



# ANNUAL REPORT 2019-20

# **Annual Report 2019-20**

**National Institute of Technology, Uttarakhand**

## ANNUAL REPORT 2019-20

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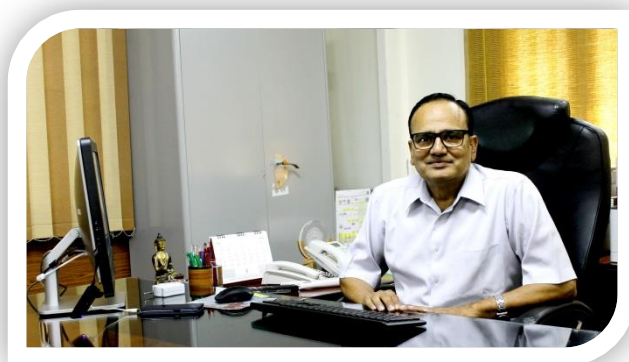
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***From The Director's Office.....✍***

It is a matter of immense pleasure for me to present the Annual Report and the Audited statement of Accounts of National Institute of Technology, Uttarakhand for the year 2019-2020 with the noteworthy achievements of the Institute during the year. This year holds



special significance in the history of the Institute due to multifarious activities, initiatives and accomplishments in academics, teaching, research and other activities of the Institute. During the current year, the Institute achieved remarkable figure of 711 undergraduates, 79 postgraduates, and 99 Ph.D. scholars. This year the Institute has a figure of 75 faculty members. Along with faculty, the Institute is enriched with 05 officers, 08 Contractual Teachers and 61 non-teaching staff members.

With all humility and pride, I would like to say that the Institute witnessed some of the most notable achievements during the year. It is reiterated that the TEQIP-III sponsored the visits of total 47 students of B.Tech, M.Tech and PhD students to participate in national and international conferences while two students of B. Tech. 2016 batch, Shrey Gupta and Rajnish Singh from the Department of Civil Engineering got selected for Student Research Mobility Programme with Mitacs, Canada under the Project TEQIP-III. They spent twelve weeks (May-September, 2019) at the University of Calgary, Canada and Western University, Canada for a research project in their area of interest. Eighty faculty and technical staff members participated in STC's, FDP's, Conferences and Workshops held across India. This too was sponsored by the TEQIP-III whereas thirty academic activities were organized by the various departments of the Institute in academic collaboration with the other Institutes of national and international repute. Dr. Vinod Singh Yadav, Coordinator, TEQIP-III, attended One Week National Workshop on NBA and NAAC accreditation during May 16-23, 2019.

It is my privilege to share the faculty achievement during this financial year. Dr. Nitin Kumar received Mody University Young Teacher Award-2020 in the IEEE sponsored International Conference on Emerging Trends in Communication, Control and Computing held at Mody University of Science and Technology, Lakshmanagarh, Sikar, Rajasthan, India during Feb. 21-22, 2020. Dr. Prakash Dwivedi (PI) and Dr. Sourav Bose (Co-PI) have received the

externally sponsored project titled "Solar powered robust E-Rickshaw controlled with bidirectional DC-DC converter using regenerative cycle boost charging" from the Ministry of Electronics & Information Technology (MeitY), Government of India for Rs. 30.02 Lakh. Dr Pankaj Pal also joined the duo and got the grant worth Rs. 16,90,860. A research project of amount Rs. 6.39 Lakh has been sanctioned to Dr. Hardeep Kumar, Assistant Professor in the department of Physics in March 2020 by UGC DAE CSR, Indore. Many other faculty members have filed their projects in various funding agencies and the result of the same is awaited. Dr Ajay K Chaubey published his two books on *Mapping South Asian Diaspora* and *Women Writers of the South Asian Diaspora* from Rawat Publications in 2019 and 2020 respectively.

I am also delighted to share that Mr Abhishek Singh (BT16CSE021) has been selected through Campus Placement Drive in DE SHAW & Co. on 37 lakh p.a. Mr. Rahul Goswami (BT16CSE053) CSE 2016 Batch got selected in Google with CTC 31 Lac in 2019 while Mr. Kaustubh Purohit (BT16CSE032) has been selected as Youth Delegates Govt. of India for Kyrgyzstan in September 2019. Ms. Ayushi Agarwal BT16CSE050 secured 111 Marks in TOFEL and 324 GRE in 2019. It is worth sharing that the placements record has been higher than the previous years in the Institute. Twenty-four companies have visited our Institute and total 100 students got single offers while a student got two offers in the placement drives conducted this year. The average package of Rs. 6.60 LPA was offered to them. Two students under the supervision of Dr. Nitin Kumar have received the best paper awards in the International Conference on Evolving Technologies for Computing, Communication and Smart World (ECCTS -2020), CDAC Noida during Jan. 31-Feb.01, 2020 and IEEE sponsored International Conference on Emerging Trends in Communication, Control and Computing held at Mody University of Science and Technology, Lakshmangarh, Sikar, Rajasthan, India during Feb. 21-22, 2020. Ms. Shipra Tiwari (MT17EEEE003), student of M.Tech. 2017-2019 have joined M.Sc. Postgraduate Programme in Electrical Engineering and Renewable Energy Systems in University of Leeds, United Kingdom on 23rd September 2019. Ms. Kirthy Gupta batch (2017-2019) received the POSOCO Power System Awards (PPSA) recognizes fresh Masters Research accomplishments in power system. I feel happy to share that Fifty three students and two faculty members of the Civil Engineering Department have visited Bisalpur Dam in Tonk District and Jakham Dam in Pratapgarh District as a part of industrial visit from NIT UK Satellite campus, Jaipur.

The motto of National Institute of Technology Uttarakhand is “Sports for all and all for Sports”. To achieve this, Institute provides various sports facilities. The students are encouraged to take part in games & sports to keep themselves fit and inculcate a spirit of sportsmanship amongst themselves. In the session 2019-20, the Institute organized many sports activities throughout the year. The Institute always motivates the faculty and staff members to participate in various sports tournament to enhance the sense of achievements and feeling of belongingness among one another. The faculty and staff team secured second place in 1<sup>st</sup> All India Inter NIT Faculty & Staff tournament organized by VNIT Nagpur from 27th to 30th Dec. 2020. Dr. Kuldeep Singh SAS Officer was awarded with the best scorer of the tournament. The Institute also won Gold medal in women category (Singles & Doubles) in All India Inter NIT Badminton tournament organized by MNIT Jaipur from 17th to 19th Dec. 2020. Miss Sangeeta Basu won Gold medal in women single category and Miss Sangeeta Basu and Mrs. Kumud Sharma won Gold medal in women double category.

“CLICK”, the Film and Photography Club, NIT Uttarakhand has conducted various activities during the period of August 2019 to March 2020 at Satellite Campus, Jaipur. In the Odd Semester 2019, the Club conducted two outdoor sessions for the club members, one at Albert Hall Museum, Jaipur and another at the Nahargarh Fort, Jaipur in the month of September and October 2019 respectively. Further, the Club participated in the photography activities at the IIT, Jodhpur annual cultural fest “IGNUS” in the month of February 2020. Apart from these activities, the club has covered the inaugural ceremony, different sessions and valedictory session of numerous workshops, short term training programmes, and other events organized by the institution at satellite campus.

Ms. Shivani Agarwal and Ms. Deepshikha Painuly were awarded PhD degree in Physics, supervised by Dr. Manavendra S. Khatri, Assistant Professor and Dr. Indrajit M. Nagpure, Assistant Professor respectively. Mr. Sandeep Singh successfully defended his open final Viva-Voce examination for the completion of Ph.D. degree under the supervision of Dr. Kuldeep Sharma.

It is worth sharing that the total budget of Rs. 9.0 Crore has been allocated by the NPIU (the World Bank under TEQIP-III) for purchase of equipment's, software, learning resources, and furniture and minor civil works. Utilization of Allocated budget has been initiated as per the NPIU norms for the purchasing activity. Till date, the purchase orders for

total 19 packages of worth Rs. 3,27,95,193/- have been released out of which total 15 no. of packages have been completed all the procedures related to procurement.

As the Institute is dedicated to achieve higher goals in the upgradation of education, teaching, research and consultancy, it looks forward to achieving various targets from activities which are being initiated. On this note, I acknowledge and thank the active support and encouragement the Institute has received from students, members of NITUK community, Board of Governors, Senate, Members of various committees and from state administration and the Ministry of HRD from time to time. We, as an institution, aspire collectively to achieve higher growth in the coming years. I, along with members of the NIT-UK, hereby, assure that we will put all our energies to excel *at par* with the established NITs and IITs very soon. With these words, I present the Annual Report and the Audited Statement of Accounts of National Institute of Technology, Uttarakhand for the financial year 2019-20 before the authorities.

**Professor Shyam Lal Soni,  
Director**



## 01.00 INTRODUCTION

National Institute of Technology, Uttarakhand is one among the ten newly sanctioned NITs in 2009 by the Government of India. The Institute is fully funded by the Ministry of Human Resource Development, Government of India. The Institute in its opening years worked under the mentorship of NIT Kurukshetra. The Institute started working independently with the appointment of Prof. H. T. Thorat as the first regular Director from Nov. 1st, 2011. Dr. Satish Kumar served as the In-charge Director of the Institute from April 01, 2017 to Nov. 06, 2017. At present, the Institute is being run under the astute leadership of Professor Shyam Lal Soni, the Director of the Institute.

### 01.01 HISTORICAL BACKGROUND

The Institute started functioning in 2010 with an intake of 90 students. With the inception of two more branches this intake increased to 300 in 2017-18. At present, the Institute has 711 undergraduates, 79 postgraduates and 99 Ph.D. scholars. The Institute was started with B.Tech. programmes in Computer Science & Engineering, Electrical Engineering and Electronics Engineering. B.Tech. program in Mechanical Engineering was started in 2012 followed by B.Tech. program in Civil Engineering in 2013. The Institute started Ph.D. from 2013-2014 and M.Tech. in all five branches in the year 2016.

### 01.02 LOCATION

The temporary Campus is located at the premises of Government Polytechnic and ITI in Srinagar Garhwal (Distt. Pauri-Garhwal) which is around 110 kms from Rishikesh. It is situated on the national highway no. 58 that leads to Badrinath (193 kms from Srinagar). Rishikesh is the nearest railway station. Haridwar, a major railway station in Uttarakhand is 130 km from Srinagar. The nearest airport is Jolly Grant, Dehradun which is 125 kms. from Srinagar. Srinagar is connected by road from the airport at Dehradun, railway stations and bus terminals at Rishikesh and Haridwar.

### 01.03 CAMPUS

The Institute started functioning in two buildings and a hostel in the premises of Government Polytechnic, Srinagar, Garhwal. At present, it has a residential campus with all the basic facilities for the students in temporarily fabricated buildings in the premises of Government Polytechnic. As the Institute expanded, temporary constructions were erected on the roof tops and the unused spaces of the Polytechnic campus. Later on with the permission from the State Government, Administrative Blocks and Engineering Departments were constructed at the Industrial Training Institute (ITI) Campus. Though the Institute is currently having a limited space of 14,000 square meters, it is functioning with full vigour. At present, the Institute is equipped with 35 labs, 16 classrooms, 1 library, and 11 hostels with an accommodative capacity of 1000 students. The Institute offers medical assistance to students and staff members through tie ups with various hospitals and by means of providing medical

insurance to students. The dispensary at the Institute is run with the help of Medical College, Srinagar with a visiting Doctor. Nurse and emergency vehicle is available for 24 hours. Institute also provides other facilities in the form of ATM, Power Back-Up, Gymnasium,



Laundry, Canteen Security, Wi-Fi connectivity, etc. Since its inception, the Institute has expanded its temporary campus by fabricating new buildings polytechnic campus. Later on administrative blocks, engineering departments along with laboratories, play-ground, cafeteria and open-air theatre have been constructed at the ITI Campus. At present the Institute is functioning from two different campuses, namely NITUK Parent Campus situated in Srinagar Garhwal and NITUK Satellite Campus situated in the premises of Malviya National Institute of Technology, Jaipur. In the parent campus, PG, PhD and UG 1st year courses are being run while in Satellite campus UG 2nd, 3rd and 4th year are studying at present.

One of the most important components of education is teaching. Keeping this in mind, NITUK has always taken intransigent efforts in recruiting faculty members. To meet this

purpose, many meritorious and bright faculty members, from different parts of the country, have been recruited in different departments of the Institute from time to time. There are 75 faculty members, 05 officers, 08 contractual teachers and 61 non-teaching staff members in the Institute. The new recruitment process for the new faculty members has also been initiated this year and is in process.

## 02.00 OBJECTIVES

The Institute is committed to impart technical education of high standards and create such technocrats who can be serviceable to the community. The academic curriculum also aims to spread awareness of socio-technical and socio-economic problems to further provide technical solutions in rural-urban and agriculture sectors. Thus the Institute aims at structuring academic programmes in line with national development, generating technical human resource and interaction with the industries for development of the nation.

### 02.01 VISION AND MISSION

#### **Vision**

To provide a global impetus to education and innovation for sustainable development of industry and society.

#### **Mission**

1. Providing an encouraging environment for education and training of technical professionals.
2. Establishing as a center of excellence for research on challenges and demands of future generations.
3. Promoting innovation and leadership skills for producing competent professionals.
4. Developing research collaboration with institutions of repute.



**03.00 GOVERNANCE****03.01 COUNCIL, ADMINISTRATIVE AND STATUTORY BODIES AND OTHER COMMITTEES****03.01.01 THE COUNCIL**

<b>S. No.</b>	<b>Name</b>	<b>Designation</b>
1.	The Minister In Charge, Ministry of Human Resource Development, Govt. of India	Chairman (ex-officio)
2.	The Secretary to the Govt. of India, Dept. of Higher Education, Ministry of Human Resource Development	Vice-Chairman (ex-officio)
3.	The Chairperson of all National Institutes of Technology	Member (ex-officio)
4.	The Director of all National Institutes of Technology	Member (ex-officio)
5.	The Chairman, University Grants Commission	Member (ex-officio)
6.	The Director General, Council for Scientific & Industrial Research	Member (ex-officio)
7.	Secretary, Department of Bio-Technology, Govt. of India	Member (ex-officio)
8.	Secretary, Department of Atomic Energy, Govt. of India	Member (ex-officio)
9.	Secretary, Department of Information Technology, Govt. of India	Member (ex-officio)
10.	Secretary, Department of Space, Govt. of India	Member (ex-officio)
11.	The Chairman, All India Council for Technical Education	Member (ex-officio)
12.	Not less than three, but not more than five persons to be nominated by the Visitor, at least one of whom shall be a woman, having special knowledge or practical experience in respect of education, industry, science or technology	Member
13.	Three Members of Parliament, of whom two shall be chosen by the House of People and one by the Council of States	Member
14.	Two Secretaries to the State Govt. of Uttarakhand, from amongst the Ministries or departments of that government dealing with technical education	Member (ex-officio)
15.	The Financial Advisor, Ministry of Human Resource Development, Govt. of India	Member-Secretary (ex-officio)
16.	Joint Secretary to the Govt. of India (Technical/Additional Secretary (Technical)/Department of Higher Education, Ministry of Human Resource Development.	Member (ex-officio)

## 03.01.02 BOARD OF GOVERNORS

S. No.	Name	Designation
1.	<b>Prof. Shyam Lal Soni</b> , Director, NIT Uttarakhand	Ex-Officio-I/c. Chairperson
2.	<b>Prof. Shyam Lal Soni</b> , Director, NIT Uttarakhand	Ex-Officio Member
3.	Joint Secretary to the Government of India to be nominated by the Central Government dealing with Technical Education	Member
4.	Joint Secretary to the Government of India to be nominated by the Central Government dealing with Finance	Member
5.	Representative, Nominated by the Govt. of Uttarakhand	Member
6.	Representative, Nominated by the Govt. of Uttarakhand	Member
7.	Nominated by the Council	Member
8.	<b>Prof. Anju Pathak</b> , Nominated (Women) by the Council	Member
9.	<b>Dr. Sanat Agrawal</b> , Nominated by the Senate of NIT Uttarakhand	Member
10.	<b>Dr. Kuldeep Sharma</b> , Nominated by the Senate of NIT Uttarakhand	Member
11.	Director, IIT Roorkee or his nominee, not below the rank of a Professor	Member
12.	<b>Colonel Sukhpal Singh</b> , Registrar, National Institute of Technology, Uttarakhand	Secretary

## 03.01.03 FINANCE COMMITTEE

S. No.	Name	Designation
1.	<b>Prof. Shyam Lal Soni</b> , Director, NIT Uttarakhand	Ex-Officio-I/c. Chairperson
2.	<b>Prof. Shyam Lal Soni</b> , Director, NIT Uttarakhand	Ex-Officio-Member
3.	<b>Joint Secretary</b> dealing with NITs or his nominee	Member
4.	<b>Financial Advisor</b> of MHRD or his nominee	Member
5.	<b>Prof. Anju Pathak</b> , Nominated (Women) by the Board	Member
6.	Director, IIT Roorkee, Nominated by the Board	Member
7.	<b>Colonel Sukhpal Singh</b> , Registrar, National Institute of Technology, Uttarakhand	Ex-Officio-Member Secretary

**03.01.04 BUILDING AND WORKS COMMITTEE**

S. No.	Name	Designation
1.	<b>Prof. Shyam Lal Soni</b> , Director, NIT Uttarakhand	Ex-Officio Chairman
2.	<b>One member nominated</b> by the Central Govt. not below the rank of Director or Deputy Secretary	Member
3.	<b>Prof. B. R. Gurjar</b> Department of Civil Engg., IIT Roorkee	Member
4.	<b>Colonel Sukhpal Singh</b> , Registrar, NIT Uttarakhand	Ex-Officio Member Secretary
5.	Dean, Planning & Development, NIT Uttarakhand	Member
6.	<b>Mr. Ajay Sharma</b> Superintending Engineer (Civil), IIT Roorkee	Member
7.	<b>Dr. Mukesh Kumar Pathak</b> Vice Chairman (Electrical), IIT Roorkee	Member

**03.01.05 THE SENATE**

S.No.	Name	Designation
1.	<b>Prof. Shyam Lal Soni</b> , Director, NIT Uttarakhand	Ex-Officio–Chairman
2.	<b>Prof. Ravindra Nagar</b> , MNIT Jaipur, Nominated by the Chairperson, Board	Member
3.	<b>Prof. M. R. Maurya</b> , IIT Roorkee, Nominated by the Chairperson, Board	Member
4.	<b>Prof. Nupur Tandon</b> , MNIT Jaipur, Nominated by the Chairperson, Board	Member
5.	<b>Colonel Sukhpal Singh</b> , Registrar, NIT Uttarakhand	Secretary

**03.02 ORGANIZATION STRUCTURE****03.02.01 DEANS**

S.No.	Name	Designation	Period
1	Dr. DhramendraTripathi	Dean (Student Welfare & Alumni Affairs)	01.04.2019 to 02.06.2019
		Dean (Research and Consultancy)	03.06.2019 to 31.03.2020

S.No.	Name	Designation	Period
2	Prof. Ram Bahadur Patel	Dean (Planning and Development)	01.04.2019 to 08.07.2019
3	Dr. Sanat Agrawal	Dean (Faculty Welfare)	01.04.2019 to 02.06.2019
		Dean (Academic Affaris)	03.06.2019 to 06.08.2019
		Dean (Planning and Development)	16.01.2020 to 31.03.2020
4	Dr. Hariharan Muthusamy	Dean (Research and Consultancy)	01.04.2019 to 02.06.2019
		Dean (Faculty Welfare)	03.06.2019 to 31.03.2020
		Dean (Planning and Development)	16.07.2019 to 15.01.2020
5	Dr. Gurinder Singh Brar	Dean (Academic Affaris)	01.04.2019 to 02.06.2019
			07.08.2019 to 31.03.2020
		Dean (Student Welfare & Alumni Affairs)	03.06.2019 to 30.01.2020
6	Dr. Lalta Prasad	Dean International Affairs	01.04.2019 to 02.06.2019

### 03.02.02 HEAD OF DEPARTMENTS

S.No.	Name	Department	Tenure
1	Dr. Renu Bhadola Dangwal	Humanities & Social Sciences	01.04.2019 to 31.03.2020
2	Dr. Nitin Sharma	Mathematics	03.06.2019 to 31.03.2020
3	Dr. Pankaj Kandwal	Chemistry	03.06.2019 to 31.03.2020
4	Dr. Hardeep Kumar	Physics	03.06.2019 to 31.03.2020
5	Dr. Vinod Singh Yadav	Mechanical Engineering	01.04.2019 to 02.06.2019
	Dr. Lalta Prasad		03.06.2019 to 31.03.2020
6	Dr. Prakash Dwivedi	Electrical Engineering	01.04.2019 to 02.06.2019
	Dr. Saumendra Sarangi		03.06.2019 to 26.06.2019
	Dr. Sourav Bose		27.06.2019 to 31.03.2020
7	Dr. Tajinder Singh Arora	Electronics Engineering	01.04.2019 to 31.03.2020
8	Dr. KrantiGyanchand Jain	Civil Engineering	01.04.2019 to 31.03.2020
9	Dr. Krishan Kumar	Computer Science and Engg.	01.04.2019 to 31.03.2020



## 04.00 EDUCATION SYSTEM

At present, NIT Uttarakhand offers B. Tech., M.Tech. and Ph. D. programmes. Initially, the Institute started B. Tech. programmes in three branches with an intake of 20 students per branch. The Institute is also conducting M. Tech. programme in five branches with an intake of 19 students in each branch:

- Civil Engineering
- Computer Science & Engineering
- Electronic & Communication Engineering
- Electrical & Electronics Engineering
- Mechanical Engineering

The Institute offers Ph. D. programme in all the five branches and also in basic sciences and humanities (Mathematics, Physics, Chemistry, Social Science and English).

### 04.01 ACADEMIC AUTONOMY

The Institute manages its internal academic affairs independently under the supervision of the Senate of the institute which enables them to set up their own curriculum. The academic policies, ordinances, curriculum, courses, examinations, evaluation and results are approved and controlled by the Senate. All kinds of specific academic matters pertaining to teaching, training and research activities of various departments come under preview of the Senate.

### 04.02 SALIENT FEATURES OF ACADEMIC STRUCTURE

The academic structure of the Institute has many salient features:

- The most (modern and flexible Academic structure)
- 35 % courses are elective
- Freedom to choose elective courses per semester
- Freedom to choose sequence of courses
- Faculty to go for credit exchange programme in another Institute for one complete semester
- Freedom to complete the programme in VII semesters and going to industry for one semester internship

The curriculum provides broad based knowledge and simultaneously builds a temper for the lifelong process of learning and exploring. At undergraduate level, a student needs to do compulsory foundation courses in the areas of basic sciences, humanities and social sciences apart from the departmental requirements. Departmental courses (core and electives) constitute minimum 50% of the total curriculum. Further, students do open category electives to develop broad inter-disciplinary knowledge base or to specialize significantly in an area outside the parent discipline. At the postgraduate level, students are encouraged to look

beyond their area of specialization to broaden their horizons through open electives. The medium of instruction in the Institute is English. The Institute follows the semester system. An academic year runs from July through June next year and is comprised of two semesters and two terms. Typically, the 1st semester (Odd Semester) starts in the first week of August and ends in the middle of December, the 2nd semester (Even Semester) starts in first week of January and ends in the middle of May. The Ordinances govern all the rules and regulations for running all Under Graduate and Post Graduate programs in the Institute.

### **04.03 ACADEMIC PROGRAMMES**

#### **04.03.01 Undergraduate Programmes**

- Civil Engineering
- Computer Science & Engineering
- Electronics & Communication Engineering
- Electrical & Electronics Engineering
- Mechanical Engineering

#### **04.03.02 Postgraduate Programmes**

- Civil Engineering with specialization in
  - Structural Engineering
  - Transportation Engineering
- Computer Science and Engineering with specialization in
  - Artificial Intelligence
  - Computing Systems
- Electronics Engineering with specialization in
  - Microelectronics and VLSI Design
  - Communication Systems
- Electrical Engineering with specialization in
  - Power System and Control
  - Power Electronics and Drives
- Mechanical Engineering with specialization in
  - Manufacturing Technology
  - Machine Design

#### **04.03.03 Ph.D. Programmes**

The Institute offers Ph. D. programme in the following branches:

- Civil Engineering
- Computer Science & Engineering
- Electronics Engineering
- Mechanical Engineering
- Sciences and Humanities (Mathematics, Physics, Chemistry, Social Science, English)

## 04.04 ADMISSION PROCEDURE

### B. Tech. Programme:

The admission to B.Tech. degree programme at NIT Uttarakhand is done through Joint Seat Allocation Authority (JoSAA) 2019. Admissions were given on the basis of All India Rank (AIR) prepared by JoSAA considering score in JEE (Main)-2019.

### M. Tech. Programme:

The admission to M. Tech. degree programmes at NIT Uttarakhand is done through Centralized counselling for M. Tech. / M. Arch. / M.Plan. / M. Des. Admissions (CCMT) 2019. Admissions were conducted on the basis of GATE-18 and GATE -19

### Ph. D. Programme:

For the admission in the Ph.D. program, candidates are shortlisted for written test on the basis of required qualification (GATE/NET/SET qualified). The qualified candidates are called for personal interview. After qualifying, the candidates are provisionally admitted for Ph.D. in the Institute. Their registration for Ph.D. program at the Institute is confirmed only after successful completion of Pre-Registration viva-voce. The Institute scholars are awarded fellowship as per norms. To avail the fellowship, the candidate should be GATE/NET/SET qualified. Part-time Candidates are NOT eligible for fellowship.

## 04.05 EXAMINATION AND EVALUATION

Students are awarded grade points based on their performance in the class and examinations. The grades and their equivalent numerical points are listed below:

Grade	Grade points	Description
AA	10	Excellent
AB	9	Very good
BB	8	Good (Above Average)
BC	7	Meets all targeted objectives of the course.
CC	6	Below expectations
DD	4	Marginal, Meets minimum targeted objectives of the course.
FF	0	Very poor
GG	-	Incomplete
UU	-	Unsatisfactory

PP	-	Audit pass
YY	-	Audit fail
XX	-	Withdrawal
KK	-	Continued
SS	-	Satisfactory completion (Zero credit course)
ZZ	-	Unsatisfactory / Failed (Zero credit course)
JJ	-	Failed three times in the core course. Permitted to replace it by Elective Course

Only passing grades are shown in the final Grade Card. Student having CGPA minimum 6.75 is considered for the award of First Division.

### Evaluation of Performance

The performance of a student is evaluated in terms of two indices, via, the Semester Grade Point Average (SGPA) which is the Grade Point Average for a semester and Cumulative Grade Point Average (CGPA) which is the Grade Point Average for all the completed semesters at any point in time. The Earned Credit (ECR) is defined as the sum of course credits for courses in which students have been awarded grades between AA to DD. For UG students, credits from courses in which PP or SS grades have been obtained are also added. Earned Grade Points in a semester (EGP) =  $\sum$  (Course credits x Grade point) for courses in which AA- DD grade has been obtained. The SGPA is calculated on the basis of grades obtained in all courses, except audit courses and courses in which SS / ZZ grade is awarded, registered for in the particular semester. UU grades will be considered as failed grade with Grade Point of Zero and will be included while calculating SGPA. The CGPA is calculated on the basis of all pass grades, except audit courses and courses in which SS/ZZ grade is awarded, obtained in all completed semesters.

$SGPA = EGP / \sum(\text{Course credits})$  for courses registered in a semester in which AA, FF & UU grades are awarded.

$CGPA = EGP / \sum(\text{Course credits})$  for courses registered in all completed semesters in which AA-DD grades are awarded.

The conversion formula from CGPA to percentage (%) is as under:

$$\text{Percentage (\%)} = 10 \times \text{CGPA.}$$



04.06 ACADEMIC CALENDAR

Academic Calendar

राष्ट्रीय प्रौद्योगिकी संस्थान,  
उत्तराखण्ड  
National Institute of Technology,  
Uttarakhand



Temporary Campus-Government ITI, Srinagar (Garhwal), Distt. Pauri Garhwal, Uttarakhand-246174. Phone: 01346-257401, 257400 (O), 01346-251095 (Tele Fax) E-Mail: nitukr@nituk.ac.in Website: www.nituk.ac.in

EVEN SEMESTER – 2019

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Activity of Week
Jan. 2019	14 Enrolment (Without Late Fee)	15 Classes begin	16	17	18	19	20	Enrolment
	21 Last date of Showing Answer Sheets	22 Committee Meeting for Finalization & Display of Grades	23	24 Last date of Enrolment with late fee of ₹1000 Add & Drop	25	26 Republic Day	27	
Feb. 2019	28 Grade Card Issue for ODD Sem 2018	29	30	31	1	2	3	
	4	5	6	7	8	9	10	
	11	12	13	14 Mid Term Exam-I Slot A & B & C	15 Mid Term Exam-I Slot D & E & F	16 Mid Term Exam-I Slot G & H & I	17	Mid Term Exam-I Mid-Sem Feedback
	18	19	20	21	22	23	24	
March 2019	25 Last Date of Display of Mid Term Exam-I Marks	26 Last Date of Course Withdrawal; Conversion from Credit Course to Audit	27	28	1 Last Date of Special MTE-I	2	3	Last Date of Display of Mid Term Exam-I Marks
	4	5	6	7	8	9	10	Last Date of Course Withdrawal
	11	12	13	14 Mid Term Exam-II Slot A & B & C	15 Mid Term Exam-II Slot D & E & F	16 Mid Term Exam-II Slot G & H & I	17	Mid Term Exam-II Mid-Term Break Starts
	18	19	20	21	22	23	24	Mid-Term Break Ends
April 2019	25	26	27	28	29	30	31	Finalization of Courses to be offered in ODD Semester 2019
	1 Last Date of Display of Mid Term Exam-II Marks	2 Display of list of courses with slots to be offered in Odd Semester 2019	3	4	5 Last Date of Special MTE-II	6	7	Last Date of Display of Mid Term Exam-I Marks
	8	9	10 Registration for ODD Semester 2019	11 Registration for ODD Semester 2019	12	13	14	Registration for Odd Semester 2019
	15	16	17 Mahavir Jayanti	18	19 Good Friday	20	21	
May 2019	22	23	24	25	26	27	28	End Semester Feedback
	29	30	1 Student Initiated Teaching	2	3	4	5	Display of Absences & Internal Marks/Display of Grades For P & V type courses
	6	7	8	9	10	11	12	End Term Exam
	13	14	15	16	17	18	19	End Term Exam
June 2019	20	21	22	23	24	25	26	Committee Meeting for Finalization & Display of Grades
	27	28	29	30	31	1	2	Supplementary Exams
	3	4	5	6	7	8	9	Supplementary Exam
	10	11	12	13	14	15	16	PHD RPC Presentations
July 2019	17	18	19	20	21	22	23	PHD RPC Presentations
	24	25	26	27	28	29	30	PHD RPC Presentations
	1	2	3	4	5	6	7	PHD RPC Presentations
	8	9	10	11	12	13	14	PHD RPC Presentations
July 2019	15	16	17	18	19	20	21	PHD RPC Presentations
	22	23	24	25	26	27	28	PHD RPC Presentations
	29	30	31	1	2	3	4	PHD RPC Presentations
	5	6	7	8	9	10	11	PHD RPC Presentations



Academic Calendar

Temporary Campus-Government ITI, Srinagar (Garhwal), Dist.PauriGarhwal, Uttarakhand-246174 Phone: 01346-257401, 257400 (D), 01346-251095 (Tele Fax) E-Mail: nituttarakhand@gmail.com, Website: www.nitak.ac.in

Odd Semester-2019

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Activity of Week
Aug. 2019	29 Summer Vacation Ends (For Students)	30 Enrolment (without late fees)	31 Classes Begin	1 Last Date of Submission of Application for Change of Branch	2 TR Finalization for Summer Term	3	4	Enrolment & Classes Begin
	5 Grade Card Issue after Summer Term	6	7 Last date of Enrolment (with late fees Rs. 1000/-) Add & Drop	8	9	10	11	Last date of Enrolment & Add & Drop
	12 Eid-ul-Zuha	13	14	15 Independence Day	16	17	18	
	19	20	21	22	23	24	25	
Sept. 2019	26 Ganesh Chaturthi	27	28	29	30	31	1	
	2	3	4	5	6	7	8	
	9	10 Muharram	11 Mid Term Exam-I Slot A & B & C	12 Mid Term Exam-I Slot D & E & F	13 Mid Term Exam-I Slot G & H & I	14	15	Mid Term Exam - I
	16	17	18	19	20 Last date of Special MTE-I	21	22	Last date of Special MTE-I
	23 Last Date of Display of Mid Term Exam-I Marks	24 Last Date of Course Withdrawal/ Conversion from Credit Course to Audit Course	25	26	27	28	29	Last Date of Course Withdrawal Last Date of Display of Mid Term Exam-I Marks
Oct. 2019	30	1	2 Mahatma Gandhi Jayanti	3	4	5	6	
	7 Mahanavami	8 Vijaydashami	9	10	11	12	13	
	14	15	16	17	18	19	20	
	21	22	23 Mid Term Exam-II Slot A & B & C	24 Mid Term Exam-II Slot D & E & F	25 Mid Term Exam-II Slot G & H & I	26 Mid Term Break Starts	27 Diwali	Mid Term Break Starts Mid Term Exam - II
	28	29	30	31	1	2	3	Mid Term Break Ends
Nov. 2019	4	5	6	7 Last Date of Display of Mid Term Exam-II Marks	8	9	10 Eid-e-Milad	Last Date of Display of Mid Term Exam-II Marks
	11	12 Guni Nanak Jayanti	13 Last date of Special MTE-II	14 Registration for Even Semester 2020	15 Registration for Even Semester 2020	16	17	Registration for Even Semester 2020 Last date of Special MTE-II
	18	19	20	21	22	23	24	
	25	26	27	28	29	30	1	End Semester Feedback
	2	3 Student Initiated Teaching Display of Attendance & Internal Marks	4 Student Initiated Teaching Display of Grades for P & V type Courses	5 End Term Exam Slot A	6 End Term Exam Slot B	7 End Term Exam Slot C	8	9
Dec. 2019	9	10 End Term Exam Slot E	11 End Term Exam Slot F	12 End Term Exam Slot G	13 End Term Exam Slot H	14 End Term Exam Slot I	15	End Term Exam
	16	17 Ph.D RPC Presentation	18 Last date of Special ETE Last date of Showing Answer Sheets Ph.D RPC Presentation	19 Committee Meeting for Finalization and Display of Grades Ph.D RPC Presentation	20 Last date for Grievance Ph.D RPC Presentation	21	22 Winter Vacation Begins (For Students & Faculty)	Last Date of ETE & Showing Answer Sheets Committee Meeting for Finalization & display of Grades Ph.D RPC Presentation Winter Vacation Begins
	23	24	25 Christmas	26	27	28	29	Winter Vacation
	30	31	1	2	3 Winter Vacation Ends (For Students & Faculty)	4	5	Winter Vacation Ends
	6	7 Enrolment (without late fees)	8 Classes Begin	9	10 TR Finalization	11	12	TR Finalization Enrolment & Classes Begin

Exam Time Table

Slot	End Sem Exam	Mid Term Examination								
	All Slots	A	B	C	D	E	F	G	H	I
FIRST YEAR COURSES	02:00PM - 05:00PM	10:30AM - 11:30AM	02:00PM - 03:00PM	5:00PM - 6:00PM	10:30AM - 11:30AM	2:00PM - 3:00PM	5:00PM - 6:00PM	10:30AM - 11:30AM	2:00PM - 3:00PM	5:00PM - 6:00PM
	COURSE OTHER THAN FIRST YEAR	09:00AM - 12:00 NOON	09:00AM - 10:00AM	12:00 NOON - 01:00PM	03:30PM - 04:30PM	09:00AM - 10:00AM	12:00 NOON - 01:00PM	03:30PM - 04:30PM	09:00AM - 10:00AM	12:00 NOON - 01:00PM



Academic Calendar

राष्ट्रीय प्रौद्योगिकी संस्थान,  
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Even Semester – 2020

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Activity of Week
January 2020			1	2	3	4 Winter Vacation Ends (For Faculty Members)	5	
	6 Enrolment (Without Late Fee)	7 Classes Begin	8	9	10	11	12	Enrolment Classes Begin
	13	14	15	16 Last date of Enrolment with late fee of ₹1000 Add & Drop	17	18	19	Last date of Enrolment Add & Drop
	20	21	22	23	24	25	26 Republic Day	
	27	28	29	30	31	1	2	
February 2020	3	4	5 Mid Term Exam – I Slot A & B & C	6 Mid Term Exam – I Slot D & E & F	7 Mid Term Exam – I Slot G & H & I	8	9	Mid Term Exam – I
	10	11	12	13 Last Date of Special MTE-I	14 Last Date of Display of MTE-I Marks	15	16	Last Date of Special MTE-I Last Date of Display of MTE-I Marks
	17 Last Date of Course Withdrawal, Conversion from Credit to Audit Course	18	19	20	21 Maha Shivratri	22	23	Last Date of Course Withdrawal
	24	25	26	27	28	29	1	
	31	32	33	34	35			
March 2020	2	3	4	5	6	7 Mid Term Break Starts	8	Mid Term Break Starts
	9	10 Holi	11	12	13	14	15 Mid Term Break Ends	Mid Term Break Ends
	16	17	18 Mid Term Exam – II Slot A & B & C	19 Mid Term Exam – II Slot D & E & F	20 Mid Term Exam – II Slot G & H & I	21	22	Mid Term Exam – II
	23	24 Committee Meeting for finalization of courses to be offered in Odd Semester - 2020	25 Last Date of Special MTE-II	26	27 Last Date of Display of MTE-II Marks	28	29	Last Date of Special MTE-II Last Date of Display of MTE-II Marks
	30	31	1	2	3	4	5	
April 2020	6 Mahaveer Jayanti	7	8	9	10 Good Friday	11	12	
	13	14	15	16	17	18	19	
	20	21	22	23	24	25	26	
	27	28	29	30 Student Initiated Teaching Display of Attendance, Internal Marks and Marks of P & V Type courses	1 Student Initiated Teaching Display of Grades for P & V Type courses	2	3	Display of Attendance & Internal Marks Display of Grades For P & V Type Courses
	4	5 End Term Exam Slot B	6 End Term Exam Slot C	7 Buddha Purnima	8 End Term Exam Slot D	9	10	End Term Exam
May 2020	11	12 End Term Exam Slot F	13 End Term Exam Slot G	14 End Term Exam Slot H	15 End Term Exam Slot I	16	17	End Term Exam
	18 Last Date of Special ETE	19 Last Date of Showing Answer Sheets	20 Committee Meeting for Finalization & Display of Grades	21 Last date for Grievance Registration for Supplementary Exam	22 Summer Vacation Begins (For Students)	23	24	Last Date of Special ETE Display of Grades
	25 Eid - ul - Fitr	26 Supplementary Exam	27 Supplementary Exam Phd RPC Presentation	28 Last Date of Showing Answer Sheets (Supplementary Exam) Phd RPC Presentation	29 Display of Grades (Supplementary Exam) Phd RPC Presentation	30 Phd RPC Presentation	31	Supplementary Exam Phd RPC Presentation
	1	2 Summer Term Registration*	3 Summer Vacation Begins (For Faculty Members)	4	5	6	7	* For 4 <sup>th</sup> Year Students only
	8	9	10	11	12	13	14	
June 2020	15	16	17 Mid Term Exam – I Slot A & B & C	18	19	20	21	Mid Term Exam – I
	22	23	24	25	26	27	28	
	29	30	1	2 Mid Term Exam – II Slot A & B & C	3	4	5	Mid Term Exam – II
	6	7	8	9	10	11	12	
	13	14	15	16	17	18 Summer Vacation Ends (For Faculty Members)	19	20
July 2020	20	21	22	23	24	25	26	End Term Exam
	27	28	29	30	31	1	2	Summer Vacation Ends (For Students)
	3	4	5	6	7	8	9	Enrolment Classes Begin

## 05.00 STUDENTS STRENGTH

### 05.01: SANCTIONED INTAKE AND ACTUAL INTAKE

Numbers of students admitted in First year B. Tech. during the year 2019-20:

#### B.Tech. First Year (2019 Batch):

S. No.	Branch	Duration	Sanctioned Intake	Enrolled
1.	Civil Engineering	4 Years	20	18
2.	Computer Science & Engineering	4 Years	20	19
3.	Electronics Engineering	4 Years	20	18
4.	Electrical Engineering	4 Years	20	18
5.	Mechanical Engineering	4 Years	20	16
<b>Total</b>			<b>100</b>	<b>89</b>

Numbers of students admitted in First year M. Tech. during the year 2019-20:

#### M.Tech. First Year (2019 Batch):

S. No.	Branch	Duration	Sanctioned Intake	Enrolled
1.	Civil Engineering	2 Years	19	16
2.	Computer Science & Engineering	2 Years	19	05
3.	Electronics Engineering	2 Years	19	02
4.	Electrical Engineering	2 Years	19	10
5.	Mechanical Engineering	2 Years	19	03
<b>Total</b>		<b>Total</b>	<b>95</b>	<b>36</b>

Total 99 students are enrolled in Ph.D. programme in various departments. In the current year, 29(Full Time/Par Time) students got enrolled in the programme.

#### Ph.D. students (2019-20):

S. No.	Branch	Sanctioned Intake	Enrolled
1.	Civil Engineering	40	02
2.	Computer Science & Engineering		10
3.	Electronics Engineering		04
4.	Electrical Engineering		01
5.	Mechanical Engineering		08
6.	Sciences and Humanities		04
<b>Total</b>		<b>40</b>	<b>29</b>

## 05.02 ENROLLMENT WITH GENDER AND CASTE BREAK-UP

## A) Undergraduate Courses (B.Tech.)

Name of the Programme	Total No. of Students (all years)			Out of Total No. of student shown in Col. (2)& (3)								
				SC			ST			PWD		
<i>B.Tech.</i>	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
I Year	75	14	89	12	02	14	05	02	07	02	0	02
II Year	114	29	143	12	06	18	05	06	11	01	01	02
III Year	234	32	266	33	06	39	13	06	19	03	01	04
IV Year	171	42	213	24	06	30	11	04	15	05	00	05
<b>Total</b>	<b>594</b>	<b>117</b>	<b>711</b>	<b>81</b>	<b>20</b>	<b>101</b>	<b>34</b>	<b>18</b>	<b>52</b>	<b>11</b>	<b>2</b>	<b>13</b>

## B) Postgraduate Courses

## (i) M. Tech

Name of the Programm	Total No. of Students (all years)			Out of Total No. of student shown in Col. (2)& (3)								
				SC			ST			PWD		
<i>M.Tech.</i>	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
I Year	30	06	36	05	02	07	01	00	01	00	00	00
II Year	34	09	43	05	02	07	01	00	01	00	00	00
<b>Total</b>	<b>64</b>	<b>15</b>	<b>79</b>	<b>10</b>	<b>04</b>	<b>14</b>	<b>02</b>	<b>00</b>	<b>02</b>	<b>00</b>	<b>00</b>	<b>00</b>

## (ii) Ph.D.

Name of the Programme	Total No. of Students (all years)			Out of Total No. of student shown in Col. (2)& (3)								
				SC			ST			PWD		
<i>Ph.D</i>	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
	80	19	99	08	02	10	01	00	01	02	00	02

## C) STUDENT ON ROLLS B.TECH. (CLASS-WISE &amp; BRANCH-WISE) DURING 2018-19

Data as per Student Category B.Tech. (2018 Batch)										
	Number of Total Students Enrolled									
	Gen		SC		ST		OBC		Total	
	Total	Girls	Total	Girls	Total	Girls	Total	Girls	Total	Girls
<b>CIV</b>										
<b>Total</b>	07	01	03	01	02	01	13	00	25	03
<b>PWD (Out of Total)</b>	01	00	00	00	00	00	00	00	01	00
<b>Muslim Minority</b>	00	00	00	00	00	00	02	00	02	00
<b>Other Minority</b>	00	00	00	00	00	00	00	00	00	00
<b>CSE</b>										
<b>Total</b>	13	02	04	01	02	01	12	02	31	06
<b>PWD (Out of Total)</b>	00	00	00	00	00	00	00	00	00	00
<b>Muslim Minority</b>	00	00	00	00	00	00	00	00	00	00
<b>Other Minority</b>	01	00	00	00	01	01	00	00	02	01
<b>ECE</b>										
<b>Total</b>	16	04	03	02	02	02	09	02	30	10
<b>PWD (Out of Total)</b>	01	01	00	00	00	00	00	00	01	01
<b>Muslim Minority</b>	00	00	00	00	00	00	01	00	01	00
<b>Other Minority</b>	01	00	00	00	00	00	00	00	01	00
<b>EEE</b>										
<b>Total</b>	14	02	05	01	02	01	08	01	29	05
<b>PWD (Out of Total)</b>	00	00	00	00	00	00	00	00	00	00
<b>Muslim Minority</b>	01	00	00	00	01	00	00	00	02	00
<b>Other Minority</b>	00	00	00	00	00	00	00	00	00	00
<b>MEC</b>										
<b>Total</b>	11	02	03	01	03	01	11	01	28	05
<b>PWD (Out of Total)</b>	00	00	00	00	00	00	00	00	00	00
<b>Muslim Minority</b>	00	00	00	00	00	00	01	00	01	00
<b>Other Minority</b>	01	00	00	00	00	00	00	00	01	00



Data as per Student Category B. Tech. (2017 Batch)										
	Number of Total Students Enrolled									
	Gen		SC		ST		OBC		Total	
	Total	Girls	Total	Girls	Total	Girls	Total	Girls	Total	Girls
<b>CIV</b>										
Total	18	2	5	0	3	1	25	1	51	4
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	1	0	1	0
Other Minority	1	0	0	0	2	0	0	0	3	0
<b>CSE</b>										
Total	32	5	8	3	4	2	17	1	61	11
PWD (Out of Total)	1	0	0	0	0	0	0	0	1	0
Muslim Minority	0	0	0	0	0	0	2	0	2	0
Other Minority	1	1	0	0	0	0	0	0	1	1
<b>ECE</b>										
Total	30	4	8	3	4	1	17	1	59	9
PWD (Out of Total)	0	0	0	0	0	0	1	0	1	0
Muslim Minority	1	0	0	0	0	0	0	0	1	0
Other Minority	0	0	0	0	0	0	0	0	0	0
<b>EEE</b>										
Total	12	3	9	0	4	1	20	3	45	7
PWD (Out of Total)	0	0	0	0	0	0	1	1	1	1
Muslim Minority	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	1	1	0	0	1	1
<b>MEC</b>										
Total	20	0	9	0	4	1	18	0	51	1
PWD (Out of Total)	1	0	0	0	0	0	0	0	1	0
Muslim Minority	0	0	0	0	0	0	1	0	1	0
Other Minority	0	0	0	0	0	0	0	0	0	0

Data as per Student Category B.Tech. (2016 Batch)										
	Number of Total Students Enrolled									
	Gen		SC		ST		OBC		Total	
	Total	Girls	Total	Girls	Total	Girls	Total	Girls	Total	Girls
<b>CIV</b>										
Total	15	0	6	1	5	0	16	4	42	5
PWD (Out of Total)	1	0	0	0	0	0	0	0	1	0
Muslim Minority	1	0	0	0	1	0	2	0	4	0
Other Minority	0	0	0	0	0	0	0	0	0	0
<b>CSE</b>										
Total	29	10	6	0	3	2	20	2	58	14
PWD (Out of Total)	1	0	0	0	0	0	0	0	1	0
Muslim Minority	2	1	0	0	0	0	0	0	2	1
Other Minority	0	0	0	0	0	0	0	0	0	0
<b>ECE</b>										
Total	18	3	8	3	3	0	12	4	41	10
PWD (Out of Total)	01	0	0	0	0	0	0	0	1	0
Muslim Minority	0	0	0	0	0	0	2	1	2	1
Other Minority	0	0	1	0	0	0	0	0	1	0
<b>EEE</b>										
Total	13	4	4	1	2	2	16	3	35	10
PWD (Out of Total)	0	0	0	0	0	0	1	0	1	0
Muslim Minority	0	0	0	0	0	0	1	0	1	0
Other Minority	0	0	0	0	0	0	0	0	0	0
<b>MEC</b>										
Total	15	2	6	1	2	0	14	0	37	3
PWD (Out of Total)	1	0	0	0	0	0	0	0	1	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	0	0	0	0	0	0

Data as per Student Category B.Tech. (2019 Batch)										
	Number of Total Students Enrolled									
	Gen		SC		ST		OBC		Total	
	Total	Girls	Total	Girls	Total	Girls	Total	Girls	Total	Girls
<b>CIV</b>										
Total	9	1	2	0	1	1	6	0	18	2
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0
Other Minority	1	0	0	0	0	0	0	0	1	0
<b>CSE</b>										
Total	9	2	2	0	2	0	6	0	19	2
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	1	0	1	0
Other Minority	0	0	0	0	0	0	0	0	0	0
<b>ECE</b>										
Total	8	1	3	1	2	1	5	2	18	5
PWD (Out of Total)	1	0	0	0	0	0	0	0	1	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	0	0	0	0	0	0
<b>EEE</b>										
Total	9	1	4	1	2	0	3	1	18	3
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	1	1	1	1
Other Minority	1	0	0	0	0	0	0	0	1	0
<b>MEC</b>										
Total	6	2	3	0	0	0	7	0	16	2
PWD (Out of Total)	1	0	0	0	0	0	0	0	1	0
Muslim Minority	1	0	0	0	0	0	1	0	2	0
Other Minority	0	0	0	0	0	0	0	0	0	0

D) STUDENT ON ROLLS M.TECH. (CLASS-WISE & BRANCH-WISE) DURING 2019-20

Data as per Student Category M. Tech. (2019 Batch)										
	Number of Total Students Enrolled									
	Gen		SC		ST		OBC		Total	
	Total	Girls	Total	Girls	Total	Girls	Total	Girls	Total	Girls
<b>CIV</b>										
Total	8	1	3	2	1	0	4	0	16	3
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0
Muslim Minority	3	0	0	0	1	0	0	0	4	0
Other Minority	0	0	0	0	0	0	0	0	0	0
<b>CSE</b>										
Total	0	0	2	0	0	0	3	1	5	1
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	0	0	0	0	0	0
<b>ECE</b>										
Total	0	0	1	0	0	0	1	0	2	0
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	0	0	0	0	0	0
<b>EEE</b>										
Total	6	2	1	0	0	0	3	0	10	2
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	0	0	0	0	0	0
<b>MEC</b>										
Total	3	0	0	0	0	0	0	0	3	0
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	0	0	0	0	0	0

Data as per Student Category M. Tech. (2018 Batch)										
	Number of Total Students Enrolled									
	Gen		SC		ST		OBC		Total	
	Total	Girls	Total	Girls	Total	Girls	Total	Girls	Total	Girls
<b>CIV</b>										
<b>Total</b>	4	0	3	0	1	0	4	1	12	1
<b>PWD (Out of Total)</b>	0	0	0	0	0	0	0	0	0	0
<b>Muslim Minority</b>	0	0	0	0	0	0	0	0	0	0
<b>Other Minority</b>	0	0	0	0	1	0	0	0	1	0
<b>CSE</b>										
<b>Total</b>	5	2	1	1	0	0	2	0	8	3
<b>PWD (Out of Total)</b>	0	0	0	0	0	0	0	0	0	0
<b>Muslim Minority</b>	0	0	0	0	0	0	0	0	0	0
<b>Other Minority</b>	0	1	0	0	0	0	0	0	1	1
<b>ECE</b>										
<b>Total</b>	3	2	1	0	0	0	0	0	4	2
<b>PWD (Out of Total)</b>	0	0	0	0	0	0	0	0	0	0
<b>Muslim Minority</b>	0	0	0	0	0	0	0	0	0	0
<b>Other Minority</b>	0	0	0	0	0	0	0	0	0	0
<b>EEE</b>										
<b>Total</b>	3	0	1	0	0	0	6	2	10	2
<b>PWD (Out of Total)</b>	0	0	0	0	0	0	0	0	0	0
<b>Muslim Minority</b>	0	0	0	0	0	0	0	0	0	0
<b>Other Minority</b>	0	0	0	0	0	0	0	0	0	0
<b>MEC</b>										
<b>Total</b>	4	0	1	1	0	0	4	0	9	1
<b>PWD (Out of Total)</b>	0	0	0	0	0	0	0	0	0	0
<b>Muslim Minority</b>	0	0	0	0	0	0	0	0	0	0
<b>Other Minority</b>	0	0	0	0	0	0	0	0	0	0

## E) PH.D. STUDENT ON ROLL (CLASS-WISE &amp; BRANCH-WISE) DURING 2019-20

Data as per Student Category										
	Number of Total Students Enrolled in Ph.D.									
	Gen		SC		ST		OBC		Total	
	Total	Girls	Total	Girls	Total	Girls	Total	Girls	Total	Girls
<b>CIV</b>										
<b>Total</b>	6	0	0	0	0	0	1	0	7	0
<b>PWD (Out of Total)</b>	0	0	0	0	0	0	0	0	0	0
<b>Muslim Minority</b>	0	0	0	0	0	0	0	0	0	0
<b>Other Minority</b>	0	0	0	0	0	0	0	0	0	0
<b>CSE</b>										
<b>Total</b>	14	5	1	0	0	0	1	0	16	5
<b>PWD (Out of Total)</b>	0	0	0	0	0	0	0	0	0	0
<b>Muslim Minority</b>	0	0	0	0	0	0	0	0	0	0
<b>Other Minority</b>	0	1	0	0	0	0	0	0	1	1
<b>ECE</b>										
<b>Total</b>	12	2	2	0	0	0	3	0	17	3
<b>PWD (Out of Total)</b>	0	0	0	0	0	0	0	0	0	0
<b>Muslim Minority</b>	0	0	0	0	0	0	0	0	0	0
<b>Other Minority</b>	0	0	0	0	0	0	0	0	0	0
<b>EEE</b>										
<b>Total</b>	12	3	0	0	0	0	0	0	12	3
<b>PWD (Out of Total)</b>	0	0	0	0	0	0	0	0	0	0
<b>Muslim Minority</b>	0	0	0	0	0	0	0	0	0	0
<b>Other Minority</b>	0	0	0	0	0	0	0	0	0	0
<b>MEC</b>										
<b>Total</b>	18	0	4	0	0	0	3	0	25	0
<b>PWD (Out of Total)</b>	0	0	0	0	0	0	0	0	0	0



Muslim Minority	0	0	0	0	0	0	0	0	0	0
Other Minority	1	0	0	0	0	0	0	0	1	0
<b>Physics</b>										
Total	1	1	0	0	0	0	0	0	1	1
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0
Other Minority	1	0	0	0	0	0	0	0	1	0
<b>Chemistry</b>										
Total	5	2	2	1	1	0	0	0	8	3
PWD (Out of Total)	1	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	0	0	0	0	0	0
<b>Mathematics</b>										
Total	7	3	0	0	0	0	1	0	8	3
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	0	0	1	0	1	0
<b>English</b>										
Total	5	3	0	0	0	0	0	0	5	3
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0
Other Minority	1	0	0	0	0	0	0	0	1	0

**06.00 SCHOLARSHIPS/MONETARY ASSISTANCE TO STUDENTS****06.01 STATEMENT SHOWING THE DETAILS OF VARIOUS SCHOLARSHIP AND STIPENDS AWARDED**

S. No.	Name of the Scholarship/Stipends	No. of Awarded	Amount Received (₹)	Date of receiving the Amount (₹)	Disbursed and Adjusted as T/F Amount (₹)
1.	Central Sector Scholarship scheme of Top Class Education for SC Students	-	-	-	-
2.	Central Sector Scholarship scheme of Top Class Education for ST Students	-	-	-	-
3.	Mukhya Mantri Medhavi Vidhyarthi Yojna, M.P.	-	-	-	-
4.	Post Matric Scholarship, Bihar	-	-	-	-
5.	Swami Dayanand Education Foundation	-	-	-	-
		-	-	-	-
6.	Ph.D. Fellowship	38	-	-	81,63,959,-
7.	M.Tech. (GATE Scholarship)	122	-	-	84,41,960/-

## 07.00 FACULTY AND STAFF

## 07.01 FACULTY &amp; STAFF POSITIONS: SANCTIONED POSITIONS &amp; FILLED-IN POSITIONS

S.No.	Designation	Post sanctioned	In-position	Vacant
1.	Teaching	86	59	27
2.	Trainee Teachers	–	13	–
<b>TOTAL (A)</b>		<b>86</b>	<b>72</b>	<b>27</b>
1.	Registrar	01	01	–
2.	Deputy Registrar	01	–	01
3.	Assistant Registrar	02	02	–
4.	SAS Officer	01	01	–
5.	Medical Officer	01	–	01
6.	Executive Engineer	01	–	01
7.	Assistant Librarian	01	–	01
8.	Superintendent	07	05	02
9.	Technical Assistant/ Junior Engineer/Nurse	27	17	10
10.	Senior Assistant	01	01	–
11.	Stenographer	01	–	01
12.	Junior Assistant	12	09	03
13.	Technician/Lab Asstt.	26	19	07
14.	MTS/Office Attendant	13	10	03
<b>TOTAL (B)</b>		<b>95</b>	<b>65</b>	<b>30</b>
<b>TOTAL (A+B)</b>		<b>181</b>	<b>138</b>	<b>58</b>

## 07.02 DISTRIBUTION OF FACULTY (DEPARTMENT AND DESIGNATION WISE)

S. No.	Department	Professor	Associate Professor	Assistant Professor	Trainee Teacher	Total
1.	Civil Engineering	-	-	08	04	12
2.	Computer Sci.& Engineering	01	-	08	01	10
3.	Electronics Engineering	-	01	07	03	11
4.	Electrical Engineering	-	-	07	03	10
5.	Mechanical Engineering	-	03	10	03	16

6.	Chemistry	-	-	05	-	05
7.	English	-	-	02	-	02
8.	Mathematics	-	01	04	-	05
9.	Physics	-	-	04	-	04
<b>Total</b>		<b>01</b>	<b>05</b>	<b>55</b>	<b>14</b>	<b>75</b>

### 07.03 DETAILS OF FACULTY

S. No.	Name	Designation	Department
1.	Dr. Dharmendra Tripathi	Associate Professor	Mathematics
2.	Dr. Kuldeep Sharma	Assistant Professor (Gr-I)	
3.	Dr. Dheerendra Bahadur Singh	Assistant Professor (Gr-I)	
4.	Dr. Nitin Sharma	Assistant Professor (Gr-I)	
5.	Dr. Kusum Sharma	Assistant Professor (Gr-I)	
6.	Dr. Renu Bhadola Dangwal	Assistant Professor (Grade-I)- Eng.	Humanities & Social Sciences
7.	Dr. Ajay Kumar Chaubey	Assistant Professor (Grade-I)- Eng.	
8.	Dr. Nagpure Indrajit Manohar	Assistant Professor (Grade-I)	Physics
9.	Dr. Manvendra Singh Khatri	Assistant Professor (Grade-I)	
10.	Dr. Hardeep Kumar	Assistant Professor (Grade-I)	
11.	Dr. Jagrati Sahariya	Assistant Professor (Grade-I)	
12.	Dr. Rampal Pandey	Assistant Professor (Grade-I)	Chemistry
13.	Dr. Saroj Ranjan De	Assistant Professor (Grade-I)	
14.	Dr. Rakesh Kumar Mishra	Assistant Professor (Grade-I)	
15.	Dr. Pankaj Kandwal	Assistant Professor (Grade-I)	
16.	Dr. Kamal Kant Tiwari	Assistant Professor (Grade-I)	
17.	Dr. Hariharan Muthusamy	Associate Professor	Electronics Engineering
18.	Dr. Siva Kumar Tadepalli	Assistant Professor (Grade-I)	
19.	Dr. Sarika Pal	Assistant Professor (Grade-I)	
20.	Dr. Tajinder Singh Arora	Assistant Professor (Grade-I)	
21.	Dr. Ghanapriya Singh	Assistant Professor (Grade-II)	
22.	Dr. Tushar Goel	Assistant Professor (Grade-II)	
23.	Mr. Hemant Kumar Singhal	Assistant Professor (Grade-II)	
24.	Dr. Pankaj Kumar Pal	Assistant Professor (Grade-II)	
25.	Ms. Sarita Yadav	Trainee Teacher	
26.	Mr. Nitanshu Chauhan	Trainee Teacher	
27.	Mr. Vivek Kumar	Trainee Teacher	
28.	Dr. Prakash Dwivedi	Assistant Professor (Grade-I)	Electrical Engineering
29.	Dr. Mahiraj Singh Rawat	Assistant Professor (Grade-II)	
30.	Dr. Sourav Bose	Assistant Professor (Grade-II)	
31.	Dr. Saumendra Sarangi	Assistant Professor (Grade-II)	

S. No.	Name	Designation	Department
32.	Mr. V.G. Durgarao Rayudu	Assistant Professor (Grade-II)	Electrical Engineering
33.	Dr. Suryanarayana Gangolu	Assistant Professor (Grade-II)	
34.	Mr. Tripurari Nath Gupta	Assistant Professor (Grade-II)	
35.	Mr. Nitesh Kumar	Trainee Teacher	
36.	Mr. Rohit Kumar	Trainee Teacher	
37.	Mr. Himesh Kumar	Trainee Teacher	
38.	Dr. Sanat Agrawal	Associate Professor	Mechanical Engineering
39.	Dr. Lalta Prasad	Associate Professor	
40.	Dr. Gurinder Singh Brar	Associate Professor	
41.	Dr. Pawan Kumar Rakesh	Assistant Professor (Grade-I)	
42.	Dr. Vinod Singh Yadav	Assistant Professor (Grade-I)	
43.	Dr. Apurba Mandal	Assistant Professor (Grade-II)	
44.	Dr. Vikas Kukshal	Assistant Professor (Grade-II)	
45.	Dr. Dungali Sreehari	Assistant Professor (Grade-II)	
46.	Mr. Hitesh Sharma	Assistant Professor (Grade-II)	
47.	Mr. T. Sudhakar	Assistant Professor (Grade-II)	
48.	Dr. Anshul Sharma	Assistant Professor (Grade-II)	
49.	Dr. Niraj Kumar Mishra	Assistant Professor (Grade-II)	
50.	Dr. Yogesh Kumar Prajapati	Assistant Professor (Grade-II)	
51.	Mr. Deepak Kumar	Trainee Teacher	
52.	Mr. Gaurav Kumar	Trainee Teacher	
53.	Mr. Prashant Tiwari	Trainee Teacher	
54.	Prof. Ram Bahadur Patel	Professor	
55.	Dr. Kamal Kumar	Assistant Professor (Grade-II)	
56.	Dr. Nitin Kumar	Assistant Professor (Grade-II)	
57.	Dr. Maheep Singh	Assistant Professor (Grade-II)	
58.	Dr. Krishan Kumar	Assistant Professor (Grade-II)	
59.	Mr. Parveen Kumar	Assistant Professor (Grade-II)	
60.	Dr. Deshmukh Maroti Bhujangrao	Assistant Professor (Grade-II)	
61.	Mr. Surendra Singh	Assistant Professor (Grade-II)	
62.	Dr. Abhimanyu Kumar	Assistant Professor (Grade-II)	
63.	Ms. Sneha Chauhan	Trainee Teacher	
64.	Dr. Aditya Kumar Anupam	Assistant Professor (Grade-I)	Civil Engineering
65.	Dr. KrantiGyanchand Jain	Assistant Professor (Grade-I)	
66.	Dr. Vikas Pratap Singh	Assistant Professor (Grade-I)	
67.	Dr. Smita Kaloni	Assistant Professor (Grade-II)	
68.	Dr. Shashank Bhatra	Assistant Professor (Grade-II)	
69.	Dr. Shashi Narayan	Assistant Professor (Grade-II)	
70.	Mr. Laiju A.R.	Assistant Professor (Grade-II)	
71.	Mr. Amardeep	Assistant Professor (Grade-II)	
72.	Mr. Bibhash Kumar	Trainee Teacher	
73.	Mr. Muskan Mayank	Trainee Teacher	
74.	Mr. Abhinav Kumar	Trainee Teacher	
75.	Mr. Neeraj Kumar	Trainee Teacher	

**07.04 OFFICERS****A) Officers**

S.No.	Designation	In position
1.	Director	01
2.	Registrar	01
3.	Assistant Registrar	02
4.	Students Activity and Sports Officer (SASO)	01
<b>Total</b>		<b>05</b>

**Details of Officers:**

S.No.	Name	Designation
1.	Prof. Shyam Lal Soni	Director
2.	Colonel Sukhpal Singh	Registrar
3.	Dr. Vineeta Negi Panwar	Assistant Registrar
4.	Mr. Jagdeep Singh	Assistant Registrar
5.	Dr. Kuldeep Singh	Students Activity and Sports Officer

**07.05 DISTRIBUTION OF NON-TEACHING STAFF**

S. No.	Designation	Pay Matrix Level	In position	OPEN	SC	ST	OBC	PWD
<b>Higher Ministerial Staff</b>								
01.	Superintendent	6 (Six)	05	04	-	-	01	-
<b>Higher Technical Staff</b>								
02.	Technical Assistant	6 (Six)	15	09	01	-	05	-
03.	Junior Engineer	6 (Six)	01	01	-	-	-	-
04.	Nurse	6 (Six)	01	-	01	-	-	-
<b>Lower Ministerial Staff</b>								
05.	Senior Assistant	4 (Four)	01	01	-	-	-	-
06.	Junior Assistant	3 (Three)	09	07	-	-	02	-
<b>Lower Technical Staff</b>								
07.	Laboratory Assistant	3 (Three)	01	01	-	-	-	-
08.	Technician	3 (Three)	18	11	02	01	04	01*
<b>Supporting Staff</b>								
09.	Lab/Office Attendant	1 (One)	10	08	01	-	01	01**
<b>Total</b>			<b>61</b>	<b>42</b>	<b>05</b>	<b>01</b>	<b>13</b>	<b>02</b>

\* OBC \*\* OPEN



**07.06 DETAILS OF NON-TEACHING STAFF**

S.No.	Name	Designation	Section/Department
1.	Mr. Anoop Sharma	Superintendent (Accounts)	Accounts
2.	Mr. Sanjay Bhatt	Superintendent	Establishment
3.	Mrs. Anjali Gupta Maurya	Superintendent	Hostel
4.	Mr. Praveen Kumar Manwal	Superintendent	Store
5.	Mr. Ravinder Singh	Superintendent	Accounts
6.	Mr. Sumit Kumar	Junior Engineer (Electrical)	Electrical
7.	Mrs. Neha Raturi	Technical Assistant	Physics
8.	Mrs. Bhavana	Technical Assistant	Electronics Engg.
9.	Mr. Ram Mohan Gupta	Technical Assistant	Mechanical Engg.
10.	Mohammed ArshadSaify	Technical Assistant	Mechanical Engg.
11.	Mr. Paras Sah	Technical Assistant	Civil Engg.
12.	Mr. Saurabh Patwal	Technical Assistant	Civil Engg.
13.	Mr. Abhishek	Technical Assistant	Electronics Engg.
14.	Mr. Gole Balaji Dhanraj	Technical Assistant	Electronics Engg.
15.	Mr. KawalPreet Singh	Technical Assistant	Electrical Engg.
16.	Mr. Vikas Kothari	Technical Assistant	Computer Science & Engg.
17.	Mrs. Kumud Sharma	Technical Assistant	Library & Information Centre
18.	Ms. Sangeeta Basu	Nurse	Dispensary
19.	Mr. Vikas Singh Chauhan	Technical Assistant	Computer Science & Engg.
20.	Mr. Alok Kumar Patel	Technical Assistant	Electrical Engg.
21.	Mr. Rajesh Kumar	Technical Assistant (CSE)	Computer Science & Engg.
22.	Mr. Purushottam Prabhakar Jawarkar	Technical Assistant (SASA)	Sports
23.	Mrs. Beena Rawat	Senior Assistant	Store
24.	Ms. Rekha Rawat	Junior Assistant	Academics
25.	Mrs. Swati Bhatt	Junior Assistant	Academics
26.	Mrs. Meenakshi Bhatt	Junior Assistant	Academics
27.	Mr. Amit Singh	Junior Assistant	Accounts
28.	Mr. Ajay Singh	Junior Assistant	Establishment
29.	Mr. Gaurav Singh Negi	Junior Assistant	Establishment
30.	Mrs. Pooja	Junior Assistant	Store
31.	Mr. Ranjit Sharma	Junior Assistant	Accounts
32.	Mr. Manoj Kumar	Junior Assistant	Director Office
33.	Mr. Anil Bhatt	Laboratory	Chemistry

S.No.	Name	Designation	Section/Department
		Assistant	
34.	Mr. Pradeep Kumar	Technician	Electrical Engg.
35.	Mr. Jai Dev	Technician	Computer Science & Engg.
36.	Mr. Manoj Kumar	Technician	Computer Science & Engg.
37.	Mr. Santosh Singh Rawat	Technician	Mechanical Engg.
38.	Mr. Rinku	Technician	Mechanical Engg.
39.	Mr. Sushil Kumar	Technician	Civil Engg.
40.	Mr. Chandramohan	Technician	Civil Engg.
41.	Mr. Yudhbir Singh Negi	Technician	Computer Science & Engg.
42.	Mr. Nilesh Kumar Bhardwaj	Technician	Library & Information Centre
43.	Mr. Pawan Rana	Technician	Mechanical Engg.
44.	Mr. Krishan Kumar	Technician	Mechanical Engg.
45.	Mr. Chandra Pal Singh	Technician	Electronics Engg.
46.	Mr. Robin Manish Kujur	Technician	Computer Science & Engg.
47.	Mr. Amandeep Singh	Technician	Electrical Engg.
48.	Mr. Sachin Sharma	Technician	Computer Science & Engg.
49.	Mr. Keshav	Technician	Computer Science & Engg.
50.	Mr. Shashi Kumar Jha	Technician	Library & Information Centre
51.	Mr. Sanjay Chauhan	Technician	Electrical Engg.
52.	Mr. Ravindra Kumar	Lab Attendant	Electrical Engg.
53.	Mr. Ashish Nautiyal	Office Attendant	Academics
54.	Mr. Malkeet Singh	Lab Attendant	Mechanical Engg.
55.	Mr. Tanuj Thapliyal	Office Attendant	Establishment
56.	Mr. Deepak Vijay	Office Attendant	Registrar Office
57.	Mrs. Suman Mewad	Office Attendant	Library & Information Centre
58.	Mr. Siddharth Awadhiya	Office Attendant	Library & Information Centre
59.	Mr. Saurabh Singh Negi	Office Attendant	Store
60.	Mrs. Deepika Maithani	Office Attendant	Director Office
61.	Mr. Pankaj Singh	Office Attendant	Hostel

**07.07 STAFF DEPARTED DURING THE YEAR**

S. No.	Name	Designation	Department/Section	Reason
1.	Dr. Saumendra Sarangi	Assistant Professor	Electrical Engg.	Resigned
2.	Prof. Ram Bahadur Patel	Professor	Computer Science & Engineering	Resigned
3.	Mr. Neeraj Kumar	Trainee Teacher	Civil Engineering	Resigned

**07.08 STAFF ON DEPUTATION DURING THE YEAR**

S. No.	Name	Designation	Department/Section	Remarks
1.	Dr. Vineeta Negi Panwar	Assistant Registrar	Hostel	01.04.2019 to 04.07.2019
2.	Mr. Anoop Sharma	Superintendent	Accounts	02.04.2019 to 31.03.2020
3.	Mr. Praveen Kumar Manwal	Superintendent	Store	02.04.2019 to 31.03.2020
4.	Mr. Sumit Kumar	Jr. Engineer	Electrical	19.08.2019 to 31.03.2020
5.	Mrs. Kumud Sharma	Technical Assistant	Library & Information Centre	27.01.2020 to 31.03.2020

**07.09 CONCESSION TO STAFF**

The reservation policy of Government of India is adapted in recruitment of the staff of NIT Uttarakhand. Concessions and benefits are made applicable to reserved categories viz SCs, STs and OBCs.

## 08.00 INFRASTRUCTURE

### 08.01 ACADEMIC

#### 08.01.01 Department of Civil Engineering

Department of Civil Engineering, N.I.T. Uttarakhand was established in 2013 with an intake of 60 students. The department offers a four-year course leading to the Bachelor's Degree in Civil Engineering. Department of Civil Engineering has advanced academic structure with core course and variety of elective courses so that the students' knowledge is not only enhanced in core discipline but also in the related disciplines. The department also offers postgraduate courses in Structural Engineering and Transportation Engineering along with Ph. D. degree program. Department has 08 Assistant Professors, 03 Trainee Teachers, 02 Technical Assistants and 01 Technician.

#### Academic Staff

S.No.	Faculty Profile	Qualification	Specialization
1.	Dr. Kranti Jain (Head & Assistant Professor)	Ph.D., IIT Roorkee M.Tech, IIT Roorkee	Structural Engineering
2.	Dr. Vikas Pratap Singh (Assistant Professor)	Ph.D., IISc Bangalore M.Tech, MNNIT Allahabad	Geotechnical Engineering
3.	Dr. Aditya Kumar Anupam (Assistant Professor)	Ph.D., IIT Roorkee M. Tech, IIT BHU	Transportation Engineering
4.	Dr. Smita Kaloni (Assistant Professor)	Ph.D., IIT Roorkee M.Tech, MNNIT Allahabad	Structural Engineering
5.	Dr. Shashi Narayan (Assistant Professor)	Ph.D, MNIT Jaipur M.Sc (Engg.), IISc Bangalore	Structural Engineering
6.	Dr. Shashank Bhatra (Trainee Teacher)	Ph.D., IIT Roorkee M.Tech, IIT Roorkee	Geotechnical Engineering
7.	Mr. Laiju A R (Assistant Professor)	Ph.D. (Pursuing), IIT Roorkee M.Tech, NIT Trichy	Environmental Engineering
8.	Mr. Amardeep (Assistant Professor)	Ph.D. (Pursuing), IIT Kanpur M.Tech, IIT Delhi	Structural Engineering

9.	Mr. Muskan Mayank (Trainee Teacher)	Ph.D. (Pursuing), IIT Roorkee M.Tech, IIT Roorkee	Hydraulics Engineering
10.	Mr. Bibhash Kumar (Trainee Teacher)	Ph.D. (Pursuing), IIT Roorkee M.Tech, IIT Roorkee	Geotechnical Engineering
11.	Mr. Abhinav Kumar (Trainee Teacher)	Ph.D. (Pursuing), IIT Roorkee M.Tech, IIT Roorkee	Transportation Engineering

### Laboratories

The Department of Civil Engineering has fully functional lab facilities, covering all important experimental setup for the undergraduate program. The department is also in the process to establish lab facilities for a postgraduate program in structural and transportation engineering along with research facilities in environmental engineering and computational mechanics. The department has the following lab facilities.

- 1. Structural Analysis Lab:** The Structural Analysis Laboratory serves a wide spectrum of activities covering those related to teaching, research, development, and consultancy. Equipped with basic instruments, laboratory also plans to install load frame and advance displacement and strain measuring sensors.
- 2. Building Material Testing Lab:** This lab facility delivers an extensive range of experiments/tests on basic building materials e.g. cement, sand, aggregate, fly-ash, bricks etc. The lab has all major test facilities for the industrial consultancy related to building material testing.

### Equipments:

- Air Entrainment Apparatus
- Cement Auto Clave
- Flow Table (Motorized) for Mortar
- Flow Table (Motorized) for Concrete
- Heat of Hydration Apparatus
- Concrete Permeability (water) Apparatus
- Marsh Cone Test Apparatus
- Vee-Bee Consistometer
- J-Ring Apparatus
- L-Box Apparatus

- 3. Concrete Testing Lab:** This lab facility delivers an extensive range of experiments/tests to be performed on the concrete, special concrete related to the fresh and hardened

state. The lab has all major test facilities for the industrial consultancy related to building material testing.

**Equipments:**

- Creep Test Rig
- Digital Mortar Mixer
- Electronic Flexure Test Apparatus
- Servo Controlled Compression Testing Machine

- 4. Road Material Testing Lab:** The Road Material Testing Laboratory carries out testing and analysis on all types of road materials such as asphalt, binders, aggregate materials and other unbound materials for use.

As bearing layers and reinforcing layers.

**Equipments:**

- Marshall stability test Apparatus
- Centrifuge Extractor
- Benkelman Beam
- Core Drilling Machine
- Skid Resistance Tester
- Film Striping Device
- CBR Test Apparatus
- Standard tar viscometer
- Los Angeles abrasion testing machine
- Compression testing machine
- Universal Penetrometer
- Ductility test Apparatus
- Swell Test Apparatus

- 5. Geology Lab:** Department of Civil Engineering also undertakes research and teaching in engineering geology with a special interest in Himalayan geology. Department intends to plan a long term solution for hill stability.

**Equipments/Accessories:**

- Brunton's Compass
- Collection boxes of various physical attributes of common minerals
- Hand specimens of minerals used in civil construction
- Models of common geological discontinuities
- Charts describing various structural geology phenomenon

- 6. Environmental Engineering Lab:** Department has a state of the art environmental lab facility. The lab facility has all major instruments to test the drinking water supply and monitor the level of impurities in water bodies.



**Equipments:**

- Benchtop pH Meter Auto Level
- BOD Incubator
- Centrifuge
- COD Digester
- DO meter
- Double beam UV-Vis spectrophotometer
- Flame Photometer
- High volume air sampler
- Hot air Oven Universal
- Jar Test Apparatus
- Microprocessor based peristaltic pump
- Muffle furnace
- Orbital Shaking Incubator
- Sound Level meter
- Turbidity meter
- Ultra-Pure Water Purification System
- Ultrasonic Water Bath

**7. Soil Testing Lab:** Soil Testing laboratory is equipped with facilities to carry out many types of tests on soils. These include testing of a large range of sample sizes for compressibility, shear strength and drainage properties. There are different physical, chemical and geotechnical properties determined in the laboratory that is required for identifying the geo materials. These properties are extensively used in designing of dams, reservoirs, foundations and tunnels etc. The lab also offers consultancy services to the industry.

**Equipments:**

- Triaxial test apparatus
- Laboratory vane shear
- Plate load test setup
- Consolidation apparatus
- Universal Permeability apparatus
- Automatic soil compactor
- Soil cone penetrometer
- Compaction Test Apparatus for light compaction

**8. Software and Computational Lab Facility:** The department has established one computational lab facility which not only offers students learning on basic structural design software but also caters the needs of the large computational work involved in research work in numerical and analytical mathematical techniques.

**Equipments:**

- 25 Computer systems
- 02 Workstations

**Softwares**

- ANAYS
- MATLAB
- VISSIM and VISWALK

**9. Survey Lab:** The department has fully functional surveying and geomatics lab facility. The facility has all major measuring devices and plans to further add more remote sensing and GPS devices to enrich the learning environment in the department.

**Equipments:**

- Vernier Theodolite
- Auto Level
- Dumpy Level
- Surveyors Compass
- Prismatic Compass
- Ghat Tracer and French Curve

**10. Other Labs:** The civil engineering department has also planned to develop a laboratory facility in the field of non-destructive testing of structures along with advanced hydraulics, foundation engineering and traffic engineering lab facility.

Department of civil engineering has also established a culture of excellent faculty research and involvement of students in industry and research-oriented projects. Department is establishing state of the art research facility in environmental engineering, which will not only modernize the ways of testing drinking water but will also produce excellent ways of wastewater management in the hilly state of Uttarakhand. The research in the material testing lab is intended to provide a cheaper solution to the construction material requirements. Faculty members plan to use the naturally available resources for better utilization in construction activities. River material found along the bank of river Alaknanda has been continuously tested in different gradation profiles to offer cheaper and better material availability locally. Students are also involved in these projects and material testing lab facility is extensively used for these experiments. Department is also involved in understanding the better safety aspects of pedestrians and vehicles movement. Taking the case study of various towns, faculty members in the department are involved to propose a comfortable and safer solution for traffic control and vehicular movement. Faculty members from the department have taken an active part in national and international conferences organized by transportation research board and other active bodies.

### LABS

Building Material and testing lab



Road material testing lab



Fluid Mechanics Lab



Environmental Engineering Lab



Soil testing Lab



Concrete testing Lab



Department is also involved in working towards the earthquake resistant structures with application of reliability-based design. Faculty members in the department are involved in studying the progressive collapse of structures and extending pushover analysis to the design of multi-story buildings. Along with this, faculty members in the department are also involved in studying the vibration of structures in the crude sense of mathematics by applying inverse problems and system identification techniques. Department faculty members are also involved in studies involving the behavior of concrete for structural use. Multiscale modelling of concrete is being studied for fracture and advance shear behavior under the system of loadings. Mechanics based studies involving the advanced form of functionally graded materials and composites are also underway in the department.

Department is also involved in research on soil elastic medium behavior and stability of tunneling in different ground strata. The soil stabilization and hill slope analysis are also studied very keenly in the department. Modelling and study of sub-surface hydrology are also taken in the department.

**Industrial Visits:** The department also offers industrial visits for students. Students are allowed to see the application at the ground state and interaction with senior officials and engineers make them more actively concerned about their responsibility and possible work profile of tomorrow. Fifty three students and two faculty members of the Civil Engineering Department have visited Bisalpur Dam in Tonk District and Jakham Dam in Pratapgarh District as a part of industrial visit from NIT UK Satellite campus, Jaipur. Both dams are used to control and stabilize water flow, water supply agricultural irrigation purposes. The visit has provided field experience about the practical knowledge of routing of canal and directing water through dams and water distribution. Students also get familiar with the catchment area, hydraulic gates, and level of water, structure of dam, operation of dam, design and construction of dam and distribution of water.

**Expert Lecture:** Department of Civil Engineering organized a guest lecture which was delivered by Mr Rajeev Bhatia on parallel flange section at NIT Uttarakhand dated 25/02/2020. In the detailed lecture on the advantages of parallel flange section over conventional steel section. The recently developed parallel section was found to be better economically and was structurally stronger.

EN-IPE and BS-UB parallel flange section was discussed and also Details of IS-12778 which deals with parallel flange section were also discussed.

**Short Term Courses:** Department of Civil Engineering has organized following Short Term Courses:

1. Civil Engineering Department organized a short term course on “Construction Challenges v/s Infrastructure Development in Hilly Regions” from 9th - 13th September, 2019.

2. Civil Engineering Department organized another Short term course on “Fundamentals of Structural Dynamics and Control Method” from 19th -23rd September jointly with National center for disaster mitigation and Management, MNIT Jaipur.

3. Civil Engineering Department organized another Short term course on “Advance Analysis of Civil Engineering Structure” from 14<sup>th</sup> -18<sup>th</sup> December.

**Student Projects:** Department offers major and minor projects in various research and industry-oriented topics to students. Under the close mentorship of department faculty members, students learn to use the application of theory for the solution of practical problems. The department also hosts semester project exhibition where student projects are showcased to the institute. This learning environment not only gives sufficient knowledge to our students but also prepares them for presenting their organization and work in a better communicative way.

### B.Tech Projects Completed in the Academic year 2019-20

Name of the Project	Supervisor
Building analysis with soft storey effect	Dr. Smita Kaloni
Design and analysis of bridge	
Analysis & Design of Seismic Resistant Building	
Design of fly overs	
Seismic analysis of hill slopes of buildings	
Properties of light weight concrete	
Properties of geo-polymer concrete	Dr. Smita Kaloni and Mr. Bibhash Kumar
Road safety audit	Mr. Laiju A R
Sanitary landfill for the disposal of solid waste generated in Jaipur City	
Disposal of biodegradable waste using insects	
Disposal of biodegradable waste generated within the MNIT Jaipur campus	
Quality Management in solid waste disposal site in jaipur	
Traffic circulation at Badi Chaupar	
Influence of cement and curing period on unconfined compressive strength of soil	Mr. Bibhash Kumar
Spatial and temporal dependency of migration of contaminant plume in groundwater.	Mr. Muskan Mayank
Finite difference solution for solute transport for reactive solutes transport through porous media.	
Mass transfer coefficient behavior of reactive solutes with flow velocity, distance and dispersion.	

A Study on Rigid Pavement Strength using Glass Fiber/Coconut Fiber as a Reinforcing Agent	Mr. Harish Dundiyan
Mass Transit System	Mr. Harish Dundiyan
Traffic Monitoring System	

### M. Tech Projects completed in the academic year 2019-20

Name of the Project	Supervisor
Shear strength prediction of reinforced concrete beam with fibre reinforced polymer	Dr. Kranti Jain
Strengthening the steel column using FRP composite	
Utilization of waste pine needle in soil subgrade/ subbase layer	Dr. Aditya Kumar Anupam
Analysis of rheological properties of SBS and CR modified bitumen	
Effectiveness of geogrid in clayey-silt soil by Pull-out test	
Performance analysis of flexible pavement by HDM 4	
Performance characteristics and effect of gradation on hot mix asphalt and cold mix asphalt	
Effects of wind on transmission towers	Dr. Shashi Narayan
Effects of wind on tower including soil structure interaction	
Damage detection in high rise building using nonparametric system identification techniques	Dr. Smita Kaloni and Dr. Shashi Narayan
Hazard based duration approach on pedestrian crossing behaviour at signalized intersection	Mr. Abhinav Kumar

### Ph.D. Programmes: Existing

NIT Uttarakhand started offering Ph.D. programs in all the disciplines since Spring 2014. Currently 5 students are pursuing their doctoral degree at Civil Engineering Department, NIT Uttarakhand.

### Student Achievements

- One student of Ph.D, Bichitra Singh Negi presented his paper titled "Prediction of Minimum Shear Reinforcement For High Strength Concrete" in ICCMS 2019, which

was organized by IIT Mandi from 11th - 13th December 2019.

- Two B. Tech. students from 2016 batch, Vishnu Joshi and Shubham Saharan attended International Conference on Innovative Engineering Design (ICoIED 2020) and also presented their paper titled “COMPUTED TOMOGRAPHY FOR CONCRETE AND STRUCTURAL ELEMENTS” which was organized by Design Innovation Centers of National Institute of Technology Uttarakhand & Indian Institute of Technology Roorkee and The Institution of Engineers, Dehradun from 18-20 January 2020.
- Nikol Singhal, 2<sup>nd</sup> year B. Tech student got third rank in chess tournament in MST 2020.
- Vivek Singh Negi (BT16CIV026) scored 646 rank in GATE 2020 exam with 71.95 marks.

### Faculty Achievements

No. of National/International Journals

- In academic year 2019-2020 :- 5
- In last three years :- 18

No. of National/International Conferences

- In academic year 2019-2020 :- 5
- In last three years :- 27

Special Achievements

- Dr. Smita Kaloni has obtained a Project with Title: To enhance the structural behavior of HAC (High Alumina Cement) based concrete subjected to highly acidic sewage or industrial waste in collaboration with Devbhumi Institute of Technology Uttarakhand, UTU, under TEQIP \_III programme, September 2019, Role: External

Mr. Laiju A. R. has Filed a patent titled “A hybrid Iron Sulfide Impregnated Anion Exchanger (HISIIX) for Selective Removal of Hexavalent Chromium from Contaminated Water”. Application No. 201911024269.

### List of Consultancy received by Department of Civil Engineering.

S. No.	Consultancy Project Given by	Date of sanction of project	Name of Project Investigator	Consultancy amount	Status of Project
1.	The Mahatma Gandhi National Rural Employment Guarantee Act 2005	16/10/2018	Dr. Aditya Kumar Anupam	22,90,000/-	First Phase Completed Second Phase



	(MGNREGA), Ministry of Rural Development, Government of India				ongoing
2.	Unconfined Compressive Strength with OMC & MDD & Proctor Test (Verify these are tests or any organization who have given consultancy projects)	-	Dr. Aditya Kumar Anupam	27,730/-	Completed

### 08.01.02 Department of Computer Science

The Department of Computer Science and Engineering is an integral part of National Institute of Technology (NIT) Uttarakhand. The department started in 2010 with an intake of 30 students in B.Tech. Programme in CSE. Further, Department started M.Tech. and Ph.D. Programme from 2016. The Department offers M.Tech in specialization:

1. Artificial Intelligence
2. Computing Systems

#### Research and Development Infrastructure

The Department of Computer Science and Engineering is an integral part of National Institute of Technology, Uttarakhand. The Department is equipped with latest computers with Intel i7 processor, 1TB Hard disk, 4 GB RAM and 23 inch monitors for comfortable view for students.

1. Servers : Server 1: 4-Dell M610 BladeServers  
Server 2: 4-IBM Blade Servers
2. Internet Connectivity :NKN Leased Line of 1Gbps
3. Wi-Fi Connectivity : Whole Campus, Departments and Hostels are covered up with Wi-Fi for InternetConnectivity.
4. Network Security : Cyberoam 1500ing XP
5. Storage : Dell PowerVault NX3200
6. Antivirus Client Server-eScan Total Security

#### Academic Staff

S. No.	Faculty Name	Designation	Specialization
1.	Dr. Krishan Kumar	Assistant Professor & Head	Real-time Systems, Cloud Security, Virtualization, Computer Vision, Multimedia Analysis.
2.	Dr. Kamal Kumar	Assistant Professor	WSN, Security, Cloud Computing, Deep Learning, Artificial Intelligence etc.
3.	Dr. Nitin Kumar	Assistant Professor	Biometrics, Pattern Recognition, Image Processing, Visual Attention Modeling, Machine Learning.
4.	Dr. Abhimanyu Kumar	Assistant	Cryptography, Cryptographic Key Establishment, Secure Multicasting.

		Professor	
5.	Dr. Maroti Deshmukh	Assistant Professor	Secret Sharing Schemes, Cryptography, Neural Network.
6.	Dr. Maheep Singh	Assistant Professor	Image Processing, Machine Learning, Network Security
7.	Mr. Parveen Kumar	Assistant Professor	Digital Image Processing, Pattern Recognition and Machine Learning, Computer Vision, Theory of Computation, Analysis of Algorithm
8.	Mr. Surendra Singh	Assistant Professor	Computer Networks, Secure Real Time System, Network Security, Vehicular and Mobile Ad-hoc network.
9.	Ms. Sneha Chauhan	Trainee Teacher	Cryptology and Information Security, Logical Analysis of Data

### Laboratories and other facilities

The Labs of Department of Computer Science and Engineering are equipped with the Softwares like C/C++ Compilers, Java Run Time Environment, Python, Matlab, Weka, Cisco Packet Tracer, PHP with MySql, Microsoft Office, eScan antivirus, Ubuntu 18.04, Fedora 31 and Open source softwares.

S. No.	Name of Laboratory	No. of Computer Systems	Software Installed
1	Programming Lab	30	C/C++, JAVA, MATLAB
2	Linux Lab	35	Ubuntu Linux, C/C++, JAVA, MATLAB, LEX and FLEX
3	Network Lab	35	C/C++, JAVA, MATLAB
4	Software Lab	30	C/C++, JAVA, MATLAB
5	Project Lab	20 Workstations	Open source softwares

### Hardware Configuration

S.No.	Name of Laboratory	Hardware Configuration	
1	Programming Lab	Operating System	Windows 10, Ubuntu 17.04
		Processor	Intel core i3
	Linux Lab	RAM	4 GB
		Hard Disk	500 GB

	Network Lab	Graphics Card	Inbuilt
		Display	19 inch
2	Software Lab	Operating System	Windows 10, Ubuntu 17.04
		Processor	Intel core i7
		RAM	8 GB
		Hard Disk	1 TB
		Graphics Card	1 GB NIVDIA
		Display	23 inch
3	Project Lab	Operating System	Windows 8.1, Ubuntu 18.04
		Processor	Intel Xeon(R)E52620 v3
		RAM	16 GB
		Hard Disk	1 TB
		Graphics Card	2 GB NIVDIA
		Display	23 inch

**Programming Lab:**



**Network Lab:**



**Project Lab:**



### Linux Lab:



### Research and Project Activities

- Total number of projects: 02
- Total number of publications in International Journals (Last three years): 25
- Total number of publications in International Conferences (Last three years): 75
- Total number of publications: 100
- Dr. Krishan Kumar Assistant Professor CSE and Dr. Maheep Singh Assistant Professor CSE have successfully defended their Ph. D. viva voce on 15<sup>th</sup> March 2019 and 20<sup>th</sup> August 2019 respectively.

### Workshop/STC/FTP organized

- Department of CSE organized one workshop on Curriculum Development from 17<sup>th</sup> - 18<sup>th</sup> May 2019 at satellite campus.
- Department of CSE organized one STC on Artificial Intelligence and its applications in IoTs from 23<sup>rd</sup> - 27<sup>th</sup> September 2019 at Satellite Campus.



- Department of CSE organized one workshop on Data Science sponsored by AICTE Training and Learning (ATAL) academy from 14<sup>th</sup> - 18<sup>th</sup> October 2019 at Satellite Campus.





- Department of CSE organized an expert lecture on Distributed system and cloud computing by Col. Manmohan Singh Vilkh, Cyber physical security architect in IBM India Pvt. Ltd. on 28/02/2020, coordinated by Dr. Maheep Singh.



### Expert Lectures organized

- Department of CSE conducted one expert lecture on recent trends of Artificial Application in on 21<sup>st</sup> August 2019 which was delivered by Prof. N S Chaudhari, VC UTU at Parent Campus.
- Department of CSE organized an Expert Lecture on “High Performance Computing(HPC)” by Prof. V. C. V. Rao from CDAC Pune.

### Expert Lecture delivered

- Expert lecture delivered at Institute of Technology, Gopeswar on Latex in 5-days workshop on Antenna Design, Fabrications, and Analysis on 15/10/2019 and 16/10/2019 (2 days).



#### **Workshop/conferences attended**

- Dr. Nitin Kumar attended AICTE recognized Short Term Course on Industry Interaction - Industry related phase wise workshop mainly in the areas of ECE, Civil attended during Oct. 21-25, 2019 at NITTTR, Chandigarh
- Ms. SnehaChauhan attended Short Term Course on Deep Learning and its Applications organized by E&ICT Academy during 20-24 August 2019.
- Ms. Sneha Chauhan attended Short Term Course on Network Security and AI organized by E&ICT Academy during 14-18 January 2020.
- Dr. Nitin Kumar attended an IEEE sponsored International Conference on Emerging Trends in Communication, Control and Computing held at Mody University of Science and Technology, Lakshmangarh, Sikar, Rajasthan, India during Feb. 21-22, 2020.
- Dr. Nitin Kumar attended two weeks short term course on Graphics and Animation Development during Feb. 24 - Mar. 06, 2020 held at NITTTR Chandigarh.
- Mr. Parveen Kumar presented/attended two research papers at International Conference on CVIP, Sept. 27-29, 2019 at MNIT, Jaipur.
- Dr. Abhimanyu Kumar attended a workshop on " Social Media Management and Practices" organized by Ministry of HRD at VigyanBhawan, New Delhi on 27th December, 2019.

#### **Notable Achievement by the students**

- 44 students from batch 2016 have been placed through Campus Placement Drive till date.
- More than 5 students got selected for MBA in IIMs.
- More than 10 students got selected for M. Tech in IITs.
- More than 10 students got selected for MS in USA since last five years.
- More than 20 final year B. Tech. students joined semester internship in various reputed MNCs.

- Mr. Rahul Goswami (BT16CSE053) CSE 2016 Batch got selected in Google with CTC 31 Lac in 2019.
- Mr. Kaustubh Purohit (BT16CSE032) has been selected as Youth Delegates Govt. of India for Kyrgyzstan in September 2019.
- Mr. Diwakar Lakhera BT19CSE002 batch 2019 was the member of NIT Uttarakhand team which was overall winner of the 9<sup>th</sup> edition of NIT Conclave held at NIT Rourkela 23<sup>rd</sup>-25<sup>th</sup> August, 2019.
- Ms. Ayushi Agarwal BT16CSE050 secured 111 Marks in TOFEL and 324 GRE in 2019.
- Mr. Rama Krishna MT17CSE009 under the supervision of Dr. Krishan Kumar got offered for Ph. D. from IIT Roorkee in 2019.

### Research Papers

1. Shiv Naresh Shivhare, Nitin Kumar, Navjot Singh. A Hybrid of Active Contour Model and Convex Hull for Automated Brain Tumor Segmentation in Multimodal MRI. *Multimedia Tools and Applications*, Springer (SCI-E, IF - 2.101)
2. Suresh Madhavan, Nitin Kumar, Incremental Methods in Face Recognition: A Survey", Accepted for Publication in *Artificial Intelligence Review*, 2019, Springer (SCI - IF 5.095).
3. Parveen Kumar, Ambalika Sharma, "DCWI: Distribution descriptive curve and Cellular automata based Writer Identification", in *Expert Systems with Applications*, DOI: 10.1016/j.eswa.2019.03.037, SCI, Elsevier, March 2019.
4. Surendra Singh, Suvadip Batbyal and SachinTripathi, "Security aware dynamic scheduling algorithm (SADSA) for real-time applications on-grid", *Cluster Computing*, Springer (SCI, IF - 1.851), July 2019.
5. Nitin Kumar and Suresh Madhavan, Performance Evaluation of Incremental PCA and its Variants in Face Recognition, First International Conference on Advanced Communication & Computational Technology (ICACCT-2019), Kurukshetra, India Dec. 6-7, 2019.
6. Maheep Singh, M. C. Govil, E. S. Pilli, and S. K. Vipparthi, "SOD-CED: Salient Object Detection for Noisy Images Using Convolutional Encoder Decoder" , *IET Computer Vision* (Accepted- SCI)
7. Reshu Verma and Abhimanyu Kumar "Design of Attribute based Authenticated Group Key Agreement Protocol without Pairing", *ICIoTCT- 2019*.
8. ReshuVerma and Abhimanyu Kumar , " A Pairing free Attribute-Based Authenticated Group Key Agreement Protocol using ECC", *ICIoTCT- 2019*.
9. Krishan Kumar EVS-DK: Event video skimming using deep keyframe, *Journal of Visual Communication and Image Representation* (SCI-E) Volume 58, pp. 345-352, 2019.
10. Ayushi Agarwal, Snigdha Agarwal, Maroti Deshmukh. Denoising Images with Varying Noises using Autoencoders, 4th International Conference on Computer Vision & Image Processing (CVIP), Springer, MNIT Jaipur, India, 2019.
11. Arjun Singh Rawat, Maroti Deshmukh. Efficient multi-party key exchange protocol using divide and conquer strategy, *International Conference on Networks and Cryptology (NetCrypt)*, Springer, 2019.



12. Ayushi Agarwal, Maroti Deshmukh. An Extended Shamirs Secret Sharing Scheme using Three Dimensional Planes, International Conference on Networks and Cryptology (NetCrypt), Springer, 2019.
13. Nitin Kumar, Manisha. RP-LPP : A Random Permutation based Locality Preserving Projection for Cancelable Biometric Recognition. (Accepted) Multimedia Tools and Applications, Springer, Sep. 2019, (SCI-E, IF - 2.101)
14. Vivek Kumar Singh, Nitin Kumar. Saliency Bagging: A Novel framework for Robust Salient Object Detection. The Visual Computer, Springer, Sep. 2019, DOI: 10.1007/s00371-019-01750-2 (SCI-E, IF - 1.415)
15. Shiv Naresh Shivhare, Nitin Kumar, Navjot Singh. A Hybrid of Active Contour Model and Convex Hull for Automated Brain Tumor Segmentation in Multimodal MRI. Multimedia Tools and Applications, Springer, Aug. 2019, DOI: 10.1007/s11042-019-08048-4 (SCI-E, IF - 2.101)
16. Shreya Kumari, Prachi Pandey and Maroti Deshmukh. Face Tagging and Recognition using Inception Network and Triplet Loss Generator Function, International Conference on Communication and Intelligent systems (ICCIS-2019), Jaipur, 2019. (Accepted)
17. Pankaj Pundir, Shivam Aggarwal, Maroti Deshmukh. Malaria Detection using Convolutional Neural Network, 5th International Conference on Advanced Machine Learning Technologies and Applications (AMLTA-2020), Jaipur, 2020. (Accepted)
18. Ajay Malik, Abhishek Singh, Maroti Deshmukh. Classification of Imbalanced Data using Decision Tree and Bayesian Classifier, 5th International Conference on Advanced Machine Learning Technologies and Applications (AMLTA-2020), Jaipur, 2020. (Accepted)
19. Vivek Kumar Singh, Nitin Kumar, Suresh Madhavan. Saliency Boosting: a novel framework to refine salient object detection. Accepted, Artificial Intelligence Review, Springer, Nov. 2019, DOI : 10.1007/s10462-019-09777-6 (SCI-E, IF - 5.095)
20. Manisha, Nitin Kumar. Cancelable Biometrics: A Comprehensive Survey. Artificial Intelligence Review, Springer, Oct. 2019, DOI : 10.1007/s10462-019-09767-8 (SCI-E, IF - 5.095)
21. Nitin Kumar, Manisha. RP-LPP : A Random Permutation based Locality Preserving Projection for Cancelable Biometric Recognition. (Accepted) Multimedia Tools and Applications, Springer, Sep. 2019, (SCI-E, IF - 2.101)
22. Manisha and Nitin Kumar, On Generating Cancelable Biometric Templates using Visual Secret Sharing, Accepted for publication in Computing Conference 2020 to be held at London, United Kingdom, July 16-17, 2020.
23. Anita Sajwan, Anupam Yadav and Nitin Kumar, Application of artificial electric field algorithm for economic load dispatch problem, Accepted for Publication In Advances in Intelligent Systems and Computing, Eds. International Conference on Soft Computing and Pattern Recognition, SoCPaR 2019, Vardhman College of Engineering, Hyderabad, India, Dec. 13-15, 2019.

24. Anita, Anupam Yadav, Nitin Kumar, Artificial Electric Field Algorithm for Engineering Optimization, published in Expert Systems with Applications, Elsevier, Feb. 2020 (SCI, IF 4.292).
25. Parveen Kumar, MohdHaroon Ansari, AmbalikaSharma, "MBC-CA: Multithreshold Binary Conversion Based Salt-and-Pepper Noise Removal Using Cellular Automata" international conference on CVIP, DOI: 10.1007/978-981-15-4015-8\_17, 2020.
26. Parveen Kumar, Manu Gupta, Mayank Gupta, Ambalika Sharma, "Profession Identification Using Handwritten Text Images", International Conference on CVIP, DOI: 10.1007/978-981-15-4018-9\_3, 2020.
27. GudepuVenkateswarlu, Anshita Gupta, Parveen Kumar, "Physical Sciences: An Inspiration to the Neural Network Training", International Conference on PCCDS, Accepted, 2020.
28. Parveen Kumar, Ambalika Sharma, "Segmentation-free Writer Identification based on Convolutional Neural Network", in Computers and Electrical Engineering, SCI Elsevier, Accepted, 2020.
29. Abhimanyu Kumar, Reshu Verma. Attribute-Based Authenticated Group Key Transfer Protocol without Pairing. Wireless PersCommun (2020). <https://doi.org/10.1007/s11277-020-07292-4>.
30. Anshita Gupta, Abhimanyu Kumar " A Novel Approach to Multi-Authority Attribute Based Encryption Using Quadratic Residues with Tree Access policy ". International Conference on Paradigms of Computing, Communication and Data Sciences (PCCDS-2020) (Accepted).

#### Achievements :

- a) Nitin Kumar presented a Paper in International Conference on Computing and Information Technology (IC2IT) 2019 during July 4-5 at Bangkok, Thailand.



- b) Nitin Kumar delivered two expert lectures on Research Methodology: Tools and Techniques in Short Term Training Program On 'Computational Techniques in Research Methodology for Sciences and Social Sciences' on July 26, 2019 at faculty Development Centre, HNBGU Srinagar Garhwal.
- c) Dr. Nitin Kumar published 8 SCI/SCI-E papers in the year 2019.
- d) Dr. Nitin Kumar received Mody University Young Teacher Award - 2020 in 2020 IEEE sponsored International Conference on Emerging Trends in Communication, Control and Computing held at Mody University of Science and Technology, Lakshmangarh, Sikar, Rajasthan, India during Feb. 21-22, 2020.



Dr. Nitin Kumar receiving Young Teacher Award 2020

- e) Two students under supervision of Dr. Nitin Kumar have received Best paper awards in the following International Conferences:
  - a. Vivek Kumar Singh, Nitin Kumar, A Novel Fusion Framework for Salient Object Detection based on Support Vector Machine, International Conference on Evolving Technologies for Computing, Communication and Smart World (ECCTS -2020), CDAC Noida during Jan. 31-Feb.01, 2020
  - b. Manisha, Nitin Kumar, On generating Cancelable Biometric Templates using Reverse of Boolean XOR, 2020 IEEE sponsored International Conference on Emerging Trends in Communication, Control and Computing held at Mody University of Science and Technology, Lakshmangarh, Sikar, Rajasthan, India during Feb. 21-22, 2020.

### 08.01.03 Department of Electronics Engineering

Started during the session 2010-11, the Department offers B. Tech. programme in Electronics and Communication Engineering. The Department also offers M. Tech programme in Microelectronics & VLSI Design and Communication Systems and PhD programs in multiple specializations. The ECE department has always taken lead in establishing well equipped and state of art lab facilities for students. The department has developed Research lab with latest work stations, National Instruments equipment, logic analyzer and lab view software. The department has 01 Associate Professor, 07 Assistant Professors, 03 Trainee Teachers and 03 Technical Assistants.

#### Academic Staff

S. No.	Faculty Name	Designation	Specialization
1.	Dr. Tajinder Singh Arora	Head & Assistant Professor	Analog Integrated Circuit and Signal Processing, Microelectronics, Analog Signal Processing , VLSI
2.	Dr. Hariharan Muthusamy	Associate Professor	EEG, VEP, ECG and EMG Signal Processing Infant Cry Signal Analysis
3.	Dr. Siva Kumar Tadepalli	Assistant Professor	VLSI, Nonlinear Systems Nonlinear Systems, Multidimensional Systems, Delayed and Uncertain Systems, HDL based system design, Analog VLSI
4.	Dr. Sarika Pal	Assistant Professor	Optical Sensor, Metamaterials, Optoelectronics, Communication
5.	Dr. Ghanapriya Singh	Assistant Professor	Digital Signal Processing, Digital Image Processing, Speech Processing, Context - Aware computing, Human-Computer interaction, Machine learning.
6.	Dr. TusharGoel	Assistant Professor	RF & Microwave
7.	Mr. Hemant Kumar Singhal	Assistant Professor	RF & Microwave
8.	Dr. Pankaj Kumar Pal	Assistant Professor	Semiconductor device physics and VLSI Design
9.	Ms. Sarita Yadav	Trainee Teacher	VLSI Design
10.	Mr. Nitanshu Chauhan	Trainee Teacher	VLSI design
11.	Mr. Vivek Kumar	Trainee Teacher	VLSI Design

## Laboratories

- 1. Research Lab:** This lab is mainly dedicated to research work for UG/PG and faculty members. This lab consists of high speed computation platform to cater to the need of research in VLSI, Microwave and signal processing.
- 2. Analog Electronics Lab:** This lab emphasizes on providing fundamental knowledge of basic electronic devices and circuits to the students. ECE as well as EEE Students are made to work on discrete and integrated circuit components.
- 3. Microprocessor Lab:** Microprocessor lab is dedicated to programming and interfacing of 8 bit 8085 microprocessor and 8051 microcontroller with various peripherals. Students are encouraged to design various automated embedded systems based electronics projects in the lab.
- 4. Digital Signal and Image Processing:** This lab provides real time processing of 1D and 2D signals and having floating point processor that can provide minimum quantization errors. Students also can visualize signals and analyze its basic proper ties like time shifting, modulation, filtering, scaling, and compression on a virtual platform such as lab-view and code composers.
- 5. Communication Lab:** Communication lab facilitates the students to the understand the basic principle of communication systems. Students can realize different analog and digital modulations such as amplitude modulation, frequency modulation, phase shift keying, amplitude shift keying, frequency shift keying modulation, QPSK and QAM etc. on trainer kits and visualize the signal processing on CRO, high end digital storage oscilloscopes and spectrum analyzer.
- 6. Electronics System Design Lab:** Electronics system design lab is devoted to design advanced digital and electronics systems, mostly this lab is utilized by third year and final year students. This lab consists of 20 high end computer systems for hardware description language programming and FPGA Altera DE2 kits for interfacing purpose.
- 7. Electronic Workshop:** Students from ECE as well as other departments who are interested in robotics and embedded systems work in this lab. Lab provide all basic facilities like ICs, PCB boards, soldering irons, motors and AVR microcontroller kits, USB burners. In addition, department has also purchased new E-Yantra kits for robotics. This lab is used mainly by the students working on their major and minor projects.
- 8. Digital Electronics Lab:** Digital electronics lab is basic lab for Electronics, Electrical, and computer science under graduate students. Students are made familiar with basic building block of digital electronics systems such as logic gates, combinational and



sequential circuits, using digital ICs and digital training kits.

### Major Equipments:

- NI Academic Site license Labview Software-campus teaching License.(Unlimited Users)
- **Signal and System solution**
  1. Elvis-II Signal & System.
  2. Emona Sigex Signal and System Experimenter NI Elvis.
  3. NIPXI -5441 100MS/S with AWG with onboard signal processing 256MB.
- **RF System Solution**
  1. NI PXIe-5632 8.5 GHz Vector Network Analyzer b) NI PXIe-8820 2.2GHz Celeron 1020E.
  2. NI PXIe-5632 8.5 GHz, 2-port, W/Time Domain Analysis.
  3. NIPXIe-1085, 18 slot 3U PXI Express Chassis.
  4. RF Signal Analyzer – (Upto 20 GHz), (20GHz USB Signal Generator AM/FM)
  5. RF Signal Analyzer (Upto 26.5 GHz)
  6. Phase Matrix (26.5 GHz Vector Signal Analyzer)
- **Wireless Communication Solution**
  1. NI USRP-2932 400 MHz to 4.4 GHz, GPS Clock Software Radio Kit, Toolkit
  2. 144MHz,400 MHz and 1200 MHz Tri Band (7 inch) Vertical Antenna c) Dual Band 2.4-2.48 GHz & 4.9-5.9 GHz Vertical Antenna
  3. USRP MIMO Sync and Data Cable, 0.5M
- **RF/Wireless Measurement lab**
  1. NIPXI Chasis Controller & RF Modules (RF VSA, RF VSG)
  2. NI WLAB Measurement suit for Labview. c) NI Measurement suite for fixed WiMax.
  3. Set of Antennas, Coaxial Cable and Mounting Accessories.
- **DSP Application**
  1. NI Speedy 33 DSP target chip. b) TMS320C6713 DSKs.
- **Image Processing Solution (Embedded Vision System Solution)**
  1. NI EVS 1464 (Windows) Vision system with Windows7,GigE Vision, IEEE1394b
- **Real Time Data Acquisition**
  1. NI my DAQ (Data Acquisition Cards).





**Terasic Altera DEII Development Platform**

- 1 GHz Spectrum Analyzer with Trace Generator
- 100 MHz Cathode Ray Oscilloscope
- 10 MHz Function Generator with 40 MHz Frequency Counter
- 5 MHz General Purpose Function Generator
- 4/8 – bit Analog to Digital Converter
- Digital System Design Kit
- 4 Bit Shift Register
- XPO 8086 Kit with accessories
- XPO 8051/8031 Kit with accessories
- 32 bit DSP Design Platform with Peripherals
- DC milliammeter (0-100 mA)
- MASTECH MAS-830L Multimeter (3 ½ Digit)
- Digital Circuits Development Platform (Model ST2614)
- 200 MHz Four Channel Digital Storage Oscilloscope with Colour Display
- 30 MHz Cathode Ray Oscilloscope
- 10 MHz General Purpose Function Generator
- 3 ¼ Digit Type Digital Multi meter
- 4/8 – bit Digital to Analog Converter
- 4 Bit Counter
- Digital Circuit Trainer Kit
- XPO 8085/8088 Kit with accessories
- 8253, 8259, 8279, 8251, 8255 Peripheral Devices
- MATLAB and Simulink-R2013a
- Moving Coil DC milliammeter (0-1 mA)
- Digital IC Tester
- Caddo62 Digital Multimeter (5 ½ Digit)

In addition to this Department has following facilities for UG/PG students in various labs:

- Cadence and Synopsys Electronic design and automation (EDA) Tool
- Digital storage oscilloscope for 4 channels upto 200 MHz
- Spectrum analyzer & Vector network analyzer for measurements of high frequency up to 8.5 GHz
- RF signal analyzer up to 26.5 GHz
- Logic analyzer for 34 channels
- Digital IC testing facility
- Floating point digital signal processor
- Data acquisition systems up to 1 GHz
- Arbitrary wave form generator
- 70 frame rate per second camera
- High end computer facilities in electronics system design and digital signal processing lab
- Digital measurement for voltage, current, resistors and capacitors
- High configured latest workstations in Research lab.

### Research in Department

- Data hiding steganography in Image Processing
- Antenna for inter-satellite communication
- On chip RF Transceiver
- Design of power amplifier
- Photonic crystal device
- Context awareness
- Minimum power supply design for Fin FET
- Microwave filter
- Organic electronics
- Low noise oscillator
- Microelectronics and VLSI
- A 5 year project on Special Manpower Development Programme Chipto System Design (SMDP-C2SD) by MeitY.

### Technical activities:

- The students of ECE department have been participating in technical activities and winning accolades in technical competitions held in different IIT's and NIT's in India.
- Students have been routinely publishing papers in reputed conferences.
- **Aniket** from the Third year has visited Germany for his internship under the coveted DAAD scholarship.
- A number of students in past two years have obtained internship offers from reputed industries like Intel and NXP Semiconductors to name a few.

### Specialized Training in the Department

- Training conducted on Lab view software and hardware
- Training conducted on Sentaurus software
- Training conducted on MATLAB computation programming
- Training conducted on FPGA hardware programming
- Training conducted on CST Microwave Studio Software
- Training conducted on CAD tool Software
- Training conducted on AS Software
- Training conducted on Synopsys TCAD Software

### Student Projects

- Design of Monopole UWB Antennas
- Design of Fractal UWB Antennas
- Digital Processing and Filtering of audio signal on FPGA

- FIR Filter Implementation on FPGA
- Electronic voting machine prototype on FPGA
- Alphabetical keypad using AT89C51 Microcontroller
- Water Level Indicator
- Implementation of snake game using VGA key board interfacing on FPGA Board
- Digital Alarm Clock on FPGA
- Implementation of Traffic Surveillance system
- Implementation of Digital audio 12B and Equalizer on NI Lab view
- LCD Display using Altera DE2Cyclone

### **Industrial Visits:**

Every academic year, students are taken on industrial trips. Some major visits in past few years were

- Chilla hydro power project, Haridwar
- Bharat Heavy Electricals Limited, Mumbai
- Tarapur Atomic power station, Mumbai
- CSIR, National Institute of Oceanography (NIO), Goa Electronics Limited (GEL)

### **08.01.04 Department of Electrical Engineering**

The Electrical Engineering Department was established during the inception of the institute in 2010. Department has a fine blend of young and dynamic faculty, providing quality education. The major areas of faculty expertise include Power Systems, Power Electronics, and Control System.

#### **New Initiatives**

In this academic year, new initiative has been taken to conduct the STTC for exploring the research oriented education of students and also have good interaction with academic and industrial exports.

#### **Academic Programmes**

The Department is currently offering B.Tech in Electrical and Electronics Engineering and M.Tech program in Electrical Engineering. In this unique program, the students have the freedom to choose their specialization in Power System and Control, and Power Electronics & Drives depending upon the choice of elective subjects floating in even and odd semester. The department also offers Ph. D. Program for full time and part-time researchers.

**Academic Staff (Specialization)**

S. No.	Name of Faculty	Designation	Specialization
1.	Dr. Sourav Bose	HoD & Assistant Professor	Power Electronics, Electric Drives & Renewable Energy
2.	Dr. Prakash Dwivedi	Assistant Professor	Control System
3.	Dr. Mahiraj Singh Rawat	Assistant Professor	Power System & Renewable Energy
4.	Mr. V. G. Durgarao Rayudu	Assistant Professor	Control System
5.	Dr. Suryanarayana Gangolu	Assistant Professor	Power System
6.	Mr. Tripurari Nath Gupta	Assistant Professor	Power Electronics
7.	Mr. Nitesh Kumar	Trainee Teacher	Electric Drives
8.	Mr. Rohit Kumar	Trainee Teacher	Power Electronics
9.	Mr. Himesh Kumar	Trainee Teacher	Power System

**Labs and Other facilities**

**Elementary Electrical Engineering Lab:** The main objective of this lab is to clear the fundamental knowledge of the Electrical Engineering like operation of Transformer and different Tests on Transformer to find the Equivalent circuit parameters, Basic elements/components of Electrical Engineering and Electrical Machines which includes both AC and DC.

**Electrical Workshop Lab:** The course is designed to provide students a widespread knowledge and understanding of the workshop tools, Basics of the House hold Electrical Equipments and other facilities. The indispensable and pervasive knowledge of Electrical wiring and the Electronic circuit will give the students an insight to their practical approach in our daily life. To explain the various tools used by electrician wiring regulations, types of cables and electrical accessories including switches, plug, lamps, sockets, fuse Circuit breaker etc., symbols for electrical wirings, wiring schemes for the two way and three way circuits, voltage and current measurement, study of Transformer winding, Motor and Generator winding and performing the basic maintenance and troublesuiting of household equipments and energy saving etc.

- 1. Basic Electrical Circuits Lab:** To enable students to gain skill using basic electrical Laboratory equipments such as meters, Oscilloscope, DSO, DC Regulated Power supplies which skills they will need a subsequent electrical engineering laboratory and industries. To have the student gain skill recording data and reporting experimental results to effectively communicate what they have done and observed to give student self-confidence and motivation in this laboratory. The objective of this lab is to enable

students to develop a better understanding of different network theorems, Resonance, Coefficient of coupling of a transformer, Network Parameters and their practical applications in real world problems.

2. **Measurements & Instrumentation Lab:** To provide practical knowledge of various AC bridges for the measurement of inductance, mutual inductance and capacitance, various methods for the measurement of Low, Medium and High resistances, energy meters and wattmeter's, current transformer, and different Transducers.
3. **Control Systems Lab:** Control system applications are assuming an increasingly important role in developing world, making it crucial for the students to be exposed to contemporary control system equipment in realistic manner, in order to connect theoretical material thought in the lecture courses with the realities of the physical hardware and simulation throughout the computing language. To develop the problem solving skills and understanding of linear control systems through the techniques and principles of control systems like Time and frequency domain representations and analysis, Concept of stability, Functioning, Tuning, Designing and Practical applications of PID controllers, and Compensators, and Different Servo Mechanism Techniques. To obtain the accurate models, identification procedures incorporating MATLAB functions are also described.
4. **Electrical Machines Lab:** To develop Practical Knowledge and to make better study of Electrical machines and their application and the operation and various characteristics of DC Machines, Transformers, Induction Machines and Synchronous Machines.
5. **Power Electronics Lab:** To study the Various characteristics of UJT, SCR and its Commutation Techniques, study of various Converters like Rectifiers, Chopper, Inverters, Cyclo-converters and AC Regulators.
6. **Switch Gear & Protection Lab:** The main objective of this lab is to provide the knowledge of protection against the various faults generally occurred in the transmission and distribution system, Complete protection of Synchronous generators, Fault detections in the cables, Different types of Transformer protection, etc.
7. **Electrical Drives Lab:** Electrical Drives Lab is a well equipped with latest cutting edge technology in the field of Electric Drives and Control which is operating with a platform of LABVIEW, Special machines like Switch Reluctance motor, Brush Less DC motor, etc. It also comprises grid integration of DC sources like PV, Wind and Battery.
8. **Simulation Lab:** We have the various softwares like MATLAB/SIMULINK and PSIM installed in 30 computers. MATLAB is a higher level mathematical computing language that provides a broad platform for Algorithm development, Data Analysis, Data visualization, etc. Together with SIMULINK and additional tool boxes it facilitates Control System Design and Analysis, Power Electronic Converters Design and Analysis, Power System Planning and Commissioning which can be later be implemented in real time application using Real Time Workshop.





### Notable Achievements (Faculty and Students)

1. Dr. Suryanarayana Gangolu, Assistant Professor in the Department of Electrical Engineering has been awarded Doctor of Philosophy degree on 06.12.2019 by National Institute of Technology, Tiruchirapalli.
2. Mr. Suryanarayana Gangolu has submitted his PhD thesis dated on 02.07.19 at NIT Trichy.
3. Dr. Mahiraj Singh Rawat, Assistant Professor in the Department of Electrical Engineering has been awarded Doctor of Philosophy degree on 28.06.2019 by National Institute of Technology, Kurukshetra.

### Alumni Students Achievements

1. Shipra Tiwari (MT17EEE003), student of M.Tech. 2017-2019 have joined M.Sc. Postgraduate Programme in Electrical Engineering and Renewable Energy Systems in University of Leeds, United Kingdom on 23<sup>rd</sup> September 2019.
2. Neha Manjul (MT17EEE009) student of M.Tech. 2017-19 have joined Gautam Buddha University , Noida as Guest Faculty on 25<sup>th</sup> July 2019.
3. Kirti Gupta (MT17EEE005), student of M.Tech. 2017-19 have joined the Ph.D. program in Electrical Engineering at IIT Delhi on 19<sup>th</sup> July 2019.
4. BikaramadityaChandan (MT17EEE002) student of M.Tech. 2017-19 have joined the Ph.D. program in Electrical Engineering at IIT(ISM) Dhanbad.
5. ZeeshanRayeen (MT17EEE004) student of M.Tech. 2017-19 have joined the Ph.D. program in Electrical Engineering at IIT Ropar.
6. Abhishek Roshan (MT17EEE008) student of M.Tech. 2017-19 have joined the Ph.D. program in Electrical Engineering at NIT Nagaland.
7. Ms. Kirthy Gupta batch (2017-2019) received the POSOCO Power System Awards (PPSA) recognizes fresh Masters research accomplishments in power system

### Students Publications:

#### ❖ Journals

1. Ankit Uniyal, Saumendra Sarangi, "Optimal allocation of ELC in microgrid using droop controlled load flow," IET Generation Transmission & Distribution (Accepted 12 August 2019)

#### ❖ Conference publications

1. Ms. Shipra Tiwari (MT17EEE003), Mr. ZeeshanRayeen (MT17EEE004) and Ms. Kirti Gupta (MT17EEE005) students of M. Tech. Electrical Engineering were worked under the guidance of Dr. Sourav Bose and Dr. Saumendra Sarangi respectively. They published National Conference in their M. Tech. research work in "**Students Conference on Engineering and Systems (SCES-2019)**".
2. BikramadityaChandan, Prakash Dwivedi, Sourav Bose, "**Closed Loop Control of SEPIC DC-DC Converter Using Loop Shaping Control Technique**", In the proceedings of the 10th IEEE Control & System Graduate Research Colloquium 2019 ((ICSGRC 2019), Selangor, Malaysia, 2019.
3. Abhishek Roshan, Prakash Dwivedi, Himesh Kumar, "**Fuzzy based MPPT and Energy Management Strategy**", In the proceedings of the 10th IEEE Control & System Graduate Research Colloquium 2019 ((ICSGRC 2019), Selangor, Malaysia, 2019.



4. Deepak Sono, Rakesh Thapliyal, Prakash Dwivedi, "Load frequency control of two interconnected area hybrid microgrid system using various optimization for the robust controller", Accepted in the proceedings of TENCON 2019, Kerala, India.
5. Neha Manjul, Mahiraj Singh Rawat, "Transient Stability Analysis of Wind Integrated Power Network using STATCOM and BESS using DigSILENTPowerFactory," 7th International Conference on Advances in Energy Research (ICAER)2019, IIT Bombay, 10-12<sup>th</sup> Dec. 2019. (Accepted for Publication-27<sup>th</sup> Sep 2019)
6. Sunil Kumar Maurya, Saumendra Sarangi, Suryanarayana Gangolu, "Secondary Controller for PV sources in DC/AC hybrid microgrid," UPCON 2019, Aligarh Muslim University, India, 8-10 November 2019 (Accepted 10 September 2019)
7. Rajat Singh, Sunil Kumar Maurya, Saumendra Sarangi, "Improved performance of PV Module by combining two techniques" UPCON 2019, Aligarh Muslim University, India, 8-10 November 2019 (Accepted 10 September 2019)
8. Mr. Bikramaditya Chandan; Dr. Prakash Dwivedi; Dr. Sourav Bose "An Experimental Study of SEPIC Converter With BLDC Motor As Application" International Conference on Control, Automation and Systems 2019
9. Ekta Priya Darsini and Suryanarayana Gangolu "A New Scheme for Fault Detection in Transmission Line using Wavelet Transform." presented in ICOIED 2020 held from 18th to 20th Jan 2020.
10. Sunil Mourya, Suryanarayana Gangolu and Saumendra Sarangi "Unsymmetrical fault analysis of PV for different Transformer configurations" 9th IEEE Power India International Conference (PIICON-2020).
11. Rajat Singh and Sourav Bose "Closed loop control of fly back converter with PV as a source" 9th IEEE Power India International Conference (PIICON-2020).
12. Isha Chandra, Mahiraj Singh Rawat, "A comparison between Passive Islanding Detection Methods in Grid Integrated Photovoltaic System," International Conference on Innovative Engineering Design (ICoIED- 2020), Dehradun 18-20 Jan 2020. (Best Paper Award).
13. Durgesh Chandra Nautiyal, Mahiraj Singh Rawat, "Comparative study of various wind Turbine: A Review", International Conference on Innovative Engineering Design (ICoIED 2020), Dehradun, 18-20 Jan 2020.

#### **Continuing Education Programme (list of publications by faculty in the period spanning from March 2019-March 2020)**

##### **❖ Journals publications**

1. Suryanarayana, G., P. Raja, and M. P. Selvan and VenkataKirthigaMurali (2019) An Effective algorithm for Fault Discrimination and Estimation of Fault Location in Transmission Lines. IET Generation, Transmission & Distribution. (April-2020)
2. Dr. Mahiraj Singh Rawat; Shelly Vadhera (2019). Maximum Penetration Level Evaluation of Hybrid Renewable DGs of Radial Distribution Networks Considering Voltage Stability, Journal of Control, Automation and Electrical Systems, Springer US.
3. Mahiraj Singh Rawat, Shelly Vadhera (2019) Probabilistic Approach to Determine Penetration of Hybrid Renewable DGs in Distribution Network Based on Voltage Stability Index, Arabian Journal for Science and Engineering, Springer Berlin Heidelberg.

4. Sandeep Pandey, Varun Dorula, Prakash Dwivedi, and Anjali Junghare, "Introduction and realization of four fractional order sliding mode controllers for non-linear open loop unstable system: A magnetic levitation study case", Nonlinear Dynamics, Springer.

❖ **Conference publications**

1. Sourav Bose, "Internal Model Control of DFIG Based Wind Energy Conversion System" 19<sup>th</sup> International Conference on Control Automation and System (ICCAS 2019), ICC Jeju, Jeju, Korea, Oct 15-18 2019 (Accepted on 23 Sept 2019).
2. Dr. Sourav Bose; Prof. S P Singh Internal Model Control of DFIG Based Micro Wind Energy Conversion System, International Conference on Control, Automation and Systems 2019.
3. Dr. Prakash Dwivedi; Dr. Sandeep Pandey; Dr. Anjali S. Junghare "An Implicit Static Anti-windup  $P(I_{AW})^{\lambda}D^{\mu}$  Controller for Exponentially Unstable System" International Conference on Control, Automation and Systems 2019.

### Research and Development Activities

1. Dr. Prakash Dwivedi (PI) and Dr. Sourav Bose (Co-PI) have received the externally sponsored project titled "Solar powered robust E-Rickshaw control with bidirectional DC-DC converter using regenerative cycle boost charging" from the Ministry of Electronics & Information Technology (MeitY), Government of India.
2. Dr. Sourav Bose (Co-PI) have received the collaborative research grant of Rs. 3,00,000/- for the project titled "**Fault Tolerant Control Scheme for PWM Inverter Fed Induction Motor Based Electric Vehicle**" in collaboration with Ms. Chandni Bansal (PI), BTKIT Dwarahat under TEQIP-III Collaborative research scheme. (18 July 2019)
3. Dr. Sourav Bose (Co-PI) have received the collaborative research grant of Rs. 2,00,000/- for the project titled "**Open Circuit Fault Tolerant Operation of Five Phase Induction Motor Drive Used in Electrical Vehicle**" in collaboration with Mr. Prankit Gupta (PI), BTKIT Dwarahat under TEQIP-III Collaborative research scheme. (18 July 2019).

### STC-1 Organized- December-2019

A five days STC was organized by Department of Electrical Engineering, NIT Uttarakhand and Department of Electrical & Instrumentation on "**Computational Techniques in Electrical Engineering**" under Twinning activity and sponsored by TEQIP III held at NITUK (Parent Campus) during 19<sup>th</sup>- 23<sup>rd</sup> November, 2019.

### One Week Short Term Course (STC-2)

A One Week STC was organized by Department of Electrical Engineering, NIT Uttarakhand on "**Renewable and Sustainable Development of Electrical Energy Systems**" sponsored by TEQIP-III held at NITUK (Parent Campus) during 25<sup>th</sup>- 29<sup>th</sup> November, 2019.

### STC-3 Organized- January-2020

A five days STC was organized by Department of Electrical Engineering, NIT on "**MATLAB & LABVIEW: Applications in Engineering & Sciences**" sponsored by TEQIP III held at NITUK (Parent Campus) during 20<sup>th</sup>- 24<sup>rd</sup> January, 2020.

❖ **Short Term Training by the Students: 18th to 22nd March-2019**

1. Department of Computer Science and Engineering, NIT, Uttarakhand and SantLongowal Institute of Engineering and Technology (SLIET), Punjab was organized a Short Term Training Program on “Artificial Intelligence and Sustainable Applications” from 18th to 22nd March, 2019. Regarding to this, Mr. ZeeshanRayeen (MT17EEE004), Ms. Kirti Gupta (MT17EEE004) and Mr. Divakar (MT18EEE004) students of Electrical Engineering Department, was joined the program which helped the student in their M.Tech research.
2. Mr. Rakesh Thapliyal (ID-20199037) Ph.D. research scholar of Electrical Engineering Department is went to join the Short Term Course on “Next Generation Power Converters: Design, PWM strategy and control” during 1<sup>st</sup> -5<sup>th</sup> July 2019 at IIT, Delhi.
3. Mr. ShivamTripathi (MT18EEE011), M. Tech (Power System & Control), went to attend the Short Term Course on “Advances in Process Control & Instrumentation” during 15-19<sup>th</sup> July, 2019 at NIT Kurukshetra, Haryana, India.
4. 16th to 21<sup>st</sup> April, 2019, The student Ms. Shipra Tiwari (MT17EEE003), visited NIT Kurukshetra to utilize the lab facility to complete her M. Tech project work.

### 08.01.05 Department of Mechanical Engineering

The Department of Mechanical Engineering at the National Institute of Technology, Uttarakhand was established in 2012 and currently has an intake of 30 UG and 15 PG students per year. The Department offers B. Tech. course in Mechanical Engineering, M.Tech. Program in Manufacturing Technology and Machine Design and a PhD program. The department has flexible academic structure with numerous core and elective courses, to facilitate the students to opt for the courses of their interest.

#### Faculty Profile

S. No.	Faculty Name	Designation	Specializations
1.	Dr. Lalta Prasad	Associate Professor and Head	Biomass Gasification, Alternative Fuels, Renewable Energy, Composite materials
2.	Dr. Sanat Agrawal	Associate Professor	Additive Manufacturing and Computer Aided Design
3.	Dr. Gurinder Singh Br ar	Associate Professor	Advanced Machining and Joining Processes
4.	Dr. Pawan Kumar Rakesh	Assistant Professor	Polymeric Composite Materials
5.	Dr. Vinod Singh Yada v	Assistant Professor	Internal Combustion Engines, Alternate Fuels and Emissions, Non-Conventional Sources of Energy
6.	Dr. Apurba Mandal	Assistant Professor	Nano mechanics, Computational analysis of nanomaterials, nanocomposites and nanostructures, multi- scale modelling

7.	Dr. Vikas Kukshal	Assistant Professor	Advanced Manufacturing Processes, CAD/CAM
8.	Dr. DungaliSreehari	Assistant Professor	Production Technology, Advance Manufacturing Processes
9.	Mr. Hitesh Sharma	Assistant Professor	Composite Materials, Metal Cutting
10.	Mr. T. Sudhakar	Assistant Professor	Two Phase Flow, Heat Transfer, CFD
11.	Dr. Anshul Sharma	Assistant Professor	Smart Structures, Structural Dynamics and Control, FEM, Energy Harvesting.
12.	Dr. Niraj Kumar Mishra	Assistant Professor	Fluids and Thermal
13.	Dr. Yogesh Kumar Prajapati	Assistant Professor	Fluids and Thermal
14.	Mr. Gaurav Kumar	Trainee Teacher	Manufacturing Engineering
15.	Mr. Deepak Kumar	Trainee Teacher	Thermal Engineering
16.	Mr. Prashant Tiwari	Trainee Teacher	Design Engineering, Mechanical Vibration

## Laboratories

### 1. Heat Transfer Lab

- Refrigeration Test Rig
- Stefan’s Law Apparatus
- Cooling Tower Test Rig
- Pool Boiling apparatus.
- Air Conditioning Test Rig
- Heat Transfer in Forced Convection
- Air Duct Test Ring
- Shell & Tube Heat Exchanger



### 2. Applied Thermodynamics Lab

- One Cylinder 4 Stroke Diesel Engine Test Rig
- One Cylinder 4 Stroke Diesel Engine Test Rig 7.5kw
- One Cylinder 2 Stroke Petrol Engine Test Rig
- Single Stage Air Compressor Test Rig
- Double Stage Test Air Compressor



- Babcock & Wilcox Boiler Model
- Lancashire Boiler Model
- Model of 4 Stroke Diesel Engine
- Model of Fuel Supply System

### 3. Fluid Mechanics Lab

- Pelton Wheel Turbine Test Rig
- Francis Turbine Test Rig
- Gear Pump Test Rig
- Bernoulli's Theorem kit
- Coriolis's Force Demonstration
- Reynolds's Apparatus
- Losses in Pipes Apparatus
- Orifice meter, Venture meter, Rota meter Apparatus
- Free and Forced Vortices Apparatus
- Models of Different Types of Pumps and Turbines



### 4. Solid Mechanics Lab

- Brignell Hardness Tester
- Universal Testing Machine
- IZod Test, Charpy Test
- Hook's Law Apparatus
- Tri Filler Suspension
- Deformation of the Straight Beam Apparatus
- Deformation of Curved Beam Apparatus



### 5 Kinematics of Machine Lab

- Static and Dynamic Balancing
- Whirling of Shafts Apparatus
- Motorized Gyroscope
- V-Belt Drives Model.
- Double Hook Coupling
- Winch Apparatus
- Combined Flat & V belt friction Apparatus
- Worth Quick Return Mechanism
- Smart Structure Instrument
- Vibration Shakers





- Universal Vibration Apparatus

### 6. Computer Aided Design Lab

- Auto Cad Software
- ANSYS 18.0 Software
- CATIA R6 Software



### 7. Measurement Lab

- Microscope.
- Sine Bar, Slip Gauge
- Vernier height gauge Micrometer
- Vernier caliper
- Go & No-Go gauges
- LVDT Apparatus
- Microwave for Material Processing



### 8. Machine Tool Lab

- Lathe Machine
- Milling Machine
- Wood Turning machine
- Shaper Machine
- Surface Grinder
- Drilling Machine
- Hydraulic Punching Machine
- Fly Press



### Research in Department

➤ Total number of publications in International Journals (Last three years): 25  
Some International Journals in which the faculty of department has published work are: -

- ❖ Journal of Applied Thermal Engineering; Elsevier Publisher
- ❖ Journal of Natural Fibers; Taylor and Frances Publisher
- ❖ Internal Journal of Heat and Mass transfer; Elsevier Publisher
- ❖ Journal of Chemical Engineering Science; Elsevier Publisher
- ❖ Journal of Precision Engineering; Elsevier Publisher.
- ❖ Journal of thermoplastic composite materials; Sage Publisher.
- ❖ Journal of Measurement of Control; Sage Publisher.
- ❖ Journal of Polymers and Polymer composites; Sage Publisher.
- ❖ Journal of Material Research Express; IOP Science.



Total number of publications in International conferences (Last three years): 30

- ❖ Twenty-five students are pursuing Ph.D. in the Department of Mechanical Engineering. Among twenty five Ph.D. students, 12 are Full-time and 13 are Part-time students.
- ❖ Faculty members have also won some best paper awards in reputed International Conferences.
- ❖ Department has also organized two STC/STTP courses in last year

Students' Chapter of the Institution of Engineers (India) – The Institution of Engineers (India), IEI, is the largest multidisciplinary professional society of engineers, established in 1920. The Students' Chapter of IE(I) was inaugurated at NIT, Uttarakhand in October, 2018. Dr. Gurinder Singh Brar is currently the Faculty Adviser of the Students' Chapter of IEI.

### Students Projects

#### Technical Activities

- ❖ Students of SAE club participated in SHELL ECO-MARATHON INDIA 2019 competition from 18<sup>th</sup>-23<sup>rd</sup> November, 2019 and got the fifth rank all over India in battery operated vehicle section.
- ❖ NIT Uttarakhand SAE India Collegiate Club has successfully completed in Phase-I evaluation in the Hero E-bike Challenge organized by Imperial Society of Innovative Engineers at K L University, Vijayawada.

#### Industrial Visits

To provide the better learning experience to students, department also offers industrial visits to students. Students are allowed to see the application of various engineering concepts at the ground level and interaction with senior officials and engineers make them more actively concerned about their responsibility and possible work profile for tomorrow. The B. Tech students of the department visited:

M/s Volkswagen India Pvt. Ltd. Pune

M/s Bhusan Steel, Pune

Prinit Engineering Works, Pune

#### Candidates completed/doing PhD

- ❖ Candidates completed: 01
- ❖ Candidates ongoing: 12(Full-time), 13(Part-time)

#### R&D achievements

- ❖ Publications in reputed International Journals: 8
- ❖ Publications in reputed International and national Conference: 10

**Books Published:**

- ❖ Kumar M, Kumar G, Kukshal V. On Finite Element Analysis of Melting of Metallic Powders Using Microwave Energy at 2.45 GHz. In Advances in Computational Methods in Manufacturing 2019 (pp. 703-717). Springer, Singapore.
- ❖ Kukshal V, Sharma A, Kiragi VR, Patnaik A, Patnaik TK. Erosive Wear Behaviour of Carbon Fiber/Silicon Nitride Polymer Composite for Automotive Application. In Automotive Tribology 2019 (pp. 117-129). Springer, Singapore.
- ❖ Sharma A, Bhojak V, Kukshal V, Biswas SK, Patnaik A, Patnaik TK. Mechanical and Erosion Characteristics of Natural Fiber Reinforced Polymer Composite: Effect of Filler Size. In Automotive Tribology 2019 (pp. 101-116). Springer, Singapore.
- ❖ Gairola, Sandeep, Somit Gairola, and Hitesh Sharma. "Environment Effect on Impact Strength of Pistachio Shell Filler-Based Epoxy Composites." Advances in Applied Mechanical Engineering. Springer, Singapore, 2020. 801-808.

**Training Program held for students****Workshops/STC Organized:****❖ STC on Research Methodology**

A one-week short term course (STC) on research methodology was organized by the Department of Mechanical Engineering at satellite campus of NIT Uttarakhand located at MNIT Jaipur in joint collaboration with MNIT Jaipur and SLIET Longowal from 27th to 31st May 2019. The STC was primarily designed for the budding researchers to provide them the guidelines and method to undertake their research work. Experts from MNIT Jaipur and SLIET Longowal from the various discipline of Science and Engineering delivered the lectures on various aspects of research methods. Total 55 participants attended the STC on Research Methodology, including the Ph.D. scholars from NIT Uttarakhand, MNIT Jaipur and faculties from different Institutes. The experts introduced the participants with the various design of experiments tools such as Response Surface Method, Taguchi Design etc. The statistical tools such as correlation and regression technique using Excel and MATLAB were discussed in details. Experts also discussed the method to write the research proposal and paper writing. The STC was successfully organized and fulfilled all its objectives. The participants enjoyed the stay at MNIT Jaipur and Rajasthani food during the course.



Inaugural function of Short Term Course on Research Methodology

#### ❖ **STC on Application of Statistics in Experimental Techniques**

A one Week short term course (STC) on **“Application of Statistics in Experimental Techniques”** was organized at satellite campus of NIT Uttarakhand located at MNIT Jaipur in joint collaboration with MNIT Jaipur from **July 29 to August 2, 2019**. The STC was primarily designed for the budding researchers so as to provide them the guidelines and different experimental technique to undertake their research work. Experts from different discipline of Science and Engineering delivered lectures on various aspects of research methods. The experienced experts were from MNIT Jaipur and SLIET Longowal. Total 75 participants attended the STC on Application of Statistics in Experimental Techniques which includes the Ph.D. scholars from NIT Uttarakhand, MNIT Jaipur and faculties from different Institutes. The course started with the introduction to statistics and overview of software and different methods of problem formulation. The experts introduced the research scholars with the various design of experiments tools such as response surface method, Taguchi Design etc. The statistical tools such as correlation and regression technique using Excel and MATLAB were discussed in details. Experts also discussed the method to write the research proposal and paper writing. The importance of plagiarism and the details were also discussed by the experts. The STC was successfully organized and fulfilled all its objectives. The participants enjoyed the stay at MNIT Jaipur and different Rajasthani food during the course.





Inaugural function of Short Term Course on Application of Statistics in Experimental Techniques

#### ❖ STTP on Emerging Topics in Fluid Mechanics

A one-week short term course (STC) on Emerging Topics in Fluid Mechanics was jointly organized by Department of Mechanical Engineering & Department of Mathematics at satellite campus of NIT Uttarakhand located at MNIT Jaipur from October 14 to October 18, 2019. The STC was primarily designed for the budding researchers to provide them the guidelines for different experimental and numerical techniques to undertake their research in the area of fluid mechanics. Experts from different discipline of science and engineering delivered the lectures on various aspects of fluid mechanics.

Knowledge and understanding of the basic principles and concepts of fluid mechanics and microfluidics are essential to analyze any problem in which a fluid is the working medium. The design of almost all means transportation requires application of fluid mechanics. Computational fluid dynamics (CFD) is a tool being extensively used in research as well as in the industry for solving complex fluid flow and heat transfer problems. In recent past, CFD has developed into a rich and diverse subject and has emerged as a major component of applied and basic fluid dynamic research along with theoretical and experimental studies. The STC was organized to fulfil all the above-mentioned objectives.

The eminent speakers were from IIT Kharagpur, IIT Delhi, NITs and other reputed university. The total 55 participants attended the STTP on Emerging Topics in Fluid Mechanics which includes the Ph.D. scholars from NIT Uttarakhand, MNIT Jaipur and scholars from different institutes. The course started with the introduction to microfluidics by Prof. Suman Chakraborty, IIT KGP to overview of microfluidics with different aspects. The experts



introduced the participants with the various design of microfluidics devices for different application, modeling of biological flows, flow net and its application, simulation on CFD, turbulence in CFD, models on dynamical system, application of nanofluids etc.

The STC was successfully organized and fulfilled all its objectives. The participants enjoyed the stay at MNIT Jaipur and different Rajasthani food during the course.



Inaugural function of STP on Emerging Topics in Fluid Mechanics



Prof. Suman Chakraborty IIT KGP, delivering lecture in STTP.

### ➤ State Level Exhibition Cum Innovation Competition

Design innovation Center (DIC), of NIT Uttarakhand organized a state level exhibition cum innovation competition on Sept 27<sup>th</sup>, 2019. Chief Guest Honorable Minister of Higher education, Uttarakhand Dr. Dhan Singh Rawat along with MLA from Pauri Garhwal Mr. Mukesh Kohli, Director NIT Uttarakhand Prof. Shyam Lal Soni, Registrar NIT Uttarakhand Col. Sukhpal Singh, Coordinator DIC IIT Roorkee Prof. Apurba Kumar Sharma and other Institution officials inaugurated the grand event by lighting the sacred lamp.

Twenty Five teams from various parts of state including school students from various districts of Uttarakhand participated in this Innovation competition. IoT based application projects and waste management treatment plant was the center of attraction. The event showcased several projects in innovation categories with focus on remote areas of state in the field of waste management, smart home design and automation. Team KV IMA, Dehradun bagged first prize of rupees fifteen thousand for their project Smart devices for physically impaired people, whereas team DPS Ranipur, Haridwar won second prize of rupees ten thousand and team KV SSB Srinagar won third prize of rupees five thousand. Also institute felicitated five teams (DPS Ranipur Haridwar, GIC Aser Simli, BR New Modern School, Pauri, St. Theresa's School Srinagar and GIC Khandah Pauri) with consolation prizes of two thousand for each team. The prizes to the winners were given away by Prof. R. K. Garg, NIT Jalandhar.

Event Coordinator Dr. Pawan Kumar Rakesh, Dr. Vikas Kukshal, Dr. Dungali Sreehari, Dr. Yogesh Kumar Prajapati and other faculty members were present during this ceremony.







#### Conferecces Organized:

- ❖ National Conference on “**Pollution Control Technologies and Sustainable Development**” organized by MNIT and NITUK from October 3-4, 2019 under TEQIP-III project.
- ❖ A Three day **International Conference on Innovative Engineering Design (ICOIED 2020)** was successfully organized at The Institution of Engineers (IEI), Dehradun; jointly organized by Design Innovation Centers of National Institute of Technology Uttarakhand (NIT Uttarakhand) & Indian Institute of Technology Roorkee (IIT Roorkee) and The Institution of Engineers, Dehradun during January 18-20, 2020. ICOIED 2020 is an excellent initiative from the organizers to provide extra ordinary platform for sharing and

thinking globally about the interdisciplinary innovative ideas to leading upliftment of quality of life by aiming the current challenges encountered by society. The conference was inaugurated by **Dr. Dhan Singh Rawat** (State Minister of Higher education, cooperative (independent charge), protocols and dairy development), **Prof. Shyam Lal Soni** (Director, NIT Uttarakhand), **Er. Narendra Singh** (President, the Institution of Engineers (IEI), Kolkata), **Prof. Apurbba Kumar Sharma** (Coordinator, Design Innovation Centre, IIT Roorkee), **Er. Jagroop Singh** (FIE chairman, MCB, IEI), **Prof. M.P. Jain** (FIE member, IEI, UKSC), **Er. A.K. Dinkar** (Chairman, IEI Dehradun), **Dr. Rajendra Dobhal**, Director General, Uttarakhand State Council for Science and Technology), **Prof. R.C. Joshi** (Chancellor, Graphic Era University), **Prof. K.K. Raina** (Vice-Chancellor, DIT University), **Prof. Anantharajan Senthil Kumar** (National University of Singapore), **Dr. Pawan Kumar Rakesh**, NIT Uttarakhand and **Er. Dharam Chandra Arora** (Honorary Secretary, IEI Dehradun).



In the inaugural session, Prof. Anantharajan Senthil Kumar (NUS, Singapore), Prof. Apurbba Kumar Sharma (IIT Roorkee), Prof. Inderdeep Singh (IIT Roorkee), Dr. Amar Patnaik (MNIT Jaipur), Dr. Tej Singh (Savaria Institute of Technology, Hungary), Prof. Satinder Paul Singh, Indian Institute of Technology Delhi (IIT Delhi), motivated researchers and shared their innovative ideas. Er. Dhrama Chandra (Honorary Secretary, IEI) gave vote of thanks to delegates and researchers.

After plenary talks, two parallel technical sessions were successfully conducted followed by cultural program and dinner.

On the second day, Prof. Rajat Agarwal, IIT Roorkee; Prof. Subir Das, National Institute of Design, Ahmedabad; Dr. Deepak Joshi, IIT Delhi; Prof. Gaurav Raheja, IIT Roorkee; and Prof. Sarabjit Singh, PEC Chandigarh, delivered their plenary talk on Design and Innovation. After



plenary talks, four parallel technical sessions were successfully conducted followed by dinner. Delegates/Students from different IITs, NITs and other Engineering colleges were highly inspired by their valuable input and ideas.



On January 20, 2020, last day of International Conference on Innovative Engineering Design (ICoIED 2020), Prof. Narendra Singh Chaudhari (Vice Chancellor, UTU) was the chief guest presided by Dr. Narenra Singh (Technical Advisor, Honorable Chief Minister, Uttarakhand) for valedictory ceremony. Er. Narendra Singh (President, IEI Kolkata), Prof. Shyam Lal Soni (Director, NIT Uttarakhand), Shri N. Ravishankar (Chancellor, DIT University), Dr. Sandeep Vijay (Director, Shivalik College of Engineering), Prof. Amit Aggrawal (Director, Dr. APJ Abdul Kalam Institute of Technology, Tanakpur), Dr. Dharmendra Tripathi, Dr. Hariharan Muthusamy, Dr. Pawan Kumar Rakesh (NIT Uttarakhand), Prof. MP Jain (Director, Professional Skill Development Cell, IEI UKSC), Er. AK Dinkar (Chairman, IEI UKSC), Er. Dharam Chandra (Honorary Secretary, IEI) shared their thought and encouraged researchers to do best in their field.

#### **Collaborative activities:**

- ❖ Arranged lectures by faculty from SLIET to cover syllabi of courses, partially, for B.Tech students.

#### **Gate qualified student's data:**

- ❖ A total of 17 students qualified in GATE-2019.

Information regarding NBA accreditation: Accredited & Applied-for: Not applied

### 08.01.06 Department of Physics

#### New Initiatives

Organization of various short term training programs/short term course/workshops for Ph.D. students and faculty members of the institute, and guest lectures for B.Tech. students with SLIET Longowal under twinning activities of TEQIP-III.

#### Academic Programmes

Department of Physics offers Ph.D. degree in Physics. The broad areas of research include materials science: thin films, magnetism, spintronics, nanowires; optoelectronics, and theoretical condensed matter.

Two students of the department have successfully defended their Ph.D. viva-voce in September and October, 2019. Currently, one student is pursuing his Ph.D. at the department. The details of Ph.D. students are as follows:

- **Ph.D. Completed:**

1. Ms. Shivani Agarwal

Supervisor: Dr. Manvendra S. Khatri, Assistant Professor

2. Ms. Deepshikha Painuly

Supervisor: Dr. Indrajit M. Nagpure, Assistant Professor

- **Ph.D. Pursuing:**

1. Mr. Hardepinder Singh

Supervisor: Dr. Hardeep Kumar, Assistant Professor

#### Notable Achievements

A research project of amount ~ 6.39 Lacs plus HRA (funding agency: UGC DAE CSR, Indore) is sanctioned to Dr. Hardeep Kumar, Assistant Professor in the department in March 2020 (submitted in March 2019.).

#### Research and Development Infrastructure

- Various research instruments are under procurement process. The available instruments for research are as mentioned below:-

- **Spray pyrolysis set up:** For thin films synthesis
- **Materials synthesis by chemical route**



**ACADEMIC STAFF**

- Department of Physics has four faculty members. The details of faculty members and their specialization are mentioned as follows:

S. No.	Faculty Name	Designation	Areas of Specialization
1.	Dr. Hardeep Kumar	HOD & Assistant Professor	Experimental Condensed Matter Physics: Thin films, Spintronics, Magnetic materials
2.	Dr. Manvendra Singh Khatri	Assistant Professor	Experimental Condensed Matter Physics: Magnetic Materials and Electrodeposition
3.	Dr. Nagpure Indrajit Manohar	Assistant Professor	Material Science and Optics: Solid state lighting, LED, OLED, TLD and Solar Cells
4.	Dr. Jagrati Sahariya	Assistant Professor	X-ray scattering, charge and magnetic Compton Profile, density functional theory, Ab-initio calculations, solar cell materials.

- Department of Physics has one non-teaching staff. The details of non-teaching and her designation are mentioned as follows:

S. No.	Name	Designation
1	Mrs. Neha Raturi	Technical Assistant

### Continuing Education Programme

- The faculty members of department attended Seminars, Conferences and Workshops under the continuing education programmes. The details are as follows:

- Dr. Jagrati Sahariya has completed a NPTEL course on Solar Photovoltaics Fundamentals Technology & applications.
- Dr. Hardeep Kumar, participated in QIP Short Term Course on “TEM and HRTEM Analysis of Materials” at IIT Kanpur during 2-6 Sept., 2019.

- The list of publications by faculty members of the department in reputed journals during the year is as follows:**

- Improved Hydrogen Sensing Behaviour in Ion-Irradiated Pd-Au Alloy Thin Films, Deepti, H. Kumar\*, A. Tripathi, A. B. Dey, M. Gupta, R. Krishna, D. K. Avasthi\* ; Sensors and Actuators B: Chemical, 301, 127006 (2019) (First online: September 16, 2019)
- Structure, microstructure and magnetic properties of pulse electrodeposited CoFe-Cu granular thin films, S. Agarwal, R. P. Singh, M. S. Khatri, Applied Physics A 125, 594 (2019) (First online: August 7, 2019).
- Electronic and Optical Response of Chalcopyrites  $Cu_2InMSe_4$  (M = Al, Ga): First Principles Investigation for Use in Solar Cell; **Jagrati Sahariya**, Ushma Ahuja, Amit Soni; Journal of Electronic Materials; 48 (2019) 6521.
- Electronic, structural and optical features for ternary  $ZnSnAs_2$  compound: A first principle's density functional investigation; A. Soni, A. Gaur, K. Khan, **Jagrati Sahariya\***; Material Today Proceedings; 19 (2019) 564.
- Investigating effect of strain on electronic and optical properties of lead free double perovskite  $Cs_2AgInCl_6$  solar cell compound: A first principle calculation; A. Soni, K.C. Bhamu, **Jagrati Sahariya\***; J. Alloys Comp. 817 (2020) 152758 (First online Oct. 2019)
- Density functional investigations to study effect of M = (Ge, Sn) doping on opto-electronic response of  $ZnSi(1-x)MxP_2$ ; K. Khan, A. Gaur, U. Ahuja, A. Soni, **Jagrati Sahariya\***; Optik - International Journal for Light and Electron Optics 208 (2020) 164570
- Transformation of Au-Pd alloy nanoparticles to core-shell nanoparticles by electron irradiation, Deepti, B. Tripathi, **Hardeep Kumar\*** et al., J. Alloys and Compounds (2020), **Article in press.**
- Influence of thermal treatment on the structural and optical properties of methoxy-substituted 2, 4-diphenyl quinoline; Deepshikha Painuly, Y. Müllemwar, E. Rabanal, Singhal, **I. M. Nagpure.**, Applied Physics-A, 125 (2019) 137

- Papers presented in International Conferences/workshops of repute:**

- Dr. Hardeep Kumar** presented a poster on *paper titled* “Effect of strain on magnetic properties of FeRh epitaxial films” in Indo-French Seminar on “Radiation Damage in Nuclear Materials” during 18-20 Feb, 2019 at Amity University UP, Noida.



2. **Dr. Jagrati Sahariya** has presented a paper entitled “Investigation of structural and optoelectronic properties of  $\text{ZnSi}_{1-x}\text{Ge}_x\text{P}_2$  ( $x = 0, 0.125$ ) compound using density functional theory” in 3<sup>rd</sup> International Conference on Condensed Matter and Applied Physics during Oct. 14-15, 2019 at Govt. Engg. College Bikaner.

### Other Achievements

1. Department of Physics conducted the Curriculum Development Workshop (CDW) to revise the courses for B.Tech. program, and to include new courses for B.Tech. & Ph. D programs on 22<sup>th</sup> May 2019. Prof. S.C. Bhatt from Department of Physics, HNB Garhwal University (A Central University) was the expert in the CDW.
2. Department of Physics organized a Short Term Training Programme (STTP) on “Synthesis and Characterization of multifunctional materials” with SLIET Longowal during 11-15 Nov 2019 at NITUK-parent campus, Srinagar Garhwal.



3. Subject experts from SLIET Longowal were invited under twinning activity of TEQIP-III during 11-15 Nov, 2019 to deliver expert lectures to B.Tech. students on Applied Physics course (SCL154). Dr. Hardeep Kumar and Dr. M.S. Khatri coordinated the lectures at NITUK-parent campus. The details of expert lectures are as follows:-

a) Prof. M.M. Sinha, SLIET Longowal delivered lectures on “Crystallography and miller indices” topics of Applied Physics course.

b) Dr. Ashwani Kumar Agarwal, SLIET Longowal delivered lectures on “Semiconductors and junction diode” topics of Applied Physics course.



4. Guest lecture on “Thin film deposition and characterization facilities at UGC DAE CSR, Indore” by Dr. Mukul Gupta (Scientist, UGC DAE CSR, Indore) was organized at NITUK-parent campus, Srinagar Garhwal on 26 Nov, 2019. Dr. Hardeep Kumar coordinated the lecture.



A National Conference on “Recent Advancement in Physical Sciences” was jointly organized by Department of Chemistry, Department of Physics and Department of Mathematics at satellite campus of NIT Uttarakhand located at MNIT Jaipur during December 19-20, 2019.



6. Short Term Course (STC) on “Advanced Functional Materials, Characterization & Applications” (AFMCA–2020) sponsored by TEQIP-III (Under Twining Activity) was organized by Department of Physics from 29<sup>th</sup> Feb. to 04<sup>th</sup> March, 2020 at NITUK, Satellite campus jointly with Department of Chemistry, NIT Uttarakhand, Department of Physics, MNIT Jaipur and Department of Physics, SLIET Longowal.



## Laboratories

- **Applied Physics Laboratory**

Applied Physics laboratory for B. Tech. first year students is functional since 2010. Following experimental facilities are available for B. Tech. students.



**List of Equipments for B.Tech. are as follows:**

- Newton's Ring
- Planck's Constant
- Sonometer
- Faraday effect
- Optical fiber kit
- Dielectric constant set up
- Standard Spectrometer
- CdS Cell
- Hall Effect Kit
- Four Probe Set-up
- Steward Tangent Galvanometer
- Solar Cell Experimental Kit
- He-Ne Laser Source



Four Probe Set up



Spectrometer



## 08.01.07 Department of Chemistry

## Faculty Profile:

Sr. No.	Name & Designation	Specialization
1.	Dr. Pankaj Kandwal, Assistant Prof. (Gr-I) & Head of Department	Membrane based separation techniques: Synthesis, characterization and application; Quantum Chemical & Density Functional Theory (DFT) based calculation to investigate nature of chemical bonding in metal-ligand systems.
2.	Dr. Kamal Kant Tiwari, Assistant Prof. (Gr-I) & Coordinator	Inorganic Chemistry, Coordination Chemistry, Groundwater Quality, Bio-inorganic Chemistry, Hydrogeochemistry
3.	Dr. Rampal Pandey, Assistant Prof. (Gr-I)	Inorganic Chemistry, Organometallic Chemistry, Metal-Organic Frameworks, Photocatalysis, Supramolecular Chemistry and Chemical Sensing
4.	Dr. Saroj Ranjan De, Assistant Prof. (Gr-I)	Total Synthesis of Bioactive Natural Products, Transition Metal catalyzed C-H activation reactions, Regiocontrol Reactions of Benzynes & its synthetic applications, Creation of new bio functional molecules for drug discovery and/or medical treatment.
5.	Dr. Rakesh Kumar Mishra, Assistant Prof. (Gr-I)	Small Molecule Probes, Biomimetic Self-assembly, Systems Chemistry, Smart Functional Materials, Covalent Organic Frameworks, Soft and Hybrid Materials

## (B) Publications:

Sr. No.	Publication Details
1.	Perturbation in cellular redox homeostasis: Decisive regulator of T cell mediated immune responses. Lokesh Gambhir, Vineet Sharma, <b>Pankaj Kandwal</b> , Sanjai Saxena, International Immunopharmacology, 67 (2019) 449-457.

2.	Comparative studies on Transport of Uranium(VI) by TBP and DHDA using a Flat Sheet Supported Liquid Membrane (FSSLM). Rohit Kumar, <b>Pankaj Kandwal</b> , Seraj A. Ansari, P.K. Mohapatra
3.	Carbon-Doped Titanium Dioxide Nanoparticles: A Facile Synthesis, Characterization and their Photocatalytic Activity. Charu Negi, Himani Sharma, <b>Pankaj Kandwal</b> , Rahul Singhal, Charu Dwivedi. DOI: 10.1016/j.matpr.2019.12.283
4.	Pertraction of U(VI) through liquid membranes using monoamides as carrier ligands: experimental and theoretical studies. Rohit Kumar, Seraj A. Ansari, <b>Pankaj Kandwal</b> , Prasanta K. Mohapatra. DOI: <a href="https://doi.org/10.1007/s10967-019-06998-5">https://doi.org/10.1007/s10967-019-06998-5</a>
5.	Self-Assembled Extended- $\pi$ -Systems for Sensing and Security Applications, V. K. Praveen, B. Vedhanarayanan, A. Mal, <b>Rakesh K. Mishra</b> , and A. Ajayaghosh, Acc. Chem. Res. 2020, 53, 496–507.
6.	Supramolecular Surface Charge Regulation in Ionic Covalent Organic Nanosheets for Reversible Exfoliation and Controlled Bacterial Growth, A. Mal, S. Vijayakumar, <b>Rakesh K. Mishra</b> , J. Jacob, R. S. Pillai, Dileep Kumar B. S., A. Ajayaghosh, Angew. Chem. Int. Ed. 2019.
7.	Bimodal detection of carbon dioxide using a fluorescent molecular aggregate, <b>Rakesh K. Mishra</b> , S. Vijayakumar, A. Mal, V. Karunakaran, J. C. Janardhanan, K. K. Maiti, V. K. Praveen and A. Ajayaghosh, Chemical Communication, 2019, 55, 6046-6049.
8.	Indolo[3,2-b]indole donor-based D- $\pi$ -A dyes for DSCs: investigating the role of $\pi$ -spacers towards recombination, P. V. Santhini, Jayadev V., S. C. Pradhan, S. Lingamoorthy, Nitha P. R., Chaithanya M. V., <b>Rakesh K. Mishra</b> , Narayanan U. K. N., J. John and S. Soman, New Journal of Chemistry, 2019, 43, 862-873.
9.	Covalent Organic Framework Based Materials for Sensing and Self-Assembly Applications; <b>Rakesh K. Mishra</b> , Journal of Scientific Research, 2019, 63, 219-227.
10.	Zinc(II), copper(II) and cadmium(II) complexes as fluorescent chemosensors for cations. <b>Rampal Pandey</b> , Ashish Kumar, Qiang Xu and Daya Shankar Pandey. Dalton Transactions, 2020, 49, 542-568; Royal Society of Chemistry Publication).



11.	Development of a fused imidazo[1,2-a]pyridine based fluorescent probe for Fe <sup>3+</sup> and Hg <sup>2+</sup> in aqueous media and HeLa cells, Suman Srivastava, Neha Thakur, Ashutosh Singh, Poonam Shukla, Vipin Maikhuri, Neha Garg, Ashok Prasad and <b>Rampal Pandey*</b> RSC Advances, 2019, 9, 29856.
12.	Autocatalytic Decarboxylative Conversion of Itaconic Acid to Methacrylic Acid and Fluorescent Co(II)-MOFs for Structure Regulated Cation Detection, Neha Thakur, Mrituanjay D. Pandey and <b>Rampal Pandey*</b> J. Solid State Chem. 2019, 280, 120987. Elsevier Publication.
13.	Synthesis, characterization and antimicrobial activities of benzothiazole-imino-benzoic acid ligands and their Co(II), Ni(II), Cu(II), Zn(II) and Cd(II) complexes, Neha Mishra, Surendra Singh Gound, Rajesh Mondal, Ritu Yadav and <b>Rampal Pandey*</b> , Results in Chemistry. 2019, 1, 100006.

**(C) Conferences/Symposium/Seminar attended:**

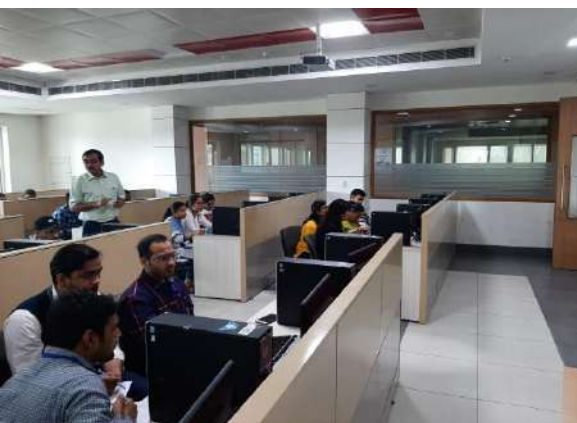
Sr. No.	Details
1.	Neha Mishra, Ritu Yadav, Kaushal Kumar, Himanshu Pandey and <b>Rampal Pandey*</b> , Conventional vs Microwave assisted SiO <sub>2</sub> /P205 catalyzed synthesis of Schiff bases, 2020, J. Phys.: Conf. Ser. 1504 012002
2.	Durgesh Singh, Neha Thakur, Krishna K. Raj and <b>Rampal Pandey*</b> , Development of aminoethylpyridine based N,N,N,O-donor fluorescent probes for the detection of Fe <sup>3+</sup> and Hg <sup>2+</sup> in aqueous media, 2020, J. Phys.: Conf. Ser. 1504 012001.

**(D) Patents filed/granted:**

Sr. No.	Details	Status
1.	Indian patent filed (No. 201811018132) by <b>Dr. Rampal Pandey</b>	Under revision
2.	Indian patent filed in 2017 (No. 201711019223) by <b>Dr. Rampal Pandey</b>	Revised and submitted.

## (E) Conference/Symposium/Seminar/Workshop/FDP/STTP/STC organized:

Conference/Workshop/FDP/STP/STTP:			
Sr. No.	Event/Title	Duration	Details
1.	Workshop on “Density Functional Theory and its Applications using GAUSSIAN Software”	24 <sup>th</sup> – 28 <sup>th</sup> Feb. 2020	<p>The TEQIP-III funded training workshop was jointly organized by Deptt. of Chemistry, NIT Uttarakhand, Deptt. of Chemistry, MNIT Jaipur and Deptt. of Chemistry, SLIET Longowal. Following four experts were invited to deliver talks on basic foundation of DFT and its applications in various areas of computational methods in Chemistry and material sciences;</p> <ol style="list-style-type: none"> <li>1. Dr. Tapan Ghanty, TCS, BARC, Mumbai</li> <li>2. Dr. Ayan Ghosh, LPTD, BARC, Mumbai</li> <li>3. Dr. Arup Banerjee, RRCAT, Indore</li> <li>4. Dr. Neelima Gupta, Deptt. of Chemistry, Rajasthan University,</li> </ol> <p>More than 30 participants attended the workshop. The workshop comprised of theoretical introduction and practical sessions which provided the participants an experience how the various calculations can be performed on GAUSSIAN software. The feedback received from the participants was encouraging and Department of Chemistry would like to conduct such workshops in future also.</p>
Some glimpse of from the Workshop:			





Sr. No.	Event/Title	Duration	Details
2.	National Conference on Recent Advancements in Physical Sciences (NCRAPS)	19 <sup>th</sup> – 20 <sup>th</sup> Dec. 2019.	<p>The National Conference (funded by NIT Uttarakhand, TEQIP-III and other sponsors) was jointly organized by Deptt. of Chemistry, Deptt. of Physics and Deptt. of Mathematics, NIT Uttarakhand. Following four experts were invited to deliver talks on basic foundation of DFT and its applications in various areas of computational methods in Chemistry and material sciences;</p> <ol style="list-style-type: none"> <li>1. Prof. Rajeev Gupta, DU, Delhi</li> <li>2. Prof. Rama Bhargava, IIT Roorkee</li> <li>3. Prof. BL Ahuja, MLSU Udaipur</li> </ol> <p>More than a dozen invited speakers and approximately 50 participants attended the conference. The conference entailed various aspects of physical sciences through recent most significant research output. The feedback received from the participants was highly encouraging therefore allied Departments have planned to conduct series of this conference in future too.</p>





### 08.01.08 Department of Mathematics

With persistent commitment towards quality education, the Department of Mathematics came into existence in June 2019. Earlier it was the part of Department of Sciences and Humanities. The department has strength of 05 faculty members including one Associate Professor to cater the needs of the Under-Graduate and Post-Graduate programs in the Institute. The department offers core as well as elective courses for B. Tech, M. Tech. and PhD programs of the Institute. The department offers Ph.D. program focusing on contemporary areas of fundamental importance and also involved in conducting workshops, seminars, expert lectures etc. to give extra edge to professional growth of students from time to time.

1. Associate Professor - 01
2. Assistant Professor- 04
3. Technical Assistant - 01
4. Laboratory Assistant -01

#### Faculty Profile

S.No.	Faculty Name	Designation	Specialization
1.	Dr. Nitin Sharma	Assistant Professor & HoD	Mathematical Biology & Molecular Dynamics
2.	Dr. Dharmendra Tripathi	Associate Professor, & Dean R&C	Biofluid –Mechanics, Mathematical Modelling, CFD, Pumping Flow, Bone Mechanics, Microfluidics, Nanofluids, Non-Newtonian fluids
3.	Dr. Kuldeep Sharma	Assistant Professor	Computational Mechanics & Numerical Methods

4.	Dr. Dheerendra B. Singh	Assistant Professor	Nonlinear Wave propagation & Gas-dynamics
5.	Dr. Kusum Sharma	Assistant Professor	Approximation Theory & Summability

### Vision

To be among one of the best Mathematics Department across the globe by application oriented teaching and research in Mathematics.

### Mission

1. Offering undergraduate and postgraduate integrated programs in multi-disciplinary / inter disciplinary and emerging areas of Mathematics.
2. Developing the world class infrastructure for the teaching and research environment for the students in the area of interdisciplinary Mathematics.
3. Escalating the interest of students in the discipline of Mathematics for applying it in complex engineering and scientific problems for the development of the nation.

### Curriculum Development Workshop

On 20th May 2019 the department conducted Curriculum Development Workshop to revise the courses for B.Tech., M.Tech. & Ph. D. programs. The following experts attended the meeting:

1. Prof.(Dr.) D.S. Negi from Department of Mathematics, HNB Garhwal University (A Central University)
2. Dr. Rajesh Kumar Pandey, Associate Professor from Department of Mathematical Sciences, IIT(BHU) Varanasi

### New Courses Designed

The following new courses were designed and after the due deliberation on them in CDW, and approval in the Senate, these courses were incorporated into the PhD curriculum:

1. Biological Mathematical Modelling(SCL615)
2. Advance Numerical Analysis(SCL616)
3. Mathematical Theory of Finite Element Method (SCL617)
4. Theory of Fluid Mechanics(SCL618)
5. Mathematical Methods(SCL619)
6. Biomechanics(SCL620)
7. Bio-fluid Mechanics(SCL621)
8. Summability and Approximation Theory(SCL622)
9. Symmetries and Differential Equations(SCL623)

### Ph. D. Scholars

The following five students joined the department from Even Semester 2019 in PhD program:



1. Dinesh Singh Bhandari
2. Sunil Singh Negi
3. Aradhana
4. Rajalaxmi Rath
5. Vidit Kumar Vats

### Ph.D Awarded

Mr. Sandeep Singh, successfully defended his open final Viva-Voce examination for the completion of Ph.D. degree under the supervision of Dr. Kuldeep Sharma.

### Projects

1. Dr. D.Tripathi submitted a project to SERB, DST on “Development of Mathematical Models on Electroosmotic flow of Hybrid Nanoliquids in microchannel” under MATRICS Scheme (Amount: Rs 6.00 lakhs). Status: Under Review.
2. Dr. D.Tripathi submitted a project to SERB, DST on “Mathematical Modeling of Streaming Potential Driven Canalicular Fluid Motion in Osteoporotic Bone” under Start-up Research Grant Scheme (Amount: Rs16.104 Lakhs) Status: Under Review

### Expert Lectures delivered

1. Dr. D. Tripathi delivered a talk on “Matrix Theory and its Applications” in One Week Short Term Course on "Matrix Inequalities and Its Applications" Sponsored by TEQIP III during July 22-26, 2019 organized by Department of Electronics Engineering, NIT Uttarakhand.
2. Dr. D. Tripathi delivered a talk on “Mathematical Modelling of Physiological Transports” and “Hands on Practices of Mathematica Software” in STTP on “Computational Techniques in Research Methodology for Sciences and Social Sciences” organized by Faculty Development Center (FDC), HNBG University during July 25-31, 2019.
3. Dr. D. Tripathi delivered a talk on “Role of Mathematical Modelling in Peristaltic Transport” in National Conference on Recent Application of Mathematics in Science and Technology (RAMST -2019) Organized by Arya Institute of Engineering Technology & Management (AIET), Jaipur during 28-29 September 2019.
4. Dr. D. Tripathi delivered a talk on “Peristaltic Pumping Flow Model for Biomedical Science” in International Conference on “New Vistas in Pure & Applied Mathematics and Statistics” organized by the Department of Mathematics, University of Rajasthan, Jaipur (INDIA), during November 24-26, 2019.

### Publication in Journals

1. S. Singh, Kuldeep Sharma and R.R. Bhargava, “Modified strip saturated models for two equal collinear cracks with coalesced zones in piezoelectric media”. Applied Mathematics and Mechanics-English (Edition) (2019), <https://doi.org/10.1007/s10483-019-2507-6>. SCIE indexed with Impact Factor 1.699.
2. S. Singh, Kuldeep Sharma and R.R. Bhargava, “Analytical solution for two equal collinear modified strip saturated cracks in 2-D semipermeable piezoelectric media”. ZAMM-Journal of Applied Mathematics and Mechanics (2019),

- <https://doi.org/10.1002/zamm.201800244>. SCIE indexed with Impact Factor 1.467.
3. A Sharma, D Tripathi, RK Sharma and AK Tiwari, "Analysis of double diffusive convection in electroosmosis regulated peristaltic transport of nanofluids", *Physica A: Statistical Mechanics and its Applications*, In Press (2019)
  4. J. Prakash, Dharmendra Tripathi, A. K. Triwari, Sadiq M. Sait and Rahmat Ellahi, "Peristaltic pumping of nanofluids through tapered channel in porous environment: Applications in blood flow", *Symmetry* 11(7), (2019) 868
  5. J. Prakash, E.P. Siva, D. Tripathi and O. Anwar Bég, "Thermal slip and radiative heat transfer effects on electro-osmotic magneto-nanoliquid peristaltic propulsion through a microchannel", *Heat Transfer - Asian Research*, In Press (2019)
  6. M K Nayak, J Prakash, S Shaw, D Tripathi, V S Pandey, O. D. Makinde, "3D Bioconvective multiple slip flow of chemically reactive Casson nanofluid with gyrotactic microorganisms", *Heat Transfer-Asian Research*, In Press (2019) [Impact Factor: 1.185].
  7. VK Narla, Dharmendra Tripathi and O. Anwar Bég, "Analysis of Entropy Generation in Biomimetic Electroosmotic Nanofluid Pumping Through a Curved Channel with Joule Dissipation", *Thermal Science and Engineering Progress*, In Press (2019) [Impact Factor: 1.185].
  8. M.K. Nayak, V.S. Pandey, D. Tripathi, N.S. Akbar, and O.D. Makinde, "3D MHD Cross flow over an exponential stretching porous surface", *Heat Transfer-Asian Research*, In Press (2019).
  9. Pankaj Singh Rana and Nitin Sharma, "Stability Analysis of a SI Type Model for HIV/AIDS", *Journal of Interdisciplinary Mathematics*, (Accepted), November-2019.
  10. Sandeep Singh, Kuldeep Sharma and Tinh Quoc Bui, "New analytical solutions for modified polarization saturation models in piezoelectric materials", *International Journal, Meccanica*, (Accepted), October-2019.
  11. Kumar, R., Tiwari, A.K., Tripathi, D. and Sharma, NN. Signalling molecule transport analysis in lacunar–canalicular system, *Biomech Model Mechanobiol* (2020). <https://doi.org/10.1007/s10237-020-01314-7> [IF: 2.829]
  12. S. Waheed, S. Noreen, D. Tripathi, DC. Lu, Electrothermal transport of third-order fluids regulated by peristaltic pumping, *Journal of Biological Physics*, In Press (2020), [IF: 0.857]
  13. S. Noreen, T. Kausar, D. Tripathi, Qurat Ul Ainb, and DC. Lua, Heat transfer analysis on creeping flow Carreau fluid driven by peristaltic pumping in an inclined asymmetric channel, *Thermal Science and Engineering Progress*, 17, 1 June 2020, 100486.
  14. Prakash, J., Tripathi, D. & Bég, O.A. Comparative study of hybrid nanofluids in microchannel slip flow induced by electroosmosis and peristalsis. *Appl Nanosci* (2020). <https://doi.org/10.1007/s13204-020-01286-1> [IF: 3.198]
  15. D. Tripathi, Shashi Bhushan, and OA Beg, Electroosmotic Flow in a Microchannel with Complex Wavy Porous Surface, *Journal of Porous Media*, In Press (2020) [IF: 1.49].

### Conference Publications/ Paper Presentation

1. Kusum Sharma, S. S. Malik, "A study on degree of approximation of a function belonging to weighted  $W(L_r, \xi(t))$  class by product summability of Fourier series", *AIP Conference Proceedings* 2142, 170010

- (2019); <https://doi.org/10.1063/1.5122607> Published Online: 29 August 2019.
2. Sandeep Singh and Kuldeep Sharma, "Complex Variable Solution for Mode-III Linearly Varying Polarization Saturation Model in Piezoelectric Media", International Conference on Frontiers in Industrial and Applied Mathematics-2019 (FIAM-2019), (Accepted), November-2019.
  3. Pankaj Singh Rana and Nitin Sharma, "Mathematical Modelling and Analysis With Various Parameters for Infection Dynamics of Tuberculosis", NCRAPS-2019, Proceeding (Accepted), November-2019.
  4. Kuldeep Sharma and Sandeep Singh, "Numerical Studies for Generalized Modified Polarization Saturation Model in Piezoelectric Media", accepted in the 7th International Congress on Computational Mechanics and Simulation (ICCMS 2019) held at IIT Mandi during 11th-13th December 2019.
  5. Kuldeep Sharma and Sandeep Singh, "Numerical Studies for Generalized Modified Polarization Saturation (PS) Model in Piezoelectric Media ", 7th International Congress on Computational Mechanics and Simulation, (Accepted), October-2019.
  6. J. Prakash, and D. Tripathi "Electroosmotic flow of Hybrid Nanofluids in asymmetric microchannel with Low Reynolds number", in "64th Congress of the ISTAM held on December 9-12, 2019 organized by School of Mechanical Sciences and School of Basic Sciences (Mathematics) at IIT Bhubaneswar
  7. Rakesh Kumar, Salil Khanna, Abhishek Kumar Tiwari, Dharmendra Tripathi, Niti Nipun Sharma "Estimation of Loading-Driven Fluid-Flow Pattern in Lacunar-Canalicular Space Using Fluid Structure Interaction" in National Conference on Recent Advancement in Physical Sciences 2019, 19th -20th December 2019, National Institute of Technology, Uttarakhand, India
  8. Abhishek Kumar Tiwari, Rakesh Kumar, Dharmendra Tripathi, Milan Khadiya "Fluid-Structure Interaction Modelling of Physiological Loading-Induced Canalicular Fluid Motion in Osteocyte Network" in International Conference on Advances in Mechanical Engineering and Nanotechnology (ICAMEN 2019), 8-9 March, 2019, Manipal University Jaipur, India.
  9. Paper entitled "Approximation of Functions in Lipschitz Space by Almost Generalized Norlund Means" presented by Kusum Sharma in International Conference on Physical and Biological Sciences at Cross -roads: Interdisciplinary Explorations and Exciting Challenges during Dec. 29-31, 2019 at Guru Jambheshwar University of Science & Technology, Hisar.

### Book/Chapter Publications

1. J. Prakash, G. Reddy, D. Tripathi and A.K. Tiwari, A Model for Electroosmotic Flow of Pseudoplastic Nanofluids in Presence of Peristaltic Pumping: An Application to Smart Pumping in Energy Systems, Nanotechnology for Energy and Environmental Engineering\_ Springer Accepted 2019.

### Workshop/Conference Organized

1. FDP on "Importance of Intellectual Property in Academics" held on 25<sup>th</sup> - 26<sup>th</sup> November 2019, organized by the R&C section, NIT Uttarakhand, Convener:- D.Tripathi .



2. FDP on “Outcome Based Accreditation: Challenges And Opportunities” held on 11-12 November, 2019 organized by NBA Section, NIT Uttarakhand, at Satellite Campus MNIT Jaipur, Convener:- D.Tripathi.



3. STTP on “Emerging Topics in Fluid Mechanics” held on 14-18 October, 2019 jointly organized by Department of Mechanical Engineering and Department of Mathematics, NIT Uttarakhand at Satellite Campus MNIT Jaipur.



4. Five Days Workshop on "3D Printing and Design" held on 16-20 October 2019 organized by DIC Center, NIT Uttarakhand and sponsored by AICTE Training and Learning (ATAL) academy under the chairmanship of D. Tripathi.

5. Five Days Workshop on “Data Science” held on 14-18th October, 2019 organized by



Department of Computer Science and Engineering, NIT Uttarakhand, and sponsored by AICTE Training and Learning (ATAL) academy under the chairmanship of D.Tripathi.

6. Jointly organised National Conference on “Recent Advancement in Physical Sciences” (NCRAPS-2019) during December, 19-20, 2019, National Institute of Technology, Uttarakhand at Satellite Campus, MNIT, Jaipur, Rajasthan, India.



7. Organized “Workshop Cum Winter School Programme on Methods for Non-Linear Dynamical Systems and Chaos ‘(WCWS-2019)’ at NITUK satellite campus, MNIT Jaipur, during December, 23-27, 2019.



8. Dr. D. Tripathi Chaired a technical session “Complex System” in International Conference on “Advances in Systems, Control, & Computing” jointly organized by MNIT Jaipur and NIT Uttarakhand during 27<sup>th</sup> -28<sup>th</sup> February 2020.

9. Dr. D. Tripathi acted as the **Chairman**, 2nd International Conference on Advances in Mechanical Engineering and Nanotechnology” (ICAMEN-2020), jointly organized by Manipal University Jaipur, and R&C Section, NIT Uttarakhand during February 28-29, 2020.





10. Dr. D. Tripathi acted as the Chairman in International Conference on “Innovative Engineering Design 2020 (ICOIED 2020)” jointly organized by Design Innovation Centres of National Institute of Technology Uttarakhand & Indian Institute of Technology Roorkee and The Institution of Engineers, at Dehradun during January 18-20, 2020.
11. The Department of Mathematics organized a Short Term Training Programme on “Advanced Computational Techniques in Engineering Sciences & Mechanics” at NIT Uttarakhand, Parent Campus, during February, 24-28, 2020.



### Workshop/Conference Attended

1. Dr. D. Tripathi attended TEQIP-III Sponsored two Days Workshop on “Outcome Based Education (OBE) System” during September 2-3, 2019 organized by State Project Implementation Unit (SPIU), Uttarakhand.
2. Dr. D. Tripathi attended TechEx-2019, Exhibition of Research Projects-IMPRINT & UAY on 4th August 2019 organized by IIT Delhi and inaugurated by Hon’ble Minister, HRD.
3. Attended GIAN course on Isogeometric Analysis to be held at NIT Warangal during 11-15 November, 2019

### 08.01.09 Department of Humanities and Social Sciences

With persistent commitment towards quality education, the Department of Humanities and Social Sciences came into existence in June 2019. The department has been striving to reach the higher goals of global standards as a part of Department of Sciences and Humanities since 2010. The department offers subjects for B. Tech, M. Tech. and PhD. Catering to the academic and extra-curricular needs of the students, the department runs various courses which strengthen and bring multifarious growth of students. Several teaching methodologies are employed to facilitate deep understanding of the course contents including “beyond the classroom” exposure etc. The department conducts workshops, seminars, conferences to give extra edge to professional growth of students from time to time. It also organizes expert lectures inviting eminent experts from IITs, NITs and Central Universities.

### Faculty Profile

S.No.	Faculty Name	Designation	Specialization
1.	Dr. Renu Bhadola Dangwal	Assistant Professor & HoD	20th Century Literature & Criticism, Postcolonial Studies and Eco-Cultural Studies
2.	Dr. Ajay Kumar Chaubey	Assistant Professor, Coordinator, Satellite Campus	Literature of the Indian Diaspora, Postcolonial Literature, Caribbean Fiction, and Film Studies, etc.

### Communication Skills Laboratory

The department has well equipped Communication Skill Laboratory. It is a platform which offers an assortment of tools to sharpen spoken skills of students. It caters to students' unique needs by which each student feels confident, secure and appropriately challenged. The lab is furnished with 30 computers and audio-visual technical tools. Facilitators locate and incorporate a variety of resources to accommodate students via audio-visual, tactile and kinesthetic methods. The English language communication skills laboratory course is a great booster for the students. Some important features of laboratory are:

- Fully interactive lab with teacher to learner, learner to teacher and learner to learner interactions.
- Teachers can address all learners at a time or to a specific learner. A learner can individually communicate with the teacher to ask a question or to clarify a doubt.
- Since all the computers are interconnected in the language lab, the entire students get equal chance to seek the attention of the teacher.
- Volume and speed of the course can be well adjusted as per by the comfort of student. He/she can even refer back to it wherever needed.
- It helps students to learn pronunciation, stress accent, intonation, rhythm, and all other nuances of the phonetics of English language.
- The learners have freedom to record and playback their own voice recordings, assess them and store it and then re-play it whenever needed. They can perform personal assessments
- Introduction of earphone/headphone/microphone provides a student his/her privacy that creates a better environment for their speaking practice with-out hesitation.
- The students can also do a periodical self-evaluation to measure the progress as well as evaluate his/her language with that of the expert



**Vision and Mission:** The department adopted its Vision and Mission this year after deliberating upon the same with faculty members in Department Faculty Board (DFB).

**Vision:**

To achieve comprehensive and humanistic development of techno-savvy students into the socially responsible individuals in the service of community and nation.

**Mission:**

1. Facilitate technical learning in students by developing communicative excellence and life skills and prepare them to achieve global competence.
2. Ignite young minds to build critical/ creative perception towards their social surroundings.
3. To promulgate various ideologies, social values and ethical behaviour and to contribute towards the sustainable development of industry and society.
4. To foster inter- disciplinary research among humanitarian subjects, contributing towards the growth of community and nation at large.
5. To establish and nourish a culture conducive of achieving holistic development of students.

**Curriculum Development Workshop**

1. On 24th May 2019 the department conducted Curriculum Development Workshop to revise the courses for B.Tech. M.Tech. and Ph. D. The following expert attended the meeting:
  - ❖ Prof. Shakuntala from Department of English, HNB Garhwal University (A Central University)
  - ❖ Prof. Nagendra Kumar, HoD-Department of Humanities and Social Sciences, IIT Roorkee.
  - ❖ Dr. Binod Mishra, Associate Professor, Department of Humanities and Social Science, IIT Roorkee.

2. The CDW was conducted in the month of March and Prof. Nupur Tandan from MNIT Jaipur and Prof. Sanjit K Mishra of IIT-Roorkee were the resource persons in the same.

**New Courses Designed:** Four new courses were designed and after the due deliberation on them in CDW, and due approval in the Senate, these course were incorporated into the PhD curriculum. These courses are:

1. Theory of Literature (HML601)
2. Introduction to Cultural and Eco-critical Studies (HML604)
3. Literature of the Indian Diaspora ((HML605)
4. New Literature in English (HML606)

PhD Scholars: Four students joined the department from Even Semester 2019-Even Sem 2020 in PhD curriculum. These students are:

6. Satyanarayan Tiwari: Part Time
7. Dona Soman: Part Time
8. Manvi Sharma: Full Time
9. Sonalika Chaturvedi: Full Time

**Expert Lectures delivered:**

- ❖ Dr Ajay K Chaubey, Assistant Professor of English, Department of HSS, has delivered various expert talks on 'Business Etiquettes' in a Workshop on Soft-Skills, conducted by MIT, Muzaffarpur, Bihar during July 22-26, 2019

**Publication in Journal/ Book/Book Chapters**

- ❖ Joe Philip, Renu Bhadola Dangwal, Vinod Balakrishnan, "Voices of Assertion: The Dialectics of Subaltern Historiography in Mahasweta Devi's Literary Oeuvre." *Asian Quarterly: An International Journal of Contemporary Issues*. Vol 17.2 (2019): 128-138.
- ❖ Dr. Ajay Kumar Chaubey published a book entitled *Mapping South Asian Diaspora* (co-edited with Asis De). It was released in the inaugural ceremony of the conference by Prof GJV Prasad (JNU); Sudeep Sen (international acclaimed poet) and Pradeep Trikha, the host of the conference.

**Paper Presentation/Participation:**

- ❖ Dr. Ajay Kumar Chaubey anticipated and presented a paper entitled "Dynamics of Bhojpuri and Awadhi Diaspora: Chronicles of Migration," in a National Conference on "Borders and Spaces: Re- Calibrating Indian Diaspora in the 21st Century" organized by Department of English, Mohanlal Sukhadia University, Udaipur (Rajasthan) during December 6-7, 2019.
- ❖ Dr. Renu Bhadola Dangwal participated in a two-day Faculty Development Programme on "Outcome Based Accreditation: Challenges & Opportunities," organized by the NBA



Section, National Institute of Technology, Uttarakhand at Satellite Campus, MNIT, Jaipur during November 11-12, 2019.

- ❖ Dr. Ajay K Chaubey participated in a One Week FDP on Research Writing, Publishing & Presentation, organized by TLC, IIT-BHU, and PMMMNMTT, MHRD during February 3-7, 2020.

### Workshop/Conference Organized:

- ❖ A Five Day Workshop was organized on “Advance English communication and Pedagogical Skills” under TEQIP –III during 24-28 August 2019 at Parent Campus of the Institute. The workshop was conducted for B. Tech. M.Tech and Ph.D. students to hone their listening, writing and speaking skills and bring efficiency in these communication skills. The following experts were invited for taking different sessions on Interview Skills, Group Discussion, Building Confidence, Writing and Pronunciation Skills etc.:

1. Dr Kumar Parag, Associate Professor, Dept of Humanities, RIE Bhuvneshwar, Odisha
2. Dr Sanjit Mishra, Associate Professor, Dept of Applied Sciences, IIT Roorkee
3. Dr Kaptan Singh, Assistant Professor, Indian Military Academy, Dehradun
4. Dr Shakuntala, Professor, Dept of English, HNBG University, Srinagar (Garhwal)
5. Dr Rakesh Kala, Associate Professor, Dept of English, HNBG University, Srinagar (Garhwal)
6. Dr Monika Gupta, Professor, Dept of English, HNBG University, Srinagar (Garhwal)







❖ One Day Workshop on “ Effective Writing and Speaking Skills” as EAP Activity under TEQIP-III on 31 August 2019 by Dr Renu Bhadola Dangwal in the Parent Campus and by Dr Ajay Kumar Chaubey in the Satellite Campus of the Institute for B.Tech First and Second year students.



### ❖ National Conference on “Gandhian Discourse in Humanities & Social Sciences”

A National Conference on “Gandhian Discourse in Humanities & Social Sciences” was conducted during Oct. 2-3, 2019 at MNIT, Jaipur with due approval from the Competent Authority, to commemorate the 150th Birth Anniversary of Mahatma Gandhi. The conference was conducted in collaboration with Department of Humanities and Social Sciences, MNIT Jaipur. A total of ninety-five abstracts from the delegates hailing from Kashmir to Kanyakumari and from Gujarat to the far-flung North-East states of India were received.

The conference was inaugurated by an eminent Gandhian Scholar Prof. Naresh Dadhich, the Chief Guest of the Ceremony flanked by Prof. S L Soni, the Director and Prof. A K Vyas, In-charge Director of the MNIT, Jaipur. The special guest of the Inaugural Ceremony was Prof. Harish Trivedi, ex-professor & Head, Dept. of English, University of Delhi. The inaugural ceremony was chaired by Dr Pradeep Trikha, Prof. & Head, Dept. of English, MLSU, Udaipur.



In the conference, the key-notes were delivered by Prof. Harish Trivedi and Prof. Pradeep Trikha and this session was chaired by Prof. Manju Singh, Professor & Head, Dept. of HSS, MNIT, Jaipur. The papers were presented by veteran and young scholars in total nine parallel sessions which were chaired by Dr Nupur Tondon, Dr Deepti Sharma, both from MNIT Jaipur while the other sessions were chaired by Dr Sunita Agrawal and Dr Mini Nanda both from University of Rajasthan. The other sessions were chaired by Dr Ramashankar Singh (Fellow, IAS, Shimla) and Dr Bishun Kumar of SRMU, Lucknow.

The deans, heads, coordinators and faculty members and other dignitaries were present in the conference.



Two panel discussions were held during the conference. In that, Prof. S Ramaratnam, VC JKU, Cuttack, Dr Prakash Joshi of Dr H S Gour CU, MP, Dr Amit Mishra of Dr BRAU, Delhi, Dr V S Shekhawat of MNIT, Jaipur, Dr Nishikant Kolge of CSDS, New Delhi and Dr Ramashankar Singh (Fellow, IAS, Shimla) spoke on life and works and philosophy of Gandhi and his relevance in the present scenario. The first session was chaired by Dr Pradeep Trikha whereas the second session was chaired by Prof. Harish Trivedi.



On the second day of the conference, Valedictory Session was conducted in which Prof. Badrinarayan, the Director of GBPSSI, Univ. of Allahabad delivered a key-note speech followed by a plenary delivered by Prof. Rajul Bhargava, of University of Rajasthan. This session was chaired by Prof. Sudha Rai, ex-Dean, Faculty of Arts, University of Rajasthan.

After the Valedictory Session, farewell tea was offered to the guests and participants followed by distribution of the certificates.

<p><b>Coordinator &amp; Organizing Secretary</b>  <b>Dr. Ajay K Chaubey</b>                  National Institute of Technology, Uttarakhand</p>		<p><b>Convener</b>  <b>Dr. Preeti Bhatt</b>                  Malaviya National Institute of Technology Jaipur</p>		<p><b>Convener</b>  <b>Dr. Renu B. Dangwal</b>                  National Institute of Technology, Uttarakhand</p>	
<p>Invited Speakers</p>	 <p>Prof. Naresh Dadhich Former Vice Chancellor, V. M. Open University, Kota (Raj.)</p>	 <p>Prof. Harish Trivedi ex-Professor &amp; Head, Dept. of English, University of Delhi</p>	 <p>Prof. S. Z. H. Abidi ex-Professor &amp; Head, Dept. English &amp; MEL, University of Lucknow</p>	 <p>Prof. Badri Narayan Professor, Social History, GBPSSI Univ. of Allahabad</p>	
	<p><b>Venue: Malaviya Sabhagar (Prabha Bhawan) MNIT Jaipur</b></p>				

### Faculty Achievements:

- Dr. Ajay K Chaubey was invited as a Plenary Speaker to deliver a talk on "Rajbhasha Adhininiyam Evam Takniki Sansthanon mein Hindi ki Upyogita" in an International Seminar on "Vishwa ki Hindi Aur Hindi Ka Vishwa" jointly organized by Centre for Indian Languages and Cultures and Dept. of Lifelong Learning, University of Rajasthan, Jaipur during January 10-11, 2020.

## 08.02 LIBRARY

The library has a rich collection of books on Science and Technology, Engineering, Humanities and Social Sciences and also a good collection of English and Hindi Fiction. The library has four stack rooms with subject-wise arrangement of books on the shelves according to the Universal Decimal Classification Scheme. The library has one reading room which remains open 24x7 for the students and the staff members.



राष्ट्रीय प्रौद्योगिकी संस्थान,  
उत्तराखण्ड  
National Institute of Technology,  
Uttarakhand

HOME ABOUT ADMINISTRATION ACADEMIC DEPARTMENTS FACILITIES STUDENT LIFE TEQIP - III CENTER  
INSTITUTE VIRTUAL TOUR CONTACT US

INTRODUCTION PEOPLE SERVICES E-RESOURCES SEARCH OPAC IMPORTANT LINKS

### LIBRARY AND INFORMATION CENTRE

The library has open access system along with a reading room facility. The Library houses a total collection of approx. 35,800+ printed books (with more than 6000 titles) which includes Text books and Reference books in the field of Engineering and Technology, Sciences and Humanities, English Literature and Fiction. The library has a rich collection of E-books (i.e. 25,457 titles) procured from various renowned publishers and the library subscribes various online databases to increase and enhance the quality of academic and research work. The library subscribes 65 magazines for the students as magazines plays an important role in an educational institution or organization and supply the variety of news on a regular basis (i.e. weekly, monthly etc.) and keep the users updated about the latest news and happenings taking place in our country as well as in the world at large. The library's has Online Public Access Catalogue to search all the bibliographic records available in the library through a web based search i.e. Libsys 10 WebOPAC.

### Library Webpage

### Library Working Hours:

The library remains open on all days of the year except on holidays of National and Religious importance (i.e. Republic Day, Holi, Independence Day, Gandhi Jayanti, Diwali and Dusshera). The library opens from 08:00 am to 08:00 pm (i.e. Monday-Sunday).



### Library Resources:

<b>Total Collection: Books</b>	35,871
<b>Standards</b>	514
<b>CDs/DVDs</b>	04
<b>NPTEL Video Lectures</b>	135
<b>Online Databases</b>	04
<b>Online Books</b>	26,457

- **Text Book and Book Bank Collection:**

The text books of the prescribed syllabus and other recommended books are kept in the Text Book Section along with separate Book Bank collection for use and easy access the users.

- **Reference Collection:**

The Library has a collection of General reference books including Encyclopedias, Dictionaries, Directories, Handbooks, Bibliographies, and Atlases etc. and these are available for reference within the library premises and are not for lending.

- **Hindi Collection:**

The Library has built up a good collection of Hindi Literature to increase the use of Rajbhasha. Hindi Books are kept in front area near Reference collection in the Library to promote its usage.

- **Audio-Visual Collection:**

A good collection of Educational videos (i.e. NPTEL video courses) are available for the users on varied subjects and are made accessible via FTP server of the Institute. Also, there is a collection of CDs/DVDs in the library covering various subject areas like academic, entertainment, Information Technology and Competitive exams etc.

- **Electronic Journals Collection:**

The library subscribed various online journals during this year from renowned publishers on the basis of Annual Subscription which can be accessed 24X7 by the Library users.



- **Electronic Books Collection:**

There are around 26,457 titles of E-books procured by the library from various renowned publishers like Elsevier, Tata McGraw Hill, Wiley, Pearson, ASME Press, IEEE-MIT Press, IEEE-Wiley, Springer and ICE publishing on perpetual basis (i.e. lifetime) which can be accessed 24x7 by the users of the Institute.

- **Computer and Networking Facilities**

The library is connected to the campus LAN and Wi-Fi facility. The library server works under Windows 7 environment.

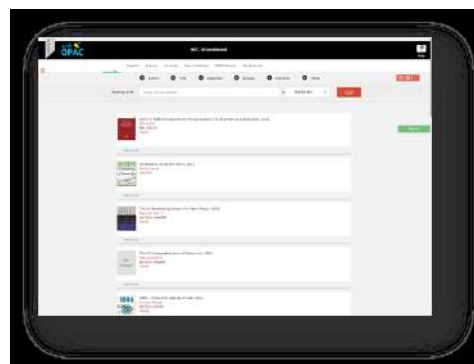
Library has LAN connectivity with fibre optic cable (10/100 mbps) through the Computer Department and is connected to Web Server (Duel Xeon) - providing network facility.

- **In-house Activities:**

The Library uses LIBSYS 10 (Web Centric) software package which is an integrated multi-user library automation management system that supports all in-house activities of the library. All in-house activities of the library like acquisition; cataloguing, circulation, etc. are fully computerized through LIBSYS Software (Library Management Software). The database of the entire library acquisitions is being updated on regular basis along with details of recently acquired books. The details of all the Library patrons are maintained in the software along with their „Image Database“. The barcoding of all library resources is in final stages. The library has shifted to Web OPAC facility this year under which all the bibliographic details of the library collection can be accessed from Internet 24x7 on all week days by the users.



LIBSYS 10 Web Centric Software



LIBSYS 10 WEBOPAC

### Library Services and Facilities:

- **Book Bank:**

The Library provides Book Bank facility to the B.Tech. and M.Tech. students. Under the Book Bank facility, the set of textbooks are issued to the individual student for entire semester (i.e. for six months). The students belonging to SC/ST category are exempted from the payment of Book Bank fees.

- **Reader's Assistance:**

The library provides assistance to the users about the location of Books and assists in accessing of e-Journals and e-Books.

- **Magazines, Yearbooks, Newspapers and Catalogue:**

The library subscribed 55 magazines during the year on different subject areas like General awareness and Competitive, Science and Technology, Computer Sciences, Engineering, Sports and Health, Yearly GK magazines, Women awareness, Travel and Photography, etc.

The library also subscribes 07 (4 Hindi and 3 English) newspapers including daily and weekly papers.

The Library display Catalogues for the users to help them in selection of books for Book Recommendations.



- **Newspaper Clippings:**

The library maintains and keeps the record of News clips of the news related to the Institute.

- **Turnitin (Similarity Check Software):**

Institute Library provides a similarity check software called Turnitin that allows you to detect similarity from project work, academic paper, article, dissertation/theses, or any other research or innovation-related work.

- **Email Alert:**

The Library provides „Email Alert Service“ for the Circulation (Issue/Return) and various other activities of the library. The two Dot matrix printers are installed in the library for printing the Circulation slips to keep the separate issue/return record of the users.

- **Orientation Programme:**

The library orientation programme is conducted every year at the beginning of the session for the newly admitted students to familiarize them with the facilities and services available in the library for the effective and maximum use of the library resources.

- **Membership:**

The Membership of the Institute’s Library is open to all the Students, Faculty members, Research Scholars, Officers and Technical/Non-Technical Supporting Staff of the Institute.

- **Library Advisory Committee:**

There is library advisory committee which consists of the Chairman, all the HODs and Librarian as the member Secretary. The library committee meets from time to time to lay down the policies and to review the working conditions for smooth functioning of the library.

### 08.03 COMPUTER CENTRE

The Institute has Computer Centre as a centralized facility for the Institute. It has worldwide connectivity through Internet. Computer Centre aims at providing required and updated information about the emerging trends and technologies. It consists of 25 High Configuration System of the following description:

S. No	Specification	Details
1.	Processor	3rd generation Intel i5 3.10 GHz Processor
2.	RAM	4GB DDR3
3.	Hard Disk	1 TB
4.	Graphics Card	AMD Radeon HD 6450
5.	Connectivity	Both Ethernet & Wi-Fi
6.	Display	23" LED Display
7.	Operating System	Windows 8 & Ubuntu 12.10 dual boot System

The computer center is available to all the staff and students from 08:00 am to 08:30 pm on all week days. The time is also extended during examination days. The staff from Computer Science and Engineering Department is available for guiding the students, round the clock.

### 08.04 HOSTELS

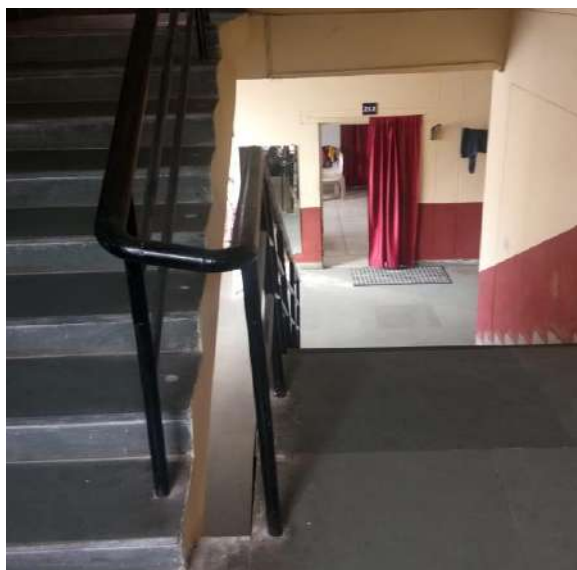
The National Institute of Technology has 07 hostels (05 Boys and 02 Girls) in parent campus Srinagar Garhwal and 02 hostels (01 Boys and 01 Girls) in Satellite campus, MNIT Jaipur. Based on the principle of "homes away from home", hostels available on the campus provide

all basic facilities to the students. Institute has comfortable residential facilities for 299 students in Parent Campus and 570 students in Sattelite Campus (rooms available on sharing basis: two/three seater). The details of the hostels along with their capacity are as follows:

S. No.	Name of Hostel		Type	No. of Rooms	No. of Seats	Strength of the Hostel
1.	NITUK Hostel-1	Parent Campur (Srinagar Garhwal)	Boys	15+7	1/2 seater	29
2.	NITUK Hostel-2		Boys	24	2 seater	48
3.	NITUK Hostel-3		Girls	24	2 seater	48
4.	NITUK Hostel-4		Boys	18	2 seater	36
5.	NITUK Hostel-5		Boys	36	2 seater	72
6.	NITUK Hostel-6		Girls	14	2 seater	28
7.	NITUK Hostel-7		Boys	19	2 seater	38
<b>Total</b>			-	<b>157</b>	-	<b>299</b>
1.	Vinodini Hostel (H-1)	Satellite Campus (MNIT, Jaipur)	Boys	330	2/3 Seater	476
2.	Moonga Hostel (H-2)		Girls	14 Flats (3bhk)	2/3 Seater	94
<b>Total</b>				-	<b>372</b>	-

A year-wise hostel system is preferably followed for allocating the hostel rooms to the students. Hostels are fully Wi-Fi connected with emergency/continuous power supply through DG set and equipped with water purifiers, water coolers, geysers and telephone etc. The security cameras for necessary security check and surveillance installed in each hostel. A centralized mess facility is provided to the students (except first year) residing in the hostels and separate mess facility for first year students is available at NITUK Hostel-5. Hostel rooms are furnished with chairs, tables, bunk beds and lockers. Students get ample opportunities to avail all the indoor and outdoor games facilities such as Carrom Board, Chess, Table Tennis, Volleyball, badminton along with a gymnasium facility for the students to maintain their fitness. A laundry facility is provided to all the residents within the campus. In particular for girls' hostel, washing machine facility is also provided for washing & drying the clothes. For the smooth-functioning of daily routines and proper care, Girls' Hostel has a team of Warden, and Matron. Matron takes good care of health issues of girls residing in the hostel along with the nurse available in the Institute Dispensary for 24 hours.







For the personal and professional development of the students, counseling facility is also provided by the experts on the campus. It offers orientation programs on topics such as academic stress reduction, inter-personal relations, time management, study and revision skills, mental health and wellbeing etc.

Regarding the health of the students residing in the hostel 24hrs vehicle facility is available without any charges for medical check-up/treatment and also In case of emergency (during late night hours).

All the hostels are administered by a Chief Warden alongwith a team of Wardens, Assistant Registrar (Hostel), Superintendent (Hostel), Matron, and senior students as senior residents. The Chief Warden and a team of Wardens are responsible for improving the facilities and environment of the hostels. Their main role is to coordinate the working of all the hostels, maintain the discipline in the hostels and implement all policy matters related to the hostels.

Name of the Staff	Location of Hostels	Designation	Mobile Number
Dr. I M Nagpure	<b>NITUK Parent Campus, Srinagar (Garhwal)</b>	Chief Warden	+91-8126139069 Email:imnagpure@nituk.ac.in
Dr. Apurba Mandal		Warden (Hostel-01, 02 &04)	+91-9897507849 Email:mandal@nituk.ac.in
Dr. Sarita Yadav		Warden (Hostel-03)	+91-94101-90132 Email:sarita.yadav@nituk.ac.in
Dr. Rampal Pandey		Warden (Hostel-05&07)	+91-9424740758 Email:rampalpandey@nituk.ac.in
Dr. Sarika Pal		Warden (Hostel-06)	+91-9711117416 Email:sarikapal@nituk.ac.in
Dr. Vineeta Negi Panwar		Assistant Registrar (Hostel)	01346-257654 Email:vineetanegi@nituk.ac.in
Mrs. Neha Raturi		I/c Superintendent (Hostel)	+91-8194024275 Email:neharaturi@nituk.ac.in
Dr. Kuldeep Singh	<b>NITUK Satellite</b>	Coordinator Hostel/ Warden (II Year Boys)	+91-95577-50908 Email: <a href="mailto:kuldeepsingh@nituk.ac.in">kuldeepsingh@nituk.ac.in</a>

Dr. Shiva Kumar Tadepalli	<b>Campus, MNIT, Jaipur</b>	Warden (III Year Boys)	+91-95577-50903 Email: <a href="mailto:sktadepalli@nituk.ac.in">sktadepalli@nituk.ac.in</a>
Dr. Vinod Singh Yadav		Warden (IV Year Boys)	+91-95577-50900 Email: <a href="mailto:vsyadav@nituk.ac.in">vsyadav@nituk.ac.in</a>
Dr. Jagrati Sahariya		Warden (Girls)	+91-95577-50902 Email: <a href="mailto:jagrati@nituk.ac.in">jagrati@nituk.ac.in</a>
Dr. Kusum Sharma		Warden (Girls)	+91-95577-50897 Email: <a href="mailto:kusum31sharma@nituk.ac.in">kusum31sharma@nituk.ac.in</a>

## 08.05 DISPENSARY

### Introduction of Dispensary Section

- ❖ The dispensary provides complete free basic medical facilities for the students and staff members of the institute on 24 x 7 and 7 days. In Dispensary Section, A nursing staff comprising of four members is available throughout the day and a visiting doctor from Government hospital (Srikot) offers daily service during evening (7pm to 8 pm).





- ❖ The Institute has facility to avail Ambulance service for 24hrs during emergency/ any health issue and further, the ambulance is used to shift patient to higher center such as Reshikesh, Dehradun and Haridwar etc.

### Facilities Created in Annual Year 2019-2020

The following accessories have been procured and installed in the institute ambulance

- ❖ **Oxygen Cylinder**

Oxygen is widely used for the treatment of a number of acute and chronic health conditions. Oxygen treatment is used in an ambulance in order to manage emergency situation



**❖ Wheel Chair**

Wheel chair issued for whom walking is difficult or impossible due to illness (physiological or physical), injury, or disability Purpose of description.

**❖ Suction Machine**

Suction machine is an appliance, used to remove substances such as blood, saliva, mucus, and vomit from a person's airway and prevent pulmonary aspiration and facilitate breathing.





**❖ Laryngoscope**

Doctors use this device to look into throat and larynx, or voice box.

**❖ Stethoscope**

The stethoscope is an acoustic medical device for auscultation, or listening to internal sounds of an animal or human body.

**❖ Torch**

Torch use for examination of patients.





### ❖ Cervical Collar

It is use for injury of neck, cervical pain to support neck.



### Precautionary Measurements for Novel COVID-19

- ❖ The dispensary has procured hand Sanitizers and masks and distributed to employees of the institute to prevent from Corona Virus (COVID-19).



- ❖ The dispensary has Procured non-contact thermal scanners to measure of body temperature at the entry main gates of the Institute.



## 08.06 OTHER FACILITIES

The temporary campus of the Institute has an ATM of State Bank of India for the convenience of the students and staff members. The campus also has an auditorium. The Institute has provided Bus Service to ferry students between the two campuses of the Institute and student hostels outside the Institute's premises.

## 09.00 TRAINING AND PLACEMENT

### 09.01 PLACEMENT DATA

Since Aug 2019, T&P Cell could manage to arrange placement drives with as many as 23 Companies. A total of 98 UG Placements along with 02 PG placements could be accomplished till date. Following data sheet describes placement offers during 2019-20.

**Total Students Registered with T&P Cell:** 139

**Placed with Single offers:** 100 (one student got 02 offers)

**Median Package:** 6 LPA

**Highest Package:** 30 LPA

**Average Package:** 6.60 LPA

Name of Students	Roll No.	Branch	Company
Shrey Gupta	BT16CIV014	CIV	L&T ECCD
Rishabh Agarwal	BT16CIV018	CIV	L&T ECCD
Pawan Shahi	BT16CIV010	CIV	DXC Technology
Shashikant	BT16CIV040	CIV	DXC Technology
Abhishek Kumar Gupta	BT16CSE027	CSE	LOYALTY JUGGERNAUT
Abhishek Singh	BT16CSE041	CSE	ZS ASSOCIATE
Aditya Kumar	BT16CSE062	CSE	CAPGEMINI
Ajay Malik	BT16CSE059	CSE	LOYALTY JUGGERNAUT
Akash Singh Bisht	BT16CSE024	CSE	CAPGEMINI
Alam Geerali	BT16CSE026	CSE	VIRTUSA
Amit Kishor Raturi	BT16CSE057	CSE	CAPGEMINI
Arvind Negi	BT16CSE052	CSE	CVENT
Ashish Duklan	BT16CSE019	CSE	CAPGEMINI
Ayush Jaiswal	BT16CSE056	CSE	SAMSUNG
Ayushi Agarwal	BT16CSE050	CSE	CVENT
Barkha Maheshwari	BT16CSE049	CSE	LOYALTY JUGGERNAUT
Chelimilla Natraj Naveen	BT16CSE029	CSE	PEOPLESTRONG
Deepak Singh	BT16CSE006	CSE	SAMSUNG
Ishani Dabral	BT16CSE044	CSE	SAMSUNG

Kaustubh Purohit	BT16CSE032	CSE	CAPGEMINI
Kunal Rai	BT16CSE058	CSE	CAPGEMINI
Manish Jangir	BT16CSE048	CSE	VIRTUSA
Pankaj Pundir	BT16CSE009	CSE	WHEELSEYE
Prachi Pandey	BT16CSE015	CSE	CVENT
Prakhar Mittal	BT16CSE023	CSE	PEOPLESTRONG
Rahul Goswami	BT16CSE053	CSE	GOOGLE
Rajit Rajish Solanky	BT16CSE005	CSE	VIRTUSA
Ravi Singh Patel	BT16CSE007	CSE	SAMSUNG
Rohan Gautam	BT16CSE013	CSE	LOYALTY JUGGERNAUT
Sandeep Sharma	BT16CSE017	CSE	LOYALTY JUGGERNAUT
Shivam Aggarwal	BT16CSE010	CSE	LOYALTY JUGGERNAUT
Shreya Kumari	BT16CSE051	CSE	LOYALTY JUGGERNAUT
Sneha Chauhan	BT16CSE016	CSE	PEOPLESTRONG
Snigdha Agarwal	BT16CSE054	CSE	CAPGEMINI
Sohan Kathait	BT16CSE061	CSE	LOYALTY JUGGERNAUT
Subhashkarn	BT16CSE031	CSE	VIRTUSA
Vivek Raj	BT16CSE039	CSE	VIRTUSA
Anjum Praveen	BT16CSE001	CSE	L&T INFOTECH
Saurabh Singh Kanyal	BT16CSE035	CSE	L&T INFOTECH
Rohit Yadav	BT16CSE021	CSE	L&T INFOTECH
Piyush Prajapati	BT16CSE004	CSE	L&T INFOTECH
Ashutosh Tripathi	BT16CSE012	CSE	L&T INFOTECH
Avanish Kumar	BT16CSE028	CSE	L&T INFOTECH
Shubham Shrivastav	BT16CSE008	CSE	DXC Technology
Kuldeep Kumar	BT16CSE034	CSE	DXC Technology
Mayank Malik	BT16CSE037	CSE	DXC Technology
Akash Majumdar	BT16CSE045	CSE	DXC Technology

Manjulata Upadhyay	BT16CSE060	CSE	DXC Technology/Valuable Group
Anuska Yadav	BT16ECE022	ECE	N-BAND (VALUE LAB)
Arnav Shaurya Bisht	BT16ECE004	ECE	CAPGEMINI
Nikita	BT16ECE007	ECE	SAGACIOUS IP
Divyasingh	BT16ECE010	ECE	CAPGEMINI
Harshavardhan Pagi Doju	BT16ECE024	ECE	ZS ASSOCIATE
Kotyadauttej	BT16ECE030	ECE	VIRTUSA
Mayank Upadhyay	BT16ECE025	ECE	SAMSUNG
Pangauma Maheswara Rao	BT16ECE033	ECE	VIRTUSA
Purnima Singh	BT16ECE026	ECE	CAPGEMINI
Saloni Sinha	BT16ECE027	ECE	PEOPLESTRONG
Rishabh Awasthi	BT16ECE005	ECE	L&T INFOTECH
Priyanka Tamta	BT16ECE013	ECE	L&T INFOTECH
Uday Chandra Macharla	BT16ECE038	ECE	L&T INFOTECH
Rahil Gaur	BT16ECE023	ECE	L&T ECCD
Raja Omar	BT16ECE051	ECE	SAGACIOUS IP
Divyansh Singh	BT16ECE049	ECE	SAGACIOUS IP
Amit Kumar Patel	BT16ECE009	ECE	L&T INFOTECH
Mayank Jindal	BT16ECE002	ECE	DXC Technology
Ashish Kumar Tiwari	BT16ECE008	ECE	DXC Technology
Ashish Kumar Singh	BT16ECE029	ECE	DXC Technology
Aditya Pratap Singh	BT16EEE026	EEE	VIRTUSA
Aishwaryam Prajapati	BT16EEE006	EEE	L&T EBG
Ananya Sisodia	BT16EEE012	EEE	CAPGEMINI
Anuj Kumar	BT16EEE004	EEE	L&T EBG
Ayodhya Prasad Bhatt	BT16EEE022	EEE	CAPGEMINI



Dinesh Girigoswami	BT16EEE019	EEE	L&T EBG
Harsh Sharma	BT16EEE032	EEE	ZS ASSOCIATE
Manish Thapliyal	BT16EEE017	EEE	TREDENCE
Maniya Verma	BT16EEE024	EEE	CAPGEMINI
Mansi Kaintura	BT16EEE025	EEE	TREDENCE
Rahul Kumar	BT16EEE018	EEE	CAPGEMINI
Ishwar Das	BT16EEE037	EEE	L&T INFOTECH
Amit Dubey	BT16EEE030	EEE	L&T ECCD
Meenakshi Joshi	BT16EEE034	EEE	RAAM
Ritik Singh	BT16EEE001	EEE	DXC Technology
Prashant Sagar	BT16EEE028	EEE	DXC Technology
Abhishek Thuwal	BT16MEC018	MEC	TREDENCE
Ayush Singh	BT16MEC040	MEC	CAPGEMINI
Kritika Sharma	BT16MEC017	MEC	TECHNIP
Palle Ram Narsimhareddy	BT16MEC032	MEC	CAPGEMINI
Puneet Agarwal	BT16MEC005	MEC	L&T EBG
Shanti Mehra	BT16MEC025	MEC	TECHNIP
Shrey Kumar Tyagi	BT16MEC019	MEC	L&T EBG
Shubham Yadav	BT16MEC008	MEC	CAPGEMINI
Vishal Kabdwal	BT16MEC021	MEC	TECHNIP
Kuber Surya Vanshi	BT16MEC004	MEC	L&T INFOTECH
Neeraj Singh	BT16MEC010	MEC	L&T ECCD
Nitish Kumar Bharti	BT16MEC016	MEC	DXC Technology
Pawan Kumar Agrahari	BT16MEC023	MEC	DXC Technology
Devansh	BT16MEC035	MEC	DXC Technology
Shyam Lal	BT16CSE003	CSE	Valuable Group

**09.02 STUDENT'S INTERNSHIP**

Sr.No.	Name of the Student	Branch	Roll.No.	Name of the Company	Stipend
1.	Abhinav Kumar	ECE	BT15ECE046	NXP India Pvt. Ltd.	15,000/-
2.	Diwakar Mishra	ECE	MT17ECE004	Intel Technology India Pvt. Ltd., Bagalore	14,000/-
3.	TusharVijai Singh	ECE	MT18ECE001	NXP India Pvt. Ltd.	25,000/-
4.	PranotiGogulwar	ECE	MT18ECE004	NXP India Pvt. Ltd.	25,000/-
5.	Raghavendra Nath Yadav	ECE	MT19ECE001	Intel Technology India Pvt. Ltd.,	20,000/-

**09.03 GATE QUALIFIED STUDENTS**

S.No.	Name of Student	Gender	Category	Marks	Rank	Paper	Qualifying Degree
1.	Mayank Jindal	Male	GEN	31	9950	EC	Electronics & Communication
2.	Arnav ShauryaBisht	Male	GEN	44.33	3306	EC	Electronics & Communication
3.	RishabhAwasthi	Male	GEN	44.67	3208	EC	Electronics & Communication
4.	Nikita	Male	SC	24	17297	EC	Electronics & Communication
5.	Ashish KumarTiwari	Male	GEN-PWD	19.67	24830	EC	Electronics & Communication
6.	HimanshuGautam	Male	SC	55	1119	EC	Electronics & Communication
7.	Krishan Kumar	Male	SC	19.67	24830	EC	Electronics & Communication
8.	AniketGupta	Male	GEN	33.67	8135	EC	Electronics & Communication
9.	Rahil Gaur	Female	OBC	29.33	11328	EC	Electronics & Communication
10.	Ashish KumarSingh	Male	SC	32.67	8769	EC	Electronics & Communication
11.	KotyadaUttej	Male	OBC	30.67	10208	EC	Electronics & Communication
12.	Kunjam Sai Krishna Prasad Raju Dora	Male	ST	20.67	22861	EC	Electronics & Communication

13.	Jagdish Singh Samant	Male	GEN	64.33	261	EC	Electronics & Communication
14.	Suneel Singh	Male	SC	23	18783	EC	Electronics & Communication
15.	Ajeet Singh	Male	GEN	30.33	10479	EC	Electronics & Communication

#### List of Companies conducted Placement Drives for NIT Uttarakhand

S.No.	Name of Company
1	JOSH TECHNOLOGIES
2	CVENT
3	TREDENCE
4	ZS ASSOCIATE
5	WHEELSEYE
6	LOYALTY JUGGERNAUT
7	CAPGEMINI
8	TECHNIP
9	N-BAND (VALUE LAB)
10	VIRTUSA
11	L&T EBG
12	PEOPLESTRONG
13	GOOGLE
14	SAMSUNG
15	L&T INFOTECH
16	RAAM
17	L&T ECCD
18	DIASPARK
19	SAGACIOUS IP
20	AVSAR
21	ZYCUS INFOTECH
22	PLANETSPARK
23	DXC TECHNOLOGY
24	Valuable Group

Some Pictures during Placement Drives



Placement Drive by DxC Technology



Selected Students by DxC Technology



Preplacement Presentation by Diaspark



Online Test during Preplacement by Diaspark



Online Test during Preplacement by Diaspark

**09.04 EXPERT LECTURE ON CAREER PLANNING FOR UG STUDENTS**

One expert lecture on Career Planning for UG students was organized at Satellite Campus in Jaipur on 18/02/2020. Dr. Ravi Kant Mishra, Head, TPO at SLIET Longowal delivered the lecture. It was attended by as many as 103 students of different branches.

### Expert Lecture by Dr. Ravi Kant Mishra, Head TPO, SLIET Longowal on Career Planning for UG Students



### Expert Lecture by Dr. Ravi Kant Mishra, Head TPO, SLIET Longowal on Career Planning for UG Students

#### Workshop on Soft Skill and Entrepreneurship

A two-day workshop on Soft Skill and Entrepreneurship was organized during month of January 2020, dated 10-11<sup>th</sup> with support from Dean Student Welfare Section in NITUK. It was conducted by Ms. Akshita from Future Icons Group, Delhi. It was very informative and motivational workshop and attended by students of NIT Uttarakhand, IIIT Kota and MNIT Jaipur.



#### Workshop on Soft Skill and Entrepreneurship



## 10.00 RESEARCH AND DEVELOPMENT ACTIVITIES

### 10.01 RESEARCH SCHOLARS IN VARIOUS DEPARTMENTS

NIT Uttarakhand started offering Ph.D. programs in all the disciplines since Spring 2014. Currently ninety-nine students are pursuing their doctoral degree at NIT Uttarakhand. The names of the research scholars and their respective departments and guides are as follows:

#### 10.01.01 Dept. of Civil Engineering

1. Mr. Pramod Tiwari  
Supervisor: Dr. Kranti Jain, Assistant Professor
2. Mr. Bichitra Singh Negi  
Supervisor: Dr. Kranti Jain, Assistant Professor
3. Mr. Lalit Kumar  
Supervisor: Dr. Aditya Kumar Anupam, Assistant Professor
4. Mr. Pankaj Rana  
Supervisor: Dr. Vikas Pratap Singh, Assistant Professor
5. Mr. Ayush Joshi  
Supervisor: Dr. Kranti Jain, Assistant Professr
6. Mr. Mahavir Singh Rawat  
Supervisor: Dr. Smita Kaloni, Assistant Professor
7. Mr. Ankush Dhanai  
Supervisor: Dr. Vikas Pratap Singh/ Dr. Shashank Bhatra, Assistant Professor

#### 10.01.02 Dept. of Computer Science and Engineering

1. Mr. Shiv Naresh Shivhare  
Supervisor: Dr. Nitin Kumar, Assistant Professor
2. Mr. Arun Singh Bhadwal  
Supervisor: Dr. Kamal Kumar, Assistant Professor
3. Ms. Prabhjot Kaur  
Supervisor: Dr. Nitin Kumar, Assistant Professor
4. Ms. SoniChaurasia  
Supervisor: Dr. Kamal Kumar, Assistant Professor
5. Ms. Manisha  
Supervisor: Dr. Nitin Kumar, Assistant Professor
6. Mr. Vivek Kumar Singh

- Supervisor: Dr. Nitin Kumar, Assistant Professor
7. Mr. Neeraj Rathore  
Supervisor: Dr. Maheep Singh/ Dr. Kamal Kumar, Assistant Professor
  8. Mr. Arvind Kumar Vishwakarma  
Supervisor: Dr. Deshmukh Maroti Bhujangrao, Assistant Professor
  9. Mr. Shubhashish Goswami  
Supervisor: Dr. Abhimanyu Kumar, Assistant Professor
  10. Mr. Gaurav Sharma  
Supervisor: Dr. Maheep Singh, Assistant Professor
  11. Mrs. Parul Saini  
Supervisor: Dr. Krishan Kumar, Assistant Professor
  12. Mr. Arjun Singh Rawat  
Supervisor: Dr. D. Maroti Bhujangrao/Dr. Maheep Singh, Assistant Professor
  13. Mr. Amit Panwar  
Supervisor: Dr. Abhimanyu Kumar, Assistant Professor
  14. Mr. Alok Negi  
Supervisor: Dr. Krishan Kumar, Assistant Professor
  15. Mr. Sachin Choudhary  
Supervisor: Dr. Abhimanyu Kumar/Dr. Krishan Kumar, Assistant Professor
  16. Mrs. Bhawana Parihar  
Supervisor: Dr. Deshmukh Maroti Bhujangrao,, Assistant Professor

### **10.01.03 Dept. of Electronics and Communication Engineering**

1. Mr. Yogendra Pratap Pundir  
Supervisor: Dr. Pankaj Kumar Pal, Assistant Professor
2. Mr. Rajesh Saha  
Supervisor: Dr. Pankaj Kumar Pal, Assistant Professor
3. Varun Kumar Kakkar  
Supervisor: Dr. Pankaj Kumar Pal, Assistant Professor
4. Lalit Kumar Gariya  
Supervisor: Dr. Hariharan Muthusamy, Associate Professor
5. Maneesh Kumar Singh  
Supervisor: Dr. Sarika Pal, Assistant Professor

6. Rishi Nigam  
Supervisor: Dr. Shiva Kumar Tadepalli, Assistant Professor
7. B.K. Hemant  
Supervisor: Dr. Tajinder Singh Arora, Assistant Professor
8. Arvind Kumar  
Supervisor: Dr. Tajinder Singh Arora, Assistant Professor
9. Gaurav Maithani  
Supervisor: Dr. Sarika Pal, Assistant Professor
10. Sachin Tiwari  
Supervisor: Dr. Tajinder Singh Arora, Assistant Professor
11. RuchiJuyal  
Supervisor: Dr. Hariharan Muthusamy, Associate Professor
12. Arvind Bisht  
Supervisor: Dr. Pankaj Kumar Pal, Assistant Professor
13. Rajeev Kumar  
Supervisor: Dr. Sarika Pal, Assistant Professor
14. Vipin Kumar Verma  
Supervisor: Dr. Sarika Pal, Assistant Professor
15. Avinash Bhatt  
Supervisor: Dr. TusharGoel, Assistant Professor
16. Satendra Pathak  
Supervisor: Dr. TusharGoel, Assistant Professor

#### **10.01.04 Dept. of Electrical Engineering**

1. Mr. Ankit Uniyal  
Supervisor: Dr. Mahiraj Singh Rawat, Assistant Professor
2. Mr. Ruchir Pandey  
Supervisor: Dr. Sourav Bose, Assistant Professor
3. Mrs. Himani Kala  
Supervisor: Dr. Mahiraj Singh Rawat, Assistant Professor
4. Mr. Rakesh Thapliyal  
Supervisor: Dr. Sourav Bose, Assistant Professor

5. Mrs. Ekta Gairola  
Supervisor: Dr. Mahiraj Singh Rawat, Assistant Professor
6. Mrs. Chandni Bansal  
Supervisor: Dr. Sourav Bose, Assistant Professor
7. Mr. Prankit Gupta  
Supervisor: Dr. Sourav Bose, Assistant Professor
8. Mr. Ashutosh Biswal  
Supervisor: Dr. Prakash Dwivedi, Assistant Professor
9. Mr. Abhijeet Sah  
Supervisor: Dr. Sourav Bose, Assistant Professor
10. Mr. Ashutosh Bhatt  
Supervisor: Dr. Prakash Dwivedi, Assistant Professor
11. Mr. Satyaveer Singh Negi  
Supervisor: Dr. Prakash Dwivedi/ Dr. Sourav Bose, Assistant Professor
12. Mr. Ashish Maithani  
Supervisor: Dr. Prakash Dwivedi/Dr. Sourav Bose, Assistant Professor

#### **10.01.05 Dept. of Mechanical Engineering**

1. Mr. Lalit Ranakoti  
Supervisor: Dr. Pawan Kumar Rakesh, Assistant Professor
2. Mr. Adgale Tushar Balkrishna  
Supervisor: Dr. Anshul, Assistant Professor
3. Mr. Prabhakar Bhandari  
Supervisor: Dr. Yogesh Kumar Prajapati, Assistant Professor
4. Mr. Mayank Pokhriyal  
Supervisor: Dr. Pawan Kumar Rakesh, Assistant Professor
5. Prabhakar Zainith  
Supervisor: Dr. Neeraj Kumar Mishra, Assistant Professor
6. Bhoopendra Pandey  
Supervisor: Dr. Yogesh Kumar Prajapati, Assistant Professor
7. Mr. Ankit Varshney  
Supervisor: Dr. Niraj Kumar Mishra, Assistant Professor
8. Mr. Anurag Maheshwari  
Supervisor: Dr. Yogesh Kumar Prajapati, Assistant Professor

9. Mr. Vineet Singh  
Supervisor: Dr. Vinod Singh Yadav, Assistant Professor
10. Mr. Siddharth Kumar  
Supervisor: Dr. Anshul Sharma, Assistant Professor
11. Mr. Santosh Kumar  
Supervisor: Dr. Lalta Prashad, Associate Professor
12. Mr. Neeraj Gupta  
Supervisor: Dr. Apurba Mandal, Assistant Professor
13. Mr. Ravinder Singh  
Supervisor: Dr. Vikas Kukshal, Assistant Professor
14. Mr. Vivek Bahuguna  
Supervisor: Dr. Pawan Kumar Rakesh, Assistant Professor
15. Mr. Gulraj Singh  
Supervisor: Dr. Gurinder Singh Brar, Associate Professor
16. Mr. Nishant Kumar  
Supervisor: Dr. Vinod Singh Yadav, Assistant Professor
17. Mr. Amit Kumar  
Supervisor: Dr. Lalta Prasad, Associate Professor
18. Mr. Arun Uniyal  
Supervisor: Dr. Yogesh Kumar Prajapati, Assistant Professor
19. Mr. Pramod Prabhakar Bijlwan  
Supervisor: Dr. Lalta Prashad, Associate Professor/ Dr. Anshul Sharma, Assistant Professor
20. Mr. Shaurya Bhatt  
Supervisor: Dr. Pawan Kumar Rakesh, Assistant Professor
21. Mr. Hari Narayan Singh  
Supervisor: Dr. Sanat Agarwal, Associate Professor
22. Mr. Rajesh Kumar  
Supervisor: Dr. Pawan Kumar Rakesh/Dr. D. Sreehari, Assistant Professor
23. Mr. Himanshu Sah  
Supervisor: Dr. Lalta Prashad, Associate Professor
24. Mr. Prasoon Choudhary  
Supervisor: Dr. Gurinder, Associate Professor



25. Mr. Ashu Kumar  
Supervisor: Dr. Gurinder, Associate Professor

**10.01.06 Dept. of Sciences and Humanities****Discipline: Physics**

1. Mr. Hardepinder Singh  
Supervisor: Dr. Hardeep Kumar, Assistant Professor

**Discipline: Chemistry**

1. Mr. Rohit Kumar  
Supervisor: Dr. Pankaj Kandwal, Assistant Professor
2. Mr. Zafar Iqbal  
Supervisor: Dr. Saroj Ranjan De, Assistant Professor
3. Ms. Asha Joshi  
Supervisor: Dr. Saroj Ranjan De, Assistant Professor
4. Ms. Vaishali Singh  
Supervisor: Dr. Rampal Pandey, Assistant Professor
5. Mr. Mohammad Masood Zafar  
Supervisor: Dr. Rakesh Kumar Mishra, Assistant Professor
6. Ms. Himani Sharma  
Supervisor: Dr. Kamal Kant Tiwari, Assistant Professor
7. Mr. Sandeep Singh  
Supervisor: Dr. Saroj Ranjan De, Assistant Professor
8. Mr. Sandeep Joshi  
Supervisor: Dr. Rampal Pandey, Assistant Professor

**Discipline: Mathematics**

1. Ms. Anita  
Supervisor: Dr. Nitin Kumar, Assistant Professor
2. Mr. Danish Amin  
Supervisor: Dr. Dheerendra B. Singh, Assistant Professor
3. Mr. Pankaj Singh Rana  
Supervisor: Dr. Nitin Sharma, Assistant Professor
4. Mr. Dinesh Singh Bhandari  
Supervisor: Dr. Dharmendra Tripathi, Associate Professor
5. Mr. Sunil Singh Negi  
Supervisor: Dr. Nitin Sharma, Assistant Professor

6. Ms. Aaradhana  
Supervisor: Dr. Kusum Sharma, Assistant Professor
7. Mr. Vedit Kumar Vats  
Supervisor: Dr. D.B. Singh, Assistant Professor
8. Ms. Rajlaxmi Rath  
Supervisor: Dr. Kuldeep Sharma, Assistant Professor

**Discipline: English**

1. Mr. Joe Philip  
Supervisor: Dr. RenuBhadolaDangwal, Assistant Professor
2. Ms. Dona Soman  
Supervisor: Dr. RenuBhadolaDangwal, Assistant Professor
3. Mr. Satyanarayan Tiwari  
Supervisor: Dr. Ajay Kumar Chaubey, Assistant Professor
4. Ms. Sonalika Chaturvedi  
Supervisor: Dr. Renu Bhadola Dangwal, Assistant Professor
5. Ms. Manvi Sharma  
Supervisor: Dr. Ajay Kumar Chaubey, Assistant Professor

**10.02 DETAILS OF THE PROJECTS SANCTIONED/ONGOING (2019-2020)**

S.No.	Principal Investigator/Department	Project Title	Financial Worth	Sponsoring Organization	Status
1.	Dr. Pankaj Kumar Pal Assistant Professor, ECE	Special Man Power Development Programme Chip to System Design (SMDP–C2SD)”	16,90,860	DeitY	Ongoing

**10.03 DETAILS OF PATENTS**

S. No.	Department	Patent Title	Patent Application No. / Patent No.
1.	Electronics	Highly-Directional Compact Semicircular Angular-Phased Antenna Array in 9.35-42.89 GHz.	Indian Patent 201811035222
2.		Open Vs Enclosed Spatial Environment Classification For A Mobile or Wearable Device Using Microphone and Deep Learning Method.	US62/789,406

**10.04 SWAYAM/NPTEL/MOOCs (2019-20)**

S.No.	Faculty Name	Department	Designation	Enrolled (Yes/No)	Certified (Yes/No)
1.	Dr. Tajinder Singh Arora	Electronics Engg.	Assistant Professor	Yes	Yes
2.	Mr. Vivek Kumar	Electronics Engg.	Trainee Teacher	Yes	Yes

**10.05 CONTINUING EDUCATION PROGRAMME****10.10.01 List of Publications in 2019-20****Electronics Engineering Department**

1. Zain, Z.M., Muthusamy, H., Kader, K.A., Yusuf, Z.M. "Wrapper-based feature selection for classifying cued speech Malay syllables"(2020) Test Engineering and Management, 83, pp. 7740-7748.
2. Saraswathy, J., Hariharan, M., Khairunizam, W., Sarojini, J., Yaacob, S. "Time-frequency analysis-based method for application of infant cry classification"(2020) International Journal of Medical Engineering and Informatics, 12 (2), pp. 119-134.
3. Kassim, F.N.C., Vijean, V., Muthusamy, H., Abdullah, R., Abdullah, Z. "Voice Pathology Analysis using DT-CWPT and ReliefF Algorithm" (2019) Journal of Physics: Conference Series, 1372 (1), art. no. 012029,
4. Uthvag, S., Vijay Sai, P., Dheeraj Kumar, S., Muthusamy, H., Chanu, O.R., Karthik Raj, V. "REAL-TIME EMG ACQUISITION and FEATURE EXTRACTION for REHABILITATION and PROSTHESIS" (2019) Biomedical Engineering - Applications, Basis and Communications, 31 (5), art. no. 1950037, .
5. Pal, Sarika, Yogendra Kumar Prajapati, and J. P. Saini. "Influence of graphene's chemical potential on SPR biosensor using ZnO for DNA hybridization." Optical Review 27, no. 1 (2020): 57-64.
6. Pal, Sarika, AlkaVerma, Y. K. Prajapati, and J. P. Saini. "Figure of Merit Enhancement of Surface Plasmon Resonance Biosensor Using Ga-Doped Zinc Oxide in Near Infrared Range." PHOTONIC SENSORS (2020).

7. Pal, Sarika, Yogendra Kumar Prajapati, and J. P. Saini. "Influence of graphene's chemical potential on SPR biosensor using ZnO for DNA hybridization." *Optical Review* 27, no. 1 (2020): 57-64.
8. Kumar, Rajeev, Sarika Pal, AlkaVerma, Y. K. Prajapati, and J. P. Saini. "Effect of silicon on sensitivity of SPR biosensor using hybrid nanostructure of black phosphorus and MXene." *Superlattices and Microstructures* (2020): 106591.
9. Singh, Maneesh Kumar, Sarika Pal, Yogendra Kumar Prajapati, and Jai Prakash Saini. "Sensitivity Enhancement using Antimonene and BlueP/MoS<sub>2</sub> Heterostructure in SPR sensor." *IEEE Sensors Letters* (2020).
10. Pal, Sarika, Y. K. Prajapati, and J. P. Saini. "Analyzing the Sensitivity of Heterostructure of BP-Graphene/TMDC Layer Coated SPR Biosensor." In *Advances in VLSI, Communication, and Signal Processing*, pp. 663-671. Springer, Singapore, 2020.
11. Arora, Tajinder Singh. "A Current-Mode Single-Resistance-Controlled Oscillator Employing VDCC and All Grounded Passive Elements." *Iranian Journal of Electrical and Electronic Engineering* (2020): 0-0.
12. Gupta, Manish, Priyanka Dogra, and Tajinder Singh Arora. "Novel current mode universal filter and dual-mode quadrature oscillator using VDCC and all grounded passive elements." *Australian Journal of Electrical and Electronics Engineering* 16, no. 4 (2019): 220-236.
13. Arora, Tajinder Singh, BhargaviRohil, and Soumya Gupta. "Fully integrable/cascadable CM universal filter and CM quadrature oscillator using VDCC and only grounded passive elements." *Journal of Circuits, Systems and Computers* 28, no. 11 (2019): 1950181.
14. Suchitra Pandey, Siva Kumar Tadepalli, V. Krishna Rao Kandavli, AbhilavVishwakarma "Stability of uncertain 2-D discrete systems in presence of generalized overflow nonlinearities" *International Journal of Engineering and Advanced Technology* , Vo 8, Issue 6S3, Septemeber 2019, 725-732.
15. Singh, Ghanapriya, Ratnesh Kumar Singh, Rajesh Saha, and Nidhi Agarwal. "IWT Based Iris Recognition for Image Authentication." *Procedia Computer Science* 171 (2020): 1868-1876.
16. Goel, Tushar, and Amalendu Patnaik. "Fractal DGS based Novel Wideband Antenna for 5G Applications." In *2019 IEEE Indian Conference on Antennas and Propagation (InCAP)*, pp. 1-4. IEEE, 2019.

17. Gajanan, Parab, Bhavi Arora, TusharGoel, and Amalendu Patnaik. "A Dual-band Microwave Energy Harvesting Rectenna System for WiFi Sources." In 2019 IEEE Indian Conference on Antennas and Propagation (InCAP), pp. 1-4. IEEE, 2019.
18. Kumar, Priyesh, Sarita Yadav, and Pankaj Kumar Pal. "Analysis of Nanosheet Field Effect Transistor (NSFET) for device and circuit perspective." In 2019 Women Institute of Technology Conference on Electrical and Computer Engineering (WITCON ECE), pp. 183-186. IEEE, 2019.
19. Saha, Rajesh, Ratnesh Kumar Singh, Rajeev Kumar, Ghanapriya Singh, TusharGoel, and Pankaj Kumar Pal. "Classification of human heart signals by novel feature extraction techniques for rescue application." In 2019 Fifth International Conference on Image Information Processing (ICIIP), pp. 156-160. IEEE, 2019.
20. Kushwaha, Deependra Singh, Ananta Kant Rai, Sweta Agrawal, Pankaj Kumar Pal, and Hemant Kumar Singhal. "A Narrow Band Cascode Source Degeneration Low Noise Amplifier with  $\pi$ -Input Matching at 5 GHz Frequency." In 2019 2nd International Conference on Innovations in Electronics, Signal Processing and Communication (IESC), pp. 301-304. IEEE, 2019.



## 11.00 EVENTS, CURRICULAR AND CO-CURRICULAR ACTIVITIES

### 11.01 CULTURAL ACTIVITIES

#### Cultural and Fine Arts Club Report 2019-20

Cultural and Fine Arts Club (former Techno-cultural club) of NIT UK organized Cultural Night “Sufiyana'19” on November 17, 2019 at satellite campus MNIT Jaipur.

The event started by floral welcome of Chief Guest Director, MNIT Jaipur, guest of honour Additional Chief Secretary Technical education, Uttarakhand and Director, NIT Uttarakhand. Thereafter a classical dance performance was presented by 2<sup>nd</sup> year students. The event went great and the crowd was enthralled by the performances. In continuation, Band, Rajasthani Dance and THE QAWWALS performance were presented by NITUK students and Artists who were invited for Qawwali during the Sufiyana 2019. The crowd erupted in joy after every performance that the students had to offer. Such type of events provide great platform to the students to showcase their hidden talent. At the end of the event, Prof. Shyamlal Soni, Director, NIT Uttarakhand addressed all the students and motivated them to participate in cultural activities for their overall growth.



Students of NITUK, under Cultural and Fine Arts Club, have participated in Cultural Fest Blitzschlag 2020 which was organized by Malviya National Institute of Technology, Jaipur during 6- 8<sup>th</sup> February 2020. Under this fest various events like EDM Night, Battle of the Bands, Concevoir'20 (Star Night) were organized.

Four students Mr. Rahul Yadav, Mr. Kunal Negi, Rohan Singh and Arsh Akhtar participated in Spring Fest 2020 at IIT Kharagpur during 24th to 26th January 2020. During the fest they gave Band performance.



### **Film & Photography Club (Klick)-Satellite Campus**

Klick Film and Photography Club, NIT Uttarakhand conducted various activities during the period of August 2019 to March 2020 at Satellite Campus, Jaipur. In the Odd Semester 2019, club conducted two outdoor session for the club members, one at Albert Hall Museum, Jaipur and another to the Nahargarh Fort, Jaipur in the month of September and October 2019 respectively. Further in Even Sem, the club participated in the photography activities at the IIT, Jodhpur annual cultural fest **IGNUS** in the month of February 2020. Apart from these activities, the club covered the inaugural ceremony, different sessions and valedictory session of numerous workshops, short term training programmes, and other events organized by the institution at satellite campus. Details of the above mentioned activities are mentioned below:

#### **Activity-1: Outdoor Session at the Albert Hall Museum on 17 September 2019**

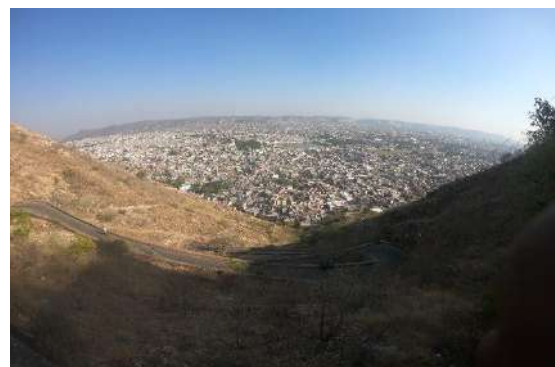
The Film and Photography Club- Klick of NIT Uttarakhand organized an outdoor photography session for the members of the club. The basic idea behind this session was to introduce new members of the club with various aspects of the photography and videography i.e. shutter speed, aperture, ISO, exposure, mode of cameras etc and provide them on field experience. Members were divided into four different groups along with one senior member. Senior

member demonstrated about the Time-lapse, Hyper-lapse, lowlight photography, and the mobile video shoot. This activity boosted the interest as well as confidence of the new members.



### Activity-2: Outdoor Session at Nahargarh Fort on 05 October 2019.

This session was conducted to introduce the members about candid, sunset, monument, and Landscape photography. Members were divided into three groups.







**Activity-3: Participation at IIT Jodhpur Annual Cultural Fest IGNUS during 19-23 February 2020.**

IIT Jodhpur organized IGNUS 20 where students from all over the country participated in diverse field of cultural events and competitions. Eight members of the film and photography club from NITUK Satellite campus participated in the sight photography event and Short Film Making competition. Along with this they also participated in the other events for photography and videos. It was a good opportunity and new experience for the club members to participate and learn new things related to film and photography in such a big event.



### Other Activities: Events Covered by the film and photography club at NITUK Satellite Campus

The club has covered the inaugural ceremony, different sessions and valedictory session of numerous workshops, short term training programmes (STTPs), Faculty development Programmes (FDP) and other events organized by the institution at satellite campus during odd semester 2019 and even semester 2020. Some of the events covered include:

1. Short term course on Application of Statistics in Experimental Techniques during 29 July to 02 August.
2. Hindi Diwas on 14 September 2019
3. AICTE Training and Learning (ATAL) Academy sponsored workshop on Data Science during 14-18 October 2019.
4. Expert talk on Road Safety Awareness on 15 November 2019
5. Expert talk on High Performance Computing on 18 November 2019
6. Book Exhibition during 18-19 November.
7. National Conference on Recent Advancement in Physical Sciences (NCRAPS-2019) during 19-20
8. Short term course on Research Trends in frontier areas of Electronics and Communication in Industry and Academia during 16-20 September 2019.









Dr. Maheep Singh  
 Coordinator-Film and Photography Club, Satellite Campus  
 NIT Uttarakhand

### 5-Day Workshop on Photography (09th To 13th November 2019)

Every year photography Club of the Institute organizes workshop for the newly joined students. Under this workshop various indoor as well as outdoor activities are conducted where students get exposure to professional photography. The objective of workshop is to promote creativity through photography among the students, faculty members and staff of the Institute.

This year also Photography Club organized a 5-Day workshop from **09<sup>th</sup> to 13<sup>th</sup> November 2019** at parent campus, and invited experts, **Mr. Ashish Lakhera** (renowned journalist and photographer, Editor-in-Chief Uttarakhand Live (News Portal), Ex-HoD Institute of Mass Communication), **Mr. Rajesh Thapliyal** (Renowned Wild-Life Photographer) and **Mr. Mahesh Painuly** (renowned photographer of Uttarakhand, CEO/Founder, Rishikesh Photography Club). Around 65 aspirants including students, faculty members, staff members actively participated in the workshop to educate and improve the technical skills related to photography.



Photography workshop included basic technical knowledge of photography and cameras; Nature photography; Rural photography; Wild-life photography; General Portrait Photography; lessons on photography related to News reporting and Journalism. In this regard, groups of interested participants along with the experts visited various places such as Khirsu Village, Badyalghar Village, Dhari Devi Temple, and other nearby places to hands on the Photography skills and inculcated their love for photography.

Coordinators: Dr. Tushar Goel (Faculty Coordinator Photography Parent Campus), Dr. Mahip Singh (Faculty Coordinator Photography Satellite Campus)

Conveners: Dr. Gurinder Singh Brar (Dean Student Welfare), Dr. Prakash Dwivedi (Associate Dean Student Welfare).



### Nitk Surathkal Visit Report Under EBSB

NITK Surathkal and NIT Uttarakhand have been paired by MHRD in Ek Bharat Shreshtha Bharat (EBSB) to undertake students and teacher exchange programme throughout the year. Total of 13 students from NIT Uttarakhand participated in Incident'20 event which was organized by NITK Surathkal from 27th Feb, 2020 to 1st March, 2020. On the first day of Incident-20 event, our students gave presentation in front of the staff and students of NITK Surathkal. Our students presented "Cliff Cat", a website that provides a portal for small trekking agencies to connect with tourists and trekking enthusiasts and take them to some of the offbeat and unexplored terrains in Uttarakhand. Considering that "migration due to the lack of career opportunities" is one of the most pressing problems in Uttarakhand, it realized that "development of tourism" could be a solution to it, providing job opportunities to the people in the hills and thus preserving the rich culture and heritage of Uttarakhand. On second day, our students attended "Just a Minute", a literary event where in a person has to speak for sixty seconds without any type of hesitation, repetition or deviation. The event was hosted by jam master Homuz Ragina, one of the best jam masters in the country. Each panel had to go through two rounds. On the third day of cultural exchange program, our students presented the folk dances of Uttarakhand and Himachal. The crowd was awestruck by performance and applauded whole heartedly. Later our students had conversations with the students and staff of NITK Surathkal who were keen to know about the rich pahari culture. After that our students took part in a debate competition organized at Incident, the cultural fest of NITK Surathkal. The topic of the debate was "Possession of nuclear weapons is the way to world peace". The participants brainstormed and argued in favour as well as against the topic with amazing fervor. On the last day of Incident-20, students saw all the creative participants taking part in the face painting competition. By dipping their magical hands in the greasy colors, they painted something adorable yet demonic. At last, so that students get a complete insight of Karnataks's culture, NITK Surathkal volunteers took our students to the Durga temple, a Dravidian masterpiece having brightly painted sculptures on its towers. During the visit period a conference was also arranged by the NITK Surathkal for NIT Uttarakhand students in which the student's body of NITK Surathkal briefed about the culture of their college and took our students to explore Surathkal and the nearby places which included Udupi, the temple city of Karnataka where they took our students to the Krishna temple which is considered to be one of the most famous pilgrimage sites in South India. Overall the visit was a successful move by NITUK and NIT Surathkal under Ek Bharat Shreshtha Bharat programme.







## 11.02 SPORTS ACTIVITIES

The motto of National institute of technology Uttarakhand is “Sports for all and all for Sports”. To achieve this, the Institute provides various sports facilities. The students are encouraged to take the part in games & sports to keep themselves fit and inculcate a spirit of sportsmanship amongst themselves. In the session 2019-20 Institute organized many Sports activities throughout the year. This session, the institute initiated to provide a good platform to the students to showcase their talent and develop the Sportsmanship among them. Besides participating in various tournaments, the Institute also organized Intra NIT Tournament, Open Tournament, Coaching Camp, adventure week & also organized some practice matches with local Institute and Club in various games. These activities help in increasing the skill level of players and at the same time its provide them with an opportunity to interact with local players. The details of the Sports Activities organized by the section in the session 2019-20 are given below.

## 11.03 ADVENTURE WEEK - 2019

“Take risks and conquer your fears”. This quote was rightly proved when the Sports Section of NIT Uttarakhand successfully organized an Adventure Trip to Kedarnath from 06<sup>th</sup> Oct. to 08<sup>th</sup> Oct. 2019 .Adventure is good for the mind because it’s a positive change of scenery that gives you a new perspective on exploration. The main objective of this adventure week is not only to provide a source of ‘thrill and joy’ to participants, but also provide a valuable opportunity for developing such traits so as to prepare them for facing challenges against all odds confidently and efficiently.

With great zeal and zest, students participated in the 15 days physical fitness training programme organized by the SAS Section in the month of September 2019. It helped to prepare ourselves physically and mentally before going on the 23km long & challenging trek at Kedarnath. It strengthened our bones and muscles for the climb. This camp help us to improve our physical efficiency level.

On the basis of camp total 65 students of B.tech 1<sup>st</sup> year were selected for this adventure trip. Total 65 students and 07 faculty and staff members of the institute started the journey at



09:00 am in the reflection of the sun of 05<sup>th</sup> Oct. 2019. We all collected a lot of moments and not things. Summing up, we didn't really conquer the mountains but conquered ourselves. We overcame sickness and everything else-our pains, aches, and fears-to reach the summit called Kedarnath! This was really a wonderful adventure trip, because everyone enjoyed a lot and learnt a lot of things which will be beneficial in future. The soul soothing beauty and calmness of Kedarnath filled everybody with immense joy.



### Inter NIT Tournament

As per the resolution arrived during the **All India Inter NIT Sports Calendar Meeting 2019-2020** at Sardar Vallabhbai National of Technology (SVNIT) on 04/05/2019 to 05/05/2019, NIT Uttarakhand had been entrusted with the responsibility to host the **All India Inter NIT Football (Men) and Kho-Kho (Men & Women) Tournament 2019-2020**. NIT Uttarakhand has initiated and announced the event dates from 12<sup>th</sup> March to 14<sup>th</sup> March, 2020. Total 23 NIT,s all over the country conformed their participation in this tournament. This Institute did all the preparation regarding in this tournament.



Due to the outbreak of COVID-19 (Corona Virus) and increasing number of cases of Corona Virus infection in several parts of the country and in view of the instructions and advisory received from MHRD and Ministry of Health and Family Welfare against mass gatherings, the **All India Inter NIT Football (M) and Kho-Kho (M&W) Tournament 2019-2020**, which was scheduled to be conducted at Srinagar (Garhwal) has been cancelled.

### 11.04 PARTICIPATION IN ALL INDIA INTER NIT & OTHER TOURNAMENT 2019-20

Participation in high level of competition enhances the sense of achievements, feeling of belongingness, national pride and patriotism. Sports being a practical way of education facilitate beneficial recreation, improve productivity, foster social harmony inculcating sense of discipline and dedication in general life. Sports give a strong message of peace, friendship and understanding among people of participants. Institution teams formulated for various games participated in various tournaments like All India Inter NIT, MST, ITUSA and other open tournament.

Total 162 students of the Institute participated in All India Inter NIT and other national level tournament in the year 2019-20. Recently our Institute players and faculty & staff teams brought laurels to the institute by winning the gold medal in Javelin throw, silver medal in shot-put in All Inter NIT Athletics competition from 24<sup>th</sup> to 26<sup>th</sup> Jan. 2020 at NIT Rourkela. Institute players also give their best performance in Malviya Sports Tournament organized by MNIT Jaipur from 05<sup>th</sup> to 07<sup>th</sup> March, 2020 and won silver medal in Football (M), bronze medal in Volleyball (M), Badminton (W), Table Tennis (M& W) and Chess (M) category.









**Faculty and Staff Tournament 2019-20**

Institute always motivates the faculty and staff members to participate in various sports tournaments to enhance the sense of achievements and feeling of belongingness among each other. Institute faculty and staff team secured 2<sup>nd</sup> place in 1<sup>st</sup> All India Inter NIT Faculty & Staff tournament organized by VNIT Nagpur from 27<sup>th</sup> to 30<sup>th</sup> Dec. 2020. Dr. Kuldeep Singh SAS Officer, was awarded with the best scorer of the tournament. Institute also won Gold medal in women category (Singles & Doubles) All India Inter NIT Badminton tournament organized by MNIT Jaipur from 17<sup>th</sup> to 19<sup>th</sup> Dec. 2020. Miss Sangeeta Basu won Gold medal in women single category and Miss Sangeeta Basu and Mrs. Kumud Sharma won Gold medal in women double category.



### Intramural Sports Activities

The objective of organizing intramural tournament in the campus is to involve the engineering students in some physical activities, teach them sportsmanship, team spirit, and help them in socialization through sports activities. It also provides the solid platform for their healthy social relationship throughout their academic course; students also learn skills of organization, administration, officiating and coaching. The Institute also understands the importance of local tournaments and exposes the students in various local tournaments whenever it is possible as per the academic calendar. This year following sports were organized under annual intramural program: Table tennis, Tug of war, Volleyball, Badminton & minor game like SAC Race, Spoon & Lemon Race, Relay Race, Three Leg Race, And Fitness Challenge Etc. The awards and medals were distributed to the winner by the Honorable Director Prof. Shyam Lal Soni on the occasion of Republic Day 2020.





## 12.00 NOTABLE ACHIVEMENTS

### ACADEMICS

#### Civil Engineering Department

- One student of Ph.D, Bichitra Singh Negi had presented his paper titled "Prediction of Minimum Shear Reinforcement For High Strength Concrete" in ICCMS 2019, which was organized by IIT Mandi from 11th - 13th December 2019.
- Two B. Tech. students from 2016 batch, Vishnu Joshi and Shubham Saharan have attended International Conference on Innovative Engineering Design (ICoIED 2020) and also presented their paper titled "COMPUTED TOMOGRAPHY FOR CONCRETE AND STRUCTURAL ELEMENTS" which was organized by Design Innovation Centers of National Institute of Technology Uttarakhand & Indian Institute of Technology Roorkee and The Institution of Engineers, Dehradun from 18-20 January 2020.
- Nikol Singhal, 2<sup>nd</sup> year B. Tech student has got third rank in chess tournament in MST 2020.
- Vivek Singh Negi (BT16CIV026) has scored 646 rank in GATE 2020 exam with 71.95 marks.

#### Faculty Achievements

No. of National/International Journals

- In academic year 2019-2020 :- 5
- In last three year :- 18

No. of National/International Conferences

- In academic year 2019-2020 :- 5
- In last three years:- 27

Special Achievements

- Dr. Smita Kaloni has obtained a Project with Title: To enhance the structural behavior of HAC (High Alumina Cement) based concrete subjected to highly acidic sewage or industrial waste in collobration with Devbhumi Institute of Technology Uttarakahnd, UTU, under TEQIP \_III programme, September 2019, Role: External
- Mr. Laiju A. R. has Filed a patent titled "A hybrid Iron Sulfide Impregnated Anion Exchanger (HISIIX) for Selective Removal of Hexavalent Chromium from Contaminated Water". Application No. 201911024269.

## Computer Science and Engineering Department

### Notable Achievement by the Students

- 44 students from batch 2016 have been placed through Campus Placement Drive till date.
- More than 5 students got selected for MBA in IIMs.
- More than 10 students got selected for M. Tech in IITs.
- More than 10 students got selected for MS in USA since last five years.
- More than 20 final year B. Tech. students joined semester internship in various reputed MNCs.
- Mr. Rahul Goswami (BT16CSE053) CSE 2016 Batch got selected in Google with CTC 31 Lac in 2019.
- Mr. KaustubhPurohit (BT16CSE032) has been selected as Youth Delegates Govt. of India for Kyrgyzstan in September 2019.
- Mr. DiwakarLakhera BT19CSE002 batch 2019 was the member of NIT Uttarakhandteam which was overall winner of the 9<sup>th</sup> edition of NIT Conclave held at NIT Rourkela 23<sup>rd</sup>-25<sup>th</sup> August, 2019.
- Ms. AyushiAgarwal BT16CSE050 secured 111 Marks in TOFEL and 324 GRE in 2019.
- Mr. Rama Krishna MT17CSE009 under the supervision of Dr. Krishan Kumar got offered for Ph. D. from IIT Roorkee in 2019.

### Research Papers

1. Shiv NareshShivhare, Nitin Kumar, Navjot Singh. A Hybrid of Active Contour Model and Convex Hull for Automated Brain Tumor Segmentation in Multimodal MRI. Multimedia Tools and Applications, Springer (SCI-E, IF - 2.101)
2. Suresh Madhavan, Nitin Kumar, Incremental Methods in Face Recognition: A Survey", Accepted for Publication in Artificial Intelligence Review, 2019, Springer (SCI - IF 5.095).
3. Parveen Kumar, Ambalika Sharma, "DCWI: Distribution descriptive curve and Cellular automata based Writer Identification", in Expert Systems with Applications, DOI: 10.1016/j.eswa.2019.03.037, SCI, Elsevier, March 2019.

4. Surendra Singh, SuvadipBatbyal and SachinTripathi, "Security aware dynamic scheduling algorithm (SADSA) for real-time applications on-grid", Cluster Computing, Springer (SCI, IF - 1.851), July 2019.
5. Nitin Kumar and Suresh Madhavan, Performance Evaluation of Incremental PCA and its Variants in Face Recognition, First International Conference on Advanced Communication & Computational Technology (ICACCT-2019), Kurukshetra, India Dec. 6-7, 2019.
6. Maheep Singh, M. C. Govil, E. S. Pilli, and S. K. Vipparthi, "SOD-CED: Salient Object Detection for Noisy Images Using Convolutional Encoder Decoder" , IET Computer Vision (Accepted- SCI)
7. ReshuVerma and Abhimanyu Kumar "Design of Attribute based Authenticated Group Key Agreement Protocol without Pairing", ICIoTCT- 2019.
8. ReshuVerma and AbhimanyuKumar , " A Pairing free Attribute-Based Authenticated Group Key Agreement Protocol using ECC", ICIoTCT- 2019.
9. Krishan Kumar EVS-DK: Event video skimming using deep keyframe, Journal of Visual Communication and Image Representation (SCI-E) Volume 58, pp. 345-352, 2019.
10. AyushiAgarwal, SnigdhaAgarwal, MarotiDeshmukh. Denoising Images with Varying Noises using Autoencoders, 4th International Conference on Computer Vision & Image Processing (CVIP), Springer, MNIT Jaipur, India, 2019.
11. Arjun Singh Rawat, MarotiDeshmukh. Efficient multi-party key exchange protocol using divide and conquer strategy, International Conference on Networks and Cryptology (NetCrypt), Springer, 2019.
12. AyushiAgarwal, MarotiDeshmukh. An Extended Shamirs Secret Sharing Scheme using Three Dimensional Planes, International Conference on Networks and Cryptology (NetCrypt), Springer, 2019.
13. Nitin Kumar, Manisha. RP-LPP : A Random Permutation based Locality Preserving Projection for Cancelable Biometric Recognition. (Accepted) Multimedia Tools and Applications, Springer, Sep. 2019, (SCI-E, IF - 2.101)
14. Vivek Kumar Singh, Nitin Kumar. Saliency Bagging: A Novel framework for Robust Salient Object Detection. The Visual Computer, Springer, Sep. 2019, DOI: 10.1007/s00371-019-01750-2 (SCI-E, IF - 1.415)
15. Shiv NareshShivhare, Nitin Kumar, Navjot Singh. A Hybrid of Active Contour Model and Convex Hull for Automated Brain Tumor Segmentation in Multimodal MRI. Multimedia Tools and Applications, Springer, Aug. 2019, DOI: 10.1007/s11042-019-08048-4 (SCI-E, IF - 2.101)

16. Shreya Kumari, Prachi Pandey and Maroti Deshmukh. Face Tagging and Recognition using Inception Network and Triplet Loss Generator Function, International Conference on Communication and Intelligent systems (ICCIS-2019), Jaipur, 2019. (Accepted)
17. Pankaj Pundir, Shivam Aggarwal, Maroti Deshmukh. Malaria Detection using Convolutional Neural Network, 5th International Conference on Advanced Machine Learning Technologies and Applications (AMLT-2020), Jaipur, 2020. (Accepted)
18. Ajay Malik, Abhishek Singh, Maroti Deshmukh. Classification of Imbalanced Data using Decision Tree and Bayesian Classifier, 5th International Conference on Advanced Machine Learning Technologies and Applications (AMLT-2020), Jaipur, 2020. (Accepted)
19. Vivek Kumar Singh, Nitin Kumar, Suresh Madhavan. Saliency Boosting: a novel framework to refine salient object detection. Accepted, Artificial Intelligence Review, Springer, Nov. 2019, DOI : 10.1007/s10462-019-09777-6 (SCI-E, IF - 5.095)
20. Manisha, Nitin Kumar. Cancelable Biometrics: A Comprehensive Survey. Artificial Intelligence Review, Springer, Oct. 2019, DOI : 10.1007/s10462-019-09767-8 (SCI-E, IF - 5.095)
21. Nitin Kumar, Manisha. RP-LPP : A Random Permutation based Locality Preserving Projection for Cancelable Biometric Recognition. (Accepted) Multimedia Tools and Applications, Springer, Sep. 2019, (SCI-E, IF - 2.101)
22. Manisha and Nitin Kumar, On Generating Cancelable Biometric Templates using Visual Secret Sharing, Accepted for publication in Computing Conference 2020 to be held at London, United Kingdom, July 16-17, 2020.
23. Anita Sajwan, Anupam Yadav and Nitin Kumar, Application of artificial electric field algorithm for economic load dispatch problem, Accepted for Publication In Advances in Intelligent Systems and Computing, Eds. International Conference on Soft Computing and Pattern Recognition, SoCPaR 2019, Vardhman College of Engineering, Hyderabad, India, Dec. 13-15, 2019.
24. Anita, Anupam Yadav, Nitin Kumar, Artificial Electric Field Algorithm for Engineering Optimization, published in Expert Systems with Applications, Elsevier, Feb. 2020 (SCI, IF 4.292).
25. Parveen Kumar, Mohd Haroon Ansari, Ambalika Sharma, "MBC-CA: Multithreshold Binary Conversion Based Salt-and-Pepper Noise Removal Using Cellular Automata" international conference on CVIP, DOI: 10.1007/978-981-15-4015-8\_17, 2020.
26. Parveen Kumar, Manu Gupta, Mayank Gupta, Ambalika Sharma, "Profession Identification Using Handwritten Text Images", International Conference on CVIP, DOI: 10.1007/978-981-15-4018-9\_3, 2020.

27. Gudepu Venkateswarlu, Anshita Gupta, Parveen Kumar, "Physical Sciences: An Inspiration to the Neural Network Training", International Conference on PCCDS, Accepted, 2020.
28. Parveen Kumar, Ambalika Sharma, "Segmentation-free Writer Identification based on Convolutional Neural Network", in Computers and Electrical Engineering, SCI Elsevier, Accepted, 2020.
29. Abhimanyu Kumar, Reshu Verma. Attribute-Based Authenticated Group Key Transfer Protocol without Pairing. *Wireless Pers Commun* (2020). <https://doi.org/10.1007/s11277-020-07292-4>.
30. Anshita Gupta, Abhimanyu Kumar " A Novel Approach to Multi-Authority Attribute Based Encryption Using Quadratic Residues with Tree Access policy ". International Conference on Paradigms of Computing, Communication and Data Sciences (PCCDS-2020) (Accepted).

#### **Mechanical Engineering Department**

1. A total of 17 students qualified in GATE-2019.



## 13.00 CONCESSIONS FOR SCs, STs AND PWD STUDENTS

### Concession to Students

Students belonging to SC, ST, OBC and PWD categories are provided concession in payment of fees and receive scholarships as per the Government of India rules. Book bank for SC, ST student is operated in the Institute Library.

### Concession to Staff

The reservation policy of Government of India is adapted in recruitment of the staff of NIT Uttarakhand. Concessions and benefits are made applicable to reserved categories viz SCs, STs and OBC.

## 14.00 TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)

### Brief Overview of TEQIP III

Technical Education Quality Improvement Programme of Government of India (TEQIP) is being implemented as a World Bank assisted project to improve the quality of technical education system in the country. National Project Implementation unit (NPIU) has implemented this project across the country. Third phase of Technical Education Quality Improvement Programme (referred to as TEQIP-III) is fully integrated with the Twelfth Five-year Plan objectives for Technical Education as a key component for improving the quality of Engineering Education in existing institutions with a special consideration for Low Income States and Special Category States and support to strengthen few affiliated technical universities to improve their policy, academic and management.

### TEQIP III at NIT Uttarakhand

TEQIP III was allocated to the Institute in March 2018. It become functional in terms of financial allotments from July 2018. NIT Uttarakhand is covered under the sub-component 1.1 and granted a fund of Rs. 15 crores. Institute is getting continuous support to improve the quality education by implementing several measures as per the guidelines of NPIU. TEQIP support has been extended to almost all academic activities and events such as faculty & staff training, skill development and employability of students, participation of faculties and students in conferences, workshops, short-term courses, GATE registration fee, qualification up gradation, twinning activities and many more. Financial support has also been provided for assistantship of PhD scholars admitted under TEQIP scheme.

### 1. Procurement Activity

Total budget of Rs. 9.0 Crore has been allocated for purchasing of equipment's, software, learning resources, furniture and minor civil works. Utilization of Allocated budget has been initiated as per the NPIU norms for the purchasing activity. Till date, the purchase order for

total 19 packages of worth Rs. 3,27,95,193/- have been released and out of them total 15 no. of packages as detailed below have completed all the process related to procurement.

Sr. No.	Department	Package Name	Package Code	Sub Category	Procurement Method	Actual Cost
1	Electrical Engineering	NITUK/2018/EE/23/Q BOT	TEQIP-III/nitu/26	Equipment	Direct Contract	403028.00
2		NITUK/2018/EE/25/A ERO	TEQIP-III/nitu/28	Equipment	Direct Contract	782890.85
3		NITUK/2018/EE/28/S WITCH GEAR & PROTECTION LAB	TEQIP-III/nitu/31	Equipment	Shopping	527831.00
4		NITUK/2018/EE/26/A DVANCE AC DRIVES LAB	TEQIP-III/2019/nitu/64	Equipment	Shopping	2202854.00
5		NITUK/2018/INSTITUTE LEVEL FACILITY/02 /MATLAB & SIMULINK	TEQIP-III/2019/nitu/56	Books & Learning Resources	Direct Contract	4875465.00
6	Mechanical Engineering	NITUK/2018/ME/36/S HELL & TUBE HEAT EXCHANGER	TEQIP-III/2019/null/nitu /38	Equipment	Shopping	255344.00
7		NITUK/2018/ME/38/P ORTABLE SURFACE ROUGHNESS TESTER	TEQIP-III/2019/null/nitu /40	Equipment	Shopping	424800.00
8		NITUK/2018/ME/32/U NIVERSAL DYNAMOMETER	TEQIP-III/2019/nitu/63	Equipment	Direct Contract	2976878.00
9		NITUK/2018/ME/39/S TERE ZOOM MICROSCOPE	TEQIP-III/2019/nitu/66	Equipment	Shopping	174994.00
10	Electronics Engineering	NITUK/2018/ECE/18/ ADVANCED DESIGN SYSTEM SOFTWARE	TEQIP-III/2019/nitu/57	Books & Learning Resources	Direct Contract	840000.00
11		NITUK/2018/ECE/20/ CST STUDIO SUITE ELECTROMAGNETIC SOLVER/SIMULATOR	TEQIP-III/2019/nitu/58	Books & Learning Resources	Direct Contract	693000.00
12		NITUK/2018/ECE/21/ CAD TOOL	TEQIP-III/2019/nitu/59	Books & Learning Resources	Direct Contract	1470000.00
13		NITUK/2018/ECE/17/ OPTISYSTEM V 15.1	TEQIP-III/2019/nitu/60	Books & Learning Resources	Direct Contract	798000.00

14	Electronics Engineering	NITUK/2018/ECE/16/ SYNOPTIS ASIAPAC ADVANCE TCAD(3D) UNIVERSITY BUNDLE	TEQIP- III/2019/nitu/61	Books & Learning Resources	Direct Contract	1044300.00
15	Civil Engineering	NITUK/2018/CE/06/VI SSIM & VISWALK SOFT	TEQIP- III/2019/nitu/65	Books & Learning Resources	Direct Contract	1756159.65
<b>Total</b>						<b>19225545.00</b>

## 2. TEQIP III (Academic Processes)

Total budget of Rs. 4.50 Crore has been allocated for Academic Processes. Utilization of Allocated budget has been initiated as per the NPIU norms for the various academic activities.

Improve Student learning

Participation of the students in conference/workshop/STP: Students of UG/PG/PhD have been encouraged to participate in the various skill development courses, conference, workshop, IIT/NIT training, innovation and convention programs. Tentative list of students participated in various programs is as follows.

S. No.	Name	Branch	Name of activity and venue	Period
1	Mr. Sandeep Gairola, Ms. Anju Verma Mr. Gaurav Verma, Mr. PrabhakarZainith	ME	1 <sup>st</sup> Int. Conference on Applied Mech. Engg. Research, NIT Warangal	May 2-4, 2019
2	Mr. Rajesh Shah Mr. Arvind Bisht	ECE	Program on "emerging Nanoscale Devices: Compact Modeling and Reliability" at IIT Roorkee.	May 04, 2019
3	Mr. Lal Singh ReshuVerma	CSE	Presenting paper in Springer Fourth International Conference on Internet of Things and Connected Technologies (ICIoTCT 2019) at MNIT Jaipur, India	May 09-10, 2019
4	Mr. Satyaveer Singh, Mr. Rakesh Thapliyal, Ms. ReshuVerma,	EEE, CSE	Workshop on Intellectual Property Rights & Technology Transfer at Satellite Campus of NIT Uttarakhand.	May 11-15, 2019

	Mr. Lal Singh, Mr. Arjun Singh Rawat and Mr. Abhay Mishra			
5	SakshiSindhwal and Mohit Kumar	ECE	Summer Training Program on smart Electronics system design at MNIT Jaipur	May 20 to 28 June, 2019
6	Mr. Ayush Joshi, Mr. Bichitra Singh Mr. Pramod Tiwari	Civil	laboratory visit of PhD students at IIT-Roorkee	May 21-24, 2019
7	Mrs. Shipra Tiwari Mr. ZeeshanRayeen Ms. Kirti Gupta	EEE	Students Conference on Engineering and Systems (SCES- 2019) at MNIT Allahabad	May 29-31, 2019
8	Mr. Suraj Kumar Gadari	EEE	Student Conference on Engineering and Systems at MNNIT, Allahabad	May 29-31, 2019
9	Mr. Rohit Kumar	Dr. Pankaj Kandwal	STTP on "Advances in Separation Processes and Purification Techniques" (ASPPT-2019) at SLIET, Punjab	June 03-07, 2019
10	Ayushi Agarwal	CSE	Registration fee for my paper presented in NetCrypt 2019, Delhi,	June 14-16, 2019
11	Mr. Shiv Naresh Shivhare	CSE	Present paper in the Springer International conference, ICETIT- 2019 at IITM Janakpuri Delhi.	June 21-22, 2019
12	Mr. Rakesh Thapliyal,	EE	Short Term Course on "Next Generation Power Converters: Design, PWM Strategy and control" at IIT Delhi.	July 01-05, 2019
13	Mr. ShubhamRathore	CSE	One week short course on Artificial Intelligence-Devices to	August 28 to 01

			Systems at IIT Roorkee.	September, 2019
14	Mr. Shiv Naresh Shivhare Ms. Manisha Mr. Vivek Kumar Singh	CSE	One week short course on "Deep Learning and its Applications" at IIT Roorkee, during.	August 20-24, 2019
15	Mr. SaumyaPande Mr. Ashish Dhayni Mr. VedantMamgain Ms. Akansha Saini Mr. DivakarLakhera, CSE	ECE/ CSE	Students participate in NIT Conclave, a summit at NIT Rourkela.	August 23-25, 2019
16	Mr. Shiv Naresh Shivhare Ms. Manish Mr. Vivek Kumar Singh	CSE	one week short course on "Deep Learning and its Applications" at IIT Roorkee,	August 20-24, 2019
17	Mr. NaydamBagra and Mr. NeerajPriyadarshi	Civil	5 days workshop Organized by IIT Kharagpur from Infrastructure Creation to Rehabilitation: Redefining the Role of Engineers IIT Kharagpur	02-06 September 2019
18	Ms. Ayushi Agarwal	CSE	Presenting my paper in CVIP-2019, MNIT Jaipur.	September 27-29, 2019
19	Pramod Tiwari	Civil	2 days workshop organized at IIT Hyderabad	September 27-28, 2019
20	Alamgeer Ali Kabindra Singh Bisht	CSE	International Conference on Computing, Communication and Cyber-Security at Madhya Marg, Sector 19A, Chandigarh and	October 12-13, 2019
21	P. Nishanth	CSE	Five Days workshop on Titled "Data Science" Sponsored by ATAL Academy AICTE New Delhi	October 14-18, 2019
22	Rakesh Thapliyal	EEE	International conference TENCON-2019" at Kochi, Kerala, India	October 17-20, 2019



23	Ms. ApurwaDhoke	Civil	Traffic Data Collection of Nagpur City "Hazard-based duration model for analyzing crossing behaviour of pedestrians at signalized intersections"	October 19-30, 2019
24	Mr. Sunil Kumar Maurya	EEE	Attending UPCON-2019 Conference at Aligarh Muslim University	November 08-10, 2019
25	Divakar	EEE	Research work on Control Schemes for VIENNA Rectifier at IIT Kharagpur.	Nov 11- Dec 13, 2019
26	Mr. Vivek Kumar Singh	CSE	First International Conference on "Advanced Communication & Computational Technology (ICACCT-2019)" at NIT Kurukshetra, Haryana	December 06-07, 2019
27	Avanish Kumar Abhishek Singh ChelimillaNatraj Naveen IshaniDabral Ayushi Agarwal Shreya Kumari	CSE	Presenting the paper in International Conference on Deep Learning , Artificial Intelligence and Robotics, (ICDLAIR2019) at MNIT Jaipur	December 07-08, 2019
28	Mr. Randheer Singh	ME	STC on "Robotics" at NIT Durgapur West Bengal	December 09-13 ,2019
29	Mr. Jagdish Rana	ME	ATAL Academy Program on 3D Printing and Design (3DPD-2019) at SLIET Longowal	December 09-13, 2019
30	Ms. Anita	CSE	11 <sup>th</sup> International Conference on Soft Computing and pattern recognition SoCpar-2019 at Vardhamana College Hydrabad	December 13-15, 2019
31	Bhavi Arora	ECE	2nd International Conference on Antennas & Propagation (InCAP 2019) at Ahmedabad	December 19-22, 2019

32	Ankit Uniyal	EEE	International Conference on Power System (ICPS-2019) at MNIT Jaipur	December 20-22, 2019
33	Mr. Kaustubh Purohit	CSE	Present Research paper in 4th International Conference on Soft Computing: Theories and Applications (SoCTA 2019), NIT Patna, Bihar	December 27-29, 2019
34	Mr. Vivek Kumar	CSE	STC on "Artificial Intelligence: Devices to Circuits" at IIT Roorkee	January 09-13, 2020
35	Mr. Durgesh Chandra Nautiyal Ekta Priyadashini Isha Chandra Jagdish Rana  Mr. Maneesh Kumar Singh  Swati Devi Vaibhav Mishra Vishnu Joshi Randheer Singh Abhishek Srivastava Mr. Sudhir Kumar Chaudhary Jagdish Rana	ME	International conference on ICOIED- 2020 at Institute of Engineers Dehradun	18-20 January, 2020
36	Mr. Pankaj Singh Rana	Mathematics	International conference on Sustainable Computing in Science, Technology and Management" at Amity University, Jaipur	January 20-22, 2020
37	Mr. Sunil Kumar Maurya	EEE	Research Work "Protection of highly PV connected primary distribution system" at IIT Roorkee	January 24-February 07, 2020

38	Mr. Vivek Kumar Singh	CSE	International conference on "evolving Technologies for Computing, Communication and Smart World (ETCCS-2020)" at CDAC, Noida	January 31-February 01, 2020
39	Mr. K. Sandeep	CE	Workshop on "Quality Control, New Materials and Techniques in Road Sector" at IIT Roorkee	February 7-8, 2020
40	Mr. Govind Bajpai	ECE	International Conference on Electrical and Electronics Engineering at MMMUT Gorakhpur	February 14-15, 2020
41	Gulshan Rajrishi Honey Chauhan Nitin Kumar Paliwal Yogesh Daiya	ME	Participate in ELAN & NVISION (the largest techno-enltrulect in Telangana) at IIT Hyderabad	February 14-17, 2020
42	Mr. Rakesh Thapliyal Mr. Satyaveer Singh	EEE	Workshop on "Fractional Order System" at IIT Kharagpur	February 15-21, 2020
43	Ms. Manisha	CSE	International conference on "Emerging Trends in communication, Control and Computing (ICONC3) 2020 at Rajasthan, India	February 21-22, 2020
44	Sandeep Singh Negi Sandeep Joshi	Chemistry	Workshop on "Density Functional Theory and Its Application using Gausain Software" at MNIT Jaipur.	February 24-28, 2020
45	Kanchan Bisht	CSE	7th International conference on Signal Processing and Inegrated Networks (SPIN-2020) at Amity University, Noida	February 27-28, 2020
46	Mr. Rajat Singh Mr. Sunil Kumar Maurya	EEE	International Conference on PIICON-2020 at Deenbandhu Chhotu Ram University of Science & Technology	February 28-01 March, 2020
47	Mr. Pramod Tiwari	CE	International conference in ISSC2020 at IIT Hyderabad, India	March 23-30, 2020

**Student’s visit to industry/R&D lab/IIT/NIT**

- Two students of NIT Uttarakhand have been selected under MITCAS Research Internship Award-2019. Both students have received fund from TEQIP III.

S.No.	Name of student	Selected by	Funding in INR.
1	Shrey Gupta, Civil Engg.	Mitcas and Lina Kattan, University of Calgary, Canada	INR 2,10,400/-
2	Rajnish Singh, Civil Engg.	Mitcas and Ayan Sadhu, Western University London	INR 2,10,400/-

- Ayush Joshi, Bichitra Singh and Pramod Tiwari, PhD students of Civil Engg. Dept. visited laboratory for their research purpose at IIT Roorkee.
- Second and Fourth year Civil Engineering students to visit Bisalpur Dam, Tonk and Jakham Dam, Pratapgarh is proposed for 21-23 Feb, 2020. Total 53 Students along with 02 faculty members (Mr. Laiju A R, Assistant Professor and Mr. Harish Dundiyan, Teaching Associate, CED)
- NIT Uttarakhand Organized a Six days “Student Excellence and learning Program” from 26/08/2019 to 31/08/2019 under TEQIP-III. The aims of Program basically to provide motivation, stress management, Time management, clarity of mind for better decision making and to increase productivity of the student. Two members (Dr. Varun Upadhyay&Dr.Sanchit) from the “VyaktiVikas Kendra, India (VVKI)” Airt of living.



In view of implementation of different quality improvement programme under TEQIP-III, **2<sup>nd</sup> phase Employability** skills training for UG students was conducted from 19 Aug- 16 Oct 2019 at satellite campus MNIT Jaipur. Third and final year UG students in this training. NPIU empanelled service provider T.I.M.E Pvt.Ltd. Secunderabad conducted the training program. Total 360 students participated and successfully completed the training.

### Faculty/Staff Development and Motivation

**Faculty/staff participation in various events** Comprehensive support (course/registration fee, TA, DA) has been extended to faculty and staff members of the institute for attending Conferences, workshops, STPs, FDPs, management capacity building, Continuing Education Programmes, subject up gradation, qualification up gradation etc. Tentative list of receivers is as follows:

Name	Department	Designation	Activity and venue	Period
1. Mr. Shashi Narayan 2. Dr.SmitaKaloni	CE	Asst. Prof	Short Term Training Programme at MNIT Jaipur	April 8-12, 2019
Ms. Sarita Yadav	ECE	Trainee Teacher	SC/FDP on "VLSI Testing" from IIT Roorkee	April, 26-28, 2019
Dr.Anshul Sharma	ME	Asst. Prof.	STTP at MNIT Jaipur (Advanced Structural Analysis and Finite Element Method)	April 08-12, 2019
Dr.VikasKukshal	ME	Asst. Prof.,	STC on "Research Methodology" at NITUK Satellite Campus, Jaipur	May 24 – June 01, 2019
Dr.MarotiDeshmukh	CSE	Asst. Prof.,	Meeting of SPOC for ERP Implementation at New Delhi	May 25, 2019



Dr.Gurinder Singh Brar	ME	Asso. Prof.	GIAN Course at NIT Calicut	June 24-29, 2019
Dr.Tajinder Singh Arora	ECE	Asst. Prof.	Course on "Digital Signal Processing-using MATLAB" at Netaji Subhas University of Technology, New Delhi.	June 03-07, 2019
Dr.Pawan Kumar Rakesh	ME	Asst. Prof.	paper entitled "Effect of surface treatment on impact strength of pine needle fiber reinforced composites" at Dr. B.R. Ambedkar NIT Jalandhar	June 7-11, 2019
Dr. Vinod Singh Yadav	ME	Asst. Prof	One week National Workshop on NBA and NAAC Accreditation at Institution of Engineers, Gangtok	June 16-23,2019
Dr. Nitin Kumar	CSE	Asst. Prof	Short Term Course on Artificial Intelligence and Machine Learning using Python at Netaji Subhash University of Technology Dwarka Sector-3, New Delhi	June 17-28, 2019
Dr. Siva Kumar Tadepalli	ME	Asst. Prof.	Course on "Artificial Intelligence and	June 17-28,2019

			Machine Learning Using PYTHON" at Netaji Subhas University of Technology, New Delhi.	
Dr.Gurinder Singh Brar	ME	Asso. Prof	Course on "Fundamentals and Modelling of Micro/Nano Machining Processes" at NIT Calicut	June 24-29, 2019
Mr. Hitesh Sharma	ME	Asst. Prof.	International Conference at NIT Trichy, India A paper entitled "Evaluation of dynamic properties of citrus limetta peel based epoxy composites" NIT Trichy	July 5-7,2019
Dr. Dharmendra Tripathi, Dr.Hariharan Muthusamy	Mathematics ECE	Asso. Prof. Asso. Prof	Professional Development Training (PDT) for visit IIM, Visakhapatnam	July 14-20,2019
Dr.Gurinder Singh Brar	ME	Asso. Prof.	Two day all india Workshop on Additive and Advanced Manufacturing to be held at Bangalore Institute of Technology, Bengaluru	July 29-30, 2019.
Dr. Siva Kumar	ME	Asst. Prof.	Presenting paper in the International	August 08-09,2019

Tadepalli,			Conference to be held at Vignan University, Guntur	
Ms. Sneha Chauhan	CSE	TT	Short Course/FDP on "Deep Learning and its applications" at IIT Roorkee.	August 20-24,2019
Dr. Kamal Kumar	CSE	Coordinator PTP	Visit SPIU, Dehradun for attending the meeting with Training and Placement	August 19-21, 2019
Dr.Lalta Prasad	ME	Asso. Prof.,	Professional Development Training (PDT) at IIM, Trichy	August 25-31, 2019
Dr.Kranti Jain	CE	Asst. Prof.	Participation in Short Term Course at VNIT, Nagpur	August 26-30,2019
Dr. Dharmendra Tripathi Dr. Siva Kumar Tadepalli Dr.Niraj Kumar Mishra Mr. Laiju AR Mr. Surendra Singh	Mathematics ME CE CE CSE	Asso.Prof. Asst. Prof. TT Asst. Prof. Asst. Prof.	Two days workshop on NBA Accreditation at Hotel Pacific, Dehradun from	September 01 - 04,2019.
Dr. Pankaj Kandwal Dr.Hardeep Kumar	Chemistry Physics	Asst. Prof. Asst. Prof.	Short term QIP course on "TEM and HRTEM analysis of materials" conducted by IIT Kanpur	September 2-6, 2019

Dr. Ajay K Chaubey	English	Asst. Prof.	Attend and Present a Paper in an International Conference "Climate Change, Environmental Ethics and Ecological Humanities" Organized by Mahishdal Raj College, PurbaMedinipur (WB)	September 3-4, 2019
Dr. Maroti Deshmukh Dr. Krishan Kumar Mr. Muskan Mayank, TT	CSE CSE CE	Coordinator (ERP) HoD (CSE) Member (ERP)	Visit NPIU, New Delhi for ERP Implementation meeting of SPOC from 04 to 06 Sep, 2019.	September 04-06, 2019
Mr. Muskan Mayank,	CE	TT	Attending workshop at IIT Mandi,	September 09-11, 2019.
Dr. Nitin Sharma	Mathematics	HoD, Mathematics	Professional Development Training (PDT) at IIM Raipur	September 22-28, 2019.
Dr. Tajinder Singh Arora	ECE	Asst. Prof.,	Professional Development Training (PDT) at IIM Kashipur	September 22-28, 2019.
Mr. Parveen Kumar	CSE	Asst. Prof.,	Fourth International Conference on Computer Vision & Image Processing at MNIT Jaipur	September 27-29, 2019.

Mr. Abhinav Kumar	CE	TT	Attending GIAN Course "Road Traffic Safety at IIT Roorkee	30 September to 04 October, 2019
Dr.Kuldeepsingh	Sports	SAS Office	All India Football Federation AFC "C" Coaching Certificate Course (Module 1) at KhandHimchal Pradesh.	05 Aug 19 to 11 Aug 19 & (Module 2) from 13 Oct 2019 to 17 Oct 2019
Dr.Kuldeep Singh	Sports	SAS Office	Participation in AFC- C License Course in the discipline of Football	
Dr.JagratiSahariya	Physics	Asst. Prof.,	3rd International conference at Govt. Engineering College, Bikaner, Rajasthan	October 14-15, 2019.
Dr. Nitin Kumar	CSE	Asst. Prof.	Short Term Program on Industry Interaction at NITTTR, Chandigarh	October 21-25,2019
Dr.Ghanapriya Singh	ECE	Asst. Prof.	Short Term Training Programme on "power Plant Engineering at NITTTR, Kolkata.	28 October to 01 November, 2019
Mr. Prashant Tiwari	ME	TT	Seminar on Inflatable Structures and	November 7-8, 2019



			Materials for Space application (ISMSA 2019) at IIT Roorkee	
Dr.Kuldeep Sharma	Mathematics	Asst. Prof.	GIAN Course at NIT Warangal	November 11-15, 2019
Dr.Lalta Prasad	ME	Associate Prof.	GIAN Course on "Fatigue of Composite Materials at NIT Jalandhar	November 11-15, 2019
Dr.Tajinder Singh Arora	ECE	Asst. Prof.	Present a research paper in Intl. conference at WITDehradun.	November 22-23, 2019
Mr. Prashant Tiwari	ME	TT	10th International Conference on Industrial Tribology at Indian Institute of Science Bangalore	December 01-04, 2019
Mr. SurendraSingh	CSE	Asst. Prof.	First International Conference on Advance Communication & Computational Technology ICACCT-2019 at Kurukshetra	December 06-07, 2019
Dr. Krishan Kumar Mr. Maheep Singh	CSE	Asst. Prof.	Presenting the paper in International Conference on Deep Learning , Artificial	December 07-08, 2019

			Intelligence and Robotics, (ICDLAIR2019) at NITUK Satellite campus, MNIT Jaipur	
Dr.Sanat Agarwal	M0045	Asst. Prof	Expert Lecture on " Applications of Additive Manufacturing" and Research Work at SlietLongowal	December 09-12, 2019
Dr.Kranti Jain, Mr. Amardeep	CE	Asst. Prof.	7th International congress on Computational mechanics and Simulation (ICCMS-2019) at IIT Mandi	December1 1-13, 2019
Mr. Nitanshu Chauhan Mr. Vivek Kumar	ECE	TT	FDP on "Methodologies and Challenges in Digital IC and Memory Design" at MNIT Jaipur	December 11-15, 2019
Mr. Nitanshu Chauhan	ECE	TT	presenting paper in the XXth International Workshop on Physics of Semiconductor Devices: (IWPSD 2019) at Kolkata	December 17-20, 2019
Mr. Abhinav Kumar	CE	TT	5th International Conference of the	December 18-

			Transportation Research paper in India (CTRG-2019) at Bhopal	21,2019
Dr.TusharGoel	ECE	Asst. Prof.	Conference on "Fractal DGS based Novel Wideband Antenna for 5G Application" at Ahmedabad, Gujrat	December 19-22, 2019
Dr.Kusum Sharma	Mathematics	Asst. Prof.	International Conference on "Physical and Biological Sciences at Cross- roads: Interdisciplinary Explorations and Exciting challeges" at University of Science & Technology, Hisar Haryana	December 29-31, 2019
Dr.Sourav Bose	EEE	Asst. Prof.	IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE 2020) at Cochin Kerala	January 02-04, 2020
Mr. Vivek Kumar Mr. Nitanshu Chauhan	ECE	TT	Short Term Course/FDP on "Artificial Intelligence:Devices to Ciruits" at IIT	January 09-13, 2020

			Roorkee	
Dr. Krishan Kumar	CSE	Asst. Prof.	"Professional Development Training" at IIM Indore	January 11-19, 2020
Dr. Anshul Sharma	ME	Asst. Prof.	"Professional Development Training" at IIM Bodhgaya	January 11-19, 2020
Sneha Chauhan	CSE	TT	FDP on "Network Security and AI" at IIT Roorkee	January 14-18, 2020
Mr. Gaurav Kumar	ME	TT	International Conference On Innovative Engineering Design (ICoIED 2020) at IIT Roorkee	January 18-20, 2020
Dr. Gurinder Singh Brar	ME	Associate Prof.	"Professional Development Training" at IIM Trichy	January 18-24, 2020
Dr. Kranti Jain	CE	Asst. Prof.	"Professional Development Training" at IIM Jammu	January 18-26, 2020
Dr. Kuldeep Singh	Sports	Asst. Prof.	41st Annual Conference of Indian Association of Sports Medicine at SMS Medical College Jaipur	February 07-09, 2020
Sachin Sharma	CSE	Technician	Short Term course	February

Manoj Kumar			on " Computer Network and Hardware Maintenance" at NITTTR Chandigarh	10-14, 2020
Dr. Shashank Bhatra	CE	TT	International Training course on "Landslide Risk Assessment Mitigation" (LARAM-India 2020) at IIT Roorkee	February 17-22, 2020
Dr. Nitin Kumar	CSE	Asst. Prof.	Short Term Course on "Graphics and Animation Development" at NITTTR Chandigarh	24 Feb-06 March,2020
Dr.MarotiDeshmukh, Dr. Abhimanyu Kumar	CSE	Asst, Prof.	Meeting-Cum-Workshop for the Institute ERP SPOC at IIT Kharagpur	28 Feb-01 March,2020

- Dr. Vinod Singh Yadav, Coordinator, TEQIP-III attended One Week National Workshop on NBA and NAAC accreditation during May 16-23, 2019.



Fig: Dr. Vinod Singh Yadav attended workshop on NBA and NAAC at Gangtok



During the F.Y. 2019-20 several events have been conducted from TEQIP head. Events include the workshops, STC, STTP, expert lecture and Conferences etc. Events have been organized either at parent campus Srinagar (Garhwal) and satellite campus MNIT Jaipur.

1. Dr. Siva Kumar Tadepali, Assistant Professor, ECE 24.04.2019 Short Term Course on **Matrix Inequalities and Its Applications**, July 22- 26, 2019.



2. Dr.Yogesh Kumar Prajapati, Assistant Professor, ME 10.07.2019“**Productivity Enhancement Program**” by VyaktiVikas Kendra, India for Faculty and Staff members at Parent Campus during. 22-27 July 2019.



3. Dr.Niraj Kumar Mishra, Assistant Professor, ME 12.04.2019 One week short term course on **Application of Statistics in Experimental Techniques**, from July 29 to August 02, 2019.



4. Dr.RenuBhadolaDangwal, Assistant Professor, English 15.07.2019 One Day Workshop **“Effective English Writing and Speaking”** during **31 August, 2019**
5. Dr.RenuBhadolaDangwal, Assistant Professor, English 21.06.2019 Five day workshop **“Advance English Communication and Pedagogical Skills”** during **August, 2019**
6. Dr.Kranti Jain, Assistant Professor, CE 22.07.2019 One-Week Short Term Course (STC) on **“Construction Challenges v/s Infrastructure Development in Hilly Region**, during **09-13 September, 2019**
7. Dr.Ghanapriya Singh, Assistant Professor, ECE 25.07.2019 One Week STC on **“Research trends in frontier areas of Electronics and Communication in Industry and Academia”** during **September 16-20, 2019**
8. Dr.SmitaKaloni, Assistant Professor, CE 27.08.2019 One-Week Short Term Course (STC) on **“Fundamental of Structural Dynamics and Control Methods”** during **19-23 September, 2019**
9. Short Term Course titled **“Artificial Intelligence Application in Internet of things”** during **September 23-27, 2019**. Dr.Ajay Kumar Chaubey, Assistant Professor, English 03.08.2019 Two day National Conference on **“Gandhian Discourse in Humanities & Social Sciences”**, during **02 to 03 October, 2019**





10. Dr. Vinod Singh Yadav, Assistant Professor, ME 16.08.2019 National conference on **“Pollution Control Technologies and Sustainable Development”** during October 03-04, 2019.



11. Dr. Yogesh Kumar Prajapati, Assistant Professor, ME 23.07.2019 One Week STTP on **“Emerging Topics in Fluid Mechanics”** during 14-18 October, 2019.



12. Dr. Jagrati Sahariya, Assistant Professor, English 24.09.2019 Two days FDP on **“Outcome Based Education System”** during 11-12 November, 2019



13. Dr.VikasKukshal, Assistant Professor, ME 18.10.2019Two days FDP on “**Importance Intellectual Property in Academics**” at NIT Uttarakhand on **25-26November, 2019.**



14. Dr.Mahiraj Singh Rawat, Assistant Professor, EEE 01.10.2019One Week STC on “**Renewable and Sustainable Development of Electrical Energy System**”, during **25-29 November, 2019.**



15. Dr. Vinod Singh Yadav, Assistant Professor, ME 08.08.2019International conference on “**Deep Learning, Artificial Intelligence and Robotics ICDLAIR 2019**”, during **07-08 December, 2019.**





16. Mr. MuskanMayank, Assistant Professor, CE 13.11.2019Five Days STC on “ **Advance Analysis of Civil Engineering Structures** ”, during **14-18 December, 2019**.



17. Dr. Prakash Dwivedi, Assistant Professor, EEE 24.09.2019One Week STC on “ **Fractional Calculus: Applications in Science & Engineering** ”, during **16-20 December, 2019**.



18. Dr. Rakesh Kumar Mishra, Assistant Professor, Chemistry 19.06.2019National Conference on “**Recent Advancement in Physical Sciences-2019 (RAPS-2019)**” during **19-20 December, 2019**.





19. Dr. Vinod Singh Yadav, Assistant Professor, ME 23.11.2019 8<sup>th</sup> International conference on “**Power Systems (ICPS-2019)**” during **20–22 December, 2019.**



20. Dr. Kuldeep Sharma, Assistant Professor, Mathematics 26.07.2019 One Week “**Workshop Cum Winter School on Methods for Nonlinear Dynamical Systems and Chaos (WCWS-2019)**”, during **23-27 December, 2019.**



21. Dr. Vinod Singh Yadav, Assistant Professor, ME 13.12.2019 International Conference on “**Energy & Environment: Challenges and Opportunities for Industries**” during **28-29 December, 2019.**



22. Three days International conference on **Innovative Engineering Design** from **18- 20 January, 2020** at NIT Uttarakhand (Parent Campus) at Institutions of Engineers (India), Uttarakhand State Center, Dehradun.



23. Dr. Prakash Dwivedi, Assistant Professor, EEE 28.11.2019STTP on **“Matlab& Lab View: Applications in Engineering and Sciences”** during **20 - 24 January, 2020**.



24. International Conference on **Sustainable Technologies for Desalination & National Water Mission & Annual Congress of Indian Desalination Association (InDACON-2020)** during **13-15 Feb, 2020**.

25. Dr. Prakash Dwivedi, Assistant Professor, EEE 14.11.2019Five days Workshop on **“Analog IC Design: Specification to chip”** during **17 – 21 Feb, 2020**.





26. Dr. Kuldeep Sharma, Assistant Professor, Mathematics 14.01.2019 One Week STTP on “Advanced Computational Techniques in Engineering Sciences and Mechanics” during 24-28 February, 2020



27. 2<sup>nd</sup> International Conference on “Advances in Mechanical Engineering and Nanotechnology 2020 (ICAMEN 2020)” during 28-29 Feb, 2020.



- Professor R.K. Ingle, Department of Applied Mechanics, VNIT Nagpur delivered guest lecture on topic “Bridge Engineering” under the course Advanced Concrete Design (CEL 2019) from 4-7 April, 2019. Total 27 Students participated in the guest lectures. Dr. Kranti Jain, Asst. Prof. Civil Engg. Coordinated the event.



Fig.: Guest lecture on Bridge Engineering

- Five Days workshop on Intellectual Property Rights (IPRs) was organized at Satellite campus-MNIT Jaipur, from May 11-15, 2019. Several students from parents campus visited to Jaipur and participated in this program. Dr. Vikas Kukshal coordinated this event.

### Events Organized Under Twinning Program

1. A meeting was held on 19/3/2019 in the committee room of NIT Uttarakhand at 4:00 PM by the Officials of SLIET Longowal and NIT Uttarakhand.



Fig: Meeting of NITUK and SLIET officials

It was finalized that visit of M.Tech students of NITUK will be organized during June-July 2019 to recognize the available facilities at SLIET for their thesis and also to look for joint supervision with SLIET faculties. Both institutes were agreed for collaborative work, joint research proposal and consultancy.

2. Prof. A. S. Arora delivered a talk on NBA Accreditation and Outcome Based Education on 15<sup>th</sup> April 2019 at Satellite campus of NITUK at MNIT Jaipur.
3. Dr. Sarita Maini visited the Satellite campus of NITUK at MNIT Jaipur and interacted with the students, wardens and chief-wardens on 15<sup>th</sup> April 2019.
4. Five days' STC on Research methodology was conducted under twinning program at satellite campus of NITUK. Experts from SLIET and other institutes delivered the lectures. Students of both institutions benefited from this event. Dr. Vikas Kukshal from NITUK coordinated the event.





5. One Week Short Term Training Programme was organized on Material Characterization & Analytical Techniques for Research Applications (MCATRA -2019) during July 01-05, 2019 at SLIET Longowal. Dr. Vinod S. Yadav along with M.Tech and PhD students participated in the event.
6. Dr. Pankaj Kumar Pal, Assistant Professor, ECE 12.09.2019STC on “**Nano-Electronics and VLSI: Devices Circuits and Systems**” with SLIET Longowal under Twinning Activities during **November 04-08, 2019**.



7. Dr. Hardeep Kumar & Dr. M.S Khatri, Assistant Professor, Physics 30.08.2019 One Week STTP on “**Synthesis and Characterization of Multifunctional Materials**” during **11 to 15 November, 2019**, under Twinning Activities



8. Dr. Sourav Bose, Assistant Professor, EEE 11.06.2019 One Week STC on “**Computational Techniques in Electrical Engineering**” during **19 to 23 November, 2019**, under Twinning Activities.





9. One Week Training Workshop on “**Density Functional Theory and Its Applications Using Gaussian Software**” during **24-28 February, 2020** under Twinning Activity.
  
10. STC on “**Advanced Functional Materials, Characterization & Applications**” during **29 Feb- 04 Mar, 2020** Under Twinning Activity.

## 15.00 FINANCIAL STATUS

### 15.01 ANALYSIS OF PLAN AND NON-PLAN GRANTS

The Institute receives Plan and non-Plan Grants from the Government of India through Department of Higher Education, Ministry of HRD. The accounts are audited by CAG annually.

### 15.02 SOURCES OF FUND

Statement of Income and Expenditure for the last three years is appended below:

Years	2017-18	2018-19	2019-20
<b>Opening Balance</b>	10,58,22,082.00	<b>22,02,96,118.00</b>	<b>45,04,87,748.00</b>
<b>Total Grant Received</b>	34,70,00,000.00	47,44,00,000.00	25,33,00,000.00
<b>Expenditure</b>	23,25,25,964.00	26,29,36,370.00	31,07,35,088.00
<b>Unspent Balance</b>	<b>22,02,96,118.00</b>	<b>45,04,87,748.00</b>	<b>38,92,10,660.00</b>

Note: Unspent balance includes Interest ₹1,48,86,000/- for the F.Y. 2019-20.

## 16.00 INTERNAL COMPLAINT COMMITTEE (ICC)

Following the guidelines regarding the prevention and deterrence of sexual harassment in the workplace formulated by the Supreme Court of India in 1997 and the Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act, 2013, the Women Cell in the Institute came into existence in August 2015. Thereafter constitution of Internal complaints Committee (ICC) happened via office order dated 16<sup>th</sup> Feb, 2019 and the name of women cell also replaced via Internal complaints Committee (ICC).

The Cell is committed to prevent any act of sexual harassment of women, to spread awareness regarding laws against sexual harassment and to provide redressal of such incidents and thus it ensures to preserve the fundamental rights of women to equality and also their right to live with dignity.

Beginning with the four members, the ICC has now extended up to the following six members in the year 2019-20:

Sr. No.	Name	Designation
1.	Dr. Sarika Pal	Assistant Professor Chairperson
2.	Dr. Kusum Sharma	Assistant Professor Member
3.	Dr. Kamal Kant Tiwari	Assistant Professor Member
4.	Dr. Smita Kaloni	Assistant Professor Member
5.	Dr. Ghanapriya Singh	Assistant Professor Member
6.	Mrs. Shashi Raturi	Member (NGO)

### Events and Activities

To ensure the protection of women from sexual harassment, to spread awareness of law against sexual harassment and the maintenance of civilized conduct, NIT Uttarakhand organizes meetings, awareness/orientation programmes for students, teaching and non-teaching staff from time to time.

### Orientation Programme

For this the Cell organized an Orientation Programme for new entrants to the Institute in July 2019. The common motto of the Orientation Programme was to bring the cleansing of unhealthy belief-set and thus prevent any kind of malicious act which may result from this. A PPT presentation was delivered by Dr. Sarika Pal to inform students about the Cell and also to make them understand the necessity of civilized behavior towards others.

### Women's Day Celebration

The Internal Complaints Committee (ICC) organized some activities in celebration of Women's day on March 05, 2020. For celebrating the International Women's Day, different competitions like painting, singing, speech and poem recitation etc. were organized on the theme "Generation Equality" on March 05, 2020 at NITUK- Parent campus. Both students, teaching and non-teaching staff, through these different artistic ways, expressed their views

while participating in different competitions. During this occasion our guest Dr.Sanat Agarwal, Associate Professor & Dean (P&D), NIT Uttarakhand threw some lights on International Women's Day that it is a collective day of global celebration and a call for gender parity. It is all about unity, reflection, celebration which is occurring for well over century and will strengthen day by day. Dr.Sarika Pal, Chairperson ICC also say few words on this occasion that it is day when women are recognized for their achievements without regard to divisions, whether national, ethnic, linguistic, cultural, economic or political. She also appreciated about the enthusiasm in students and staff while participation in different competitions organized on the occasion. Dr.Renu Bhadola Dangwal, Ex-Chairperson Women Cell also threw light on celebration theme and briefed all participant that how gender equality can be achieved. Lastly, prizes were distributed to winners of the competitions by our honorable guests, Dr.SanatAgarwal (Dean-P&D), Dr.Renu Bhadola Dangwal Ex-Chairperson and Dr.Vineeta Negi Panwar, AR (Academic). Finally the celebration ended with vote of thanks by Chairperson ICC and refreshment to faculty, staff and students. About total 130 students, faculty and staff members attended Women’s Day celebration. Some glimpse of the Women’s day celebration is shown below:



**Expert Lecture:**

ICC/ Women Cell organized an Expert Lecture on “**Gender Sensitization**” on **13th Dec. 2019** at NIT Uttarakhand Parent Campus for students, faculty and staff members. Expert Lecture was given by eminent speaker **Prof. Surekha Dangwal, HNB Garhwal University**. It was attended by approximately 100 persons including B.Tech, M.Tech, Ph.D students, faculty and staff members. Some pics of the programme are shown here.





# **ANNUAL ACCOUNT AND AUDIT REPORT YEAR 2019-20**

त्वरित डाक

कार्यालय महानिदेशक लेखापरीक्षा (केन्द्रीय) लखनऊ शाखा कार्यालय – प्रयागराज

“सत्यनिष्ठा भवन” 15-ए, दयानन्द मार्ग, प्रयागराज –211001

पत्र सं० म.नि.ले.प. (कें)/एस.ए.आर. 55 /2020-21/

दिनांक: .03.2021

सेवा में,

सचिव, भारत सरकार,  
मानव संसाधन विकास मंत्रालय,  
उच्च शिक्षा विभाग,  
शास्त्री भवन, नई दिल्ली- 110001

विषय: राष्ट्रीय प्रौद्योगिकी संस्थान, उत्तराखण्ड के वर्ष 2019-20 के लेखों पर पृथक लेखापरीक्षा प्रतिवेदन।  
महोदय,

इस पत्र के माध्यम से राष्ट्रीय प्रौद्योगिकी संस्थान, उत्तराखण्ड के वर्ष 2019-20 के लेखों पर पृथक लेखापरीक्षा प्रतिवेदन (अंग्रेजी) की प्रति अग्रसारित की जा रही है।

2. कृपया सुनिश्चित करें कि पृथक लेखापरीक्षा प्रतिवेदन एवं सम्बन्धित लेखे संसद के दोनों सदनों के सम्मुख प्रस्तुत हुए।

3. कृपया पृथक लेखापरीक्षा प्रतिवेदन एवं लेखों को संसद के दोनों सदनों के समक्ष अन्तिम रूप-से प्रस्तुत करने की तिथि भारत के नियंत्रक एवं महालेखापरीक्षक के साथ-साथ इस कार्यालय को भी सूचित करने का कष्ट करें।

संलग्नक: उपर्युक्तानुसार।

भवदीय,

महानिदेशक लेखापरीक्षा (केन्द्रीय)

पत्र सं० म.नि.ले.प. (कें)/एस.ए.आर. 55 /2020-21/122

दिनांक: 18 .03.2021

वर्ष 2019-20 के लेखों पर पृथक लेखापरीक्षा प्रतिवेदन (अंग्रेजी) की प्रति राष्ट्रीय प्रौद्योगिकी संस्थान, श्रीनगर पौड़ी, उत्तराखण्ड-246174 को आवश्यक कार्यवाही हेतु प्रेषित है। संस्थान यदि आवश्यकता अनुभव करे, तो इस प्रतिवेदन का हिन्दी अनुवाद करवा सकता है परन्तु इस प्रतिवेदन के हिन्दी अनुवाद में निम्नलिखित अंकित होना चाहिए : “प्रस्तुत प्रतिवेदन मूलरूप से अंग्रेजी में लिखित पृथक लेखापरीक्षा प्रतिवेदन का हिन्दी अनुवाद है। यदि इसमें कोई विसंगति परिलक्षित होती है तो अंग्रेजी में लिखित प्रतिवेदन मान्य होगा।” हिन्दी अनुवाद की एक प्रति इस कार्यालय को भी प्रेषित करने का कष्ट करें।

संलग्नक: उपर्युक्तानुसार।

  
निदेशक (केन्द्रीय व्यय)



**Separate Audit Report of the Comptroller and Auditor General of India on the accounts of the National Institute of Technology, Uttarakhand for the year ended 31 March, 2020**

We have audited the attached Balance Sheet of the National Institute of Technology, Uttarakhand, Srinagar (Institute) as on 31 March, 2020, the Income and Expenditure Account and Receipts and Payments Account for the year ended on that date under Section 19(2) of the Comptroller and Auditor General's (Duties, Powers & Conditions of Service) Act, 1971 read with Section 22(2) of the National Institutes of Technology Act, 2007 as amended in 2012. These financial statements are the responsibility of the Institute's Management. Our responsibility is to express an opinion on these financial statements based on our audit.

2. This Separate Audit Report contains the comments of the Comptroller and Auditor General of India (C&AG) on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms, etc. Audit observations on the financial transactions with regard to compliance with the Law, Rules and regulations (Propriety and Regularity) and efficiency-cum-performance aspects etc., if any, are reported through Inspection Reports/C&AG's Audit Reports separately.

3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit also includes examining, on a test basis, evidences supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

4. Based on our audit, we report that:

(i) We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit;



(ii) The Balance Sheet, Income and Expenditure Account and Receipts and Payments Account dealt with by this report have been drawn up in the format of financial statements for Central Higher Educational Institutions approved by the Ministry of Human Resources Development.

(iii) In our opinion, proper books of accounts and other relevant records have been maintained by the Institute as required under Section 22(1) of the National Institutes of Technology Act, 2007 as amended in 2012, in so far as it appears from our examination of such books.

(iv) We further report that:

**(A) General**

**(A.1)** The Institute, in contravention of the MHRD format, included the assets valuing ₹ 13.41 lakh of purchased out of funds of sponsored projects in the assets of the Institute.

**(A.2)** The Institute has not made Provision for retirement benefits on actuarial basis as required in AS-15.

**(A.3)** The Institute did not reflect details of Bank accounts as Annexure 'A' to schedule-7.

**(B) Grants-in-aid**

The Institute received Grant-in-aid of ₹ 25.33 Crore from Ministry of Education (MoE) and earned interest thereon ₹ 1.49 Crore and also generated internal income of ₹ 12.13 crore during the year 2019-20. After taking opening balance of ₹ 85.63 crore, the total funds available worked out to ₹ 124.58 crore. The Institute utilized ₹ 34.72 Crore (₹ 31.07 crore from Grant, ₹ 1.78 crore utilized from Internal income & interest refunded to MoE ₹ 1.87 crore) and leaving a balance of ₹ 89.86 crore as on 31<sup>st</sup> March 2020.

(v) Subject to our observation in the preceding paragraphs, we report that the Balance Sheet, Income and Expenditure Account and Receipts and Payments Account dealt with by this report are in agreement with the books of accounts.

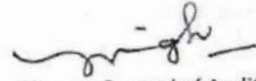
(vi) In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read together with the Accounting Policies and Notes on Accounts, and subject to the significant matters stated above and other matters mentioned in Annexure to this Audit Report give a true and fair view in conformity with accounting principles generally accepted in India.

a. In so far as it relates to the Balance Sheet, of the state of affairs of the National Institute of Technology, Uttarakhand as at 31 March, 2020 and

b. In so far as it relates to Income and Expenditure Account of the 'surplus' for the year ended on that date.

Place: Lucknow  
Date: 18.3.2021

For and on behalf of the C&AG of India



Director General of Audit (Central)





**Annexure**

**1. Adequacy of Internal Audit System**

Internal audit wing does not exist as such the internal audit of the Institute has not been conducted for the year 2019-20.

**2. Adequacy of Internal Control System**

The internal control system is characterised by non fulfilment of vacant posts as there are 51 posts vacant out of 181.

**3. System of Physical Verification of Fixed Assets**

Physical verification of fixed assets was carried out for the year 2019-20.

**4. System of Physical Verification of Inventories**

Institute reported that the 'Management of Inventory does not exist'.

**5. Regularity in payment of statutory dues**

The Institute is regular in payment of statutory dues.

  
Director (CE)

## NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND

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NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
BALANCE SHEET OF INSITUTE AND R&D FUNDS AS ON 31ST MARCH, 2020

(Figures in Rupees)


SOURCES OF FUNDS	Schedule	Current Year	Previous year
CORPUS / CAPITAL FUND	1	88,62,72,790.00	78,85,04,831.00
DESIGNATED / EARMARKED / ENDOWMENT FUNDS	2	3,54,47,362.00	2,41,00,001.00
R&D AND PROJECTS	2A	78,81,714.00	60,21,098.00
CURRENT LIABILITIES & PROVISIONS	3	48,00,07,530.00	52,99,20,290.00
TOTAL		1,40,96,09,396.00	1,34,85,46,220.00
<b>APPLICATION OF FUNDS</b>			
<b>FIXED ASSETS</b>			
Tangible Assets	4	22,25,33,920.00	23,85,73,957.00
Intangible Assets		97,81,176.00	47,68,133.00
Capital Works-In-Progress		3,45,58,977.00	3,41,16,201.00
INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS	5	-	-
Long Term		-	-
Short Term		83,41,34,575.00	88,31,73,619.00
INVESTMENTS - OTHERS	6	-	-
CURRENT ASSETS	7	29,46,98,835.00	17,94,38,652.00
R&D AND PROJECTS	4A & 7A	78,81,714.00	60,21,098.00
LOANS, ADVANCES & DEPOSITS	8	60,20,199.00	24,54,560.00
TOTAL		1,40,96,09,396.00	1,34,85,46,220.00

SIGNIFICANT ACCOUNTING POLICIES

CONTINGENT LIABILITIES AND NOTES TO ACCOUNTS

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REGISTRAR  
(COL. SUKHPAL SINGH)





DIRECTOR  
(PROF. SHYAM LAL SONI)

PLACE: SRINAGAR, GARHWAL  
DATED: AUG 29, 2020

Page 1

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2020

(Figures in Rupees)

Particulars	Schedule	Current year	Previous year
<b>INCOME</b>			
Academic Receipts	9	6,71,56,132.00	7,24,85,919.00
Grants / Subsidies	10	29,61,87,111.00	22,64,13,141.00
Income from investments	11	4,55,90,326.00	3,53,99,837.00
Interest earned	12	66,33,204.00	59,03,262.00
Other Income	13	19,29,152.00	2,12,990.00
Prior Period Income	14	35,000.00	-
<b>TOTAL (A)</b>		<b>41,75,30,925.00</b>	<b>34,04,15,149.00</b>
<b>EXPENDITURE</b>			
Staff Payment & Benefits (Establishment Expenses)	15	16,39,73,630.00	12,02,57,027.00
Academic Expenses	16	2,56,69,014.00	2,33,74,384.00
Administrative and General Expenses	17	8,42,91,451.00	7,35,84,305.00
Transportation Expenses	18	19,65,054.00	61,12,067.00
Repairs & Maintenance	19	35,40,184.00	30,85,358.00
Finance costs	20	-	-
Depreciation	4	2,51,32,195.00	2,62,15,239.00
Other Expenses	21	-	-
Prior Period Expenses	22	1,67,47,777.00	-
<b>TOTAL (B)</b>		<b>32,13,19,305.00</b>	<b>25,26,28,380.00</b>
<b>Balance being excess of Income over Expenditure (A-B)</b>		<b>9,62,11,620.00</b>	<b>8,77,86,769.00</b>
<b>Transfer to / from Designated Fund</b>			
Student Activity Fund		39,27,500.00	29,20,965.00
Development fund		41,32,000.00	44,04,000.00
Sustainability fund TEQIP III		97,07,504.00	91,20,160.00
Alumni Association fund		62,500.00	96,000.00
<b>Balance being Surplus / (Deficit) Carried to :</b>		<b>7,83,82,116.00</b>	<b>7,12,45,644.00</b>
Capital/Corpus Fund			



*(Signature)*  
 REGISTRAR  
 (COL. SUKHPAL SINGH)  
 PLACE: SRINAGAR GARIWAL  
 DATED: AUG 29, 2020

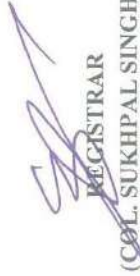
*(Signature)*  
 DIRECTOR  
 (PROF. SHIVAM LAL SONI)



NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH, 2020

**SCHEDULE -1 CORPUS FUND**

Particulars	(Figures in Rupees)	
	Current Year	Previous Year
Balance at the beginning of the year	34,18,05,690.00	26,61,56,046.00
Add: Contributions towards Corpus/Capital Fund	41,32,000.00	44,04,000.00
Add: Other Additions	-	-
Add: Excess of Income over expenditure transferred from the Income & Expenditure Account	7,83,82,116.00	7,12,45,644.00
<b>Total</b>	<b>42,43,19,805.00</b>	<b>34,18,05,690.00</b>
Less: Intt. TFR to Corpus	-	-
<b>Total</b>	<b>42,43,19,805.00</b>	<b>34,18,05,690.00</b>
(Deduct) Deficit transferred from the Income & Expenditure Account	-	-
<b>Balance at the end of the year</b>	<b>42,43,19,805.00</b>	<b>34,18,05,690.00</b>

  
REGISTRAR  
(COL. SUKHPAL SINGH)

  
DIRECTOR  
(PROF. SHYAM LAL SONI)

PLACE: SRINAGAR GARHWAL

DATED: AUG 29, 2020





NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020

**SCHEDULE -I.1 CAPITAL FUND**

Particulars	(Figures in Rupees)	
	Current Year	Previous Year
Balance at the beginning of the year	44,66,99,141.00	40,86,53,983.00
Additions	1,45,47,977.00	4,60,99,242.00
Deduction	-	-
<b>Total</b>	<b>46,12,47,118.00</b>	<b>45,47,53,225.00</b>
Reserves and Provision	-	-
Additions	7,05,867.00	12,50,502.00
Deduction	-	93,04,586.00
<b>Total</b>	<b>7,05,867.00</b>	<b>(80,54,084.00)</b>
Add: Excess of Income over expenditure transferred from the Income & Expenditure Account	-	-
<b>Total</b>	<b>46,19,52,985.00</b>	<b>44,66,99,141.00</b>
(Deduct) Deficit transferred from the Income & expenditure Account	-	-
<b>Balance at the year end</b>	<b>46,19,52,985.00</b>	<b>44,66,99,141.00</b>

  
**REGISTRAR**  
(COL. SUKHPAL SINGH)

**PLACE: SRINAGAR GARHWAL**  
**DATED: AUG 29, 2020**



  
**DIRECTOR**  
(PROF. SHYAM LAL SONI)

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020

SCHEDULE-2-DESIGNATED / EARMARKED / ENDOWMENT FUND

PARTICULARS	(Figures in Rupees)			
	2.1	2.2	2.3	Current year
Balance B/F	2,41,00,001.00	-	-	2,41,00,001.00
Add. Receipts during the year	2,49,90,073.00	-	-	2,49,90,073.00
<b>Total (a)</b>	<b>4,90,90,074.00</b>	-	-	<b>4,90,90,074.00</b>
Less Refunds	-	-	-	-
Less : Utilized for Revenue Expenditure	1,36,42,712.00	-	-	1,36,42,712.00
Less : Utilized for Capital Expenditure	-	-	-	-
<b>Total (b)</b>	<b>1,36,42,712.00</b>	-	-	<b>1,36,42,712.00</b>
Unutilized carried forward (a-b)	3,54,47,362.00	-	-	3,54,47,362.00
Less : Transfer to Capital Fund	-	-	-	-
<b>Total</b>	<b>3,54,47,362.00</b>	-	-	<b>3,54,47,362.00</b>
				Previous Year
				1,10,30,594.00
				1,57,37,922.00
				2,67,68,516.00
				26,45,535.00
				22,980.00
				26,68,515.00
				2,41,00,001.00
				-
				2,41,00,001.00

  
REGISTRAR  
(COL. SUKHPAL SINGH)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020



  
DIRECTOR  
(PROF. SHYAM LAL SONI)

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020  
SCHEDULE-2A DESIGNATED/ EARMARKED/ ENDOWMENT FUNDS OF R&D/PROJECT ACCOUNT

PARTICULARS	PROJECT WISE BREAKUP										TOTAL	
	SDPC (IMN)	SERR (SRD)	DACBGTG/PI (NK)	DIC (PKR)	STHCB(RPP)	SMDP (PP)	Dr. Krishna Kumar	Dr. P. Dnsvedii	R&C	Current Year	Previous Year	
<b>A)</b>												
a) Opening balance	7,209.50	2,60,227.00	3,101.00	31,96,692.00	4,27,469.00	5,53,162.00	-	-	1,92,714.00	46,80,574.50	17,17,818.00	
b) Additions during the year	-	-	72,000.00	43,500.00	-	16,90,860.00	5,70,000.00	21,31,000.00	3,04,251.00	51,11,611.00	59,77,727.00	
c) Income from investment made of the funds	-	-	-	-	-	-	-	-	-	-	-	
d) Accrued Interest on investments / Advances	-	-	-	-	-	-	-	-	-	-	-	
e) Interest on Savings Bank a/c	226.00	-	861.00	15,148.00	8,791.00	46,961.00	11,553.00	19,434.00	13,824.00	1,16,778.00	1,33,220.00	
f) Other additions (Specific nature)	-	-	-	-	-	-	-	-	-	-	-	
Adjustment of Less during the year	-	-	-	-	-	-	-	-	-	-	-	
Adjustment during the year	-	-	-	-	-	-	-	-	-	-	-	
<b>Total (A)</b>	<b>7,435.50</b>	<b>2,60,227.00</b>	<b>75,962.00</b>	<b>32,85,340.00</b>	<b>4,86,260.00</b>	<b>22,90,983.00</b>	<b>5,81,553.00</b>	<b>24,50,434.00</b>	<b>5,00,789.00</b>	<b>99,08,963.50</b>	<b>80,36,557.00</b>	
<b>B)</b>												
Utilisation/Expenditure towards objectives of funds	-	-	-	-	-	-	-	-	-	-	-	
i) Capital Expenditure	-	19,476.00	-	-	-	-	-	-	-	19,476.00	21,800.00	
ii) Revenue Expenditure	-	2,40,751.00	13,917.00	13,14,338.00	3,44,834.00	14,34,467.00	-	-	-	33,48,297.00	33,34,182.50	
<b>Total (B)</b>	<b>-</b>	<b>2,60,227.00</b>	<b>13,917.00</b>	<b>13,14,338.00</b>	<b>3,44,834.00</b>	<b>14,34,467.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>33,48,297.00</b>	<b>33,55,982.50</b>	
<b>C) R &amp; D/Project Account - Capital</b>												
Closing balance at the year end (A-B+C)	7,435.50	-	62,045.00	19,43,002.00	1,41,436.00	8,56,516.00	5,81,553.00	24,50,434.00	5,00,789.00	78,81,714.50	60,21,098.50	

*[Signature]*  
DIRECTOR  
(PROF. SHYAM LAL SONI)

*[Signature]*  
REGISTRAR  
(DR. S. KRIPAL SINGH)  
PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020



NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020  
SCHEDULE-2.1 DESIGNATED / EARMARKED / ENDOWMENT FUNDS

Particulars	Fund wise Breakup										Total	
	Student Activity Fund	Alumni Asso. Fund	DASA Fund	Unnat Bharat Abhiyan Fund	TEQIP - III Fund	NMEICT	CSAB/CCMT FUND	MINREGA Fund	R & C FUND	Current Year	Previous Year	
<b>A.</b>												
a) Opening balance	1,15,99,157.00	8,89,000.00	2,25,000.00	1,69,508.00	91,37,200.00	7,93,253.00	3,22,555.00	5,00,000.00	4,64,328.00	2,41,00,001.00	1,10,30,594.00	
b) Additions during the year	65,27,500.00	62,500.00	15,000.00	-	1,00,91,664.00	-	70,66,409.00	6,45,000.00	5,82,000.00	2,49,90,073.00	1,57,37,922.00	
c) Income from investment made of the funds	-	-	-	-	-	-	-	-	-	-	-	
d) Accrued Interest on investments/ Advances	-	-	-	-	-	-	-	-	-	-	-	
e) Interest on Savings Bank a/c	-	-	-	-	-	-	-	-	-	-	-	
f) Other additions (Specify nature)	-	-	-	-	-	-	-	-	-	-	-	
<b>Total (A)</b>	<b>1,81,26,657.00</b>	<b>9,51,500.00</b>	<b>2,40,000.00</b>	<b>1,69,508.00</b>	<b>1,92,28,864.00</b>	<b>7,93,253.00</b>	<b>73,88,964.00</b>	<b>11,45,000.00</b>	<b>10,46,328.00</b>	<b>4,90,90,074.00</b>	<b>2,67,68,516.00</b>	
<b>B.</b>												
<b>Utilisation/Expenditure towards objectives of funds</b>												
i) Capital Expenditure	-	-	-	-	-	-	-	-	-	-	22,980.00	
ii) Revenue Expenditure	62,20,657.00	700.00	-	1,69,508.00	-	-	64,62,653.00	4,67,767.00	3,21,427.00	1,36,42,712.00	26,45,535.00	
<b>Total (B)</b>	<b>62,20,657.00</b>	<b>700.00</b>	<b>-</b>	<b>1,69,508.00</b>	<b>-</b>	<b>-</b>	<b>64,62,653.00</b>	<b>4,67,767.00</b>	<b>3,21,427.00</b>	<b>1,36,42,712.00</b>	<b>26,68,515.00</b>	
<b>Closing balance at the year end (A-B)</b>	<b>1,19,06,000.00</b>	<b>9,50,800.00</b>	<b>2,40,000.00</b>	<b>-</b>	<b>1,92,28,864.00</b>	<b>7,93,253.00</b>	<b>9,26,311.00</b>	<b>6,77,233.00</b>	<b>7,24,901.00</b>	<b>3,54,47,362.00</b>	<b>2,41,00,001.00</b>	

NOTE:- FUNDS OF UNNAT BHARAT ABHIYAN REFUNDED TO GRANTOR AGENCY.

  
REGISTRAR  
(CC - SRIKHPAL SINGH)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020



  
DIRECTOR  
(PROF. SHYAM LAL SONI)

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020

**SCHEDULE 2.2 PLAN GRANT LIABILITY FOR ASSETS**

		(Figures in Rupees)	
		Current year	Previous Year
<b>A. Plan Grants: Government of India</b>			
Balance B/F		-	-
Add. Receipts during the year		-	-
Add. Receipts during the year (CSA)		-	-
<b>Total (a)</b>		-	-
Less Refunds		-	-
Less : Utilized for Revenue Expenditure		-	-
Less : Utilized for Capital Expenditure		-	-
<b>Total (b)</b>		-	-
Less: Transfer to Capital Fund		-	-
<b>Total</b>		-	-

  
**REGISTRAR**  
(COL. SUKHPAL SINGH)

**PLACE: SRINAGAR GARHWAL**  
**DATED: AUG 29, 2020**



  
**DIRECTOR**  
(PROF. SHYAM LAL SONI)



NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020

SCHEDULE 2.3 EARMARKED FUNDS PLAN GRANT

		(Figures in Rupees)	
A. Plan Grants: Government of India		Current year	Previous Year
Balance B/F		-	-
Add. Receipts during the year		-	-
<b>Total (a)</b>		-	-
Less Refunds		-	-
Less : Utilized for Revenue Expenditure		-	-
Less : Utilized for Capital Expenditure		-	-
<b>Total (b)</b>		-	-
<b>Unutilized carried forward</b>		-	-

Note: Particulars of this Schedule has been shown in Schedule 10 as per MHRD Guidelines.

  
REGISTRAR  
(COL. SUKHPAL SINGH)



  
DIRECTOR  
(PROF. SHYAM LAL SONI)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020

SCHEDULE 3- CURRENT LIABILITIES & PROVISIONS

		(Figures in Rupees)	
PARTICULARS		Current Year	Previous Year
<b>A. CURRENT LIABILITIES</b>			
1.	Deposits from Staff	-	-
2.	Deposits from Students	3,73,56,658.00	3,43,24,205.00
3.	Sundry Creditors	-	-
a)	For Goods & Services	1,66,54,464.00	1,94,99,208.00
b)	Others- Rent for Students Hostel MNIT	33,54,000.00	-
4.	Deposit-Others ( including EMD, Security Deposit)	15,07,548.00	10,51,317.00
5.	Statutory Liabilities (GPE, TDS, WC TAX, CPE, GIS, NPS) :	22,24,776.00	1,04,469.00
a)	Overdue	-	-
b)	Others	-	-
6.	Other Current Liabilities	-	-
a)	Fees Received in Advance	1,34,85,980.00	1,56,95,464.00
b)	Salaries	97,89,935.00	-
c)	Receipts against sponsored projects	-	-
d)	Receipts against sponsored fellowships & Scholarships	8,57,841.00	6,07,505.00
e)	Unutilised Grants	-	-
f)	Grants in advance	38,84,92,407.00	44,96,94,495.00
g)	Other- Expenses Payable	58,85,083.00	65,69,671.00
h)	Other liabilities	3,98,838.00	15,29,300.00
	<b>Total (A)</b>	<b>48,00,07,530.00</b>	<b>52,90,75,634.00</b>
<b>B. PROVISIONS</b>			
1.	For Taxation	-	-
2.	Gratuity	-	-
3.	Superannuation Pension	-	-
4.	Accumulated Leave Encashment	-	-
5.	Trade Warranties / Claims	-	-
6.	Other- Leave Salary & Pension Contribution	-	8,44,656.00
	<b>Total (B)</b>	<b>-</b>	<b>8,44,656.00</b>
	<b>Total (A+B)</b>	<b>48,00,07,530.00</b>	<b>52,99,20,290.00</b>

  
REGISTRAR  
(COL. SUKHPAL SINGH)



  
DIRECTOR  
(PROF. SHYAM LAL SONI)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020

Page 10

Name of Entity : NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020

**SCHEDULE-3 (a) SPONSORED PROJECTS**

1. Sr. No.	2. Name of the Project	Opening Balance		5. Receipts/Recoveries during the year	6. Total	7. Expenditure during the year	Closing Balance	
		3. Credit	4. Debit				8. Credit	9. Debit
Total								

1. The Projects may be listed agency-wise, with sub-totals for each agency.
2. The total of Col. 8 (Credit) will appear under the above head on the liabilities side of the Balance Sheet (Schedule 3).
3. The total of Col.9 (Debit) will appear as receivables in schedule 8, Loans, Advances and Deposits, on the Assets side of the Balance Sheet.

  
REGISTRAR  
(COL. SUKHPAL SINGH)

  
DIRECTOR  
(PROF. SHYAM LAL SONI)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020



**Name of Entity : NATIONAL INSTITUTE OF TECHNOLOGY,UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020**

**SCHEDULE-3 (B) SPONSORED FELLOWSHIPS AND SCHOLARSHIPS**

SL NO	1. Name of Sponsor	Opening Balance As On 01.04.2019		Transactions During the year			Closing Balance As in 31.03.20	
		3	4	5	6	7	8	
		CR.	DR.	CR.	DR.	CR.	DR.	
1	University Grants Commission							
2	Ministry .....							
3	Others (Specify individually)							
	<b>Total</b>							

(Figures in Rupees)

**Note:**

- 1.The total of Column 7, (Credit) will appear under the above head, on the liabilities side of the balance sheet ( Schedule 3).
- 2.The total of Column 8 (Debit) will appear as Receivables on the Assets side of the Balance Sheet in Schedule 8 (Loans, Advances and Deposits).

  
**REGISTRAR**  
(COL. SUKHPAL SINGH)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020



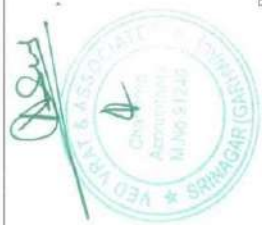


**DIRECTOR**  
(PROF. SHYAM LAL SONI)

Name of Entity : NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020

SCHEDULE 3 (C) UNUTILISED GRANTS FORM UGC, GOVERNMENT OF INDIA AND STATE GOVERNMENTS

		(Figures in Rupees)	
		Current Year	Previous Year
<b>A. Plan grants: Government of India</b>			
Balance B/F		0.00	0.00
Add: Receipts during the year			
<b>Total (a)</b>		0.00	0.00
Less Refunds			
Less: Utilized for Revenue Expenditure		0.00	0.00
Less: Utilized for capital Expenditure			
<b>Total(b)</b>		0.00	0.00
<b>B. UGC grants: Plan</b>			
balance B/F			
Receipts during the year			
<b>Total (c)</b>		0.00	0.00
Less Refund			
Less: Utilized for Revenue Expenditure			
Less: Utilized for capital expenditure			
<b>Total (d)</b>		0.00	0.00
Unutilized carried forward (c-d)		0.00	0.00



*[Handwritten Signature]*

**DIRECTOR**  
(PROF. SHYAM LAL SONI)

*[Handwritten Signature]*  
**REGISTRAR**  
(COL. SUKHPAL SINGH)

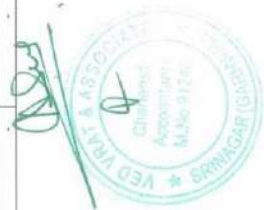
PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020



NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020

SCHEDULE 4 FIXED ASSETS

S.No.	Tangible Assets Heads	Gross Block				Depreciation for the Year - 2019-20				Net Block		
		ORIGINAL COST AS ON 01.04.19	Additions	Adjustment	Deductions	Closing Balance	Depreciation on Opening Balance	Depreciation for the year	Deductions / Adjustment	Total Depreciation	31.03.2020	31.03.2019
1	Land	1.00	-	-	-	1.00	-	-	-	-	1.00	-
2	Site Development	-	-	-	-	-	-	-	-	-	-	-
3	Buildings	17,93,87,424.00	-	-	-	17,93,87,424.00	3,82,94,412.00	35,87,749.00	-	2,18,82,161.00	15,75,05,263.00	18,10,93,012.00
4	Sports Equipment	-	-	-	-	-	-	-	-	-	-	-
5	Tubewells & Water Supply	1,10,787.00	-	-	-	1,10,787.00	5,917.00	2,215.00	-	8,137.00	1,02,655.00	1,04,070.00
6	Sewerage & drainage	-	-	-	-	-	-	-	-	-	-	-
7	Electrical Installation and equipment	1,02,51,921.00	4,37,513.00	-	-	1,06,89,434.00	23,49,156.00	5,34,480.00	-	28,83,636.00	78,05,804.00	79,03,271.00
8	Plant & Machinery	11,22,717.00	2,13,322.00	-	-	13,36,039.00	1,56,300.00	66,805.00	-	2,13,105.00	11,12,934.00	9,66,417.00
9	Scientific & Laboratory Equipment	4,15,33,268.00	19,83,222.00	-	-	4,35,16,490.00	3,46,02,507.00	34,49,366.00	-	1,80,51,873.00	2,50,65,117.00	2,69,30,761.00
10	Office Equipment	48,22,948.00	45,261.00	-	-	48,68,209.00	16,23,719.00	3,65,123.00	-	19,87,847.00	28,80,367.00	31,00,279.00
11	Audio Visual Equipment	57,22,683.00	81,920.00	-	-	58,14,613.00	70,70,801.00	4,36,098.00	-	25,06,899.00	33,07,714.00	36,51,892.00
12	Computers & Peripherals	4,55,68,236.00	2,57,325.00	-	-	4,58,20,561.00	3,69,67,881.00	64,31,207.00	-	4,33,94,150.00	24,26,411.00	86,03,363.00
13	Furniture, Fixtures & Fittings	2,74,79,501.00	4,81,517.00	-	-	2,79,61,018.00	3,09,05,919.00	20,87,053.00	-	1,30,02,112.00	1,49,58,906.00	1,65,74,482.00
14	Vehicles	38,89,837.00	58,634.00	-	-	39,48,471.00	18,76,220.00	3,94,948.00	-	22,71,068.00	16,77,403.00	20,13,617.00
15	Lib. Books & Scientific Journals	1,80,67,856.00	7,200.00	-	-	1,80,75,056.00	1,09,23,238.00	18,07,504.00	-	1,27,31,242.00	53,43,814.00	71,44,118.00
16	Small Value Assets	15,80,957.00	1,29,249.00	-	-	17,10,206.00	15,80,741.00	1,29,234.00	-	17,09,975.00	231.00	216.00
17	Stock	25,026.00	-	-	-	25,026.00	-	-	-	-	25,026.00	25,026.00
18	Project Overhaulment (offices Equipment)	16,460.00	-	-	-	16,460.00	1,236.00	1,236.00	-	2,472.00	14,008.00	15,244.00
19	Audio Visual (CSA)	33,490.00	-	-	-	33,490.00	5,947.00	2,804.00	-	8,756.00	24,734.00	27,548.00
20	Computer & Peripherals (CSA)	26,200.00	-	-	-	26,200.00	9,180.00	5,240.00	-	14,920.00	11,280.00	17,020.00
21	Electrical Equipments (CSA)	2,700.00	-	-	-	2,700.00	270.00	135.00	-	405.00	2,295.00	2,430.00
22	Sports Equipment (CSA)	3,70,432.00	-	-	-	3,70,432.00	72,484.00	29,633.00	-	1,02,117.00	2,68,295.00	3,97,928.00
23	Furniture & Fixture (CSA)	1,200.00	-	-	-	1,200.00	180.00	90.00	-	270.00	930.00	1,070.00
24	Small Value Assets (CSA)	8,560.00	-	-	-	8,560.00	8,558.00	80.00	-	8,558.00	2.00	2.00
25	Capital Work in Progress (B)	34,00,22,214.00	33,00,713.00	-	-	34,33,22,927.00	10,14,40,252.00	1,93,40,750.00	-	12,07,89,007.00	22,25,33,920.00	23,85,73,957.00
		3,41,16,201.00	4,42,746.00	-	-	3,45,58,977.00	-	-	-	-	3,45,58,977.00	3,41,16,201.00
S.No.	Intangible Assets	ORIGINAL COST AS ON 01.04.19	Additions	Adjustment	Deductions	Closing Balance	Amortization on Opening Balance	Amortization for the Year	Deductions / Adjustment	Total Amortization	31.03.2020	31.03.2019
26	Software	5,04,26,555.00	11,65,692.00	-	-	5,15,92,247.00	4,82,92,615.00	12,23,907.00	-	4,95,16,522.00	20,75,725.00	21,33,940.00
27	E-Journals, Books	96,10,859.00	96,38,796.00	-	-	1,92,49,655.00	68,76,666.00	46,67,538.00	-	1,15,44,204.00	77,05,451.00	26,34,193.00
	Total (C)	6,00,37,414.00	1,09,04,688.00	-	-	7,09,42,143.00	5,52,69,281.00	57,91,445.00	-	6,10,60,726.00	97,81,176.00	47,68,133.00
	Grand Total (A+B+C)	43,41,75,629.00	1,45,47,977.00	-	-	44,87,23,606.00	15,67,17,538.00	2,51,32,195.00	-	18,18,49,731.00	26,68,74,073.00	27,75,58,291.00



*[Signature]*

DIRECTOR  
(PROF. SHYAM LAL SONI)

*[Signature]*  
REGISTRAR  
(COL. SUKHPAL SINGH)  
PLACE: SRINAGAR GARHWAL  
DATED: AUG. 29, 2020

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020

SCHEDULE-4A: FIXED ASSETS R&D AND PROJECTS 2019-20

S.NO	Tangible Assets Heads	Original Costs as on 01.04.19	Gross Block (ASSETS)		Depreciation On Opening Balance	Depreciation for the Year- 2019-20 for the year	Deductions / Adjustment	Total Depreciation	Net Block	
			Additions	Deductions					31.03.20	31.03.19
1	Small Value Assets (SMDP)	-	-	-	-	-	-	-	-	-
2	Computer & Peripherals (SMDP)	-	-	-	-	-	-	-	-	-
3	Laboratory & Scientific Equipments (I&M)	5,00,000.00	-	-	5,00,000.00	-	-	5,00,000.00	5,00,000.00	5,00,000.00
4	Laboratory & Scientific Equipments (SID)	8,40,524.00	-	-	8,40,524.00	-	-	8,40,524.00	8,40,524.00	8,40,524.00
	<b>Total</b>	<b>13,40,524.00</b>	<b>-</b>	<b>-</b>	<b>13,40,524.00</b>	<b>-</b>	<b>-</b>	<b>13,40,524.00</b>	<b>13,40,524.00</b>	<b>13,40,524.00</b>

(Figures in Rupees)

  
REGISTRAR  
(COL. SUKHPAL SINGH)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020



  
DIRECTOR  
(PROF. SHYAM LAL SONI)

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND

SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020

SCHEDULE 4 C - INTANGIBLE ASSETS

S.NO	Assets Heads	Gross Block			Depreciation for the Year 2019-20			Net Block			
		OP Balance 01.04.2019	Additions	Deductions	CI Balance	Depreciation/ Amortizations Opening Balance	Depreciation/ Amortization for the Year	Deductions/ Adjustment	Total Depreciation /Amortization	31.03.2020	31.03.2019
1	Patents & Copyrights				-				-	-	
2	Computer Software				-				-	-	
3	E- Journals				-				-	-	

  
REGISTRAR  
(COL. SUKHPAL SINGH)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020



  
DIRECTOR  
(PROF. SHYAM LAL SONI)

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020

SCHEDULE 4C (i) PATENTS AND COPYRIGHTS

		(Figures in Rupees)					
Particulars		Op. Balance	Addition	Gross	Amortization	Net Block 2019-20	Net Block 2018-19
<b>A Patents Granted</b>							
1 Balance as on 31.03.20 of Patents obtained in Year							
(Original Value - Rs..../-)							
2 Balance as on 31.03.20 of Patents obtained in Year							
(Original Value - Rs..../-)							
3 Balance as on 31.03.20 of Patents obtained in Year							
(Original Value - Rs..../-)							
4 Patents granted during the Current Year							
<b>Total</b>							
<b>B. Patents Pending in respect of Patents applied for</b>							
1 Expenditure incurred during the Year							
2 Expenditure incurred during the Year							
3 Expenditure incurred during the Year							
<b>Total</b>							
<b>C. Grand Total (A+B)</b>							

		Rs. In Lakhs					
Particulars		Op. Balance	Addition	Gross	Patents Granted/Rejected	Net Block 2019-20	Net Block 2018-19
B. Patents Pending in respect of Patents applied for							
1 Expenditure incurred during the Year							
2 Expenditure incurred during the Year							
3 Expenditure incurred during the Year							
<b>Total</b>							
<b>C. Grand Total (A+B)</b>							

Note: The addition in Part A (patents granted), will be the figure of patents granted during the year, transferred from Part B (column - Patents granted/ rejected). The amount against grants rejected during the year is written off in the Income and Expenditure Account.

  
**REGISTRAR**  
 (COL. SUKHPAL SINGH)



  
**DIRECTOR**  
 (PROF. SHYAM LAL SONI)

PLACE: SRINAGAR GARHWAL  
 DATED: AUG 29, 2020

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020

SCHEDULE 4D OTHERS

S.NO	Assets Heads	Gross Block			Depreciation for the Year 2019-20			Net Block			
		OP Balance 01.04.2019	Additions	Deductions	CI Balance	Dep Opening Balance	Depreciation for the year	Deductions/ Adjustment	Total Depreciation	31.03.2020	31.03.2019
1	Land										
2	Site Development										
3	Buildings										
4	Roads & Bridges										
5	Tubewells & Water Supply										
6	Sewerage & drainage										
7	Electrical Installation and equipment										
8	Plant & Machinery										
9	Scientific & Laboratory Equipment										
10	Office Equipment										
11	Audio Visual Equipment										
12	Computers & Peripherals										
13	Furniture, Fixtures & Fittings										
14	Vehicles										
15	Lib. Books & Scientific Journals										
16	Small Value Assets										
	<b>Total</b>										
17	Capital Work in Progress										
	<b>Grand Total</b>										

Note : The additions during the Year include additions from:

- Gifted
- Earmarked Funds
- Sponsored Projects
- Own Funds
- Total

  
**REGISTRAR**  
(COL. SUKHPAL SINGH)





  
**DIRECTOR**  
(PROF. SHYAM LAL SONI)

PLACE: SRINAGAR GARHWAL.  
DATED: AUG 29, 2020



NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020

SCHEDULE 5 : INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS/ OTHERS

PARTICULARS	(Figures in Rupees)	
	Current Year	Previous Year
1. In Central Government Securities	-	-
2. In State Government Securities	-	-
3. Other Approved Securities	-	-
4. Shares	-	-
5. Debentures and Bonds	-	-
6. Term Deposits with Banks	83,41,34,575.00	88,31,73,619.00
7. Others ( to be specified)	-	-
<b>Total</b>	<b>83,41,34,575.00</b>	<b>88,31,73,619.00</b>



*(Signature)*  
 REGISTRAR  
 (COL. SUKHPAL SINGH)

*(Signature)*  
 DIRECTOR  
 (PROF. SHYAM LAL SONI)

PLACE: SRINAGAR GARHWAL  
 DATED: AUG 29, 2020

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020

SCHEDULE 5A: INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS (FUND WISE)/CORPUS FUND

S.No.	Funds	Current Year	Previous Year
1	ALLAHABAD BANK FDR 50511679374	1,99,99,999.00	-
2	ALLAHABAD BANK FDR 50511959373	1,99,99,999.00	-
3	ALLAHABAD BANK FDR 50512104723	1,99,99,999.00	-
4	ALLAHABAD BANK FDR 50512315043	1,99,99,999.00	-
5	ALLAHABAD BANK FDR 50512427665	1,99,99,999.00	-
6	ALLAHABAD BANK FDR 50512527148	1,99,99,999.00	-
7	ALLAHABAD BANK FDR 50512655670	1,99,99,999.00	-
8	ALLAHABAD BANK FDR 50512879043	1,99,99,999.00	-
9	ALLAHABAD BANK FDR 50512998594	1,99,99,999.00	-
10	ALLAHABAD BANK FDR 50513141595	1,99,99,999.00	-
11	FDR ICICI BANK 6768013003355	2,45,19,695.00	-
12	FDR PNB 085400PU00006327	9,30,00,000.00	-
13	FDR PNB 085400PU00006336	9,30,00,000.00	-
14	FDR PNB 085400PU00006354	8,38,20,461.00	-
15	FDR PNB 085400PU00006381	9,30,00,000.00	-
16	FDR NAINITAL BANK LTD. 3501882	24,67,94,429.00	-
17	FDR SBI 35722333666	-	92,04,500.00
18	FDR SBI 35722334172	-	92,04,500.00
19	FDR SBI 35722335700	-	46,02,250.00
20	FDR SBI 37713502758	-	2,72,13,888.00
21	FDR OBC 15043031011821	-	6,00,00,000.00
22	FDR UCO 29100310004745	-	5,21,21,654.00
23	FDR UCO 29100310004944	-	15,00,00,000.00
24	FDR ICICI 676813003137	-	6,00,00,000.00
25	FDR ICICI 676813003138	-	5,13,69,459.00
26	FDR SBI 37706490284	-	20,30,35,073.00
27	FDR OBC 15043031011685	-	5,00,00,000.00
28	FDR UCO 29100310004753	-	5,15,00,000.00
29	FDR UCO 29100310004760	-	5,15,00,000.00
30	FDR UCO 29100310004777	-	5,15,00,000.00
31	FDR UCO 29100310004784	-	5,19,22,295.00
	<b>Grand Total</b>	<b>83,41,34,575.00</b>	<b>88,31,73,619.00</b>

  
REGISTRAR  
(DR. SUKHPAL SINGH)

PLACE: SRINAGAR GARJIWAL  
DATED: AUG 29, 2020



  
DIRECTOR  
(PROF. SHYAM LAI SONI)

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020

**SCHEDULE 6 : INVESTMENTS OTHERS**

PARTICULARS	(Figures in Rupees)	
	Current Year	Previous Year
1. In Central Government Securities	-	-
2. In State Government Securities	-	-
3. Other Approved Securities	-	-
4. Shares	-	-
5. Debentures and Bonds	-	-
6. Term Deposits with Banks	-	-
7. Others ( to be specified)	-	-
<b>Total</b>	-	-



*(Signature)*  
**REGISTRAR**  
(COL. SUKHPAL SINGH)

*(Signature)*  
**DIRECTOR**  
(PROF. SHYAM LAL SONI)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULE FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020

**SCHEDULE 7- CURRENT ASSETS**

(Figures in Rupees)		Current Year	Previous Year
Particulars	Current Year	Previous Year	Previous Year
<b>1. Stock:</b>			
a) Stores and Spares	-	-	-
b) Loose Tools	-	-	-
c) Publications	-	-	-
d) Laboratory Chemicals, consumables and glass ware	-	-	-
e) Building Material	-	-	-
f) Electrical Material	-	-	-
g) Stationery	-	-	-
h) Water supply material	-	-	-
<b>2. Sundry Debtors :</b>			
a) Debts Outstanding for a period exceeding six months	1,825.00	5,400.00	5,400.00
b) Others : Recovery from Employees	3,03,94,136.00	3,49,84,114.00	3,49,84,114.00
<b>3. ACCRUED INTEREST</b>	8,70,393.00	-	-
4. T.D.S. on FDR Interest	-	-	-
<b>5. Cash and Bank Balances</b>			
a) With Scheduled Banks:			
In Current Accounts	1,79,93,825.00	20,000.00	20,000.00
R & D Current A/C	-	-	-
In term deposit Accounts	-	-	-
In Savings Accounts	24,54,38,656.00	14,44,29,137.62	14,44,29,137.62
b) With Non-Scheduled Banks:			
In term deposit Accounts	-	-	-
In Savings Accounts	-	-	-
<b>4. Post Office- Savings Accounts</b>	29,46,98,835.00	17,94,38,651.62	17,94,38,651.62
<b>TOTAL</b>			



  
**REGISTRAR**  
 (COL. SUKHPAL SINGH)

  
**DIRECTOR**  
 (PROF. SHYAM LAL SONI)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020

SCHEDULE ZA- CURRENT ASSETS -R&D AND PROJECTS

	Current Year	Previous Year
(Figures in Rupees)		
<b>1. Stock:</b>		
a) Stores and Spares	-	-
b) Loose Tools	-	-
c) Publications	-	-
d) Laboratory Chemicals, consumables and glass ware	-	-
e) Building Material	-	-
f) Electrical Material	-	-
g) Stationery	-	-
h) Water supply material	-	-
<b>2. Sundry Debtors :</b>		
a) Debts Outstanding for a period exceeding six months	-	-
b) Others (Duties & Taxes)	(7,200.00)	-
<b>3. ACCRUED INTEREST</b>		
<b>4. RECOVERABLE AMOUNT OF NPS</b>		
<b>5. Cash and Bank Balances</b>		
<b>a) With Scheduled Banks:</b>		
<b>In Current Accounts</b>		
SBI A/C No. 3351969550 SDPC (IMIN)	-	-
SBI A/C No. 3351969550 SERB (SRID)	-	-
SBI A/C No. 37530603172 R & D (Saving)	56,91,874.50	41,27,412.50
SBI A/C No. 37357884648 SMDP (Saving)	8,56,515.50	5,53,161.50
SBI A/C 34936696386 SM/DP (PP)	-	-
<b>In term deposit Accounts</b>		
<b>In Savings Accounts</b>		
b) With Non-Scheduled Banks:		
<b>In term deposit Accounts</b>		
<b>In Savings Accounts</b>		
<b>4. Post Office- Savings Accounts</b>		
<b>TOTAL</b>	<b>65,41,190.00</b>	<b>46,80,574.00</b>

  
DIRECTOR  
(PROF. SHYAM LAL SONI)



  
REGISTRAR  
(SUKHPAL SINGH)

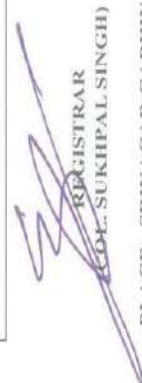
PLACE: SRINAGAR GARHWAL.  
DATED: AUG. 29, 2020



NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULE FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2020

**SCHEDULE 8 - LOANS, ADVANCES & DEPOSITS**

Particulars	(Figures in Rupees)	
	Current year	Previous year
<b>1. Advances to employees: (Non- Interest bearing )</b>		
a) Salary	-	-
b) Festival	-	-
c) Medical Advance	-	-
d) Other - For Work Expenses	17,66,066.00	2,81,832.00
<b>2. Long Term Advances to employees: ( interest bearing)</b>		
a) Vehicle loan	-	-
b) Home loan	-	-
c) Others ( to be specified)	-	-
<b>3. Advances and other amounts recoverable in cash or in kind or for value to be received:</b>		
a) On Capital Account	36,80,362.00	8,15,292.00
b) to Suppliers	-	-
c) Others	12,227.00	-
<b>4. Prepaid Expenses</b>		
a) Insurance	-	-
b) Other expenses	-	8,00,000.00
<b>5. Deposits</b>		
a) Telephone	12,439.00	8,331.00
b) Lease Rent	-	-
c) Electricity	3,82,855.00	3,82,855.00
d) AICTE, if applicable	-	-
e) Others (to be specified)	1,66,250.00	1,66,250.00
<b>6. Income Accrued:</b>		
a) On Investments from Earmarked/ Endowment Funds	-	-
b) On Investments- Others	-	-
c) On Loans and Advances	-	-
d) Other (includes income due unrealized)	-	-
<b>7. Other- Current assets receivable from UGC/sponsored projects</b>		
a) Debit balances in Sponsored Projects	-	-
b) Debit balances in Sponsored Fellowships & Scholarships	-	-
c) Grants Receivable	-	-
d) Other Receivables (Plan Grant Receivable)	-	-
<b>8. Claims Receivable</b>		
<b>TOTAL</b>	<b>60,20,199.00</b>	<b>24,54,560.00</b>

  
REGISTRAR  
COL. SUKHPAL SINGH



  
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PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2020

SCHEDULE 9- ACADEMIC RECEIPTS

		(Figures in Rupees)	
FEES FROM STUDENTS		Current year	Previous year
<b>Academic</b>			
1. Tuition fee		3,94,96,015.00	5,23,54,125.00
2. Book Bank Fees		7,85,000.00	13,54,000.00
3. Examination Fees		12,56,000.00	-
<b>Other Fees</b>			
1. Seat Rent		78,87,460.00	46,41,500.00
2. Hostel Receipts		4,08,000.00	4,89,600.00
3. Transcript Fees		18,000.00	23,400.00
4. Convocation Fees		1,20,500.00	91,500.00
5. Security Services fees		8,25,000.00	11,52,000.00
6. Miscellaneous Fees- Duplicate Documents Fees		2,000.00	2,79,500.00
7. Thesis Submission Fees		5,000.00	15,000.00
8. Alumni Association Fees		62,500.00	96,000.00
9. Student Related Activity Fees		39,26,700.00	47,15,500.00
10. Development Fees		41,32,000.00	44,04,000.00
11. Duplicate ID Card Charges		12,500.00	2,000.00
12. IRG Electricity and Water		76,90,629.00	23,80,000.00
13. Admission Cancellation Fees		62,000.00	-
14. Late Fees Charges		1,84,000.00	1,18,000.00
15. Misc. Academic Income		32,828.00	33,294.00
16. PHD Application Fees		90,000.00	76,500.00
17. PHD Registration Fees		1,60,000.00	2,60,000.00
<b>TOTAL</b>		<b>6,71,56,132.00</b>	<b>Rs. 7,24,85,919.00</b>



*(Signature)*  
REGISTRAR  
(COL. SUKHPAL SINGH)

*(Signature)*

DIRECTOR  
(PROF. SHYAM LAL SONI)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020

**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND**  
**SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2020**

**SCHEDULE 10- GRANTS / SUBSIDIES (IRREVOCABLE GRANTS RECEIVED)**

(Figures in Rupees)

Particulars	Plan		Current Year	Previous Year
	Govt. of India			
Balance B/F			44,96,94,495.00	21,95,02,865.00
Add: Receipts during the Year	-		25,33,00,000.00	47,44,00,000.00
Add: Interest Earned	-		1,48,86,000.00	1,87,28,000.00
<b>Total</b>	-		<b>71,78,80,495.00</b>	<b>71,26,30,865.00</b>
Less: Refund to MHRD (Interest)	-		1,87,28,000.00	-
<b>Total Grants available</b>	-		<b>69,91,52,495.00</b>	<b>71,26,30,865.00</b>
Less: Utilised for Capital expenditure (A)	-		1,45,47,977.00	1,65,23,229.00
Less: Transferred to MNIT Jaipur	-		-	2,00,00,000.00
<b>Balance</b>	-		<b>68,46,04,518.00</b>	<b>67,61,07,636.00</b>
Less: Utilized for Revenue Expenditure (B)	-		29,61,87,111.00	22,64,13,141.00
<b>Balance C/F (C)</b>	-		<b>38,84,17,407.00</b>	<b>44,96,94,495.00</b>

A- Appears as addition to capital fund as well as additions to Fixed Assets during the year.

B- Appears as income in the income & Expenditure Account.

C-(I) Appears under Current Liabilities in the Balance Sheet and will become the opening balance next year.

(II) Represented by Bank balance, Investments and Advances on the assets side.

  
**REGISTRAR**  
**(COL. SUKHPAL SINGH)**



  
**DIRECTOR**  
**(PROF. SHYAM LAL SONI)**

**PLACE: SRINAGAR GARHWAL**  
**DATED: AUG 29, 2020**

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2020

SCHEDULE II- INCOME FROM INVESTMENTS

Particulars	(Figures in Rupees)			
	Earmarked/Endowment Funds		Other Investments	
	Current Year	Previous Year	Current Year	Previous Year
1. Interest				
a. On Government Securities				
b. Other Bonds/Debentures				
2. Interest on Term Deposits	4,55,90,326.00	3,53,99,837.00		
3. Income accrued but not due on term deposits/ Interest bearing advances to employees				
4. Interest on Savings Bank Accounts				
5. Others (Specify)				
Total	4,55,90,326.00	3,53,99,837.00	-	-
Transferred to Earmarked/Endowment Funds				
Balance	4,55,90,326.00	3,53,99,837.00		



  
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PLACE: SRINAGAR GARHWAL  
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NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULE FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR 31ST MARCH, 2020

**SCHEDULE 12: INTEREST EARNED**

Particulars	Current Year	Previous Year
1. On Savings Accounts with Scheduled banks	66,33,204.00	37,81,608.00
2. On Loans	-	-
a. Employees/ Staff	-	-
b. Others	-	21,21,654.00
3. On Debtors and Other Receivables	-	-
<b>Total</b>	<b>66,33,204.00</b>	<b>59,03,262.00</b>

**Note:**

1. The amount against item 1, in respect of Bank Accounts of Earmarked/Endowment Funds is dealt with in Schedule 11 (First Part) and Schedule 2.
2. Items 2(a) is applicable only if revolving funds have not been constituted for such advances.

  
REGISTRAR  
GEOL. SUKHPAL SINGH)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020



  
DIRECTOR  
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NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2020

**SCHEDULE 13 - OTHER INCOME**

(Figures in Rupees)		
	Current Year	Previous Year
1. Recruitment Fees	2,90,500.00	-
2. RTI Fees	495.00	3,398.00
3. Tender Fees	24,000.00	39,000.00
4. Sale of application form (recruitment)	-	13,000.00
5. Misc. receipts	35,000.00	2,456.00
6. Profit on Sale/ disposal of Assets		
a) Owned assets	-	-
b) Assets received free of cost	-	-
7. Grants/ Donations from Institutions, Welfare Bodies and International Organizations	-	-
8. License fee	-	1,005.00
9. Others - Forfeiture of Security Deposits	14,56,157.00	-
10. Vendor Registration Fees	-	-
11. Lab Facility Charges	-	8,474.00
12. Notice Pay Received	-	85,206.00
13. Sponsorship AIINIT Sports	1,23,000.00	-
14. Excess & Short	-	1.00
15. CGHS Chrges	-	60,450.00
<b>Total</b>	<b>19,29,152.00</b>	<b>2,12,990.00</b>



  
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PLACE: SRINAGAR GARHWAL  
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NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2020

**SCHEDULE 14 - PRIOR PERIOD INCOME**

Particulars	(Figures in Rupees)	
	Current Year	Previous Year
1. Academic Receipts	-	-
2. Income from Investments	-	-
3. Interest earned	-	-
4. Other Income	35,000.00	-
<b>Total</b>	<b>35,000.00</b>	<b>-</b>

  
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NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2020

SCHEDULE 15 - STAFF PAYMENTS & BENEFITS ( ESTABLISHMENT EXPENSES)

	(Figures in Rupees)					
	Current Year		Previous Year		Total	
	Plan	Non Plan	Plan	Non Plan		
a) Salaries and Wages	14,00,35,921.00	-	14,00,35,921.00	-	10,62,33,254.00	10,62,33,254.00
Teaching Staff	10,48,00,507.00	-	10,48,00,507.00	-	7,97,97,025.00	7,97,97,025.00
Non-Teaching Staff	3,44,97,437.00	-	3,44,97,437.00	-	2,62,95,277.00	2,62,95,277.00
Earned Leave Encashment	7,37,977.00	-	7,37,977.00	-	1,40,952.00	1,40,952.00
b) Allowances and Bonus	24,72,564.00	-	24,72,564.00	-	3,85,624.00	3,85,624.00
Hill Allowances	-	-	-	-	-	-
Teaching Staff	-	-	-	-	-	-
Non-Teaching Staff	-	-	-	-	-	-
DA Arrears	21,43,320.00	-	21,43,320.00	-	3,85,624.00	3,85,624.00
Bonus	-	-	-	-	-	-
Cumulative Professional Development Allowance	3,29,244.00	-	3,29,244.00	-	-	-
c) Contribution to Provident Fund	-	-	-	-	-	-
d) Contribution to Other Fund	-	-	-	-	-	-
e) Leave Salary & Pension Contribution	8,37,744.00	-	8,37,744.00	-	8,44,656.00	8,44,656.00
f) Staff welfare Expenses	-	-	-	-	-	-
g) Retirement and Terminal Benefits (Employer Contribution towards NPS)	1,40,38,970.00	-	1,40,38,970.00	-	80,49,307.00	80,49,307.00
h) LTC facility	9,52,803.00	-	9,52,803.00	-	-	-
i) Medical facility	38,32,140.00	-	38,32,140.00	-	6,36,722.00	6,36,722.00
Medical And Dispensary	3,80,036.00	-	3,80,036.00	-	6,36,722.00	6,36,722.00
Medical Reimbursement/Healthcare	34,52,104.00	-	34,52,104.00	-	-	-
j) Children Education Allowance	10,21,063.00	-	10,21,063.00	-	-	-
k) Honorarium	27,500.00	-	27,500.00	-	50,000.00	50,000.00
l) Consultancy/Professional Charges	7,54,925.00	-	7,54,925.00	-	1,59,015.00	1,59,015.00
m) Others (specify)	-	-	-	-	38,98,449.00	38,98,449.00
Total	16,39,73,630.00	-	16,39,73,630.00	-	12,02,57,027.00	12,02,57,027.00



*[Handwritten Signature]*

DIRECTOR  
(PROF. SHYAM LAL SONI)

*[Handwritten Signature]*  
REGISTRAR  
(COL. SUKHPAL SINGH)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2020

SCHEDULE 16- ACADEMIC EXPENSES

	Current Year			Previous Year		
	Plan	Non Plan	Total	Plan	Non Plan	Total
a) Laboratory Expenses	17,14,043.00	-	17,14,043.00	12,53,878.00	-	12,53,878.00
b) Field work/Participation in Conferences	7,45,988.00	-	7,45,988.00	10,97,668.00	-	10,97,668.00
c) Expenses on Seminars/Workshops	3,87,016.00	-	3,87,016.00	3,41,933.00	-	3,41,933.00
d) Payment to Visiting faculty	-	-	-	-	-	-
e) Examination	2,91,930.00	-	2,91,930.00	6,18,470.00	-	6,18,470.00
f) Student Welfare expenses	-	-	-	-	-	-
g) Admission Expenses	27,321.00	-	27,321.00	1,07,481.00	-	1,07,481.00
h) Convocation Expenses	-	-	-	-	-	-
i) PHD Scholars	1,03,15,959.00	-	1,03,15,959.00	40,68,143.00	-	40,68,143.00
j) Stipend/means-cum-merit Scholarship	1,01,26,221.00	-	1,01,26,221.00	1,29,34,239.00	-	1,29,34,239.00
k) Subscription Expenses	-	-	-	-	-	-
l) Other- Prefect Concession	20,60,536.00	-	20,60,536.00	29,52,572.00	-	29,52,572.00
i) Sports Consumables/ Tours	11,89,354.00	-	11,89,354.00	4,98,805.00	-	4,98,805.00
ii) Curriculum Development	5,64,092.00	-	5,64,092.00	33,810.00	-	33,810.00
iii) Survey & Project Camp	-	-	-	21,477.00	-	21,477.00
iv) Training & Placement Exp.	2,29,590.00	-	2,29,590.00	4,52,925.00	-	4,52,925.00
v) Training Teachers PHD Tuition Fees	77,500.00	-	77,500.00	60,000.00	-	60,000.00
vi) Student Related Expenses	-	-	-	18,85,555.00	-	18,85,555.00
<b>Total</b>	<b>2,56,69,014.00</b>	<b>-</b>	<b>2,56,69,014.00</b>	<b>2,33,74,384.00</b>	<b>-</b>	<b>2,33,74,384.00</b>

  
DIRECTOR  
(PROF. SHYAM LAL SONI)



  
REGISTRAR  
(COL. SUKHPAL SINGH)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2020  
 SCHEDULE 17- ADMINISTRATIVE AND GENERAL EXPENSES

	Current year		Total	Previous year		Total
	Plan	Non Plan		Plan	Non Plan	
<b>A. Infrastructure</b>						
a) Electricity and power	78,84,644.00		78,84,644.00	55,52,911.00		55,52,911.00
b) Water charges	2,73,137.00		2,73,137.00	3,15,028.00		3,15,028.00
c) Insurance						
d) Rates and Taxes (including property tax)	6,500.00		6,500.00	3,500.00		3,500.00
e) Building Rent	1,71,16,200.00		1,71,16,200.00	64,02,504.00		64,02,504.00
f) Generator Running expenses	3,80,797.00		3,80,797.00	5,34,846.00		5,34,846.00
<b>B. Communication</b>						
g) Postage and Stationery	2,57,750.00		2,57,750.00	3,89,010.00		3,89,010.00
h) Telephone, Fax and Internet Charges	30,98,317.00		30,98,317.00	29,00,632.00		29,00,632.00
<b>C. Others</b>						
i) Printing and Stationery (consumption)						
j) Computer Consumables	5,69,281.00		5,69,281.00	2,87,060.00		2,87,060.00
k) Printing and Stationery	7,90,743.00		7,90,743.00	10,88,737.00		10,88,737.00
l) Travelling and conveyance Expenses	34,07,038.00		34,07,038.00	39,32,568.00		39,32,568.00
m) Hospitality	78,291.00		78,291.00	30,363.00		30,363.00
n) Auditors Remuneration	5,00,000.00		5,00,000.00	5,00,000.00		5,00,000.00
o) Professional Charges						
p) Advertisement and Publicity	12,63,753.00		12,63,753.00	11,03,848.00		11,03,848.00
q) Magazines & Journals	22,058.00		22,058.00	23,873.00		23,873.00
r) Others Utilities (staff Welfare)						
s) Security Services	2,02,32,831.00		2,02,32,831.00	1,62,60,796.00		1,62,60,796.00
t) Upskeep & Sanitation	2,44,29,693.00		2,44,29,693.00	2,64,55,358.00		2,64,55,358.00
u) Others						
v) NIT Transit House	3,50,000.00		3,50,000.00	2,50,000.00		2,50,000.00
w) Bank Charges	8,292.00		8,292.00	14,276.00		14,276.00
x) Other Consumables	1,26,380.00		1,26,380.00	1,32,121.00		1,32,121.00
y) Misc. Expenses	7,67,359.00		7,67,359.00	4,51,906.00		4,51,906.00
z) Board & Committee Meeting	13,97,794.00		13,97,794.00	10,92,440.00		10,92,440.00
aa) CRA Service Charges	22,502.00		22,502.00	22,832.00		22,832.00
ab) Legal Expenses/ Audit fees	1,17,844.00		1,17,844.00	2,77,934.00		2,77,934.00
ac) National Events & Celebration	3,49,750.00		3,49,750.00	2,61,285.00		2,61,285.00
ad) Staff Welfare	2,64,046.00		2,64,046.00			
ae) Spac Mccay Expenses	22,901.00		22,901.00			
af) Office Consumables						
ag) Audit Expenses	2,21,270.00		2,21,270.00	48,585.00		48,585.00
ah) Other Expenses	58,702.00		58,702.00	26,901.00		26,901.00
ai) Staff Recruitment	12,73,578.00		12,73,578.00	22,24,991.00		22,24,991.00
<b>Total</b>	<b>8,42,91,451.00</b>		<b>8,42,91,451.00</b>	<b>7,35,84,305.00</b>		<b>7,35,84,305.00</b>

*(Signature)*  
 DIRECTOR  
 (PROF. SHYAM LAL SONI)



*(Signature)*  
 REGISTRAR  
 (COL. SUKHPAL SINGH)

PLACE: SRINAGAR GARHWAL  
 DATED: AUG 29, 2020

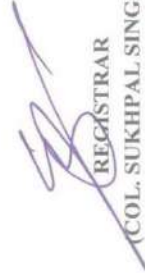


NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2020

SCHEDULE 18 - TRANSPORTATION EXPENSES

(Figures in Rupees)

Particulars	Current Year		Total	Previous year		Total
	Plan	Non Plan		Plan	Non Plan	
<b>1. Vehicles (owned by institution)</b>						
OWN Vehicle Expenses			-			
a) Running Expenses	5,54,016.00		5,54,016.00	5,62,613.00		5,62,613.00
b) Repairs & Maintenance	2,73,572.00		2,73,572.00	3,35,206.00		3,35,206.00
c) Insurance Expenses	2,42,391.00		2,42,391.00	1,86,649.00		1,86,649.00
	38,053.00		38,053.00	40,758.00		40,758.00
<b>2. Vehicles taken on rent/lease</b>						
a) Rent/lease Expenses			-			
			-			
3. Vehicle (Taxi) Hiring Expenses	14,11,038.00		14,11,038.00	55,49,454.00		55,49,454.00
<b>Total</b>	<b>19,65,054.00</b>		<b>19,65,054.00</b>	<b>61,12,067.00</b>		<b>61,12,067.00</b>

  
REGISTRAR  
(COL. SUKHPAL SINGH)





DIRECTOR  
(PROF. SHYAM LAL SONI)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULE FORMING PART OF INCOME EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2020

SCHEDULE 19 - REPAIRS & MAINTENANCE

(Figures in Rupees)

Particulars	Current Year		Previous Year		Total
	Plan	Non Plan	Plan	Non Plan	
<b>a) Buildings</b>	<b>2,76,618.00</b>		<b>13,01,237.00</b>		<b>13,01,237.00</b>
i) Civil Maintenance	28,665.00		6,15,658.00		6,15,658.00
ii) Electrical Maintenance	1,38,604.00		6,34,608.00		6,34,608.00
iii) Hostel Maintenance	1,09,349.00		50,971.00		50,971.00
iv) Other Maintenance (Sewage & Water pump)	-		-		-
<b>b) Furniture &amp; Fixtures</b>	<b>2,48,976.00</b>		<b>1,07,854.00</b>		<b>1,07,854.00</b>
<b>c) Plant &amp; Machinery</b>	<b>62,605.00</b>		<b>1,01,503.00</b>		<b>1,01,503.00</b>
i) Diesel, Petrol & oil	-		-		-
ii) Repair of Equipments	62,605.00		1,01,503.00		1,01,503.00
<b>d) Office Equipment</b>	<b>52,138.00</b>		<b>9,157.00</b>		<b>9,157.00</b>
Minor Equipment Repairs and maint.	52,138.00		9,157.00		9,157.00
<b>e) Computers</b>	<b>39,874.00</b>		<b>3,820.00</b>		<b>3,820.00</b>
f) Laboratory & Scientific equipment	28,41,144.00		14,67,516.00		14,67,516.00
g) Audio Visual equipment	-		-		-
h) Cleaning Material & Services	-		-		-
i) Hostel Equipments	2,230.00		73,673.00		73,673.00
j) Gardening	-		-		-
k) Estate Maintenance	-		-		-
l) Other (Specify)	-		-		-
m) Website	16,599.00		20,598.00		20,598.00
<b>Total</b>	<b>35,40,184.00</b>		<b>30,85,358.00</b>		<b>30,85,358.00</b>

  
DIRECTOR  
(PROF. SHYAM LAL SONI)



  
REGISTRAR  
(COL. SUKHPAL SINGH)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2020

SCHEDULE 20 - FINANCE COSTS

Particulars	(Figures in Rupees)					
	Current Year			Previous Year		
	Plan	Non Plan	Total	Plan	Non Plan	Total
a) Bank charges						
b) Other (Specify)						
Total	NIL	NIL	-	NIL	NIL	-

**Note:-**

If the amount is not material, the head Bank charges could be omitted and these could be accounted as Administrative expenses

  
REGISTRAR  
(COL. SUKHPAL SINGH)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020





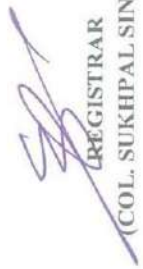
DIRECTOR  
(PROF. SHYAM LAL SONI)

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2020

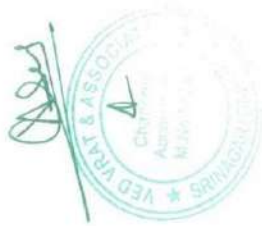
SCHEDULE 21- OTHER EXPENSES

(Figures in Rupees)

Particulars	Current Year			Previous Year		
	Plan	Non Plan	Total	Plan	Non Plan	Total
a) Provision for Bad and Doubtful debts/ Advances						
b) Irrecoverable Balances Written-off						
c) Grants/Subsidies to other institutions/ organizations						
d) Other( specify)						
<b>Total</b>	NIL	NIL	-	NIL	NIL	-

  
 (COL. SUKHPAL SINGH)

PLACE: SRINAGAR GARHWAL  
 DATED: AUG 29, 2020



  
 DIRECTOR  
 (PROF. SHYAM LAL SONI)

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2020

SCHEDULE 22: PRIOR PERIOD EXPENSES

Particulars	Current Year				Previous Year		(Figures in Rupees)
	Plan	Non Plan	Total	Plan	Non Plan	Total	
	1 Establishment Expenses	1,14,93,069.00	-	1,14,93,069.00	-	-	
2 Academic Expenses	-	-	-	-	-	-	
3 Administrative Expenses	49,66,036.00	-	49,66,036.00	-	-	-	
4 Transportation Expenses	2,88,672.00	-	2,88,672.00	-	-	-	
5 Repairs & Maintenance	-	-	-	-	-	-	
6 Other Expenses	-	-	-	-	-	-	
<b>Total</b>	<b>1,67,47,777.00</b>	<b>-</b>	<b>1,67,47,777.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	

  
REGISTRAR  
(COL. SUKHPAL SINGH)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020



  
DIRECTOR  
(PROF. SHYAM LAL SONI)



**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND**  
**RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED ON 31ST MARCH, 2020**

RECEIPTS	Current Year	Previous Year	PAYMENTS	Current Year	Previous Year
<b>I. Opening Balances</b>			<b>I. Expenses</b>		
a) Cash Balances	14,91,29,711.00	6,07,64,195.00	a) Establishment Expenses	13,21,76,091.00	11,22,06,198.00
b) Bank Balances	-	10,000.00	b) Academic Expenses	10,87,42,757.00	9,64,65,289.00
SBI CA NO. 31716090651	-	10,000.00	c) Administrative Expenses	22,70,241.00	22,53,894.00
SBI CA NO. 31091775379	20,000.00	5,58,62,317.00	d) Transportation Expenses	44,58,654.00	42,89,590.00
SBI CA NO. 32157078743	-	10,000.00	e) Repairs & Maintenance	14,11,038.00	61,12,067.00
SBI CA NO. 31782217566	-	31,000.00	f) & K Relief (deductions From Salaries)	38,20,628.00	30,85,338.00
SBI CA NO. 33874462398	-	10,000.00	g) Prior period Expenses	1,14,72,773.00	-
SBI CA NO. 3351969550 (R&D)	-	10,000.00			
SBI SA NO. 37530566069	8,70,72,774.00	11,37,514.00			
SBI SA NO. 37530602667	5,47,26,444.00	14,21,386.00			
SBI SA NO. 37530603682	6,29,920.00	5,44,161.00			
SBI SA NO. 37530603172 (R&D)	41,27,412.00	16,957.00			
SBI SB NO. 37530603172 (R&D)	5,53,161.00	16,90,860.00			
ICICI SA NO. 676801701094	10,00,000.00	-			
ICICI SA NO. 676801701095	10,00,000.00	-			
<b>II. Grants Received</b>			<b>II. Payment against</b>		
a) From Government of India			Plan Grant (Refund of intt on GIA)	1,87,28,000.00	-
Plan Grant	25,33,00,000.00	47,44,00,000.00	Hostel welfare fund		
Other Funds (Earmarked funds)			Other Fund (Designated/Earmarked)	57,95,532.00	6,02,052.00
Corpus fund			Capital fund		
b) From State Government					
c) From other sources (details separately if available)					
(Grants for capital & revenue exp/ to be shown separately if available)					
<b>III. Academic Receipts (from students)</b>			<b>III. Payments against Sponsored</b>		
	9,62,50,687.00	10,54,33,061.00	Projects/ R&D	31,96,670.00	31,48,200.00
<b>IV. Receipts against Earmarked/ Endowment Funds</b>			<b>IV. Payment against Sponsored</b>		
	39,74,160.00	14,01,624.00	Fellowships/Scholarships	1,75,55,819.00	1,37,78,248.00
<b>V. Receipts against Sponsored Projects/ R&amp;D</b>			<b>V. Investment and Deposits made</b>		
	50,64,486.00	61,10,957.00	a) Out of Earmarked / Endowments	85,41,34,574.00	83,29,48,481.00
			b) Out of own fund (Investment- Others)		
<b>VI. Receipts against sponsored Fellowships</b>			<b>VI. Term Deposits with Scheduled</b>		
	6,50,32,666.00	19,47,702.00	and		
<b>VII. Income on Investments from</b>			<b>VII. Expenditure on Fixed Assets and</b>		
		2,39,65,007.00			

*(Signature)*  
 DIRECTOR  
 (PROF. SHYAM LAL SONI)



*(Signature)*  
 DEPUTY STRAR  
 (COL. SRIKUPAL SINGH)  
 PLACE: SRINAGAR GARHWAL.  
 DATED: AUG 29, 2020

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED ON 31ST MARCH, 2020

			Capital Works-in-Progress	90,891.00	1,65,46,209.00
			& Fixed Assets		
			UP Rajkiya Nirman Nigam (WIP)		
			VIII. Other Payments Including	40,000.00	51,59,375.00
			EMD	29,53,325.00	4,00,000.00
			Security Deposit	4,12,36,897.00	3,49,14,922.00
			Statutory Liabilities	10,13,81,208.00	9,10,41,604.00
			Other Liabilities		
			Fees	3,90,983.00	1,60,770.00
			Central Seat allocation board		
			IX. Refunds of Grants	72,70,708.00	1,39,48,893.00
			Deposited from students		
			Deposited from Staff		
			Electricity Security Deposited	29,09,217.00	31,94,431.00
			X. Deposits and Advances		
			Recoverable Advance	81,22,672.00	54,86,271.00
			Lease line (PrePaid Exp.)		
			Others	3,31,75,001.00	
			XI. Closing balances		
			a) Cash in hand		
			b) Bank Balances	26,99,80,871.00	14,91,29,711.00
			SBI CA NO. 31091775379	1,79,93,825.00	20,000.00
			SBI TEQIP-III 37843015175	3,27,548.00	
			SBI SAE CLUB 37933821967		
			SBI SA NO 37530566069	7,42,52,173.00	8,70,72,774.00
			SBI SA NO 37530603172 (R&D)	57,98,930.00	5,47,26,444.00
			SBI SA NO 37530603682	6,70,533.00	6,29,920.00
			SBI SB NO 37357884648 (SMDP)	56,91,874.00	41,27,412.00
			ALLAHABAD 50511577145	8,56,515.00	5,53,161.00
			ICICI SA NO. 676801701094	12,19,36,795.00	10,00,000.00
			ICICI SA NO. 676801701095	4,24,52,678.00	10,00,000.00
			TOTAL	1,49,91,38,459.00	1,28,26,65,365.00



REGISTRAR  
(COL. SUKHPAL SINGH)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020

DIRECTOR  
(PROF. SHYAM LAL SONI)

## SCHEDULES FORMING PART OF THE ACCOUNTS

### SCHEDULE: 23

#### SIGNIFICANT ACCOUNTING POLICIES

##### 1. BASIS FOR PREPARATION OF ACCOUNTS

The accounts are prepared under the Historical Cost Convention unless otherwise stated and generally on the Accrual method of accounting.

##### 2. REVENUE RECOGNITION

2.1 Fees from Students (except Tuition Fees), Sale of Admission Forms, Royalty and Interest on Savings Bank account are accounted on cash basis. Tuition Fees collected separately for each semester is accounted on accrual basis.

2.2 Income from Interest on Investments is accounted on accrual basis.

##### 3. FIXED ASSETS AND DEPRECIATION

3.1 Fixed assets are stated at cost of acquisition including inward freight, duties and taxes and incidental and direct expenses related to acquisition, installation and commissioning.

3.2 The institute adopted Straight Line Method for writing off Depreciation as required in the revised format. The revised rate of Depreciation now prescribed is adopted as per MHRD letter no 29-4/2012-IFD dated 17th April 2015. The rates are as follows:



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**Tangible Assets:**

1. Land	0%
2. Site Development	0%
3. Buildings	2%
4. Roads & Bridges	2%
5. Tube wells & Water Supply	2%
6. Sewerage & Drainage	2%
7. Electrical Installation and equipment	5%
8. Plant & Machinery	5%
9. Scientific & Laboratory Equipment	8%
10. Office Equipment	7.5%
11. Audio Visual Equipment	7.5%
12. Computers & Peripherals	20%
13. Furniture, Fixtures & Fittings	7.5%
14. Vehicles	10%
15. Lib. Books & Scientific Journals	10%

**Intangible Assets (amortization):**

1. E-Journals	40%
2. Computer Software	40%
3. Patents and Copyrights	9 years



- 3.3 Depreciation is provided for the whole year on additions during the year.
- 3.4 Where an asset is fully depreciated, it will be carried at a residual value of Rs.1 in the Balance Sheet and will not be further depreciated. Thereafter, depreciation is calculated on the additions of each year separately at the rate of depreciation applicable for the asset head.
- 3.5 Assets created out of Earmarked Funds and funds of Sponsored Projects, where the existence of such assets vests in the Institution, are setup by credit to respective Project Fund. Assets created out of Sponsored Project funds, where the ownership is retained by the sponsors but held and used by the institution are separately disclosed in the Notes on Accounts.
- 3.6 Assets, the individual value of each of which is Rs.2000/- or less (except Library Books) are treated as Small Value Assets, 100% depreciation is provided in respect of such assets at the time of their acquisition. However physical accounting and control continued by the holders of such assets.

#### 4. INTANGIBLE ASSETS

- 4.1 E-Books/Journals and Computers Software are grouped under Intangible Assets.
- 4.2 Electronic Books/Journals (E-Books/Journals) are separated from library Books in view of the limited benefit that could be derived from the on line access provided. E-journals are not in a tangible form, but temporarily capitalized and in view of the magnitude of expenditure and the benefit derived terms of perpetual knowledge acquired by the Academic and Research Staff; Depreciation is provided in respect of E- journals at a higher rate of 40% as against depreciation of 10% provided in respect of Library Books.





4.3 Expenditure on acquisition of software has been separated from computers and peripherals, as apart from being intangible assets, the rate of obsolescence in respect of these is very high. Depreciation is provided in respect of software at a higher rate of 40% as against depreciation of 20% provided in respect of Computers & Peripherals.

#### **5. RETIREMENT BENEFITS**

5.1 Employee benefits under defined contribution plans comprising new pension scheme (NPS) are recognized and charged to revenue on the basis of actual liabilities.

5.2 Provision for liability towards accumulated leave salary & pension contribution of employees as on 31st March 2020 has been done on accrual basis.

#### **6. INVESTMENTS**

Institute has invested the temporary surplus funds as per the directives and guidelines of Govt. of India, MHRD on the subject. Investments are stated at cost. However, any interest accrued in their value as on the date of the Balance Sheet is provided for.

#### **7. DESIGNATED/EARMARKED/ENDOWMENT FUNDS**

7.1 Student Activity Fund is created from designated fees received from the Students for the exclusive purpose of student specific activities.

7.2 The Fees received from Students as "Alumni Fees" are also accounted as "Alumni Fund" and shown under Earmarked Fund.



7.3 Funds received from the scheme of Direct Admission of Students Abroad- DASA (SAARC/NON-SAARC countries) from MHRD are classified as Earmarked Fund in view the conditions attached for expenditure therefrom.

7.4 Funds received from Central Seat Allocation Board/Centralized Counselling for M.TECH./M.ARCH./M.PLAN. admissions used for the admission counseling of students for allocation of seats for Bachelor/PG courses.

7.5 TEQIP-III fund comprises Sustainability Fund @8% of the revenue of the Institute for ongoing maintenance and development of the Institute once the project period of TEQIP-III ended, fee collected for organizing various workshops under TEQIP-III and IEEE fund related to IEEE Student Chapter, NIT Uttarakhand which is utilized to promote student technical activities in the field of engineering and to organize distinguished lectures/Mini-colloquial.

7.6 MGNREGA Funds received from Department of Rural Development, Uttarakhand Govt. which is utilized for Time and Motion Study under MGNREGA.

7.7 R&D Project is shown under Earmarked Fund under **Schedule 2A** on the Sources of Funds of the Balance Sheet and **Schedule 4A & 7A** on the Application of Funds of the Balance Sheet.

## 8. CORPUS FUND

This fund is in the nature of Endowment Fund created out of IRG and other designated and set aside funds. During the current year amount of Rs.7.84 Crore is set aside from surplus and transferred to Corpus Fund. No part of Grant-in-aid is included in the Surplus.



### 9. PLAN GRANTS

Grant-in-aid is sanctioned as grant for acquisition of capital assets, general activity and for salary. It is further divided into grant for SC & ST per Page 45 Therefore the Grant is accounted for the classification in which the same is sanctioned. The expenditure from these Grants is appropriated in proportion to the ratio of number of SC and ST students to the aggregate number of students. Thus Salary and General Grant is appropriated and depicted as Income in the Income and Expenditure account and charged off from Grant Account. Similarly, expenditure on account of acquisition of assets is charged off in Grant Account in the same proportion (SC/ST students: Aggregate number of Students) and transferred to Capital Account. The remaining amount either Surplus or Deficiency is indicated as Current Liability in the Balance Sheet as per MHRD guidelines.

### 10. INCOME TAX

The income of the Institution is exempt from Income Tax under Section 10 (23C)(iiiab) of the Income Tax Act. No provision for Income Tax is therefore made in the accounts.

  
REGISTRAR  
(COL. SUKHPAL SINGH)

PLACE: SRINAGAR GARHWAL  
DATED: AUG 29, 2020



  
DIRECTOR  
(PROF. SHYAM LAL SONI)

SCHEDULE : 24CONTINGENT LIABILITIES AND NOTES TO ACCOUNTS1. CONTINGENT LIABILITIES

As on 31st March 2020 there is no Contingent Liabilities pending on account of Court Cases and other circumstances.

2. FIXED ASSETS

2.1 The Fixed Assets are procured from Scheme 3670 - Grant-in-aid for National Institute of Technologies and IEST. Significantly, Assets of the nature of Equipments/ Instruments procured from R&D Funds remain the property of the Grantor and until and unless the Grantor approves is not taken on charge of the Institute. Such Assets are retained in the Departments to be utilized for research activities.

2.2 As per C&AG SAR para 4 (iv) (a) of the FY 2018-19, an amount of Rs.1.16 Crore with respect to Salary for the month of March 2019 paid after deductions of Rs.1.27 Lakh in the current year had been shown under prior period expenses.



### 3. CURRENT DEPOSITS & LIABILITIES

The amount of Rs.15,07,548/- is shown as Current Deposits and Liabilities which is received against Security Deposits, Earnest Money and Performance guarantee accepted from Vendors. Unspent amount of Grant-in-aid is shown under Current Liabilities. This amount does not include IRG.

### 4. EXPENDITURE IN FOREIGN CURRENCY

During the year Institute has made transactions of US DOLLARS \$800/- which is recorded at INR Rs.60,056/-. Transactions denominated in foreign currencies are recorded at the exchange rate prevailing on the date of transaction/GOC Rates/Bank Rates as the case may be.

### 5. CURRENT ASSETS, ADVANCES AND DEPOSITS

These Current Assets, Advances and Deposits have a value on realization in the ordinary course equal at least to the aggregate amount shown in the Balance Sheet.

### 6. PAYMENTS MADE TO MNIT JAIPUR

A. During the year amount of Rs.6,27,86,736/- paid by NIT Uttarakhand to MNIT Jaipur for running of NIT Uttarakhand Satellite Campus.





B. During the year following expenses/provisions made for running the NIT Uttarakhand Satellite Campus at MNIT Jaipur:

For boarding and mess facility to students of NIT Uttarakhand	3,53,51,000/-
For Lodging Facility to faculty and Staff during shifting of students to MNIT Campus-Crash Course	4,51,200/-
For providing online facility for applications related to faculty/non-faculty recruitments	8,90,900/-
For running of academic activities	15,18,973/-
For running of administrative activities	1,56,93,397/-
For establishment expenses	73,935/-
For expenses on Repairs & Maintenance	28,41,145/-

#### 7. R&D AND PROJECT ACCOUNTS

Separate schedules for Earmarked funds and Current Assets, Fixed Assets have been made for R&D Projects and Consolidated with the Institute's Annual Financial Statement.



  
REGISTRAR  
(COL. SUKHPAL SINGH)

PLACE: SRINAGAR GARHWAL.  
DATED: AUG 29, 2020



DIRECTOR  
(PROF. SHYAM LAL SONI)

# National Institute of Technology, Uttarakhand

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