ANNUAL REPORT

ACADEMIC YEAR 2018-19



NANHI PARI SEEMANT ENGINEERING INSTITUTE,

(Formerly Seemant Institute of Technology)
Pithoragarh – 262502, Uttarakhand
www.sitp.ac.in

CONTENT

S. No.		Page No.
1.	Institute's Basic Information	3
2.	Vision & Mission	4
3.	Information Regarding Affiliating University	4
4.	Information Regarding Academic Autonomy	5
5.	Governance Structure	5-7
6.	Organisation Structure	8
7.	Academic Calendar	9
8.	Infrastructure	10-11
9.	Department's Profile	11-24
10.	Information Regarding NBA Accreditation	24
11.	Programmes Offered	23
12.	Students Strength	25
13.	Faculty & Staff Positions	26-28
14.	Exam result analysis	28-31
15.	Transition rate of 1st year UG students	31
16	CATE qualified students data	31

17.	Training Programmes held for students	31
18.	Training programmes held for teachers & staff	32
19.	Student's internship data	33-35
20.	Campus placement data	35-36
21.	Sponsored R&D projects in- hand	36
22.	Candidate completed/doing PhD	36-38
23.	R&D achievements	38-39
24.	Conferences held	39-40
25.	Consultancy projects in-hand	40
26.	Start-ups and Innovations	40-41
27.	Linkage with industry	41-42
28.	Collaborative activities	42
29.	Curricular achievement & Co-curricular achievement	42
30.	Awards/Prizes won by students, faculty	42
31.	Financial information: Funds Received & Spent	43-44
32.	Internal revenue generated	45

1. <u>INSTITUTE'S BASIC INFORMATION</u>

Nanhi Pari Seemant Engineering Institute, Pithoragarh (Erstwhile Seemant Institute of Technology, Pithoragarh) is constituent institutes of Uttarakhand Technical University, Dehradun, established in 2011 by the Govt. of Uttarakhand to promote the technical education in seemant areas of the state. The institute provides undergraduate education in five disciplines i.e. Computer Science & Engineering, Electronics and Communication Engineering, Mechanical Engineering, Electrical Engineering and Civil Engineering with intake of 60 seats in each branch; fostering spirit of state integration among the students. The vision of the institute is to produce a world class Technocrats and entrepreneurs for the benefit and upliftment of the society. The Pithoragarh town is located at a height of 1645 meters above sea level. The district lies between 29.4° to 30.3° North latitude and 80° to 81° East longitude along the eastern and southern part of the central Himalayas with Indo-Tibbetan watershed divide in the north and the Kali River. Advanced Teaching Methods for the Technology Classroom presents an introduction to teaching educational technology, design, and engineering. It also contains strategies for innovation by examining the what, why, and how of technology education.

How to Reach

By Rail - The two nearest railhead to Pithoragarh are Tanakpur and Haldwani. The distance from Tanakpur Railway Station to Pithoragarh is 138 Km and that from Haldwani is 220 Kms.

By Road - Pithoragarh is well connected by roadways with all major destinations of Uttarakhand. Direct buses are available from ISBT Anand Vihar, New Delhi and ISBT Dehradun

By Air - Naini Saini Airstrip is located in Pithoragarh between two hills Naini and Saini. There is a direct flight from Nani Saini Airstrip to Hindon Airport, Delhi NCR and Jollygrant Airport, Dehradun. The other nearest airport to Pithoragarh is Pantnagar Airport which is situated 214 Kms away from Pithoragarh. Pantnager Airport is well connected by roadways with Pithoragarh.

2. VISION

We dedicate and commit ourselves to achieve, sustain and foster unmatched excellence in technical education. To this end, we will pursue continuous development of infrastructure and enhance state-of-the art equipment to provide our students a technologically up-to-date and intellectually inspiring environment of learning, research, creativity, innovation and professional activity and inculcate in them ethical and moral values.

MISSION

To emerge as a "Centre of Excellence" offering technical education and Research Opportunities of very high standards to students, develop the total personality of the individual, and in still high levels of discipline and strive to set global standards, making our students technologically superior and ethically strong, who in turn shall contribute to the advancement of society and humankind.

3. AFFILIATING UNIVERSITY

The Uttarakhand Technical University, Dehradun was established on 27th January 2005 by Govt. of Uttarakhand through the Uttarakhand Technical University Act 2005. The Uttarakhand Technical University campus is situated at NH-72 Suddhowala, Dehradun. Dehradun is the State capital of Uttarakhand well connected through Rail, Road and Air transport. The University imparts education in Graduate, Post Graduate and Doctorate programmes in various disciplines like Management, Engineering, Hotel Management, Computer Application, Pharmacy etc.

The University is serving the technical education through its progress monitored each semester, part time PhD programme especially designed for the teachers and scientists by giving them opportunity to explore the untouched area of the research. The University in its own campus running M. Tech and M. Pharm Programme in various disciplines. Apart from this University is having 8 Constituent Colleges. Spreading technical education in the remote underprivileged area of Uttarakhand hills.

4. ACADEMIC AUTONOMY

Presently Institute is a Constituent Institute of the Uttarakhand Technical University, Dehradun and follows the Academic Programme and Curricula, Examination Schemes and Academic Calendar as prescribed and duly approved by the University.

5. GOVERNANCE STRUCTURE

There are various committees constructed which take administrative, financial and other decision related to the institution. The description and composition of various committees is as below:

A) Board of Governors and its Composition:

The State Government has constituted BOG of the institute vide GO No. 1036/XLI-1/ 18-93/2017 dated 12.10.2018 to govern and to monitor its activities efficiently.

S.No.	Description	Name	Designation
1	The Chairman of Governing Body shall preferably be a technical person either entrepreneur or an industrialist or an educationist of repute who is interested in development of Technical education and has demonstrated an interest in promotion of quality education. To be appointed by state Govt.	Shri Anil Goel	Chairman
2	Additional Chief Secretary/Principal Secretary /Secretary, Technical Education, Govt. Of Uttarakhand		Vice-Chairman
3	An Eminent academician not belonging to the state to be appointed by the state Government.	Dr D.S. Pundhir	Member
4	An Eminent industrialist from industries located in the state to be nominated by the State Government.	Dr Harish Pant	Member
5	Director Technical, THDC India Ltd.,	Shri K.L. Arora	Member

	Rishikesh/Head Tehri Project		
6	Nominee of the AICTE-Regional Officer(Ex-Officio)	Prof Manoj Duhan	Member
7	An industrialist/technologist/an educationist from the region to be nominated by the concerned regional committee as nominee of the council	-	Member
8	Nominee of Uttarakhand Technical University to be nominated by Vice -Chancellor	Prof N.S. Chaudhary	Member
9	Director Technical Education (Ex-Officio)	Shri Ahmad Iqbal, IAS	Member
10	Director of the respective institute	Prof Ambarish S. Vidyarthi	Member Secretary
11	Two faculty members to be nominated from amongst the regular staff, one at the level of Professor and one at the level of Assistant Professor of the respective institute	-	Member

B) Administrative Committee / Finance Committee / Building and Works Committee:

Administrative Committee, Finance Committee, and Building and Works Committee were constituted in the first meeting of Board of Governors (held on 26/12/2018 at IRDT, Dehardun). The purpose and function of these committees is to monitor institute and its related issues to support BOG. The composition of these committees is as below:

• Administrative Committee

S. No.	Description	Name	Designation
1	Additional Chief Secretary / Principal Secretary / Secretary, Technical Education	Shri. Om Prakash, IAS	Chairman

2	Two external members nominated by Chairman, BOG	1. Prof. S.K. Srivastava 2. Shri. Ajay Goyal	Member
3	Director of the Institute	Prof Ambarish S. Vidyarthi	Member Secretary

• Finance Committee

S. No.	Description	Name	Designation
1	Additional Chief Secretary / Principal Secretary / Secretary, Technical Education	Shri Om Prakash, IAS	Chairman
2	Nominee of Finance Secretary	Shri S. B. Ranjan	Member
3	Nominee of Chairman, BOG	Prof Purnendu Ghosh	Member
4	Director of the Institute	Prof Ambarish S. Vidyarthi	Member
5	Finance Officer of the Institute	-	Member

• Building and Works Committee

S. No.	Description	Name	Designation
1	Director of the Institute	Prof Ambarish S. Vidyarthi	Chairman
2	Two external members nominated by Chairman, BOG	1. Dr. K. K. Pandey 2. Shri Sushil Shorey	Member
3	Registrar/ Dy Registrar of the Institute	Dr Girish Pant	Member Secretary

6. ORGANISATION/ GOVERNING STRUCTURE

The proposal of the creation of organisation/ Governing Structure for the smooth functioning of different financial, administrative and academic issues of the institute was put up in the 5th meeting of Board of Governors (held on 23/12/2019 at IRDT, Dehardun). The process of its approval is pending at the level of State Government. Proposed Organisation/ Governing Structure of the Institute is as below:

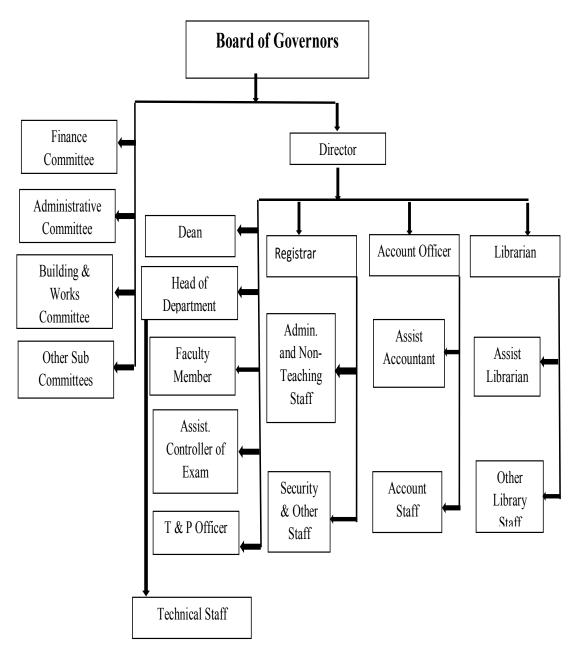


Fig. 1 Organisation/Governing structure of the Institute

ACADEMIC CALENDER 2018-19 7.



Nanhi Pari

Seemant Engineering Institute, Pithoragarh

(Formerly Seemant Institute of Technology, Pithoragarh) (A constituent institute of Uttarakhand Technical University, Dehradun)

G.I.C. Campus, Viklang Bhawan

Distt.- Pithoragarh –262501 (Uttarakhand)

Ph. No. & Fax No. 05964-264060, Website: www.sitp.ac.in

Ref. No.: NPSEIP/ Dir.Office/ Q407/2018

Date: 17 / 07 /2018

ACADEMIC CALENDER 2018-19 (Odd Semester)

Registration & Fee deposit

: 01/08/2018 to 06/08/2018

Commencement of Class Display of Attendance-I Display of Attendance-II

: 02/08/2018 : 03/09/2018 : 20/09/2018

Display of Attendance-III & List of Debarred Students

: 04/10/2018

Class test- I

: 11/10/2018 to 13/10/2018

Display of Marks of Class test-I

: 15/10/2018

Display of Attendance-VI

& List of Debarred Students

: 06/12/2018

Class test- II

: 10/12/2018 to 12/12/2018

Display of Marks of Class test II

: 15/12/2018

Practical Exam (Tentative) Submission of Sessional Marks

(To be announced by UTU, Dehradun)

Theory Exam

(EVEN Semester)*

*The academic calendar of Even semester 2018-2019 will be displayed after completion of Odd semester 2018-2019.

8. <u>INSTITUTE'S INFRASTRUCTURE</u>

(i) Academic:

S.No.	Building Number	Total Built up Area (Sq.M)	Building Status
1	Block-I	2780	Completed
2	Block-II	2540	Construction In Progress
3	Block-III	3365	Construction Work not started yet
4	Block-IV	1890	Construction Work not started yet

(ii) Library:

S. No.	Building Number	Total Built up Area (Sq.M)	Building Status
1.	Library	400	Construction In Progress

(iii) Computer Centre:

S. No.	Building Number	Total Built up Area (Sq.M)	Building Status
1.	Computer Centre	200	Construction In Progress

(iv) Residential:

S. No.	Building Number	Total Built up Area (Sq.M)	Building Status
1.	Director Residence	315	Construction Work not started yet
2.	Guest House	399	Construction Work not started yet
3.	Faculty Residences (Type-II)	586	Construction Work not started yet

(v) Hostels:

S. No.	Building Number	Total Built up Area (Sq.M)	Building Status
1.	Boys Hostel	2460	Construction Work not started yet
2.	Girls Hostel	1954	Construction Work not started yet

9. <u>DEPARTMENTS</u>

The Institute has five departments: the Department of Civil Engineering; the Department of Computer Science and Engineering; the Department of Electronics and Communication Engineering; the Department of Electrical Engineering and the Department of Mechanical Engineering.

A. DEPARTMENT OF CIVIL ENGINEERING

The Department of Civil Engineering at Nanhi Pari Seemant Engg. Institute is widely recognized for its long and prolific history. The department came into its being in 2011 and is as old as the

institute itself. Today the department has reached to a level par excellence by way of contributing to outstanding academics, a rich legacy of alumni and facilitating the basic need of our society through cutting edge research initiative .We prepare our student to conceptualize, plan, design, construct and implement facilities meant for catering societal needs for today and tomorrow and that is how student understand what civil engg.is all about.

Faculty Profile

S.	Name	Qualification	Designation	Specialization
No.				
1.	Mr. Vivek Kumar	M.Tech	Assistant Professor & HOD	Structural Engg.
2.	Miss. Tripti Kumar	M.Tech	Assistant Professor	Soil Mechanics. & Description and Soil Mechanics. & Description and Soil Mechanics. Engg
3.	Mr. Pankaj Kholiya	M.Tech	Assistant Professor (TEQIP-III)	Structural Engg.
4.	Mr. D.S. Garbyal	B.Tech	Lecturer	Transportation Engg.
5.	Mr. Virendra Dattal	B.Tech	Lecturer	Construction Engg.

Department's Infrastructure:

(i) Laboratories - The department has following well developed laboratories:

S. No.	Name of Laboratory
1.	Building Planning and Architecture Lab.
2.	Surveying Lab.
3.	Concrete Lab.
4.	Geology Lab.
5.	Fluid Machines Lab.
6.	Hydraulics & Hydraulics Machine Lab.
7.	Building Material Construction Lab.
8.	Soil Mechanics Lab.
9.	Structural Analysis Lab.
10.	Transportations Lab.
11.	Environmental Lab.
12	Staddpro Lab

B. DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

The department of Computer Science & Engineering at NPSEI Pithoragarh suggests a vivid atmosphere for undergraduate education and research in Computer Science & Engineering. The department has eight faculty members with research interests including a wide range of subcategory of Computer Science & Engineering. Cooperation with faculty members from further streams from within and outside the engineering college is fortified. The research actions of the department include basic research, sponsored and consultancy programs, and are approved with lively contribution of the pupil, teachers, and workforce and research technocrats. The department has specialization in research areas such as: cloud computing, artificial intelligence, big data, and ICT. The department faculties have quite a lot of publications to their esteems. Over the year the graduating pupils have gone on to engage the important status in learning, science and industry and government administration, in India and abroad.

In Upcoming time, the department plans to spread its research into newer areas, like, deep learning, green computing, grid computing, IOT in science & technology etc.

Faculty Profile

S. No.	Name	Qualification	Designation	Specialization
1.	Mrs. Jyoti Joshi Bisht	M.Tech	Assistant Professor	Artificial Intelligence
2.	Mr. Mohd. Mursleen	M.Tech, Ph.D Pursuing	Assistant Professor	ІоТ
3.	Dr. Naveen Chandra	Ph.D	Assistant Professor (TEQIP-III)	Image Processing
4.	Mr. Dinesh Negi	M.Tech	Assistant Professor	Database

5.	Mr. Hemant Kumar	M.Tech, Ph.D Pursuing	Assistant Professor	Cryptography
6.	Mrs. Himadri Vaidhya	M.Tech	Assistant Professor (TEQIP-III)	Digital Image Processing
7.	Mr. Yogesh Kothari	MCA, Ph.D Pursuing	System Manager	Cloud Computing
8.	Dr. Puneet Chandra Verma	MCA, Ph.D	Programmer	E-governance, ICT, IoT

Department's Infrastructure

(i) Laboratories - The department has following well developed laboratories:

S. No.	Name of Laboratory
1.	IoT Lab.
2.	Computer Centre Hall.

C. DEPARTMENT OF ELECTRICAL ENGINEERING

The Department of Electrical Engineering at NPSEI Pithoragarh offers a vibrant environment for undergraduate education and research in Electrical Engineering. The department has seven faculty members with research interests encompassing a wide gamut of sub-disciplines of electrical engineering. Collaboration with faculty members from other disciplines from within and outside the institute is encouraged. The research activities of the department include fundamental research, sponsored and consultancy projects, and are carried out with active

participation of the students, faculties, staff and research engineers. The department has specialization in research areas such as: control system, power system, power quality, and power electronics. The department faculties have several publications to their credits. Over the year the graduating students have gone on to occupy the key positions in education, science and industry and government administration, in India and abroad.

Faculty Profile

S.	Name	Qualification	Designation	Specialization
No.				
1.	Mr. Akhilesh Singh	M.Tech, Ph.D Pursuing	Assistant Professor & HOD	Control System
2.	Ms. Reena Pandey	M. Tech	Assistant Professor	Electrical Machines
3.	Mrs. Pranjali Bafila	M.Tech, Ph.D Pursuing	Assistant Professor	Power System
4.	Mrs. Reena Attri	M.Tech	Assistant Professor	Control System
5.	Mr. Pankaj Bisht	M. Tech	Assistant Professor	Power System
6.	Dr. Pretty N. Topno	Ph.D	Assistant Professor (TEQIP-III)	Control System
7.	Mr. Apoorv Ravi Pandey	M.Tech	Assistant Professor (TEQIP-III)	Power System

Department's Infrastructure

(i) Laboratories - The department has following well developed laboratories:

S. No.	Name of Laboratory
1.	Basic Electrical Engineering
2.	Network Analysis Lab
3.	Measurement and Instrumentation Lab
4.	Applied Electronic Instrumentation Lab
5.	Control System Lab
6.	Electrical Machine Lab
<mark>7.</mark>	Power System Lab
8.	Power Electronics Lab
9.	Departmental Simulation Lab

D. DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

The Electronics and Communication Engineering (ECE) Department has a rich tradition in research and teaching. From the very inception, this department has established itself as an efficient, self reliant and quality conscious entity with the sole aim of producing the most energetic, enthusiastic and professionally competent Electronic Engineers with ability to take up the challenges posed to them. To fulfill this dream, the department is manned by a group of well qualified, conscientious and dedicated faculty and technical staff. The salient aspects of the department such as facilities available, achievements, students forum etc are brought out in the succeeding sections.

Electronics & Communication Engineering deals with the electronic devices, circuits, communication equipment's like transmitter, receiver, integrated circuits (IC). It also deals with basic electronics, analog and digital transmission & reception of data, voice and video (Example AM, FM, DTH), microprocessors, satellite communication, microwave engineering, antennae and wave progression. It aims to deepen the knowledge and skills of the students on the basic concepts and theories that will equip them in their professional work involving analysis, systems implementation, operation, production, and maintenance of the various applications in the field of Electronics and Communications Engineering.

Faculty Profile

S. No.	Name	Qualification	Designation	Specialization
1.	Mr. Devendra Giri	M.Tech, Ph.D Pursuing	Assistant Professor & HOD	VLSI
2.	Mr. Sumit Joshi	M.Tech, Ph.D Pursuing	Assistant Professor	Digital Communication & MBA(HR)
3.	Miss. Geeta Dhyani	M.Tech	Assistant Professor	Communication Systems
4.	Mr. Lalit Kumar	M.Tech, Ph.D Pursuing	Assistant Professor	Antenna
5.	Mr. Manish Parmar	M. Tech	Assistant Professor	VLSI
6.	Mr. K A Gururaj	M.Tech	Assistant Professor (TEQIP-III)	Microelectronics & VLSI
7.	Mr. Lalit Mohan Goswami	M.Tech	Assistant Professor (TEQIP-III)	Microelectronics & VLSI

Department's Infrastructure

(i) Laboratories - The department has following well developed laboratories:

S. No.	Name of Laboratory
1.	Robotics Lab
2.	Antenna and wave propagation Lab
3.	Embedded systems lab
4.	CAD lab
5.	Digital electronics Lab
6.	Microprocessor Lab
<mark>7.</mark>	Analog Circuits & Analog Integrated circuits Lab
8.	Microwind Software lab &Mentor DSP software lab

E. DEPARTMENT OF MECHANICAL ENGINEERING

The Department of Mechanical Engineering from the day of its inception, has been taking long strides in the field of science and Engineering. One of the active departments which anticipated the rapid developments in technology and software and provided the most sophisticated laboratory facilities & excellent infrastructure. At present the department offers undergraduate program in Mechanical Engineering affiliated under Uttarakhand technical university Dehradun. The present intake for the graduate program is 60 students.

The strength of the department lies in potential of the students, commitment of the faculty and developed facilities in the area of Advanced /non-traditional machining processes, Micromanufacturing, CAD/CAM, MEMS, Design and Manufacturing, Composites, Bio-materials,

Modelling and Computation in heat transfer, Internal combustion engines, Nano fluids, Mechanical Vibration and so on.

This department has well equipped laboratories and highly qualified faculty. In addition, guest faculty is being invited from other institutions and industry to share their experiences and teach specialized topics in different subjects. The laboratories are being constantly upgraded. The graduates of this department have always been well received by the industry.

Faculty Profile

S. No.	Name	Qualification	Designation	Specialization
1.	Mr. Devnidhi Bisht	M. Tech	Assistant Professor & HOD	Industrial material and metallurgy
2.	Mr. Bhupendra kumar Bharti	M. Tech, Ph.D Pursuing	Assistant Professor	Thermal Engineering
3.	Mr. Kundan Singh Deshwal	M. Tech	Assistant Professor	Thermal Engineering
4.	Mr. Nitesh Verma	M. Tech	Assistant Professor	Thermal Engineering
5.	Mrs. Taru Mahra	M. Tech	Assistant Professor	Thermal Engineering
6.	Mr. Sachin Gupta	M. Tech	Assistant Professor	Thermal Engineering
7.	Mr. Munna Singh	M. Tech	Assistant Professor	Production Engineering

Department's Infrastructure

(i) Laboratories - The department has following well developed laboratories:

S. No.	Name of Laboratory
1.	Automobile Lab
2.	Computer aided design lab with latest software
3.	Refrigeration and Air –condition Lab
4.	Heat and Mass Transfer Lab
5.	Fluid Mechanics Lab
6.	Dynamics of machine lab /Theory of Machine lab
7.	Manufacturing science lab
8.	Thermodynamics lab
9.	Strength of material Lab
10.	Material Science
11.	MMC Lab
12.	Engineering Drawing (ED) lab
13.	Basic of mechanical Lab
Ī	

(ii) Workshop - Workshop is the central facility for imparting training to the students of all branches of 1st Year B. Tech in various shops. Students of all branches use workshop facilities for fabrication of their minor and major projects. Central workshop comprises of following shops:

S. No.	Workshops
1.	Machine shop
2.	Fitting shop
3.	Welding shop
4.	Sheet metal shop
5.	Carpentry shop
6.	Smithy shop
7.	Foundry shop

F. DEPARTMENT OF APPLIED SCIENCES

The Department of Applied Science and Humanities, NPSEI Pithoragarh was established in November 04, 2011 with a view of developing teaching and research in Basic Sciences and interdisciplinary areas. The department endeavours to produce confident professionals tuned to real time working environment. The department offers excellent academic environment with a team of highly qualified faculty members to inspire the students to develop their technical skills and inculcate the spirit of team work in them. The department is actively engaged in emerging thrust areas in today's perspective. The department strictly follows AICTE approved course

curriculum in all subjects. Apart from academics, department extends active support in administrative assignments for smooth functioning of institute.

Faculty Profile

S. No.	Name	Qualification	Designation	Specialization
1.	Dr. Bhagawati Prasad Joshi	Ph. D	Assistant Professor & HOD	Fuzzy set theory, Computational Mathematics and MCDM problems under uncertain environment
2.	Dr. Chandra Mohan Singh Negi	Ph. D	Assistant Professor	Astrophysics
3.	Dr Girish Pant	Ph. D	Assistant Professor	English literature
4.	Dr. Savita Patni	Ph. D	Assistant Professor	Differential geometry
5.	Dr. Hemant Kumar Joshi	Ph. D	Assistant Professor	Hydrology, Hydro geochemistry, , bioremediation and Physical Chemistry
6.	Dr. Kailash Chandra Das	Ph. D	Assistant Professor (TEQIP-III)	High-k thin films, Memristor, Nanowire based devices
7.	Dr. Anvita Srivastava	Ph. D	Assistant Professor (TEQIP-III)	Synthetic organic chemistry

Department's Infrastructure

(i) Laboratories - The department has following well developed laboratories:

S. No.	Name of Laboratory
1.	Engineering physics laboratory
2.	Engineering chemistry laboratory
3.	Language laboratories

10. NBA ACCREDITATION

The Institute offers five AICTE approved engineering courses namely; B. Tech in Civil Engineering, B. Tech in Computer Science and Engineering, B. Tech in Electrical Engineering, B. Tech in Electronics and Communication Engineering and B. Tech in Mechanical Engineering. The Institute has also been inspired to apply for the accreditation through NBA/NAAC.

11. PROGRAMMES OFFERED

Institute offers only Under Graduate courses. The details of Under Graduate courses are as follows:

- 1. B. Tech. in Civil Engineering
- 2. B. Tech. in Computer Science and Engineering
- 3. B. Tech. in Electrical Engineering
- 4. B. Tech. in Electronics and Communication Engineering
- 5. B. Tech. in Mechanical Engineering

12. STUDENT'S STRENGTH

The sanctioned intake of students and actual intake of students in the Institute, category wise and gender wise for the academic year 2018-19 is given below:

(i) Sanctioned Intake of students

S. No	Branch	Sanctioned Intake of students
1.	B. Tech. in Civil Engineering	60
2.	B. Tech. in Computer Science & Engineering	60
3.	B. Tech. in Electrical Engineering	60
4.	B. Tech. in Electronics & Communication Engineering	60
5.	B. Tech. in Mechanical Engineering	60

(ii) Total Actual Intake of students

S.	Branch	General	OBC	SC	ST	Male	Female
No							
1.	Civil Engineering	94	36	38	11	147	32
2.	Computer Science & Engineering	126	19	16	02	129	34
3.	Electrical Engineering	36	14	10	02	56	06
4.	Electronics & Communication Engineering	22	05	05	01	29	04
5.	Mechanical Engineering	69	16	11	05	93	08

13. FACULTY AND STAFF POSITIONS

(i) Sanctioned Intake

The Government of Uttarakhand has sanctioned 80 academic posts (Professor-08, Associate Prof.-16 and Assistant Prof.-56). 33 other academic and administrative pots including Director, Dy. Registrar, Librarian and Accountant vide GO. No. 43/XLI-1/13-81/2010 Date 10 January 2013. These posts were subsequently revived on 17.09.2019 and 09.06.2020. In absence of approval of University Regulations and bye-laws of the Institute by the State Government, the regular selection of the faculty and other staff could not be conducted. However the contractual appointment of faculty and staff through outsourcing has been made to execute teaching learning process.

(ii) Actual filled (Regular and contract)

Around 46 faculty positions were filled up against sanction post in the institute through selection process conducted by Uttarakhand Technical University. Twenty Four staff positions were filled up against sanctioned post through outsourcing and on contractual basis.

Details of filled vacancy (Teachers on contractual basis) against sanctioned post.

S.No.	Designation	No. of sanctioned post	Regular Appointment	No. of vacant Regular Post	No. of vacancy filled on contractual basis
1.	Director	01	01	NIL	-
2.	Professor	08	NIL	08	NIL
3.	Associate Prof.	16	NIL	16	NIL

4.	Assistant Prof.	56	NIL	56	46 including 9 TEQIP
					faculty
	Total	81	NIL	80	46

Details of filled vacancy (Non-Teaching staff on contractual/ Outsource basis) against sanctioned post.

S. No.	Designation	No. of	Regular	No. of	No. of filled
		sanctioned	Appointment	vacant	vacancy (on
		post		Regular Post	contractual
					basis) against
					sanctioned post
1.	Dy. Registrar	01	NIL	01	NIL
2.	System Admin.	01	NIL	01	NIL
3.	System Manager	01	NIL	01	01
4.	Librarian	01	NIL	01	NIL
5.	Assistant. Librarian	01	NIL	01	01
6.	Programmer	01	NIL	01	01
7.	Personal Assistant	01	NIL	01	01
8.	Steno	01	NIL	01	01
9.	Assistant Accountant	02	NIL	02	01
10.	Kanistha Shahayak	04	NIL	04	02
11.	Lab Assistant	10	NIL	10	08

12.	Typist	02	NIL	02	NIL
13.	Attendant	06	NIL	06	06
14.	Driver	0	NIL	0	02
	Total	33	01	32	24

• As per requirement two drivers has been appointed from outsource against the sanctioned post of Lab Assistant.

14. EXAM RESULT AND ANALYSIS

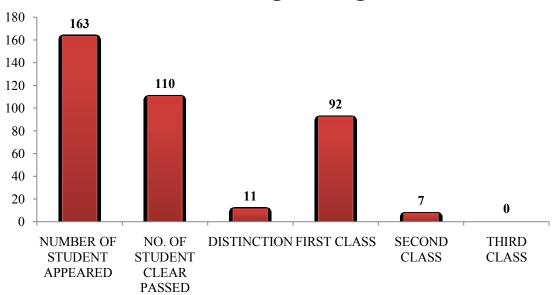
Examination - As per scheme of the examination, Institute is organizing examination in two parts – Theory and Practical. The medium of examination is English. The students are required to fill up their Examination Forms along with examination fees. Examinations are held at the end of every semester.

Evaluation - The Evaluation System for 4-year (8 semesters) B.Tech. Degree Course at this Institute is being followed in terms of marks as followed by Uttarakhand Technological University, Dehradun to which this Institute is affiliated. In all 8 semesters, the awarded marks are evaluated using percentage system as given below.

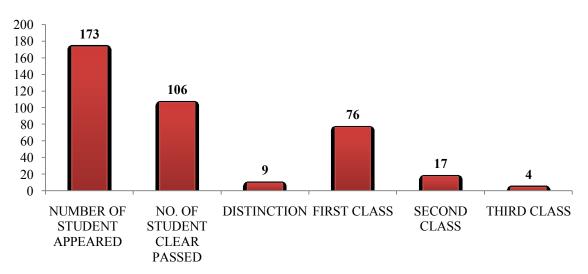
S. No.	Marks Obtained	Result/Division
1.	60% and above	1 st Division
2.	50% and above but less than 60%	2 nd Division
3.	40% and above but less than 50%	3 rd Division

The department-wise results for the academic year 2018-19 are shown below:

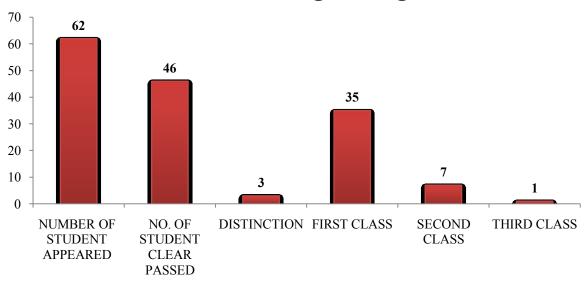
Civil Engineering



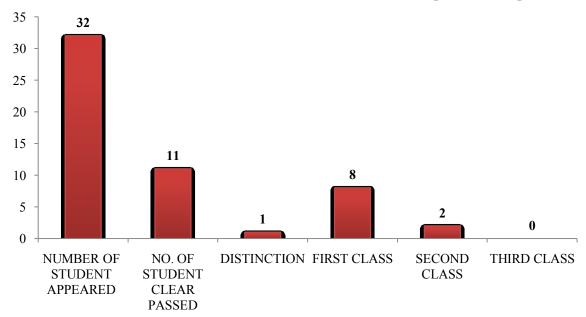
Computer Science and Engineering



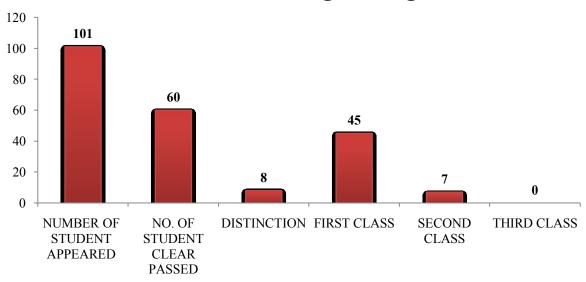
Electrical Engineering



Electronics and Communication Engineering



Mechanical Engineering



15. TRANSITION RATE

Transition rate of first year students for academic year 2018-19 was 100%.

16. GATE QUALIFIED STUDENT'S DATA

In the academic year 2018-19, two students from the Institute qualified the Graduate Aptitude Test. The details of the students are given below:

S. No	Name	Department	Registration	GATE-2019
				Score
1.	Deepak Tamta	Civil Engineering	CE19S78015087	435
2.	Manish Devrari	Civil Engineering	CE19S78011114	360

17. TRAINING PROGRAMMES HELD FOR STUDENTS

In the academic year 2018-19, no training programmes for the students were held in the Institute.

18. TRAINING PROGRAMMES HELD FOR TEACHER AND STAFF

In the academic year 2018-19, no training programmes for the teacher and staff were held in the Institute. However, the faculties have attended training programmes sponsored by TEQIP-III in other Institute. The details are given below:

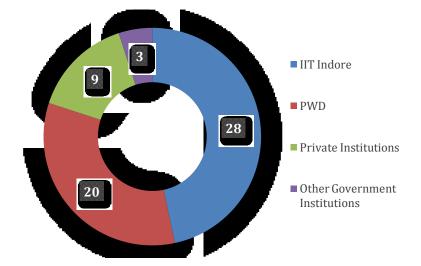
S. No.	Name of the	Event	No. of	Duration
	Institute		Faculties	
1.	IIT Roorkee	ICGCE-2018	1	4-4-2018 to 7-4-2018
		Conference		
2.	NSIT Delhi	SIGMA 2018	2	22-2-2018 to 27-2-2018
		Conference		
3.	IIM Indore	PDT	1	26-1-2018 to 4-2-2018
4.	NPIU Delhi	Meeting at NPIU	2	24-5-2018 to 27-5-2018
		office		
5.	At Gangtok by ESCI	Advance Pedagogy	5	19-6-2018 to 27-6-2018
	Hyderabad	and management		
		capacity building		
6.	ABES Ghaziabad	FDP	1	2-6-2018 to 12-6-2018
7.	NITTTR	Skill development	2	23-7-2018 to27-7-2018
	Chandigarh			
8.	IIT Kharagpur	Faculty Induction	41	3-7-2018 to 7-7-2018
		Program		
9.	TECH Pune	Equate Training	2	26-6-2018 to 1-7-2018
10.	IIT Indore	Faculty induction	7	24-6-2019 to 28-6-2019
		Training		
11.	IIT Kharagpur	Faculty induction	1	1-7-2019 to 5-8-2019
		Training		

19. STUDENTS INTERNSHIP DATA

All students were regularly informed about Training Opportunities and their importance in technical fields. Students were encouraged to undergo project based internships to acquire required skills in their domains.

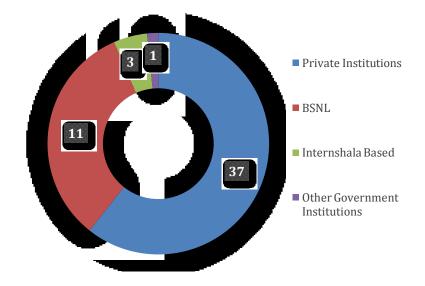
1. Civil Engineering

IIT Indore	28
PWD	20
Private Institutions	09
Other Government Institutions	03



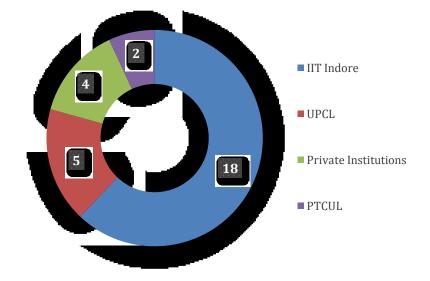
2. Computer Science and Engineering

Private Institutions	37
BSNL	11
Internshala Based	03
Other Government Institutions	01



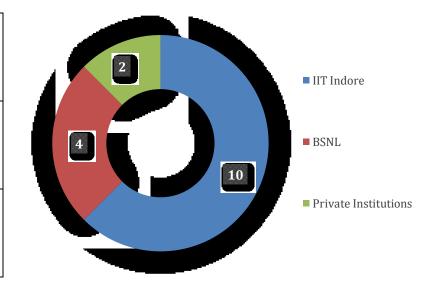
3. Electrical Engineering

IIT Indore	18
UPCL	05
Private Institutions	04
PTCUL	02



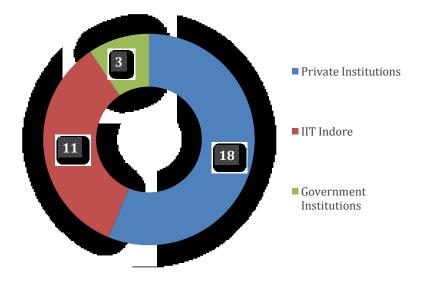
4. Electronics and Communication Engineering

IIT Indore	10
BSNL	04
Private Institutions	02



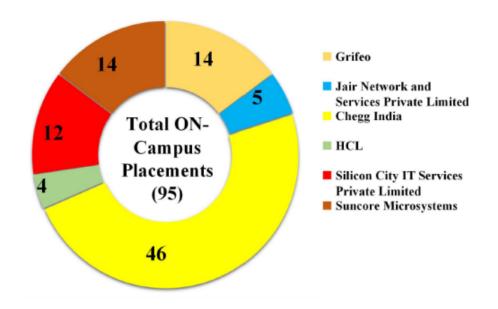
5. Mechanical Engineering

Private Institutions	18
IIT Indore	11
Government Institutions	03

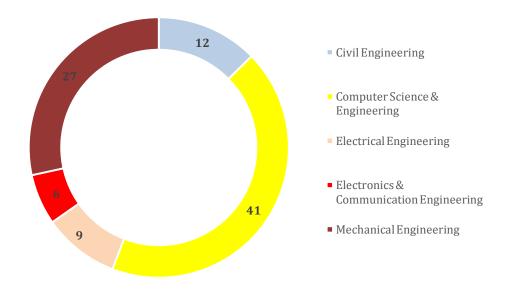


20. CAMPUS PLACEMENT DATA

Total 95 student got placement in reputed companies in different placement drives from both fourth and third year.



BRANCH-WISE DATA



21. SPONSORED R&D PROJECT IN-HAND

In the academic year 2018-19, there were no sponsored R&D projects in the Institute.

22. CANDIDATE COMPLETED/DOING PhD

The faculties of the Institute have been enrolled in the PhD programmes offered by other Institute/Universities. The details are as follows:

S.	Name of Candidate	Date of Registration	Topic of	Affiliating
No.			Research	Institute/University
1.	Pranjali Bafila	18/08/2015	Power quality	Uttarakhand
			improvement in	Technical
			low voltage	University,
			distribution by	Dehradun
			optimal	
			placement of	
			DSTATCOM and	

			DVR	
2.	Lalit Kumar	04/07/ 2016	Microstrip	Uttarakhand
			Antenna	Technical
				University,
				Dehradun
3.	Akhilesh Singh	2016	Multiarea AGC	Uttarakhand
			scheme using	Technical
			policy iteration	University
			based adaptive	Dehradun
			optimal	
			controller	
4.	Bhupender Kumar	11/09/2017	Numerical	Uttarakhand
	Bharti		Analysis and	Technical
			Parametric	University
			studies of mixed	Dehradun
			convection in a	
			skived heat sinks	
			with perforated	
			and non-	
			perforated fin	
5.	Sumit Joshi	July 2017	Qos Assessment	Uttarakhand
			Based On Path-	Technical
			Loss Model	University
			Prediction For	Dehradun
			Sub-Urban	
			&Amp Rural	
			Areas In	
			Pithoragarh City	
			Using Fuzzy	
			Logic	
5.	DevendraGiri	August 2018	Reliable	Uttarakhand

	Cooperative	Technical
	Spectrum	University,
	Sensing	Dehradun
	techniques For	
	Wireless	
	Regional Area	
	Networks	
	(WRANs)	

23. R&D ACHIEVEMENTS

R&D achievements were made through publications during academic year 2018-19. The details are as follow:

- 1) Bhagawati Prasad Joshi and Sanjay Kumar, An Improved Intuitionistic Fuzzy Choquet Integral Operator for Multi-criteria Decision-making Problems. SRMS Journal of Mathematical Sciences, Vol.:4(1), pp: 09-19, 2018. DOI: http://dx.doi.org/10.29218/srmsjoms.v4i01.15907. ISSN: 2394-725X.
- **2)** Bhagawati Prasad Joshi, Akhilesh Singh, Pradeep Kumar Bhatt and Kunwar Singh Vaisla, Interval Value d*q*-Rung Ortho pair Fuzzy Sets and their Properties. *Journal of Intelligent and Fuzzy Systems, Vol.*:35(5), pp:5225-5230, 2018. DOI:10.3233/JIFS-169806. ISSN 1875-8967. (Impact Factor: 1.637)
- 3) Bhagawati Prasad Joshi, Abhay Kumar, Akhilesh Singh, Pradeep Kumar Bhatt and Bhupender Kumar Bhatti, Intuitionistic fuzzy parameterized fuzzy soft set theory and its application. *Journal of Intelligent and Fuzzy Systems*, Vol.:35(5), pp: 5217-5223, 2018. DOI:10.3233/JIFS-169805.ISSN 1875-8967. (Impact Factor: 1.637)
- **4)** Akhilesh Singh, Nagendra Kumar, Bhagawati Prasad Joshi and Bijay Kumar Singh, Load frequency control with time delay in restructured environment. *Journal of Intelligent and Fuzzy Systems*, Vol.:35(5), pp: 4945-4951, 2018. DOI:10.3233/JIFS-169778. ISSN 1875-8967. (Impact Factor: 1.637)
- 5) Akhilesh Singh, Nagendra Kumar, Bhagawati Prasad Joshi and Kunwar Singh Vaisla, AGC using adaptive optimal control approach in restructured power system. *Journal of Intelligent and Fuzzy Systems*, Vol.:35(5), pp: 4953-4962, 2018. DOI:10.3233/JIFS-169779. ISSN 1875-8967. (Impact Factor: 1.637)
- 6) Bijay Kumar Singh, Nagendra Kumar, Akhilesh Singh and Bhagawati Prasad Joshi, BBBC based frequency controller for hybrid power system. *Journal of Intelligent and*

- Fuzzy Systems, Vol.: 35(5), pp: 5063-5070, 2018. DOI:10.3233/JIFS-169790. ISSN 1875-8967. (Impact Factor: 1.637)
- 7) Bhagawati Prasad Joshi, Moderator intuitionistic fuzzy sets with applications in multi-criteria decision-making. Granular Computing.Vol. 3, 61–73. 2018. (Springer).DOI: 10.1007/s41066-017-0056-3. ISSN 2364-4966.
- 8) Bhagawati Prasad Joshi and Akhilesh Singh, Multi-criteria decision-making approach based on moderator intuitionistic fuzzy hybrid aggregation operators. Advanced Fuzzy Logic Approaches in Engineering Science, pp. 237-251. DOI: 10.4018/978-1-5225-5709-8.ch011(2019) (Publication-IGI Global)
- 9) Bhagawati Prasad Joshi and Abhay Kumar, New Einstein Hybrid Aggregation operators for Intuitionistic Fuzzy Sets and Applications in Multi-Criteria Decision-Making. Advanced Fuzzy Logic Approaches in Engineering Science, pp. 252-283. DOI:10.4018/978-1-5225-5709-8.ch012. 2019 (Publication-IGI Global)
- **10)** S. P. Ghosh, B. Das, K. C. Das, N. Tripathy, G. Bose, T. I. Lee, J. M. Myoung, and J. P. Kar, Limited volume heating method: a simple low cost approach to synthesize additive free long nanowires, Materials Science: Materials in Electronics 30 (2019) 5065–5073.
- **11)** N. Tripathy, K. C. Das, S. P. Ghosh, D. Pradhan and J. P. Kar, Impact of post-deposition annealing on RF sputtered calcium copper titanate thin film for memory application, Material Research Express 5 (2018) 074001.

24. <u>CONFERENCES HELD</u>

The International Conference "New Technological Opportunities in Networking and Sciences" (NEWTONS) was held on June 8-10, 2018, which was organized by Department of Electrical engineering, NPSEI, Pithoragarh, Uttarakhand and sponsored by TEQIP-III. In Academic and Research point of view this conference was very useful to the Research scholars, faculties, Industrial persons etc. as it covers the following domains:

- 1. Industrial engineering, Materials and Manufacturing Human Factors and Safety Engineering
- 2. Mechanical, Mechatronics and Civil Engineering.
- 3. Food, Chemical and Agricultural Engineering.
- 4. Telecommunication, Computer science, instrumentation and Control, Electrical and Electronics Engineering.
- 5. Advancement in Applied science and Computing.

Around 173 research papers were received in this conference from different parts of states and countries out of which 50 approx. research papers were accepted.

These papers were published in following journals:

Scopus Indexed Journal: International Journal of Pure and Applied Mathematics (IJPAM) and International Journal Of Engineering and Technology,

UGC approved Journals: International Journal for Research in Applied Science and Engineering Technology, International Journal on Future Revolution in Computer Science & Communication Engineering.

Inderscience Journal: International Journal of Intelligent Systems Design and Computing.

25. CONSULTANCY PROJECTS IN-HAND

In the academic year 2018-19, there were no consultancy projects in the Institute.

26. START-UPs AND INNOVATIONS

The aim of Start-up cell at NPSEI, Pithoragarh is to develop and strengthen entrepreneurial qualities in the budding professionals who are interested in starting their own ventures. The college provides infrastructural and technical support to the students having innovative ideas to transform into new products and services for the betterment of the society.

Start up cell is constituted in the college with a dedicated team of actively working faculty from each department who has an industry exposure along with some student representatives. Students are groomed with the necessary inputs on how to be a successful entrepreneur through workshops and seminars by eminent people from the industry. The cell also organizes different activities from time to time to train and motivate the students on entrepreneurship.

The activities and projects (under process) executed during session 2018-19 are as follows:

1. A team of 4 students are working on a project "CHAARPAHIYA" for which Start-up cell has provided initial seed money of Rs. 5000 for App development, a server room with computers, printer, internet facility and other required infrastructure. These students submit monthly progress report of their project to the start-up cell.

- 2. Many innovative ideas and projects of students are under budget consideration. 5 students of final year were working on their major project titled "COMPRESSED STABILIZED EARTH BLOCKS" and objective was to make cost-effective and eco-friendly bricks as compared to ordinary bricks. They had submitted the complete Start-up proposal and provided the detailed fund requirement for the project.
- 3. A visit was conducted from Edge FX Hyderabad during 19-20 Nov'2019. Mr. Tarun Aggarwal gave demonstration to B. Tech 2nd year, 3rds year and 4th year students on STEM Tinkering and Innovation Center.

27. LINKAGE WITH INDUSTRY

A strong Institute-Industry linkage is required to bring out the skilled and efficient manpower. Therefore, the Institute has established MOU with various industries to benefit the students. The details are as follows:

- 1. MOU with HireMee with the purpose of mutual cooperation for helping in understanding the gap in employability skills of the students through assessments and placement support to college.
- MOU with C-Core India Technosolution Pvt. Ltd. with the purpose of placement along
 with collaboration in sharing of information and technology to develop the required
 industrial skills among students.
- 3. MOU with Triedge Solutions Pvt. Ltd. with the purpose of placement related opportunities for the students.
- 4. MOU with APEX with the purpose of training of students in CAD and related internship and placement opportunities.
- 5. MOU with ACE International with the purpose of placement consultancy.
- 6. MOU with Solutions 3D with the purpose of placement, internship and skills-requirement gap fulfillment.

- 7. MOU with Solutions Complete Sourcing Hul Pvt. Ltd. with the purpose of placement, internship, industrial visit, and mock interviews.
- 8. MOU with Care4Careers Consulting with the purpose of sharing industrial knowledge and bridging the skills gap.

28. COLLABORATIVE ACITIVITY

In the academic year 2018-19, following collaborative activities were held in the Institute:

- 1. Swachh Bharat Abhiyan, a cleanliness awareness program was organized on 2nd October 2018, in collaboration with Pithoragarh Police.
- 2. Team Sparta of the Institute has collaborated with District Hospital Pithoragarh in conducting a blood donation camp during mid February 2019.
- 3. A De-addiction (Nasha Mukti Campaign) program and an election awareness program were organized in collaboration with District Magistrate office Pithoragarh.

29. <u>CURRICULAR ACTIVITIES & CO-CURRICULAR</u> <u>ACHIEVEMENTS</u>

In the academic year 2018-19, a team of students from the Department of Electrical and Mechanical Engineering designed an Electric Racing Vehicle and participated in a National Level Event "Formula Green" held on January 22nd - 27th, 2019.

The Department of Electrical Engineering, conducted 2-days Olympiad on "Maths, Science and Reasoning" on August 16th and 17th 2018 for Intermediate Level Students to instill the interest and knowledge of Technology among them.

30. AWARDS, PRIZES WON BY STUDENTS & FACULTIES

Student participated in **Quad Bike Design Challenge** dated on 14th -18th March 2019 organized by Futurity of Mechanical and Automobile Engineering (FMA) at Hyderabad.

No of student participated -12 (IV, III and II year)

Position - 4th

31. FINANCIAL INFORMATION FUND RECEIVED & SPENT

(i) The details of funds received and spent by the Institute in financial year 2018-19 are presented as below:

Income			Expenditure		
Code No.	Head	Actual Income	Code No.	Head	Actual Expenditure
51	Income From Interest	100033.00	1	Expenditure on Salary/allowances	27220058.00
52	Development Fee Received from Collage	14500.00	2	Office Expenditure	1035118.90
53	Security/Deposits	578357.00	3	Stationary and question Papers related to Exam	56307.00
54	Income From Research Students	-	4	Expenditure on Exam Conduction	3407997.00
55	Students Welfare Fee	-	5	Expenditure on Evaluation	2375000.00
56	Affiliation Fee	-	6	Expenditure on development head	654094.00
57	Income From University Exam	1024091.00	7	Expenditure on Travel	116320
58	University Fee	30296900.00	8	Expenditure on Hospitality	142790.00
59	Other Income	886827.00	9	Rent/Tax	734833.00

60	Sequential M.Tech./M.Tech. Programme	-	10	Purchasing and Maintenance of Vehicle	1897781.00
61	M.Pharm. Programme	-	11	Purchasing of Equipments and Maintenance	168210.00
62	Grant from State Govt.	-	12	Land/Building/Road and Maintenance	78156.00
63	Income From Entrance Exam (U.T.U)	49000.00	13	Student/Welfare	-
64	Departmental Entrance Exam	-	14	Industrial Purpose of Students	-
65	Training & Placement	-	15	Training & Placement	-
66	Financial Support from Uttarakhand Govt.	-	16	M.Pharm. Programme	-
		-	17	Expenditure on Entrance Exam	-
		-	18	Expenditure on Research Students	-
		-	19	Departmental Entrance Exam	-
		-	20	Refund of Fee	899030.00
	Total 51 To 66	32949708.00		Total 1 To 20	38785694.90

(ii) The details of the TEQIP-III project funds allocated and expenditure for quarter 1-quarter 4 (2018-2019) are summarized below:

Month	Total Funds allocated /Project Life Allocation (PLA) in Q1 (in Rs.)	Exp. (in Rs.)	Total Cumulative Exp. (in Rs.)	Payments Under processing (in Rs.)	Total Advance (in Rs.)	Balance Funds allocated/Project Life allocation (PLA) (in Rs.)
April	38,342,000.00	6,410,577.00	12,459,997.00	39,745,957.00	0.00	25,882,003.00
May	38,342,000.00	3,381,670.00	12,459,997.00	0.00	390,000.00	25,882,003.00
June	38,342,000.00	2,667,750.00	12,459,997.00	750.00	0.00	25,881,253.00
July	36,937,804.00	9,540,483.00	27,210,708.00	0.00	0.00	9,727,096.00
August	36,937,804.00	8,640,679.00	27,210,708.00	30,000.00	10,000.00	9,697,096.00
September	36,937,804.00	9,029,546.00	39,745,957.00	0.00	104,500.00	9,727,096.00
October	1,811,227.00	55,774.00	1,802,227.00	0.00	0.00	9,000.00
November	1,811,227.00	145,969.00	1,802,227.00	2,700.00	0.00	6,300.00
December	1,811,227.00	160,484.00	1,802,227.00	0.00	150,000.00	9,000.00
January	15,283,333.00	0.00	5,844,735.00	0.00	0.00	9,438,598.00
February	15,283,333.00	2,014,644.00	5,844,735.00	2,700.00	165,000.00	9,435,898.00
March	15,283,333.00	4,058,525.00	6,073,169.00	0.00	110,000.00	9,210,164.00

32. <u>INTERNAL REVENUE GENERATED</u>

In the financial year 2018-19, no internal revenue has been generated by any department or section of the Institute.