Dr. Surita Maini	NIL	01	2

	Dr. Manpreet Kaur	01	01	NIL
	Dr. Pratibha Tyagi	NIL	01	NIL
organized by the Institute	Er. Anshuka Bansal	NIL	01	01
	Dr. Diljinder Singh	NIL	01	NIL
	Dr. M.S. Manna	NIL	01	NIL
	Dr. Chiranjiv Gupta	NIL	01	NIL
	Dr. A.A. Khan	NIL	01	NIL
	Dr. Gurmeet Singh	NIL	01	NIL
	Dr. Manmohan Singh	NIL	01	NIL
	Dr. A.K. Aggarwal	NIL	02	02
	Dr. Raj Kumar	02	NIL	NIL
	Er. Sunil Kumar	NIL	02	NIL
	Dr. Barasha Mali	01	02	NIL
	Dr. Jaspreet Singh	01	NIL	NIL
	Dr. Rishavh Verma	NIL	NIL	NIL
	Dr. J. S. Dhillon	NIL	NIL	06
	Dr. S. Marwaha	NIL	NIL	04
	Dr. A.S. Arora	NIL	NIL	01
	Dr. Surita Maini	NIL	NIL	02
	Dr. Manpreet Kaur	NIL	NIL	06
	Dr. Pratibha Tyagi	NIL	NIL	04
Details of	Er. Anshuka Bansal	01	01	NIL
outside the institute	Dr. Diljinder Singh	NIL	NIL	01
	Dr. M.S. Manna	04	NIL	NIL
	Dr. Manmohan Singh	NIL	NIL	05
	Dr. A.K. Aggarwal	NIL	NIL	05
	Dr. Raj Kumar	NIL	NIL	NIL
	Er. Sunil Kumar	NIL	NIL	NIL
	Dr. Barasha Mali	01	02	NIL
	Dr. Jaspreet Singh	01	NIL	NIL
	Dr. Rishavh Verma	NIL	NIL	01

16. RESEARCH PUBLICATIONS IN THE DEPARTMENT/CENTER:

Publications	2019-20	2020-21	2021-22
SCI/SCIE Journals	15	20	19
Scopus Indexed	02	05	05
Peer reviewed	NIL	NIL	NIL
Indexed conferences	NIL	NIL	NIL
National Conferences	NIL	NIL	NIL
International Conferences	02	02	40
Books Chapters Published	NIL	02	01
Any other	NIL	NIL	NIL

17. STUDENTS PERFORMANCE IN NATIONAL LEVEL COMPETITIVE EXAMS (GATE/NET etc.)

	2019-20	2020-21	2021-22
GATE	09	0	02
CAT	-	-	-
Any other	-	-	-

List of GATE Qualified UG Students -2020

S.No.	NAME OF STUDENT	TRADE/REGN NO.	MOBILE NO.	All India Rank	GATE Score/ marks	Registration Number
1.	ABHISHEK KUMAR	GIN/1731011	8477066772	568	46.33	IN20S18036081
2.	RISHIKESH	GIN/1640100	9795298080	1826	26.34	IN20S18036093
3.	SANJEEV KUMAR SAH	GIN/1640039	7654347341	347	52.33	IN20S18036013

List of GATE Qualified PG Students - 2020

S.No.	NAME OF STUDENT	TRADE/REGN NO.	MOBILE NO.	All India Rank	GATE Score	Registration Number
1.	DIPJYOTI DAS	PG/ICE/1850204	9365459429	1266	427	IN18S41419500
2.	HIMANSHU KUMAR	PG/ICE/1850201	7898394733	7759	470	EE18S65014212
3.	ANKAN BANERJEE	PG/ICE/1850208	9749227063	1328	417	IN18S44046116
4.	RAVI RATNAIK	PG/ICE/1850209	8173822433	15981	356	EE18S63026198

| 5. | ASHUTOSH SINGH | PG/ICE/1850213 | 8471830464 | 1241 | 431 | IN18S43011049 |

List of GATE Qualified UG Students -2022

S.No.	NAME OF STUDENT	TRADE/REGN NO.	MOBILE NO.	All India Rank	GATE Score/ marks	Registration Number
1.	ABHISHEK KAKRODA	GEE/1940481	9587688642	17079	260	EE22S23023187
2.	DEEPANKAR JHA	GEE/2030652	9123120946	9297	357	EE22S24041242

18. DETAILS OF STUDENT ACTIVITIES (last 3 yrs)

(Workshops/ seminars/industrial tours/ Delivery beyond syllabi/ innovative practices/ remedial activities/ Tutor-Guardian scheme implementation)

1. Tutor Guardian and Students Mentor scheme is well placed.
2. Arranged workshop on following:
   - IoT for various applications
   - Industrial Automation
   - PLC, SCADA & HMI
   - Robotics
   - MATLAB under IEEE Chapter
   - Number of activities has been arranged under SIT and SEE.
3. Industrial tours, debates and other student activities are arranged regularly (Indian Railways, PEDA, Power Plants etc.).
4. Computational Lab augmented with 80 computers.
5. Department believes in innovative practices and students are encouraged to participate in technical events in institute and outside the institute.
6. Faculty members sometimes cover syllabi beyond limits keeping in view the interest of the students.
7. Offered 2 weeks and 4 weeks industrial training on "IoT" and "PLC in Industrial Automation" for students during summer vacations and help the students to develop their skills in the application of theory to practical knowledge.

19. (a) NEW FACILITIES CREATED IN LAST 3 YRS

- Transducer Lab upgraded to increase hands-on culture
- IEEE Chapter has been introduced
- Committee Room functional in new EIE block.
- MoU signed with Homi Bhabha Cancer Hospital, Sangrur and Sabudh Foundation
- Purchased books for Departmental Library

(b) NEW EQUIPMENTS PROCURED IN LAST 3 YRS (BASIC EQUIPMENTS):

- Automation Lab equipment, such as pneumatic, electro-pneumatic training modules, sorting demo

- kit, stamping kit, vacuum technology

- Biomedical Lab equipment (X-ray, multi-physiological data acquisition system, Pulse oximeter)

- Analytical Lab Equipment (dust sampler, viscometer etc.)

- Power System lab equipment

- Electrical Machines lab equipment

(c) PROCUREMENT OF SOME ADVANCED EQUIPMENTS (for research and consultancy)

- Procurement of thermal camera (FLIR E60)
- MP-160 BIOPAC System
- Multi-physiological data acquisition system
- High Power Electronics Workbench

20. REQUIREMENT FOR BETTERMENT

a) ICD restructuring in Process. The Qualification Pack (QP) has been identified in alignment with National Education Policy (NEP).

b) Revision of course curriculum is in process for UG and PG level as per relevant technologies of day-to-day demand of industry.

c) New laboratories infrastructure has to be set up in the department. Therefore, there is a requirement of special budgetary allocation for equipment (labs).

d) Up-gradation and modernization of some existing Labs for providing hands on training to students.

e) MoUs with the industry for training/Project development are needed to help students in their training and placement programs.

f) Proper arrangement for sitting of Research Scholars with updated resources (Desktop, Printers etc).

g) Recruitment of regular faculty and staff.

21. STRENGTH OF THE DEPARTMENT

i.   Well qualified, experienced and dedicated faculty and staff.

ii. Significant contribution of faculty at administrative level of the institute.

iii. Good departmental library.

iv. The department has ICD, UG, PG and PhD programs for both Electrical Engineering and Instrumentation & Control Engineering.

v.   The department has well equipped laboratories for the students to get hands-on experimentation.

vi. State-of-the-art laboratories have been established; in addition, many industry-collaborated labs are in pipe-line.

vii. The department has sufficient smart classrooms equipped with smart board and sound system for online seminar, conferences, and classes.

viii. SCI publications and externally funded projects are increasing every year.

WEAKNESS OF THE DEPARTMENT

i. Student placement in core companies is not satisfactory.

ii. Very few graduation students are opting for higher studies in India, whereas a greater number of students are opting for higher studies in abroad.

iii. Externally funded and consultancy projects are less in number.

22. INTERNATIONAL EXPOSURE (in the form of visiting professor or academic associates)

The faculties of the department has good exposure to the research abroad as Visiting Professor and as Expert. Data of last 3 years is as follows:

Name of Faculty	2019-20		2020-21		2021-22	
	Visiting Country	Purpose	Visiting Country	Purpose	Visiting Country	Purpose
Dr. Surita Maini	University of Alberta, Canada Visiting Professor		NIL		NIL	
Dr. A. K. Aggarwal	NIL		NIL		UiTM Campus, Kota Kinabalu, Sabah, Malaysia, Expert for Technology for Agriculture Workshop	

23. FACULTY ATTENTIVENESS

- Course File Preparation: System is in place
- Attendance Register: System is in place
- Display of attendance alert: System is in place
- Preparation of model answer: Need improvements
- Makeup classes: System is in place on need basis
- Use of ICT in Teaching: Facilities available and in place

24. OUTCOMES (LAST 3 YRS)

Our Recruiters

❖ VEDANTA	
❖ TCS	
❖ VARDHMAN TEXTILE LTD.	
❖ AUTODESK	
❖ WELSPUN GROUP	
❖ HCL	
❖ NEWGEN SOFTWARE COMPANY	
❖ CAPEGEMINI	
❖ HINDUSTAN UNILEVER LTD.	
❖ GOLDMANSACHS	
❖ MAHINDRA & MAHINDRA LTD.	
❖ CINIF TECHNOLOGIES LIMITED	

❖ **DHAMPUR SUGAR MILLS LIMITED**		dhampur
❖ **L&T TECHNOLOGY SERVICES**		L&T Technology Services
❖ **CHC ASIA CONSULTING, QUARK CITY, MOHALI**		CHC A **CONGRUEX** COMPANY
❖ **ALP NISHIKAWA CO. PVT. LTD.**		ALP THE ALP GROUP

Placement & Research data

S. no.	Placement & Research Data	Details
1	Placement of ICD	Mostly Students opt for higher education
	Placement of B.Tech. (GEE & GIN)	2019: 02 (GIN) + 14(GEE)=16 2020: 15 (GIN) + 12(GEE)=27 2021: 08 (GIN) + 22(GEE)=30
	Placement of Masters' Student	- .
	Placement of Ph.D. Students	09
2	Average No. of Ph.D.s Awarded per Year	2019: 03 2020: 06 2021: 05
3	Publications per Faculty in Indexed Journals/Year (Average of last three years)	$113/(20\times3) = 1.88$
4	Average Citations per Faculty/Year (Last-three Years)/ (Web of Science/Scopus)	$3258/(20\times3) = 54.3$
5	Recognitions; Awards (National/International) to Faculty/Students	10
6	Consultancy and Externally Funded Projects	05

7	No. of Ph.D. graduates who took Academics as Career (Last 5 Years)	16

Year-wise Placement %

Year	Placement (%)	
	GEE	GIN
2019-20	74.13	48.71
2020-21	34.61	32.43
2021-22	35.48	21.05

PLACEMENT RECORD OF STUDENTS FOR THE YEAR 2018-2019

Sr.No.	Name of the Student	Registration No. of the student	Organization Placed in
1	GUNJAN SHARMA	GEE/SL/15/4341	HINDUSTAN UNILEVER LIMITED, GURUGRAM (HUL)
2	ANSHUMAN KUMAR	GIN/SL/15/4505	TATA CONSULTANCY SERVICE
3	SUSHANT TYAGI	GEE/1540134	INFOSYS LIMITED
4	SUMIT KUMAR DHIMAN	GEE/1630006	INFOSYS LIMITED
5	HIMANSHU SINGHAL	GEE/1540098	INFOSYS LIMITED
6	SHUBHAM GUPTA	GEE/1540109	INFOSYS LIMITED
7	PRASHANT PARIHAR	GEE/SL/15/4406	INFOSYS LIMITED
8	POOJA	GEE/1540122	INFOSYS LIMITED
9	IRFAN ALAM	GEE/1540115	INFOSYS LIMITED
10	NAVIN KUMAR	GIN/SL/15/4513	INFOSYS LIMITED
11	PRANJAL SINGHA	GEE/SL//15/4301	TORRENT GROUP
12	SHUBHAM JINDAL	DEE/CEN/1610170	VARDHMAN GROUP
13	ABHISHEK KUMAR RAI	GEE/SL/15/4346	VARDHMAN GROUP
14	BHARAT SONI	GEE/SL/15/4320	VARDHMAN GROUP
15	MADHU BALA CHAUDHARY	GEE/SL/15/4302	MAHINDRA & MAHINDRA LTD.
16	RAUSHAN KUMAR	GEE/121739	TECHNOPLANET LAB PVT. LTD.
17	SURAJ KASYAP	GEE/1630012	CHC ASIA CONSULTING, QUARK CITY, MOHALI

PLACEMENT RECORD OF STUDENTS FOR THE YEAR 2019-2020

Sr.No.	Name of the Student	Registration No. of the student	Organization
1	PRATEEK	GIN/1640061	TATA CONSULTANCY SERVICES
2	SUSHOBHIT KUMAR	GIN/1731423	INFOSYS LIMITED
3	SANJEEV KUMAR SAH	GIN/1640039	INFOSYS LIMITED
4	NISHU KUMARI	GEE/1731520	INFOSYS LIMITED
5	SHIVNANDAN KUMAR	GEE/1640045	INFOSYS LIMITED
6	SNEHLATA MISHRA	PGICE/1850203	INFOSYS LIMITED
7	KUMAR DAYANIDHI	PGICE/1850212	INFOSYS LIMITED
8	YASHU VERMA	PGICE/1850051	INFOSYS LIMITED
9	UDAY MEHROTRA	GEE/1731514	CAPGEMINI TECHNOLOGY SERVICES INDIA LIMITED
10	SHUBHAM RAJ	GEE/1731047	CAPGEMINI TECHNOLOGY SERVICES INDIA LIMITED

11	AMARDEEP KUMAR	GIN/ 1640047	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT LTD
12	NITISH KUMAR	GEE/1731046	VARDHMAN TEXTILES LIMITED
13	SANKHA MAILTI	DEE/CEN/1712703	VARDHMAN TEXTILES LIMITED
14	AKRITI PRIYA	GEE/1731521	CINIF TECHNOLOGIES LIMITED
15	PUJA KUMARI	GEE/1731528	CINIF TECHNOLOGIES LIMITED
16	SALONI KUMARI	GEE/1731051	CINIF TECHNOLOGIES LIMITED
17	SUHIR KUMAR	GEE/1731511	CINIF TECHNOLOGIES LIMITED
18	MAYANK SHEKHAR	GEE/1731512	CINIF TECHNOLOGIES LIMITED
19	SHUBHAM KUMAR	GEE/1640087	CINIF TECHNOLOGIES LIMITED
20	MUSKAN	GIN/1731436	CINIF TECHNOLOGIES LIMITED
21	MANORANJAN	GIN/1731431	CINIF TECHNOLOGIES LIMITED
22	AMBRISH KUMAR	GIN/1731432	CINIF TECHNOLOGIES LIMITED
23	ANUPAM PRAKASH	GIN/1731411	CINIF TECHNOLOGIES LIMITED
24	ANSHU SINGH	GIN/1731433	CINIF TECHNOLOGIES LIMITED
25	SWATI SHUKLA	GIN/1731430	CINIF TECHNOLOGIES LIMITED
26	RISHIKESH KUMAR	GIN/1640100	CINIF TECHNOLOGIES LIMITED
27	KUMARI SURUCHI	GIN/1731420	CINIF TECHNOLOGIES LIMITED
28	PUJA KUMARI	GEE 1731528	DHAMPUR SUGAR MILLS LIMITED
29	AMBRISH KUMAR	GIN/1731432	DHAMPUR SUGAR MILLS LIMITED
30	MANORANJAN	GIN/1731431	DHAMPUR SUGAR MILLS LIMITED
31	MUSKAN	GIN/1731436	DHAMPUR SUGAR MILLS LIMITED

PLACEMENT RECORD OF STUDENTS FOR THE YEAR 2020-2021

Sr.No.	Name of the Student	Registration No. of the student	Organization
1	PIYUSH KUMAR	GEE/1830465	CAPGEMINI TECHNOLOGY SERVICES INDIA LIMITED
2	KIRANPREET KAUR	GEE/1740716	CAPGEMINI TECHNOLOGY SERVICES INDIA LIMITED
3	RAJNEESH SINGH	GEE/1740721	INFOSYS LIMITED
4	PIYUSH KUMAR	GEE/1830465	TATA CONSULTACNY SERVICES LIMITED
5	DEVESH JHA	GEE/1830454	TATA CONSULTACNY SERVICES LIMITED
6	VIBHUTI PRIYA	GEE/1830951	WELPUN GROUP
7	AAYUSH BHARDWAJ	GEE/1740718	WELPUN GROUP
8	SOUMYA DEEP	GIN/1830362	WELPUN GROUP
9	RITU KUMARI	GIN/1830352	WELPUN GROUP
10	APOORAV AGARWAL	GEE/1740714	HCL TECHNOLOGIES
11	RITIK RAJ	GIN/1830341	HCL TECHNOLOGIES
12	DIPANSHU KUNDAL	GEE/1740701	HCL TECHNOLOGIES
13	RIYA CHOUDHARY	GEE/1740719	NEWGEN SOFTWARE TECHNOLOGIES LTD
14	DIPANSHU KUNDAL	GEE/1740701	NEWGEN SOFTWARE TECHNOLOGIES LTD
15	RUPAN ROY	GIN/1740653	NEWGEN SOFTWARE TECHNOLOGIES LTD
16	ASHWINI KUMAR	GEE/1740705	MAHINDRA & MAHINDRA LTD
17	VISHAL JHA	GEE/1830456	MAHINDRA & MAHINDRA LTD
18	KOMAL KUMARI	GEE/1830467	MAHINDRA & MAHINDRA LTD
19	VISHAL KUMAR JHA	GEE/1830456	ALP NISHIKAWA CO. PVT. LTD.
20	BHARAT BHUSHAN	GEE/1830309	ALP NISHIKAWA CO. PVT. LTD.
21	AMARJEET KUMAR	GEE/1740720	DHAMPUR SUGAR MILLS LIMITED
22	KAVITA BHARTI	GIN/1830349	DHAMPUR SUGAR MILLS LIMITED
23	SUSHIL KUMAR	GEE/1740559	L&T TECHNOLOGY SERVICES
24	AMARJEET KUMAR	GEE/1740720	L&T TECHNOLOGY SERVICES
25	ASHISH KUMAR	GEE/1830354	L&T TECHNOLOGY SERVICES
26	PALLAWI KUMARI	GEE/1830443	L&T TECHNOLOGY SERVICES
27	BEAUTY KUMARI SHAH	GEE/1830490	L&T TECHNOLOGY SERVICES
28	SAURABH KUMAR	GIN/1830342	L&T TECHNOLOGY SERVICES
29	SANU KUMAR	GIN/1830345	L&T TECHNOLOGY SERVICES
30	MAN MOHAN	GIN/1830390	L&T TECHNOLOGY SERVICES

25. Recommendations of the Committee during Academic Audit on dated 26.08.2021 are as follows:

Sr. No.	Recommendations	Action taken
1.	The committee pointed out the declining trend of admission in the department of Electrical and Instrumentation Engineering. However during deliberation it was resolved that although the declining trend of admissions is in all the branches still the committee suggested that action plan may be chalked out by analyzing the latest trend of technology and incorporate the latest courses in curriculum in consultation with the industry.	• Syllabus updated for UG (Electrical), UG (Instrumentation) and PG (ICE) courses • Latest subjects added in Professional and Open Elective. • Latest choice-based credit courses are introduced in • UG (Electrical) • UG (Instrumentation) • PG (ICE) • Updation of scheme on regular basis. • New CO, PO, and PSO's has been formulated as per the need of the hour. • NBA Accreditation of both UG (Electrical) and UG (Instrumentation) till 30-06-2024. • Newly established state-of-the-art Lab and upcoming Industry collaborated labs will attract the students in near future. • Preliminary discussion about restructuring of ICD has been done.
2.	Regular Webinars/Seminars/Workshops will be organized keeping in view the prospects of placements of the students. To strengthen the placement of students' emphasis will be laid on strengthening the soft skill part of the student, for this activity professional experts will be invited.	• Tech Saksham workshop was organised in collaboration with Microsoft. • IoT workshop/training organized regularly. • In-house IoT kits developed to impart hands on training to students, the lab was strengthened with consumable components. • 2 weeks and 4 weeks Industrial training was organized for strengthening the technical skills of students. • For industrial exposure, industry visits are being organized regularly (Indian Railways, PEDA, Power Plants).
3.	Committee recommended that Board of Studies (BOS) be conducted regularly with the assistance and active participation of the Core Industry personnel.	• BOS conducted for ICD and UG (Instrumentation and Control Engineering) • BOS conducted for ICD and UG (Electrical Engineering) • BOS conducted for PG(Instrumentation and Control Engineering) • Industry persons and Alumni were special invitee.

4.	Special emphasis will be laid on teaching learning process, and latest contents.	• Department has augmented with smart classrooms. This has increased ICT based teaching learning. This has also increased the understanding of students with interactive visualization. • Using the latest developed labs for student activities such as industrial training, inhouse training.
5.	The committee also suggested that the possibility of Industry collaborated courses will also be explored and added.	• The department has given a thought for Industry co-teaching and started interacting with our established Alumni for this. • 4 weeks Industrial Training was organized by Department of EIE on "PLC in Industrial Automation" • To focus on real life problem of the society and to explore industry collaborated courses, a MOU has been signed between SLIET and Homi Bhabha Cancer Hospital (HBCH Tata Memorial Centre), Sangrur, Punjab to research in the area of cancer detection. • MOU with PGI is in progress.
6.	The committee also suggested that more Research Proposals should be initialed, consultancy must be fetched and significant outcomes of project must be reported.	• One consultancy project in last 3 years (completed). • NASSCOM for Microsoft CSR project on Microsoft Digital Skill Project for the Government Polytechnic girls' students of India 2020 (completed) • Details of ongoing projects • MODROBS-Rural 2020 (11.825 Lakhs) • Nationally Co-ordinated Project on Virtual labs 2020. • Asia-Pacific Network, Japan sponsored Collaborative project under its Capacity Development Programme (CAPaBLE) involving countries Bangladesh, India, Japan, Malaysia, Indonesia, Viet Nam on Knowledge Sharing and Capacity Building Workshops for Precision Agriculture using UAV techniques in South and Southeast Asia for the year 2021-2023. • Homi Bhabha Cancer Hospital and Research Centre (A Unit of Department of Atomic Energy, Govt. of India) sponsored R&D project on Non-Invasive application of Thermal Imaging to Co-relate Clinically Node Positive Head & Neck Cancer for the year

		2021-2023. • *One project has been submitted in BIRAC of Rs 50 Lac.* • *Two Projects submitted in SERB.*
7.	The committee also suggested that there is a need to promote Technologies in Precision Agriculture and encourage the faculty to apply for Research Projects on the above subject and also guide UG PG and Ph.D. students in this field to strengthen the real-life problems faced by farmers.	• Student minor and major projects guided by faculties in "Technologies in Precision Agriculture" is encouraged and increased in number. • Visit in CIPHET was made to increase the project collaboration. • One project has been submitted in BIRAC in collaboration with CIPHET, Ludhiana.
8.	As development of Laboratory is continuous process and Department must upgrade the Laboratories as well as establish new Laboratories as per the newly introduced courses.	• IoT based lab equipments are purchased and developed as a part of setting up a IOT based lab as per the recent trends and requirement of Industry. • New equipments to upgrade the laboratories are installed and used during laboratory classes and other requirements are noted for upgradatation. • Computational Lab is being upgraded.

Achievements of the Department

- All our UG courses are NBA accredited during 2021 up to 30-06-2024
- Externally funded projects are fetched.
- Consultancy Projects are grabbed.
- Two Patents are granted.
- New patents are filed.
- Number of publications and sponsored projects has increased compared to previous years.
- New automation lab is established.
- Lab kits for the IoT base projects have been procured.
- New department building consisting smart classrooms and lab facilities have become functional.
- Completed 2 weeks and 4 weeks industrial training program for UG students. on "IoT" and "PLC in Industrial Automation" for students during summer vacations and help the students to develop their skills in the application of theory to practical knowledge.
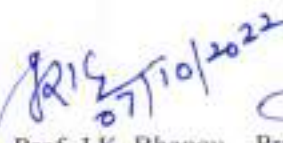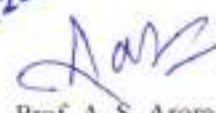
Future Plans

- Industry Collaborated Lab has to be established.
- Idea to Implementation (*i2i*) Lab has been planned.
- ICD restructuring in Process. The Qualification Pack (QP) has been identified in alignment with National Skill Quality Framework (NSQF) and National Education Policy (NEP).

Prof. Ashwani Kumar,   Prof. A. S. Dhaliwal,   Prof. A. P. Singh   Prof. J.K. Bhangu   Prof. A. S. Arora
NIT Kurushetra   Dean R&C   Deptt. of ECE   Deptt. of M&H   Deptt. of EIE

Name & Signature of HOD

Date: 07.10.2022