

# ANNUAL REPORT

## 2021-2022

Audit Report and  
Audited Statement of Accounts

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अमृत महोत्सव



**NATIONAL INSTITUTE OF TECHNOLOGY,  
UTTARAKHAND**

An Institute of National Importance  
under Ministry of Education, Government of India

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**PAPERS TO BE LAID DOWN ON THE TABLE OF  
LOK SABHA/RAJYA SABHA**

**ANNUAL REPORT & ANNUAL ACCOUNTS  
2021-22**



**(AUTHENTICATED)**

**MINISTER OF STATE IN THE MINISTRY OF EDUCATION,  
GOVERNMENT OF INDIA, NEW DELHI**

**DATED:**

**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND**



# **ANNUAL REPORT 2021-22**

**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND**

**ANNUAL REPORT 2021-22****TABLE OF CONTENTS**

<b>01.00</b>	<b>INTRODUCTION.....</b>	<b>1</b>
01.01	HISTORICAL BACKGROUND .....	1
01.02	LOCATION .....	1
01.03	CAMPUS .....	1
<b>02.00</b>	<b>OBJECTIVES.....</b>	<b>3</b>
02.01	VISION AND MISSION.....	3
<b>03.00</b>	<b>GOVERNANCE .....</b>	<b>4</b>
03.01	COUNCIL, ADMINISTRATIVE AND STATUTORY BODIES AND OTHER COMMITTEES.....	4
03.01.01	THE COUNCIL .....	4
03.01.02	BOARD OF GOVERNORS .....	5
03.01.03	FINANCE COMMITTEE.....	5
03.01.04	BUILDING AND WORKS COMMITTEE .....	6
03.01.05	THE SENATE .....	6
03.02	ORGANIZING STRUCTURE .....	7
03.02.01	DEANS.....	7
03.02.02	ASSOCIATE DEANS .....	7
03.02.03	HEAD OF DEPARTMENTS.....	8
<b>04.00</b>	<b>EDUCATION SYSTEM .....</b>	<b>9</b>
04.01	ACADEMIC AUTONOMY .....	9
04.02	SALIENT FEATURES OF ACADEMIC STRUCTURE .....	9
04.03	ACADEMIC PROGRAMMES.....	10
04.03.01	UNDERGRADUATE PROGRAMMES.....	10
04.03.02	POSTGRADUATE PROGRAMMES.....	10
04.03.03	Ph.D. PROGRAMMES .....	10
04.04	ADMISSION PROCEDURE.....	10
04.05	EXAMINATION AND EVALUATION.....	11
04.05.01	EVALUATION OF PERFORMANCE.....	12
04.06	ACADEMIC CALENDAR .....	13
04.07	STUDENTS STRENGTH.....	17
04.07.01	SANCTIONED INTAKE AND ACTUAL INTAKE .....	17
04.07.02	ENROLLMENT WITH GENDER AND CASTE BREAK-UP .....	18
04.07.03	STUDENT ON ROLLS B.TECH. (CLASS & BRANCH-WISE) DURING 2021-22 .....	19

04.08	SCHOLORSHIPS/MONETARY ASSISTANCE TO STUDENTS .....	26
04.08.01	STATEMENT SHOWING THE DETAILS OF VARIOUS SCHOLORSHIP AND STIPENDS AWARDED.....	26
04.09	FACULTY & STAFF POSITIONS.....	27
04.09.01	SANCTIONED POSITIONS & FILLED-IN POSITIONS.....	27
04.09.02	DISTRIBUTION OF FACULTY (DEPARTMENT AND DESIGNATION WISE) .....	27
04.09.03	DETAILS OF ACADEMIC STAFF.....	27
04.09.04	DETAILS OF NON-TEACHING STAFF .....	29
<b>05.00</b>	<b>DEPARTMENTS .....</b>	<b>32</b>
05.01	DEPARTMENT OF CIVIL ENGINEERING .....	32
05.02	COMPUTER SCIENCE AND ENGINEERING DEPARTMENT .....	40
05.03	ELECTRICAL ENGINEERING DEPARTMENT.....	48
05.04	DEPARTMENT OF ELECTRONICS ENGINEERING .....	63
05.05	DEPARTMENT OF MECHANICAL ENGINEERING.....	73
05.06	DEPARTMENT OF PHYSICS.....	87
05.07	DEPARTMENT OF MATHEMATICS.....	89
05.08	DEPARTMENT OF CHEMISTRY .....	94
05.09	DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES .....	98
<b>06.00</b>	<b>RESEARCH &amp; CONSULTANCY SECTION .....</b>	<b>101</b>
06.01	PUBLICATIONS IN NATIONAL/INTERNATIONAL JOURNALS.....	101
06.02	PUBLICATIONS IN NATIONAL/INTERNATIONAL CONFERENCES .....	106
06.03	PUBLICATION OF BOOK/BOOK CHAPTERS .....	108
06.04	DETAILS OF PATENTS (NATIONAL/INTERNATIONAL).....	110
06.05	FUNDED SPONSORED RESEARCH PROJECTS.....	111
06.06	DETAILS OF CONSULTANCY PROJECTS.....	113
06.07	DETAILS OF CONFERENCES/STC/FDPS ETC ORGANIZED: .....	115
06.08	DETAILS OF CONFERENCES/STC/FDPS ETC ATTENDED:.....	116
06.09	COLLABORATIVE ACTIVITIES:.....	117
06.010	MoU SIGNED .....	117
06.011	DESIGN INNOVATION CENTER .....	118
06.012	UNNAT BHARAT ABHIYAN.....	118
<b>07.00</b>	<b>TRAINING AND PLACEMENT (T&amp;P) CELL .....</b>	<b>121</b>
07.01	SOME EMINENT PLACEMENTS IN B.TECH. ....	122
07.02	PLACEMENT SUMMERY.....	123

<b>08.00</b>	<b>HOSTEL SECTION .....</b>	<b>124</b>
<b>09.00</b>	<b>DISPENSARY SECTION .....</b>	<b>127</b>
<b>010.00</b>	<b>LIBRARY SECTION.....</b>	<b>128</b>
<b>011.00</b>	<b>STUDENT WELFARE SECTION.....</b>	<b>132</b>
<b>012.00</b>	<b>STUDENT ACTIVITY &amp; SPORTS (SAS) SECTION .....</b>	<b>136</b>
<b>013.00</b>	<b>ALUMNI CELL .....</b>	<b>146</b>
013.01	ALUMNI INTERACTION WITH STUDENTS OF DEPARTMENT OF ELECTRONICS.....	146
013.02	THIRD ALUMNI MEET.....	146
<b>014.00</b>	<b>FACULTY WELFARE SECTION .....</b>	<b>148</b>
<b>015.00</b>	<b>CENTRAL COMPUTER CENTRE (CCC) .....</b>	<b>149</b>
<b>016.00</b>	<b>INTERNAL COMPLIANTS COMMITTEE (ICC) .....</b>	<b>150</b>
<b>017.00</b>	<b>VIGILANCE AWARENESS WEEK-2021 .....</b>	<b>152</b>
<b>018.00</b>	<b>PLANNING AND DEVELOPMENT (P&amp;D) SECTION .....</b>	<b>155</b>
<b>019.00</b>	<b>INSTITUTE RECOGNITION.....</b>	<b>157</b>
019.01	NATIONAL INSTITUTE RANKING FRAMEWORK (NIRF) .....	157
019.02	ATAL RANKING OF INSTITUTIONS ON INNOVATION ACHIEVEMENTS (ARIIA).....	158
<b>020.00</b>	<b>ANNUAL ACCOUNT 2021-22.....</b>	<b>159</b>



### **From The Director's Desk.....**

It is a matter of immense pleasure for me to present the Annual Report and the Audited statement of Accounts of the National Institute of Technology, Uttarakhand for the year 2021-22 with the noteworthy achievements of the Institute during the year. Also, the year 2021-22 holds special significance in the history of the Institute due to multifarious activities, initiatives and accomplishments in academics, teaching, research and extra-curricular activities conducted round the year. During 2021-22, the Institute achieved a remarkable figure of 595 undergraduates, 81 postgraduates, and 101 Ph.D. scholars. Currently, Institute has 72 faculty members along with 05 officers and 61 non-teaching staff members.

With all modesty, pride and pleasure, I would like to say that the Institute witnessed exponential growth during the 2021-22. The Institute is creating a holistic approach, targeting the thorough development including Teaching and Learning, Research, Innovation & Incubation, Startups, Soft Skills, Industrial Training, Practical Training and Placement Initiatives, as well as various Community Development Programmes. The Institute has been closely associated with the various job providers as well as the industrial partners. The Institute has also initiated the process of implementation of the National Education Policy (NEP-2020), where the students shall be benefitted by the provision of multiple entries and exits along with advantages of new flexible curriculum. The Institute is also the part of National Academic Bank of Credits. Slowly & steadily the Institute is putting efforts to come out of atrocities of the pandemic, COVID-19 and its effect on students, faculties and staff. Now, the classes are offline, laboratory, as well as other facilities, are accessible to the students at the campus in the off-line mode. We feel proud to state that, for the first time since its inception, the Institute has made its presence into the top 200 *National Institute Ranking Framework* (NIRF) ranking by holding 186<sup>th</sup> rank in the engineering category. Furthermore, it is praiseworthy to mention another national recognition, that the Institute has achieved. The Institute has been recognized in the band "PROMISING" under the category of "*Institute of National Importance & Central Universities/CFTs (Technical)*" in Atal Ranking of Institutions on Innovation Achievement (ARIIA) 2021 in the same rank of many old and prestigious institutes.

I am also delighted to share that Training & Placement Cell has made a remarkable achievements. Out of 128 total eligible B. Tech. students for the campus placement drive, 91 students (about 75%) were selected so far by good MNCs. Ms. Saumya Agarwal, (Department of Computer Science and Engineering) got selected with the highest package of Rs. 34 Lakh per annum. Mr. Vedant Mangain, (Department of Electronics and Communication Engineering) received an internship offer of Rs. 02.62 Lakhs per month. Another student, Mr. Deepanshu Taneja (Department of Computer Science and Engineering) received an internship offer of Rs. 01 Lakh per month. Among B. Tech. students, 05 students got above 20 LPA, 40 obtained the offer between 10-20 LPA, another 40 students

received between 5-10 LPA while 06 students got below 05 LPA. M.Tech. students have also performed very well, and 05 students have received the offer of 6.5-10 LPA. During the placement session of the year 2021-2022, more than one hundred leading companies visited our green and clean campus in on-line or off-line mode. Out of these, many are MNCs and more than twenty-five companies visited for the placements of M.Tech. also. To improve the soft-skills and to inculcate the professional development, the T&P Cell has organized various guest lectures and conducted workshops.

The Institute has received good number of sponsored research projects from different funding agencies. Dr. Neeraj Mishra, Assistant Professor, Department of Mechanical Engineering, has received the SERB funding of worth ₹ 23.42 lakhs, while Dr. Hariharan Muthusamy, Associate Professor from Department of Electronic and Communication Engineering was awarded a project of worth Rs 40.70 Lakh from the same funding agency. Dr. Pawan Kumar Rakesh (PI) & Dr. Sanat Agarwal (Co-PI), Department of Mechanical Engineering received a project of worth 27.7 Lakhs from Indian Institute of Medical Research (ICMR), New Delhi. Various other sponsored research projects supported by the different funding agencies are also ongoing in the Institute. Department of Civil Engineering has also taken up number of consultancy project of worth ₹ 4,11,584/- so far. I am extremely happy to share that the sponsored research projects of worth ₹ 2,50,82,285/- are running under various schemes whereas a number of projects have been submitted. The Institute is also performing well in terms of IPR and 16 patents have been filed/published by the faculty members of the various departments. It is my privilege to share that faculty members of the Institute have published 92 papers in SCI/SCOPUS indexed journals, 36 in National/International conferences proceedings along with 34 book/book chapters published by different international publishers. The Research and Consultancy section was also instrumental in getting 04 MoU's signed with the Universities/Organizations of the national and international eminence. They have also conducted more than 30 academic events including national/international conferences, FDPs, workshops, expert lecture, memorial lecture, Impact lectures along with other collaborative events for the promulgation of enriching the knowledge-based ecosystem of the Institute. Dr. Muskan Mayank and Dr. Abhinav Kumar (Department of Civil Engineering), Dr. Rohit Kumar (Department of Electrical Engineering) have obtained their PhD Degrees from IIT Roorkee.

The motto of National Institute of Technology Uttarakhand is “Sports for all and all for Sports”. To achieve this, Institute provides various sports facilities to students, faculties and staff. The students are always encouraged to take part in games & sports to keep themselves fit and inculcate a spirit of sportsmanship amongst them. During the session 2021-22, the Institute organized manysports activities throughout the year in the off-line as well as virtual mode keeping in view of the Covid-19 guidelines issued by the Government of India and the State Government of Uttarakhand. 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 them. To support with intense zeal and enthusiasm and to contribute for the initiatives of Government of India (GoI) and the Ministry of Education (MoE), our Institute has organized the Badminton, Table Tennis and Chess tournament for staffs and faculty members of the Institute from 27<sup>th</sup> July to 07<sup>th</sup> August 2021 under the Fit India movement of Azadi ka Amrit Mahotsav. The Student activities and Sports Section has organized the Intra NIT Cricket & Tug of War tournament for M.Tech, & Ph.D students, Staff as well as Faculty from 27<sup>th</sup> November to 12 December 2021. Moreover, the cycling activity (13<sup>th</sup> July to 29<sup>th</sup> August 2021) as well as slow cycling events (02<sup>nd</sup> Sept. 2021) Intra NIT Volleyball & Athletics tournament (15<sup>th</sup> January to 30<sup>th</sup> January 2022), virtual run, open and intra cricket tournament etc were conducted. On the occasion of the world environment day, the plantation drive was conducted, and 100 different types of plants were planted in the institute campus and alongside of playground.



National Institute of Technology, Uttarakhand organized 3<sup>rd</sup> Alumni Meet-2022 on March 26, 2022, in online mode. The event saw registration of more than 190 alumni of NITUK from not only India but also from different parts of the world including Australia, USA, Canada etc. Some of alumni from each pass out batch of B. Tech and M.Tech expressed their views about the Institute and suggested to have alumni meet twice a year. Mr. Ajay Singh 2012-2016, Department of Mechanical Engineering, currently working as IES (Indian Engineering Service) in India inspired juniors through his motivational speech. Mr. Shivansh Agrawal 2013-2017, Department of Civil Engineering elaborated how Institute thread connects the alumni even in business world with examples. Mr. Ramakrishna Kopanati (2016-2020), Mr. Jay Aditya Nautiyal (2017-2021) Department of Computer science engineering, Ms. Kirti Gupta (2017-2021) Department of Electrical engineering, Mr. Govind Bajpayee (2016-2020) and Mr. Abhishek Kumar (2016-2020), Department of Electronics and communication engineering and others expressed their views about the Institute and alumni meet.

For next year, the Institute has set quite ambitious goal of implementing NEP in true spirit, implementing flexible curriculum, to double the research and IPR outputs and many more so be in the top 100 institutions in NIRF. On this note, I acknowledge and thank the active support and encouragement the Institute has received from students, members of NITUK community, the Board of Governors, the Senate, Members of various committees and from state administration and the Ministry of Education from time to time. We, as an institution, aspire collectively to achieve higher growth in the coming years. I, along with members of the NITUK, hereby, assure that we will put all our efforts 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, Srinagar-Garhwal for the financial year 2020-21 before the authorities.

**Jai Hind, Jai Bharat**

**Prof. Lalit Kumar Awasthi**  
**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 Education (erstwhile 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 November 01, 2011. Dr. Satish Kumar served as the In-charge Director of the Institute from April 01, 2017, to Nov. 06, 2017. Professor Shyam Lal Soni assumed the charge of the Director of the Institute on November 07, 2017, until November 27, 2020. After the unfortunate demise of Professor Soni, Padamshree Dr. Satish Kumar was again the Director In-charge from November 28, 2020, to October 03, 2021 followed by Professor Akhilesh Swarup from October 03, 2021 to February 08, 2022. At present, Professor Lalit Kumar Awasthi is 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 595 undergraduates, 81 postgraduates and 101 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. programme in Civil Engineering in 2013. The Institute started Ph.D. programme from 2013-2014 and M.Tech. in all the 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 (Dist. 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 First year courses are being run while in Satellite campus UG 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> year are studying at present. But, since November 02, 2020, the Satellite campus has been merged with the Parent campus at Srinagar Garhwal.



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 71 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**

S. No.	Name	Designation
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 Institute of Technology	Member (ex-officio)
4.	The Director of all National Institute of Technology	Member (ex-officio)
5.	The Chairman, University Grant Commission	Member (ex-officio)
6.	The Director General, Council for Scientific & Industrial Research	Member (ex-officio)
7.	Secretary, Department of Biotechnology, 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>Dr. R. K. Tyagi</b>	Chairman
2.	<b>Dr. Satish Kumar (till 09.09.2021)</b> , I/c Director, NIT Uttarakhand / <b>Prof. Akhilesh Swarup (till 10.12.2021)</b> , I/c Director, NIT Uttarakhand / <b>Prof. Lalit Kumar Awasthi</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.	Nominated (Women) by the Council	Member
9.	<b>Dr. Hariharan Muthusamy</b> , Nominated by the Senate of NIT Uttarakhand	Member
10.	<b>Dr. Siva Kumar Tadeipalli (till 09.09.2021)</b> , Nominated by the Senate of NIT Uttarakhand / <b>Dr. Sarika Pal</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>Dr. Prabhakar Mani Kala</b> , Registrar, National Institute of Technology, Uttarakhand	Secretary

## 03.01.03 FINANCE COMMITTEE

S.No.	Name	Designation
1.	<b>Dr. R. K. Tyagi</b>	Chairman (Nominated by the Visitor)
2.	<b>Dr. Satish Kumar (till 09.09.2021)</b> , I/c Director, NIT Uttarakhand / <b>Prof. Akhilesh Swarup (till 10.12.2021)</b> , I/c Director, NIT Uttarakhand / <b>Prof. Lalit Kumar Awasthi</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.	Director, IIT Roorkee, Nominated by the Board	Member
6.	<b>Dr. Prabhakar Mani Kala</b> , Registrar, National Institute of Technology, Uttarakhand	Ex-Officio-Member Secretary

## 03.01.04 BUILDING AND WORKS COMMITTEE

S. No.	Name	Designation
1.	<b>Dr. Satish Kumar (till 14.06.2021)</b> , I/c Director, NIT Uttarakhand / <b>Prof. Lalit Kumar Awasthi</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 (till 14.06.2021)</b> , Department of Civil Engg., IIT Roorkee / <b>Dr. Rajib Chowdhury</b> , Associate Professor, IIT Roorkee, Nominated by the Board	Member
4.	Dean, Planning & Development, NIT Uttarakhand	Member
5.	<b>Mr. Ajay Sharma (till 14.06.2021)</b> , Superintending Engineer (Civil), IIT Roorkee / <b>Er. C. B. Singh</b> , Superintending Engineer (CPWD) Karnal & Chandigarh Division, Nominated by the Board	Member
6.	<b>Dr. Mukesh Kumar Pathak (till 14.06.2021)</b> , Vice Chairman (Electrical), IIT Roorkee / <b>Prof. N. P. Padhy</b> , Professor, IIT Roorkee, Nominated by the Board	Member
7.	<b>Dr. Prabhakar Mani Kala</b> , Registrar, NIT Uttarakhand	Ex-Officio Member Secretary

## 03.01.05 THE SENATE

S. No.	Name	Designation
1.	<b>Dr. Satish Kumar (till 22.09.2021)</b> , I/c Director, NIT Uttarakhand / <b>Prof. Lalit Kumar Awasthi</b> , Director, NIT Uttarakhand	Ex-Officio–Chairman
2.	<b>Prof. Gian Bhushan</b> , NIT Kurukshetra, Nominated by the Chairman Senate	Member
3.	<b>Prof. M. R. Maurya</b> , IIT Roorkee, Nominated by the Chairperson, Board	Member
4.	<b>Prof. Nupur Tandon (till 22.09.2021)</b> , MNIT Jaipur, nominated by the Chairperson, Board / <b>Prof. Vinita Mohindra</b> , MANIT Bhopal, Nominated by the Chairperson, Board	Member
5.	<b>Dr. Prabhakar Mani Kala</b> , Registrar, NIT Uttarakhand	Secretary

### 03.02 ORGANIZING STRUCTURE

#### 03.02.01 DEANS

S.No.	Designation	Name	Period
1	Dean (Planning & Development)	Dr. Vikas Pratap Sigh	01.04.2021 to 11.05.2021
		Dr. Gurinder Singh Brar	12.05.2021 to 31.03.2022
2	Dean (Academic Affaris)	Dr. Gurinder Singh Brar	01.04.2021 to 11.05.2021
		Dr. Lalita Prasad	12.05.2021 to 31.03.2022
3	Dean (Research & Consultancy)	Dr. Dharmendra Tripathi	01.04.2021 to 28.02.2022
		Dr. Hariharan Muthusamy	01.03.2022 to 31.03.2022
4	Dean (Faculty Welfare, Development & International Affairs)	Dr. Hariharan Muthusamy	01.04.2021 to 28.02.2022
		Dr. Dharmendra Tripathi	01.03.2022 to 31.03.2022
5	Dean (Student Welfare & Alumni Affairs)	Dr. Prakash Dwivedi	01.03.2021 to 15.12.2021
		Dr. Dharmendra Tripathi	01.03.2022 to 31.03.2022

#### 03.02.02 ASSOCIATE DEANS

S.No.	Designation	Name	Period
1	Associate Dean (Planning & Development-1)	Dr. Vikas Pratap Singh	01.04.2021 to 11.05.2021
		Dr. Aditya Kumar Anupam	12.05.2021 to 31.03.2022
2	Associate Dean (Planning & Development-2)	Dr. Pawan Kumar Rakesh	01.04.2021 to 11.05.2021
		Dr. Prakash Dwivedi	12.05.2021 to 31.03.2022
3	Associate Dean (Academic Affaris-UG)	Dr. Maheep Singh	01.03.2021 to 31.03.2022
4	Associate Dean (Academic Affaris-PG)	Dr. Jagrati Sahariya	01.03.2021 to 28.02.2022
		Dr. Saroj Ranjan De	01.03.2022 to 31.03.2022
5	Associate Dean (Research & Consultancy)	Dr. Rakesh Kumar Mishra	01.04.2021 to 28.02.2022
		Dr. Pawan Kumar Rakesh	01.03.2022 to 31.03.2022
6	Associate Dean (Faculty Welfare, Development & International Affairs)	Dr. Rampal Pandey	01.04.2021 to 28.02.2022
		Dr. Vinod Singh Yadav	01.03.2022 to 31.03.2022
7	Associate Dean (Student Welfare & Alumni Affairs)	Dr. Prakash Dwivedi	01.03.2021 to 14.12.2021
		Dr. Siva Kumar Tadepalli	15.12.2021 to 31.03.2022



**03.02.03 HEAD OF DEPARTMENTS**

S. No.	Department	Name	Tenure
1	Humanities & Social Sciences	Dr. Ajay Kumar Chaubey	01.03.2021 to 31.03.2022
2	Mathematics	Dr. Nitin Sharma	01.03.2021 to 28.02.2022
		Dr. Kuldeep Sharma	01.03.2022 to 31.03.2022
3	Chemistry	Dr. Pankaj Kandwal	01.04.2021 to 28.02.2022
		Dr. Rampal Pandey	01.03.2022 to 31.03.2022
4	Physics	Dr. Hardeep Kumar	01.04.2021 to 28.02.2022
		Dr. Manvendra Singh Khatri	01.03.2022 to 31.03.2022
5	Mechanical Engineering	Dr. Lalita Prasad	01.04.2021 to 14.12.2021
		Dr. Sanat Agrawal	15.12.2021 to 31.03.2022
6	Electrical Engineering	Dr. Mahiraj Singh Rawat	01.04.2021 to 28.02.2022
		Dr. Sourav Bose	01.03.2022 to 31.03.2022
7	Electronics Engineering	Dr. Tajinder Singh Arora	01.04.2021 to 31.01.2022
		Dr. Sarika Pal	01.02.2022 to 31.03.2022
8	Civil Engineering	Dr. Aditya Kumar Anupam	01.04.2021 to 14.12.2021
		Dr. Kranti Gyanchand Jain	15.12.2021 to 31.03.2022
9	Computer Science and Engineering	Dr. Krishan Kumar	01.03.2021 to 28.02.2022
		Dr. Kamal Kumar	01.03.2022 to 31.03.2022

## 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, Humanities and Social Sciences).

### 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 1<sup>st</sup> semester (Odd Semester) starts in the first week of August and ends in the middle of December, the 2<sup>nd</sup> 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

1. Civil Engineering
2. Computer Science & Engineering
3. Electronics & Communication Engineering
4. Electrical & Electronics Engineering
5. Mechanical Engineering

### 04.03.02 POSTGRADUATE PROGRAMMES

1. Civil Engineering with specialization in
  - a. Structural Engineering
  - b. Transportation Engineering
  - c. Geo-Tech Engineering
2. Computer Science and Engineering with specialization in
  - d. Artificial Intelligence
  - e. Computing Systems
3. Electronics Engineering with specialization in
  - f. Microelectronics and VLSI Design
  - g. Communication Systems
4. Electrical Engineering with specialization in
  - h. Power System and Control
  - i. Power Electronics and Drives
5. Mechanical Engineering with specialization in
  - j. Manufacturing Technology
  - k. Machine Design
  - l. Thermal Engineering

### 04.03.03 Ph.D. PROGRAMMES

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

1. Civil Engineering
2. Computer Science & Engineering
3. Electronics Engineering
4. Electrical Engineering
5. Mechanical Engineering
6. Chemistry
7. Mathematics
8. Physics
9. Humanities and Social Sciences.

## 04.04 ADMISSION PROCEDURE

**B. Tech.** The admission to B.Tech. degree programme at NIT Uttarakhand is done through

**Programme:** Joint Seat Allocation Authority (JoSAA) 2021/CSAB-2021. Admissions were given on the basis of All India Rank (AIR) prepared by JoSAA/ CSAB-2021 considering score in JEE (Main)-2021.

**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) 2021. Admissions were conducted on the basis of GATE-21 and GATE-20.

**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.

#### 04.05.01 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) =  $\Sigma$  (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.

$$\text{SGPA} = \text{EGP} / \Sigma(\text{Course credits})$$

for courses registered in a semester in which AA, FF & UU grades are awarded.

$$\text{CGPA} = \text{EGP} / \Sigma(\text{Course credits})$$

for courses registered in all completed semesters in which AA-DD grades are awarded.

The conversion formula from CGPA to percentage (%) is as: Percentage (%) =  $10 \times \text{CGPA}$



## 04.06 ACADEMIC CALENDAR

## Academic Calendar

 राष्ट्रीय प्रौद्योगिकी संस्थान,  
उत्तराखण्ड  
National Institute of Technology,  
Uttarakhand


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## Odd Semester – 2021

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Activity of Week
August 2021	2 Enrolment (Without Late Fee)	3 Classes Begin	4	5	6	7	8	Enrolment & Classes Begin
	9	10	11 Last date of Enrolment with late fee of ₹1000	12	13	14	15 Independence Day	Last date of Enrolment
	16	17	Last date of Add & Drop	18	19	20	21	Last date of Add & Drop
	23	24	25	26	27	28	29	
	30 Janmeshtami	31	1	2	3	4	5	
	6	7 Mid Term Exam – I Slot A & B & C	8 Mid Term Exam – I Slot D & E & F	9 Mid Term Exam – I Slot G & H & I	10 Ganesh Chaturthi	11	12	Mid Term Exam – I
	13	14	15 Last Date of Special MTE-I	16 Last Date of Display of MTE-I Marks	17 Last Date of Course Withdrawal, Conversion from Credit to Audit Course	18	19	Special MTE-I
September 2021	20	21	22	23	24	25	26	Course Withdrawal, Conversion from Credit to Audit
	27	28	29	30	1	2	3	Display of MTE-I Marks
	34	35	36	37	38	9	10	
	4	5	6	7	8	9	10	
	11	12 Mid Term Exam – II Slot A & B & C	13 Mid Term Exam – II Slot D & E & F	14 Mid Term Exam – II Slot G & H & I	15 Dussehra	16	17	Mid Term Exam – II
	18	19 Eid-e-Milad	20	21	22	23	24	Mid Term Break Starts
	25	26	27	28 Last Date of Special MTE-II	29 Last Date of Display of MTE-II Marks	30	31	Mid Term Break Ends
October 2021	1	2	3	4	5	6	7	Special MTE-II
	8	9	10	11	12	13	14	Display of MTE-II Marks
	15	16	17	18	19	20	21	
	22	23	24	25 Student Initiated Teaching	26 Student Initiated Teaching	27	28	
	29	30	1	2	3	4	5	Display of Attendance & Internal Marks
	6	7	8	9	10	11	12	Display of Grades For P & V Type Courses
	13	14	15	16	17	18	19	
November 2021	20	21	22	23	24	25	26	
	29	30	1	2	3	4	5	
	6	7	8	9	10	11	12	
	13	14	15	16	17	18	19	
	20	21	22	23	24	25	26	
	27	28	29	30	31	1	2	
	3	4	5	6	7	8	9	
December 2021	10	11	12	13	14	15	16	
	13	14	15	16	17	18	19	
	20	21	22	23	24	25	26	
27	28	29	30	31	1	2		
3	4	5	6	7	8	9		
10	11	12	13	14	15	16		

## Academic Calendar

 राष्ट्रीय प्रौद्योगिकी संस्थान,  
उत्तराखण्ड  
National Institute of Technology,  
Uttarakhand
 

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## Odd Semester – 2021 and Even Semester-2022 (B.Tech. 2021-2025 Batch)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Activity of Week
December 2021			1	2	3	4	5	
	6	7	8	9	10	11	12	
	13	14	15	16	17	18	19	Orientation & Enrollment Classes Begin
	20	21	22	23	24	25	26	Christmas
	27	28	29	30	31	1	2	Tuesday Time Table
January 2022	3	4	5	6	7	8	9	Wednesday Time Table
	10	11	12	13	14	15	16	Thursday Time Table
	17	18	19	20	21	22	23	Friday Time Table
	24	25	26	27	28	29	30	Saturday Time Table
	31	1	2	3	4	5	6	Sunday Time Table
February 2022	7	8	9	10	11	12	13	Mid Term Exam – I Slot A & B & C
	14	15	16	17	18	19	20	Mid Term Exam – I Slot D & E & F
	21	22	23	24	25	26	27	Mid Term Exam – I Slot G & H & I
	28	29	30	31	1	2	3	Mid Term Exam – II Slot A & B & C
	4	5	6	7	8	9	10	Mid Term Exam – II Slot D & E & F
March 2022	11	12	13	14	15	16	17	Mid Term Exam – II Slot G & H & I
	18	19	20	21	22	23	24	Registration for Even Semester - 2022
	25	26	27	28	29	30	31	Registration for Even Semester - 2022
	1	2	3	4	5	6	7	Registration for Even Semester - 2022
	8	9	10	11	12	13	14	Registration for Even Semester - 2022
April 2022	15	16	17	18	19	20	21	Registration for ODD Semester - 2022
	22	23	24	25	26	27	28	Registration for ODD Semester - 2022
	29	30	1	2	3	4	5	Registration for ODD Semester - 2022
	6	7	8	9	10	11	12	Registration for ODD Semester - 2022
	13	14	15	16	17	18	19	Registration for ODD Semester - 2022
May 2022	20	21	22	23	24	25	26	Registration for ODD Semester - 2022
	27	28	29	30	1	2	3	Registration for ODD Semester - 2022
	4	5	6	7	8	9	10	Registration for ODD Semester - 2022
	11	12	13	14	15	16	17	Registration for ODD Semester - 2022
	18	19	20	21	22	23	24	Registration for ODD Semester - 2022
June 2022	25	26	27	28	29	30	1	Registration for ODD Semester - 2022
	2	3	4	5	6	7	8	Registration for ODD Semester - 2022
	9	10	11	12	13	14	15	Registration for ODD Semester - 2022
	16	17	18	19	20	21	22	Registration for ODD Semester - 2022
	23	24	25	26	27	28	29	Registration for ODD Semester - 2022
<b>EVEN SEMESTER 2022</b>								
July 2022	28	29	30	31	1	2	3	Enrollment
	4	5	6	7	8	9	10	Classes Begin
	11	12	13	14	15	16	17	Classes Begin
	18	19	20	21	22	23	24	Classes Begin
	25	26	27	28	29	30	1	Classes Begin
August 2022	2	3	4	5	6	7	8	Classes Begin
	9	10	11	12	13	14	15	Classes Begin
	16	17	18	19	20	21	22	Classes Begin
	23	24	25	26	27	28	29	Classes Begin
	30	31	1	2	3	4	5	Classes Begin
September 2022	6	7	8	9	10	11	12	Classes Begin
	13	14	15	16	17	18	19	Classes Begin
	20	21	22	23	24	25	26	Classes Begin
	27	28	29	30	1	2	3	Classes Begin
	4	5	6	7	8	9	10	Classes Begin
October 2022	11	12	13	14	15	16	17	Classes Begin
	18	19	20	21	22	23	24	Classes Begin
	25	26	27	28	29	30	1	Classes Begin
	2	3	4	5	6	7	8	Classes Begin
	9	10	11	12	13	14	15	Classes Begin
November 2022	16	17	18	19	20	21	22	Classes Begin
	23	24	25	26	27	28	29	Classes Begin
	30	1	2	3	4	5	6	Classes Begin
	7	8	9	10	11	12	13	Classes Begin
	14	15	16	17	18	19	20	Classes Begin
December 2022	21	22	23	24	25	26	27	Classes Begin
	28	29	30	1	2	3	4	Classes Begin
	5	6	7	8	9	10	11	Classes Begin
	12	13	14	15	16	17	18	Classes Begin
	19	20	21	22	23	24	25	Classes Begin

May 2022	2	Eid - ul - Fitr	4	Last Date of Special MTE-I	5	Last Date of Display of MTE-I Marks	7	Friday Time Table	8	Last Date of Special MTE-I			
	25		26	27	28		29	Last Date of Display of MTE-I Marks					
	9	10	11	12	13	14	15						
	30	31	32	33	34								
	16	Buddha Purnima	17	18	19	20	21	Tuesday Time Table	22				
35	36	37	38										
23	24	25	26	27	28	Mid Term Exam – II Slot A & B & C	29	Mid Term Exam – II Slot D & E & F	Mid Term Exam – II				
40	41	42	43	44									
June 2022	30	Mid Term Exam – II Slot G & H & I	31	1	2	3	4	Monday Time Table	5				
	50	51	52	53	54	55	56	Thursday Time Table	57	Last Date of Special MTE-II			
	6	7	8	Last Date of Special MTE-II	9	10	Last Date of Display of MTE-II Marks	11	Friday Time Table	12	Last Date of Display of MTE-II Marks		
	13	14	15	16	17	18	19	20	Friday Time Table	21			
	58	59	60	61	62	21	Wednesday Time Table	22	Monday Time Table	23	Student Initiated Teaching Display of Attendance and Internal Marks		
63	64	24	End Term Exam Slot A	25	End Term Exam Slot B	26	End Term Exam Slot C	Display of Attendance & Internal Marks	End Term Exam				
July 2022	27	End Term Exam Slot D	28	End Term Exam Slot E	29	End Term Exam Slot F	30	End Term Exam Slot G	1	End Term Exam Slot H			
	4	Last Date of Special ETE	5	6	Last Date of Showing Answer Sheets	7	Committee Meeting for Finalization & Display of Grades (L, P & V type courses)	8	Last Date for Grievance	9	10	Eid al-Adha	Display of Grades
	11	12	13	14	15	16	17						
	18	19	20	21	22	23	24						
	25	26	27	28	29	30	31						



## Academic Calendar

Temporary Campus-Government ITI, Srinagar (Garhwal), Distt.PauriGarhwal, Uttarakhand-246174 Phone: 01346-257401, 257400 (D), 01346-251095 (Tele Fax) E-Mail: nit@nitkashanb.com Website: www.nitkashanb.com

### Even Semester – 2022

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Activity of Week
January 2022						1	2	
	3 Enrollment (Without Late Fee)	4 Classes Begin	5	6	7	8	9	Enrollment & Classes Begin
	10 5	11 6	12 7 Last date of Enrollment with late fee of ₹1000 Add & Drop	13 8	14 Makar Sankranti	15	16	Last date of Enrollment Last date of Add & Drop
17 9	18 10	19 11	20 12	21 13	22	23		
February 2022	24 14	25 15	26 Republic Day	27 16	28 17	29	30	
	31 18	1 19	2 20	3 21	4 22	5 23	6 24	
	7 23	8 24	9 25	10 26	11 27	12 28	13 29	Mid Term Exam – I
	14 30	15 31	16 Last Date of Special MTE-I	17 Last Date of Display of MTE-I Marks	18 Last Date of Course Withdrawal, Conversion from Credit to Audit Course	19	20	Special MTE-I Course Withdrawal, Conversion from Credit to Audit Display of MTE-I Marks
	25 32	26 33	27 34	28 35	29 36	30 37	31 38	
	28 39	1 40	2 41	3 42	4 43	5 44	6 45	
March 2022	14 46	15 47	16 48	17 49	18 50	19 51	20 52	Mid Term Exam – II Mid Term Break Starts
	21 53	22 54	23 55	24 56	25 57	26 58	27 59	Mid Term Exam – II Mid Term Break Starts Mid Term Break Ends
	28 60	29 61	30 62	31 63	1 64	2 65	3 66	Special MTE-II Display of MTE-II Marks
April 2022	4 67	5 68	6 69	7 70	8 71	9 72	10 73	
	11 74	12 75	13 76	14 Mahavir Jayanti	15 Good Friday	16	17	Registration for Odd Semester - 2022
	18 77	19 78	20 79	21 80	22 81	23 82	24 83	
	25 84	26 85	27 86	28 Student Initiated Teaching	29 Student Initiated Teaching Display of Attendance and Internal Marks	30	1	Display of Attendance & Internal Marks
May 2022	2 87	3 88	4 89	5 90	6 91	7 92	8 93	End Term Exam
	9 94	10 95	11 96	12 97	13 98	14 99	15 100	End Term Exam
	16 101	17 102	18 103	19 Committee Meeting for Finalization & Display of Grades (L, P & V type courses)	20 Last date for Grievance	21 Summer Vacation Begins (For Students)	22	Last Date of Special ETE Display of Grades Summer Vacation begins (For Students)
	23 104	24 105	25 106	26 Supplementary Exam	27 Supplementary Exam	28	29	
	30 107	31 108	1 109	2 110	3 111	4 112	5 113	* For 4 <sup>th</sup> Year Students only PhD RPC Presentation
June 2022	6 114	7 115	8 116	9 117	10 118	11 119	12 120	PhD RPC Presentation
	13 121	14 122	15 123	16 124	17 125	18 126	19 127	Mid Term Exam – I Summer Vacation begins (For Faculty Members)
	20 128	21 129	22 130	23 131	24 132	25 133	26 134	
	27 135	28 136	29 137	30 Mid Term Exam – II Slot A & B & C	1 21	2 22	3 23	Mid Term Exam – II
July 2022	4 24	5 25	6 26	7 27	8 28	9 29	10 30	Eid al-Adha
	11 31	12 32	13 33	14 34	15 35	16 36	17 37	
	18 38	19 39	20 40	21 41	22 42	23 43	24 44	End Term Exam
	25 45	26 46	27 47	28 48	29 49	30 50	31 51	Summer Vacation Ends (For Faculty & Students)
	1 52	2 53	3 54	4 55	5 56	6 57	7 58	Enrollment & Classes Begin

## 04.07 STUDENTS STRENGTH

### 04.07.01 SANCTIONED INTAKE AND ACTUAL INTAKE

Numbers of students admitted in First year B. Tech. during the year 2021-22:

#### B.Tech. First Year (2021 Batch):

S. No.	Branch	Duration	Sanctioned Intake	Enrolled
1.	Civil Engineering	4 Years	36	29
2.	Computer Science & Engineering	4 Years	36	34
3.	Electronics Engineering	4 Years	36	35
4.	Electrical Engineering	4 Years	36	33
5.	Mechanical Engineering	4 Years	36	31
<b>Total</b>			180	<b>162</b>

Numbers of students admitted in First year M. Tech. during the year 2021-22:

#### M.Tech. First Year (2021 Batch):

S. No.	Branch	Duration	Sanctioned Intake	Enrolled
1.	Civil Engineering	2 Years	19	10
2.	Computer Science & Engineering	2 Years	19	7
3.	Electronics Engineering	2 Years	19	2
4.	Electrical Engineering	2 Years	19	2
5.	Mechanical Engineering	2 Years	19	1
<b>Total</b>			95	<b>22</b>

Total 67/68 (Full Time/Part Time) students are enrolled in Ph.D. programme in various departments. In the current year, 03/03 (Full Time/Part Time) students got enrolled in the programme.

#### Ph.D. Students (2021-22):

S. No.	Branch	Sanctioned Intake	Enrolled
1.	Civil Engineering	40	0
2.	Computer Science & Engineering		0
3.	Electronics Engineering		1
4.	Electrical Engineering		0
5.	Mechanical Engineering		0
6.	Chemistry		0
7.	Mathematics		1
8.	Physics		0
9.	English		1
<b>Total</b>			<b>03</b>

## 04.07.02 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	129	33	162	23	6	29	11	4	15	1	0	1
II Year	71	21	92	10	4	14	4	3	7	3	0	3
III Year	74	14	88	12	2	14	5	2	7	2	0	2
IV Year	114	29	143	12	6	18	5	6	11	1	1	2
<b>Total</b>	<b>388</b>	<b>97</b>	<b>485</b>	<b>57</b>	<b>18</b>	<b>75</b>	<b>25</b>	<b>15</b>	<b>40</b>	<b>7</b>	<b>1</b>	<b>8</b>

## B) Postgraduate Courses

## (i) M. 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>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	19	3	22	2	2	4	0	0	0	0	0	0
II Year	40	9	49	3	1	4	0	0	0	0	0	0
<b>Total</b>	<b>59</b>	<b>12</b>	<b>61</b>	<b>5</b>	<b>3</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</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
	104	31	135	9	1	10	1	2	3	2	0	0

## 04.07.03 STUDENT ON ROLLS B.TECH. (CLASS &amp; BRANCH-WISE) DURING 2021-22

Data as per Student Category (2021 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	0	6	3	4	0	11	3	29	6
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>CSE</b>										
Total	16	4	5	1	3	1	10	3	34	9
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	20	5	5	1	3	2	7	1	35	9
PWD (Out of Total)	1	0	0	0	0	0	0	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	11	2	7	1	2	0	13	1	33	4
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0
Muslim Minority	1	1	0	0	0	0	0	0	0	2
Other Minority	0	0	0	0	0	0	1	0	2	0
<b>MEC</b>										
Total	15	3	6	0	3	1	7	1	31	5
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	1	0	0	0	0	1	0	2	0
Other Minority	1	0	0	0	0	0	0	0	1	0
	<b>70</b>	<b>14</b>	<b>29</b>	<b>6</b>	<b>15</b>	<b>4</b>	<b>48</b>	<b>9</b>	<b>162</b>	<b>33</b>

Data as per Student Category B.Tech. (2020 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	6	1	1	0	2	2	7	1	16	4
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>CSE</b>										
Total	12	2	3	1	1	0	5	2	21	5
PWD (Out of Total)	1	0	0	0	0	0	0	0	1	0
Muslim Minority	0	0	0	0	1	0	1	0	2	0
Other Minority	0	0	0	0	0	0	0	0	0	0
<b>ECE</b>										
Total	10	4	3	1	1	0	6	1	20	6
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>EEE</b>										
Total	6	1	3	1	1	1	6	0	16	3
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	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
<b>MEC</b>										
Total	7	0	4	1	2	0	6	2	19	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	0	0	0	0

Data as per Student Category (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	2	0	1	1	6	0	17	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>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

Data as per Student Category (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>	10	2	3	1	2	1	14	1	29	5
<b>PWD (Out of Total)</b>	1	0	0	0	0	0	0	0	1	0
<b>Muslim Minority</b>	0	0	0	0	0	0	2	0	2	0
<b>Other Minority</b>	0	0	0	0	0	0	0	0	0	0
<b>CSE</b>										
<b>Total</b>	12	2	4	1	2	1	12	2	30	6
<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>ECE</b>										
<b>Total</b>	14	3	3	2	2	2	8	1	27	8
<b>PWD (Out of Total)</b>	1	1	0	0	0	0	0	0	1	1
<b>Muslim Minority</b>	0	0	0	0	0	0	1	0	1	0
<b>Other Minority</b>	0	0	0	0	0	0	0	0	0	0
<b>EEE</b>										
<b>Total</b>	13	2	5	1	2	1	8	1	28	5
<b>PWD (Out of Total)</b>	0	0	0	0	0	0	0	0	0	0
<b>Muslim Minority</b>	1	0	0	0	1	0	0	0	2	0
<b>Other Minority</b>	0	0	0	0	0	0	0	0	0	0
<b>MEC</b>										
<b>Total</b>	12	2	3	1	3	1	11	1	29	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	1	0	1	0
<b>Other Minority</b>	1	0	0	0	1	1	0	0	2	1

B. STUDENT ON ROLLS M.TECH. (CLASS-WISE & BRANCH-WISE) DURING 2021-22												
Data as per Student Category M. Tech. (2020 Batch)												
	Number of Total Students Enrolled											
	Gen		Gen (EWS)		SC		ST		OBC		Total	
	Total	Girls	Total	Girls	Total	Girls	Total	Girls	Total	Girls	Total	Girls
<b>CIV</b>												
Total	6	0	2	1	2	0	0	0	6	1	16	2
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0	0	0
Muslim Minority	1	0	0	0	0	0	0	0	0	0	1	0
Other Minority	0	0	0	0	0	0	0	0	0	0	0	0
<b>CSE</b>												
Total	6	1	0	0	1	0	0	0	2	0	9	1
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0	0	0
Other Minority	0	1	0	0	0	0	0	0	0	0	0	1
<b>ECE</b>												
Total	5	2	0	0	0	0	0	0	0	0	5	2
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	0	0	0	0	0	0	0	0
<b>EEE</b>												
Total	5	1	1	0	0	1	0	0	6	1	13	2
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	0	0	0	0	0	0	0	0
<b>MEC</b>												
Total	6	1	0	0	0	0	0	0	0	0	6	1
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	0	0	0	0	0	0	0	0



Data as per Student Category M. Tech. (2020 Batch)												
	Number of Total Students Enrolled											
	Gen		Gen (EWS)		SC		ST		OBC		Total	
	Total	Girls	Total	Girls	Total	Girls	Total	Girls	Total	Girls	Total	Girls
<b>CIV</b>												
Total	6	0	2	1	2	0	0	0	6	1	16	2
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0	0	0
Muslim Minority	1	0	0	0	0	0	0	0	0	0	1	0
Other Minority	0	0	0	0	0	0	0	0	0	0	0	0
<b>CSE</b>												
Total	6	1	0	0	1	0	0	0	2	0	9	1
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0	0	0
Other Minority	0	1	0	0	0	0	0	0	0	0	0	1
<b>ECE</b>												
Total	5	2	0	0	0	0	0	0	0	0	5	2
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	0	0	0	0	0	0	0	0
<b>EEE</b>												
Total	5	1	1	0	0	1	0	0	6	1	13	2
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	0	0	0	0	0	0	0	0
<b>MEC</b>												
Total	6	1	0	0	0	0	0	0	0	0	6	1
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	0	0	0	0	0	0	0	0


**C. PH.D. STUDENT ON ROLL (CLASS-WISE & BRANCH-WISE) DURING 2021-22**

Data as per Student Category												
	Number of Total Students Enrolled in Ph.D.											
	Gen		Gen (EWS)		SC		ST		OBC		Total	
	Total	Girls	Total	Girls	Total	Girls	Total	Girls	Total	Girls	Total	Girls
<b>CIV</b>												
Total	9	2	1	1	1	0	2	2	3	0	16	5
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	0	0	0	0	0	0	0	0
<b>CSE</b>												
Total	21	4	0	0	2	0	0	0	2	1	25	5
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0	0	0
Other Minority	0	1	0	0	0	0	0	0	0	0	1	1
<b>ECE</b>												
Total	13	1	0	0	4	0	0	0	3	1	20	2
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	0	0	0	0	0	0	0	0
<b>EEE</b>												
Total	13	3	0	0	0	0	0	0	0	0	13	3
PWD (Out of Total)	1	0	0	0	0	0	0	0	0	0	1	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	0	0	0	0	0	0	0	0
<b>MEC</b>												
Total	25	0	0	0	2	0	0	0	4	0	31	0
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0	0	0
Other Minority	1	0	0	0	0	0	0	0	0	0	1	0
<b>Physics</b>												
Total	2	1	1	1	0	0	0	0	0	0	3	2
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0	0	0
Other Minority	1	0	0	0	0	0	0	0	0	0	1	0
<b>Chemistry</b>												
Total	7	5	0	0	1	1	1	0	1	1	10	7
PWD (Out of Total)	1	0	0	0	0	0	0	0	0	0	1	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0	0	0
Other Minority	0	0	0	0	0	0	0	0	0	0	0	0
<b>Mathematics</b>												
Total	8	3	1	0	0	0	0	0	1	0	10	3
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	1	0	1	0
Other Minority	0	0	0	0	0	0	0	0	0	0	0	0
<b>English</b>												
Total	5	3	2	1	0	0	0	0	0	0	7	4
PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0	0	0
Muslim Minority	0	0	0	0	0	0	0	0	0	0	0	0
Other Minority	1	0	0	0	0	0	0	0	0	0	1	0

## 04.08 SCHOLARSHIPS/MONETARY ASSISTANCE TO STUDENTS

### 04.08.01 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	26	960872	17.03.2022	960872
2.	Central Sector Scholarship schem of Top Class Education for ST Students	15	-	-	-
3.	Central Sector Scholarship for College and University Students	3	-	-	-
4.	Post Matric Scholarship for Students with Disabilities	5	-	-	-
5.	Post Matric Scholarship for Students - Uttarakhand	6	-	-	-
6.	Post Matric Scholarship Scheme Minorities CS	1	-	-	-
7.	Post Matric Scholarship, Bihar	11	-	-	-
8.	Merit-Cum-Means Scholarship for Prefession and Technical Courses CS	7	-	-	-
9.	Swami Dayanand Education Foundation	1	20000	-	-
10.	Mukhya Mantri Medhavi Vidhyarthi Yojna, M.P.	1	55167	24.06.2021	55167
11.	Ph.D. Fellowship	60	-	-	20268853
12.	M.Tech. (GATE Scholarship)	103	-	-	9937349

## 04.09 FACULTY & STAFF POSITIONS

### 04.09.01 SANCTIONED POSITIONS & FILLED-IN POSITIONS

S.No.	Designation	Post sanctioned	In-position	Vacant
1.	Teaching	86	64	22
2.	Trainee Teachers	–	07	–
<b>TOTAL (A)</b>		<b>86</b>	<b>71</b>	<b>15</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	18	08
14.	MTS/Office Attendant	13	10	03
<b>TOTAL (B)</b>		<b>95</b>	<b>64</b>	<b>31</b>
<b>TOTAL (A+B)</b>		<b>181</b>	<b>135</b>	<b>46</b>

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

S. No.	Department	Professor	Associate Professor	Assistant Professor	Trainee Teacher	Total
1.	Civil Engineering	-	-	10	01	11
2.	Computer Sci. & Engineering	-	-	08	01	09
3.	Electronics Engineering	-	01	07	03	11
4.	Electrical Engineering	-	-	07	02	09
5.	Mechanical Engineering	-	03	12	-	15
6.	Chemistry	-	-	05	-	05
7.	English	-	-	02	-	02
8.	Mathematics	-	01	04	-	05
9.	Physics	-	-	04	-	04
<b>Total</b>		<b>-</b>	<b>05</b>	<b>59</b>	<b>07</b>	<b>71</b>

### 04.09.03 DETAILS OF ACADEMIC STAFF

S. No.	Faculty Name	Designation	Department
1.	Prof. Lalit Kumar Awasthi	Director	-
2.	Dr. Dharmendra Tripathi	Associate Professor	Mathematics
3.	Dr. Kuldeep Sharma	Assistant Professor (Gr-I)	
4.	Dr. Dheerendra Bahadur Singh	Assistant Professor (Gr-I)	

5.	Dr. Nitin Sharma	Assistant Professor (Gr-I)	Humanities & Social Sciences
6.	Dr. Kusum Sharma	Assistant Professor (Gr-I)	
7.	Dr. Renu Bhadola Dangwal	Assistant Professor (Gr-I)	
8.	Dr. Ajay Kumar Chaubey	Assistant Professor (Gr-I)	
9.	Dr. Nagpure Indrajit Manohar	Assistant Professor (Gr-I)	Physics
10.	Dr. Manvendra Singh Khatri	Assistant Professor (Gr-I)	
11.	Dr. Hardeep Kumar	Assistant Professor (Gr-I)	
12.	Dr. Jagrati Sahariya	Assistant Professor (Gr-I)	
13.	Dr. Rampal Pandey	Assistant Professor (Gr-I)	Chemistry
14.	Dr. Saroj Ranjan De	Assistant Professor (Gr-I)	
15.	Dr. Rakesh Kumar Mishra	Assistant Professor (Gr-I)	
16.	Dr. Pankaj Kandwal	Assistant Professor (Gr-I)	
17.	Dr. Kamal Kant Tiwari	Assistant Professor (Gr-I)	Electronics Engineering
18.	Dr. Hariharan Muthusamy	Associate Professor	
19.	Dr. Siva Kumar Tadepalli	Assistant Professor (Gr-I)	
20.	Dr. Sarika Pal	Assistant Professor (Gr-I)	
21.	Dr. Tajinder Singh Arora	Assistant Professor (Gr-I)	
22.	Dr. Ghanapriya Singh	Assistant Professor (Gr-II)	
23.	Dr. Tushar Goel	Assistant Professor (Gr-II)	
24.	Dr. Hemant Kumar Singhal	Assistant Professor (Gr-II)	
25.	Dr. Pankaj Kumar Pal	Assistant Professor (Gr-II)	
26.	Dr. Prakash Dwivedi	Assistant Professor (Gr-I)	
27.	Dr. Mahiraj Singh Rawat	Assistant Professor (Gr-II)	
28.	Dr. Sourav Bose	Assistant Professor (Gr-II)	
29.	Dr. V.G. Durgarao Rayudu	Assistant Professor (Gr-II)	
30.	Dr. Suryanarayana Gangolu	Assistant Professor (Gr-II)	
31.	Dr. Tripurari Nath Gupta	Assistant Professor (Gr-II)	
32.	Dr. Rohit Kumar	Assistant Professor (Gr-II)	Mechanical Engineering
33.	Dr. Sanat Agrawal	Associate Professor	
34.	Dr. Lalta Prasad	Associate Professor	
35.	Dr. Gurinder Singh Brar	Associate Professor	
36.	Dr. Pawan Kumar Rakesh	Assistant Professor (Gr-I)	
37.	Dr. Vinod Singh Yadav	Assistant Professor (Gr-I)	
38.	Dr. Apurba Mandal	Assistant Professor (Gr-II)	
39.	Dr. Vikas Kukshal	Assistant Professor (Gr-II)	
40.	Dr. Gaurav Kumar	Assistant Professor (Gr-II)	
41.	Dr. Dungali Sreehari	Assistant Professor (Gr-II)	

42.	Dr. Hitesh Sharma	Assistant Professor (Gr-II)	
43.	Dr. T. Sudhakar	Assistant Professor (Gr-II)	
44.	Dr. Prashant Tiwari	Assistant Professor (Gr-II)	
45.	Dr. Niraj Kumar Mishra	Assistant Professor (Gr-II)	
46.	Dr. Yogesh Kumar Prajapati	Assistant Professor (Gr-II)	
47.	Dr. Deepak Kumar	Assistant Professor (Gr-II)	
48.	Dr. Kamal Kumar	Assistant Professor (Gr-II)	
49.	Dr. Nitin Kumar	Assistant Professor (Gr-II)	
50.	Dr. Maheep Singh	Assistant Professor (Gr-II)	
51.	Dr. Krishan Kumar	Assistant Professor (Gr-II)	
52.	Dr. Parveen Kumar	Assistant Professor (Gr-II)	
53.	Dr. Deshmukh Maroti Bhujangrao	Assistant Professor (Gr-II)	
54.	Dr. Surendra Singh	Assistant Professor (Gr-II)	
55.	Dr. Abhimanyu Kumar	Assistant Professor (Gr-II)	Civil Engineering
56.	Dr. Vikas Pratap Singh (On Lien-29/12/2021 AN to 29/12/2023)	Assistant Professor (Gr-I)	
57.	Dr. Aditya Kumar Anupam	Assistant Professor (Gr-I)	
58.	Dr. Kranti Gyanchand Jain	Assistant Professor (Gr-I)	
59.	Dr. Smita Kaloni	Assistant Professor (Gr-II)	
60.	Dr. Shashank Bhatra	Assistant Professor (Gr-II)	
61.	Dr. Bibhash Kumar	Assistant Professor (Gr-II)	
62.	Dr. Muskan Mayank	Assistant Professor (Gr-II)	
63.	Dr. Shashi Narayan	Assistant Professor (Gr-II)	
64.	Dr. Laiju A.R.	Assistant Professor (Gr-II)	
65.	Mr. Amardeep	Assistant Professor (Gr-II)	Electronics Engineering
66.	Mrs. Sarita Yadav	Trainee Teacher	
67.	Mr. Nitanshu Chauhan	Trainee Teacher	
68.	Mr. Vivek Kumar	Trainee Teacher	
69.	Mr. Nitesh Kumar	Trainee Teacher	Electrical Engineering
70.	Mr. Himesh Kumar	Trainee Teacher	
71.	Ms. Sneha Chauhan	Trainee Teacher	Computer Science & Engineering
72.	Dr. Abhinav Kumar	Trainee Teacher	Civil Engineering

#### 04.09.04 DETAILS OF NON-TEACHING STAFF

S. No.	Faculty Name	Designation
1	Dr. P. M. Kala	Registrar
2	Dr. Vineeta Negi Panwar	Assistant Registrar

3	Mr. Jagdeep Singh	Assistant Registrar
4	Dr. Kuldeep Singh	Student Activity & Sports Officer
5	Mr. Anoop Sharma (On deputation-02/04/2019 to 31/03/2022)	Superintendent (Accounts)
6	Mr. Sanjay Bhatt (On Lien-16/08/2021 AN to 16/08/2023)	Superintendent (Estt.)
7	Mrs. Anjali Gupta Maurya	Superintendent
8	Mr. Praveen Kumar Manwal (On deputation-02/04/2019 to 31/03/2022)	Superintendent
9	Mr. Ravinder Singh (On Lien-05/02/2021 to 04/02/2023)	Superintendent
10	Mr. Sumit Kumar (On deputation-19/08/2019 AN to 31/10/2021)	Junior Engineer (EEE)
11	Mrs. Neha Raturi	Technical Assistant (Physics)
12	Mrs. Bhavana	Technical Assistant (Electronics)
13	Mr. Ram Mohan Gupta	Technical Assistant (Mechanical)
14	Mr. Kawal Preet Singh	Technical Assistant (EEE)
15	Mrs. Kumud Sharma (On deputation-28/01/2020 to 27/01/2022)	Library & Information Assistant
16	Mr. Paras Sah	Technical Assistant (Civil)
17	Mr. Saurabh Patwal (Relieving-24/11/2021)	Technical Assistant (Civil)
18	Mr. Vikas Kothari	Technical Assistant (CSE)
19	Mohammed Arshad Saify	Technical Assistant (Mech.)
20	Mr. Abhishek	Technical Assistant (ECE)
21	Mr. Gole Balaji Dhanraj	Technical Assistant (ECE)
22	Ms. Sangeeta Basu	Nurse
23	Mr. Vikas Singh Chauhan	Technical Assistant (CSE)
24	Mr. Alok Kumar Patel	Technical Assistant (EEE)
25	Mr. Rajesh Kumar	Technical Assistant (CSE)
26	Mr. Purushottam Prabhakar Jawarkar	SAS Assistant
27	Mrs. Beena Rawat	Senior Assistant
28	Ms. Rekha Rawat	Junior Assistant
29	Mrs. Swati Bhatt	Junior Assistant
30	Mrs. Meenakshi Bhatt	Junior Assistant
31	Mr. Amit Singh	Junior Assistant
32	Mr. Ajay Singh (On Lien-08/06/2021 to 07/06/2023)	Junior Assistant
33	Mr. Gaurav Singh Negi	Junior Assistant
34	Mrs. Pooja	Junior Assistant

35	Mr. Manoj Kumar	Junior Assistant
36	Mr. Ranjit Sharma	Junior Assistant
37	Mr. Anil Bhatt	Technician (Chemistry)
38	Mr. Pradeep Kumar	Technician (EEE)
39	Mr. Jai Dev	Technician (CSE)
40	Mr. Manoj Kumar	Technician (CSE)
41	Mr. Santosh Singh Rawat	Technician (Mech-Machinist)
42	Mr. Rinku	Technician (Mech-Welder)
43	Mr. Yudhbir Singh Negi	Technician (CSE)
44	Mr. Sushil Kumar	Technician (Civil-Surveyor)
45	Mr. Chandramohan	Technician (Civil-Plumber)
46	Mr. Nilesh Kumar Bhardwaj (On Lien-16/10/2020 to 15/10/2022)	Technician (Library & Information)
47	Mr. Pawan Rana	Technician (Mech-Machinist)
48	Mr. Krishan Kumar	Technician (Mech-Carpenter)
49	Mr. Chandra Pal Singh	Technician (ECE)
50	Mr. Robin Manish Kujur	Technician (CSE)
51	Mr. Amandeep Singh	Technician (EEEE)
52	Mr. Sachin Sharma	Technician (CSE)
53	Mr. Keshav (Relieving-11/01/2022 AN)	Technician (CSE)
54	Mr. Shashi Kumar Jha	Technician (Library)
55	Mr. Sanjay Chauhan	Technician (Electrical)
56	Mr. Ravindra Kumar	Laboratory Attendant (EEE)
57	Mr. Ashish Nautiyal	Office Attendant
58	Mr. Malkeet Singh	Laboratory Attendant (Mech.)
59	Mr. Tanuj Thapliyal	Office Attendant
60	Mr. Deepak Vijay	Office Attendant
61	Mrs. Suman Mewad	Office Attendant (Library)
62	Mr. Siddharth Awadhiya	Office Attendant (Library)
63	Mr. Saurabh Singh Negi	Office Attendant
64	Mrs. Deepika Maithani	Office Attendant
65	Mr. Pankaj Singh	Office Attendant



## 05.00 DEPARTMENTS

### 05.01 DEPARTMENT OF CIVIL ENGINEERING

Department of Civil Engineering, NIT 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. The Department of Civil Engineering has an advanced academic structure with core courses and a 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, Transportation Engineering and Geotechnical Engineering along with Ph. D. degree program in all the specializations of civil engineering.

#### VISION:

To achieve recognition through academic excellence and exemplary research for sustainable infrastructure development with special emphasis on hilly terrains.

#### MISSION:

- Nurturing students with technical knowledge of Civil Engineering with an emphasis on hilly terrains.
- Develop centre of excellence for pertinent natural hazards in Himalayan region.
- Conduct pioneering research on sustainable infrastructural development.
- Providing outreach services and technical expertise to various stakeholders of the society.
- Achieving professional ethics and code of conduct.

#### ACADEMIC STAFF:

S. No.	Faculty Name	Designation	Areas of Specialization
1	Dr. Kranti Jain	Head & Assistant Professor	Structural concrete, Non Destructive testing of materials Retrofitting and Rehabilitation of structures, Shear behaviour of SFRC beams
2	Dr. A. K. Anupam	Assistant Professor	Transportation Engineering, Pavement Materials, Pavement Evaluation, Ground Improvement Techniques, Traffic Engineering
3	Dr. Smita Kaloni	Assistant Professor	Structural Engineering, Structural Dynamics, Earthquake Resistant Design, Structural Health Monitoring
4	Dr. Shashank Bhatra	Assistant Professor	Geotechnical Engineering, Foundation Engineering, Stability Analysis of Slopes, Stability Analysis of Underground Excavations, Earth Retaining Structures, Ground Improvement Techniques, lumped Parameter Modelling of Reinforced Earth Bed, Influence of Dynamic Loads on Geotechnical Engineering Structures.
5	Dr. Bibhash Kumar	Assistant Professor	Stability Analysis of Tunnels/ Underground Structures, Bearing Capacity of Foundations, Pull Out Capacity of Anchors, Strength Behaviour of Rocks, Reinforced Earth Structures
6	Dr. Muskan Mayank	Assistant Professor	Groundwater Hydraulics, Sediment Transport and Control, Hydrological Safety and Risk Assessment of Hydraulic Structures, Unsaturated flow modelling
7	Dr. Shashi Narayan	Assistant Professor	Computational mechanics, Behaviour of Cold Form Steel Shear wall panels, Base Isolation Techniques, Earthquake engineering, Wind engineering, Soil structure Interaction, Fluid Structure Interaction, Structural



			Engineering, Finite Element Method, Meshless Method
8	Dr. Laiju A R	Assistant Professor	Water Treatment, Wastewater Treatment, Advanced Oxidation Process, Solid Waste Management, Environmental Impact Assessment, Waste to Energy, Sustainable Development, Water Management.
9	Dr. Amardeep	Assistant Professor	Structural concrete, Fiber Reinforced Concrete, Concrete Structures, Bridge Engineering, Contracts in Construction, Engineering Economics
10	Dr. Abhinav Kumar	Trainee Teacher	Traffic Engineering, Road Traffic Safety, Statistical Techniques and Modeling in Traffic Engineering, Road User Behavior

**NON-TEACHING STAFF : 02**

**Ph.D. STUDENTS : 08**

#### RESEARCH AND DEVELOPMENT INFRASTRUCTURE/LABORATORIES:

- Soil Testing Lab
- Engineering Geology Lab
- Fluid Mechanics Lab
- Environmental Engineering Lab
- Surveying Lab
- Concrete Testing Lab
- Building Material Testing Lab
- Transportation Engineering Lab
- Computational Facilities

#### MAJOR FACILITIES IN THE DEPARTMENT

##### TESTING FACILITIES

- Tri Axial Test
- Universal Permeability Test
- Consolidation Test
- Plate Load test
- Creep Testing machine
- Servo Controlled Compression Testing Machine (CTM)
- Rebound Hammer
- Self-Compacting Concrete equipments
- Air/Water Permeability test for concrete
- CBR Test
- Marshall Test
- Benkelman Beam Test
- Diamond Core Cutter
- Dynamic Shear Rheometer
- Centrifugal Extractor
- Centrifuge
- Muffle Furnace
- UV-Vis Spectrophotometer
- Distill water Apparatus
- COD Digester
- Photometer
- Skid Resistance test

#### BUILDING MATERIAL AND CONSTRUCTION MANAGEMENT LAB



## CONCRETE TESTING LAB



## FLUID MECHANICS LAB



## ENGINEERING GEOLOGY LAB



## SOIL TESTING LAB



## SURVEY LAB



## ENVIRONMENTAL ENGINEERING LAB



## TRANSPORTATION ENGINEERING LAB



## DETAILS OF PATENTS/COPYRIGHT:

S. No	Title	Application Number	Date of Filing/ Publication/Award	National/ International	Name of Inventors
1.	A hybrid iron sulphide Impregnated anion exchanger (hisiix) for selective removal of hexavalent Chromium from contaminated water	201911024269	Patent Granted (30/03/2022)	Indian	Sudipta Sarkar and Laiju A. R.

## DETAILS OF CONSULTANCY PROJECTS:

S. No.	Consultancy Project Given by	Name of Project Investigator	Co-PI	Consultancy Amount (₹)	Status	Date of Complete
1.	M/s Rahee Infratech Limited, Camp Office Lachmoli, Srinagar	Dr. Laiju A.R.	Dr. Muskan Mayank	44,604.00	Completed [Starting from: 06.01.2021]	06.04.2022
2.	LNA Infraprojects Private Limited, Vidhya Nagar, Jaipur	Dr. A. K. Anupam	-	59,000.00	Completed [Starting date: 17.11.2021]	06.04.2022
3.	M/s Dharamraj Contracts India Pvt. Ltd.	Dr. A. K. Anupam	-	2,41,900.00	Completed	-
4.	M/s RCC Developers Limited [GFC Drawings/ Design]	Dr. A. K. Anupam (PI)	Dr. Prakash Dwivedi (CO-PI)	2,31,280.00	Completed [Starting date: 09.04.21]	04.03.2022
5.	PWD Srinagar [Soil Testing – Liquid Limit, Plastic Limit, C.B. R. Value, Grain Size Distribution]	Dr. A. K. Anupam	-	35,400.00	Under Process [Starting date: 07.06.21]	-
6.	PWD Srinagar [Soil Testing – Liquid Limit, Plastic Limit, C.B. R. Value, Grain Size Distribution]	Dr. A. K. Anupam	-	47,200.00	Under Process [Starting date: 07.06.21]	-
7.	NKG Infrastructure, New Delhi [Soil Investigation]	Dr. A. K. Anupam	Dr. Bibhash Kumar	1,77,000.00	Completed [Starting date: 07.06.21]	15.11.21
8.	RCC Developers limited, Meerut [Soil Investigation]	Dr. A. K. Anupam	Dr. Bibhash Kumar	47,200.00	Completed [Starting date: 15.06.21]	15.11.21
9.	Hillways Construction Company Pvt. Ltd [Design Mix (JMF) of Dense Bituminous Macadam (DBM) and Bituminous Concrete (BC)]	Dr. A. K. Anupam	-	70,800.00	Under Process [Starting date: 28.06.21]	-
10.	M/s RCC Developers Limited [GFC Drawings/ Design]	Dr. A. K. Anupam	Dr. Prakash Dwivedi	29,500.00	Under Process [Starting date: 28.06.21]	-
11.	M/s NKG Infrastructure Limited [Technical vetting/ approval for GFC Design and Drawing]	Dr. Shashi Narayan	Dr. A. K. Anupam	7,08,000.00	Completed [Starting date: 06.07.21]	30.03.2022
12.	M/s RCC Developers Limited [Technical vetting/ Approval for GFC Drawings/Design]	Dr. Shashi Narayan	Dr. A. K. Anupam	1,41,600.00	Completed [Starting date: 20.07.21]	30.03.2022

13.	URBAN SOLUTIONS [Quotation for Material Testing]	Dr. A. K. Anupam	-	47,200.00	Completed [Starting date: 12.08.21]	23.09.2021
14.	RK VATS [Soil Report Vetting]	Dr. A. K. Anupam	Dr. Bibhash Kumar	88,500.00	Completed [Starting date: 3.09.21]	06.04.2022
15.	Soigne Engineering Consultant [Technical Vetting/ Approval of Soil Investigation]	Dr. A. K. Anupam	Dr. Bibhash Kumar	1,77,000.00	Under Process [Starting date: 30.09.21]	-
16.	LNA Infraprojects Private Limited, Vidhya Nagar, Jaipur [Quotation of Cement Test]	Dr. A. K. Anupam	-	11,210.00	Under Process [Starting date: 30.09.21]	-
17.	M/s Keslec Design [for Vetting of Structural Design & Drawing]	Dr. Shashi Narayan	Dr. Amardeep	9,38,100.00	Completed [Starting date: 06.10.21]	Completed
18.	M/s RCC Developers limited, Meerut [Third Party Visit for Medical College and Hopital project of Bulandshahr]	Dr. A. K. Anupam	Dr. Shashi Narayan & Dr. Bibhash Kumar	1,41,600.00	Under Process [Starting date: 12.10.21]	-
19.	M/s RCC Developers limited, Meerut	Dr. A. K. Anupam	-	1,41,600.00	Under Process [Starting date: 21.10.21]	-
20.	M/s Keslec Design Solution [Quotation for Vetting of Structural Design and Drawing of Barrack and Dining Block at Supremen Court of India]	Dr. Shashi Narayan	-	20,060.00	Completed [Starting date: 08.11.21]	30.03.2022
21.	M/s RCC Developers Limited Third Party Visit [Cement, Aggregate, Concrete]	Dr. A. K. Anupam	-	82,600.00	Under Process [Starting date: 17.11.21]	-
22.	NKG Infrastructure, New Delhi [Third Party Visit]	Dr. A. K. Anupam	-	59,000.00	Under Process [Starting date: 17.11.21]	-
23.	Road Constry Coy (GREF) Job Mix Desin for WMM work (1.50 cm thick)	Dr. A. K. Anupam	-	47,200.00	Under Process [Starting date: 03.12.21]	-
24.	Rajshri Construction, Ghaziabad [Test Report of Stone Boulder regarding Crushing Value, Impact Value & Water Absorption]	Dr. A. K. Anupam	-	23,600.00	Under Process [Starting date: 06.12.21]	-
25.	Ministry of Environment, Forest and Climate Change, New Delhi [Constructuion of	Dr. Kranti Jain	-	1,65,200.00	Under Process [Starting date: 11.01.22]	-

	Multipurpose Hall at FRI, Dehradun and Extension of Examination hall and Academic Building]					
26.	Third Party Inspection of Quality of Various works under Smart City Project Dehradun [M/s Dehradun Smart City Limited]	Dr. Shashank Bhatra	Dr. Smita Kaloni	90,00,000.00	Under Process [Starting date: 15.03.22]	-
27.	Birla Corporation Ltd. Madav Nagar Sector-III Chanderia [Consultancy Charges for vetting of Structural design and Drawings at various sites]	Dr. Amardeep	Dr Shashi Narayan	2,83,200.00	Under Process [Starting date: 15.03.22]	-
28.	M/s Hindustan Steelworks Construction Ltd. [Concrete Design Mix M-25 and M-30]	Dr. Amardeep	Dr Shashi Narayan	2,36,000.00	Under Process [Starting date: 30.03.22]	-

#### DETAILS OF CONFERENCES/STC/FDPs ETC ORGANIZED:

- Five days' workshop on "Computational Modelling of Geotechnical Structures using FEM Based Softwares" from 28th February 2021 to 4<sup>th</sup> March, 2021.

#### EXPERT LECTURES:

Broad themes of expert lectures organized by the department are as follows:

- "Biodiversity, Conservation & Sustainable Development" on 12th Jan 2021, delivered by **Dr. Arun Jugran**, Scientist, G. B. Pant National Institute of Himalayan Environment, Garhwal Regional Centre, Srinagar (Garhwal)
- "Landslide Hazard" on 24th February 2021 delivered by **Dr. Tarun Kumar Raghuvanshi**, Associate Professor, School of Earth Sciences, College of Natural and Computational Sciences, Addis Ababa University, Ethiopia
- "Modular Construction Using Precast Technology-The Way Forward" on 10<sup>th</sup> March 2021.

#### DETAILS OF CONFERENCES/STC/FDPS ATTENDED:

- Dr. Shashank Bhatra successfully completed Innovation Ambassador training (Foundation Level) conducted by MoE's Innovation Cell & AICTE during the period from 30th June - 30th July 2021.

#### OUTREACH ACTIVITIES:

- Dr. Shashank Bhatra visited HNBG University for Structural Audit, Internal assessment, quality evaluation and auditing of HNBG University construction works as an External Member of Committee.
- Dr. Abhinav Kumar delivered an expert lecture on "Road Traffic Safety: Major Challenges and Effective Practices" in Dev Bhoomi Institute of Technology, Dehradun on 14 June 2021.

#### SPECIAL ACHIEVEMENTS:

- Best researcher award, by ITSr jaipur to Dr. Shashi Narayan

- Dr. Muskan Mayank completed his PhD from IIT Roorkee (2021) on the topic “Experimental Study Of Solute Transport Through Three-Dimensional Porous Media.
- Dr. Abhinav Kumar completed his PhD from IIT Roorkee (2022) on the topic “Assessment of pedestrian safety at signalized intersections using traffic conflict technique.”

### STUDENT’S ACHIEVEMENTS

- Mr. Vivek Singh Negi (BT16CIV026) secured AIR-06 in GATE 2022.
- Mr. Devendra Adhikari (BT17CIV001) secured AIR-410 in GATE 2021.
- Mr Jamuna Prasad Bahuguna cleared Indian Engineering services and Joined MES as AGE (Contract), Chandigarh.
- Mr. Aditya Pathak joined IOCL, Kolkata as Officer.
- Mr Sohail Akhtar has been awarded a prestigious DAAD scholarship.

### 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. Department hosts a 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. Some of the broad topics for the project for the current year are as follows.

- Pavement evaluation of hill roads
- Analysis of Laterally Loaded Vertical Piles
- Analysis of beam on elastic foundation using FDM
- Case study of settlement analysis of geotechnical structures
- Design of G+6 building using STAAD Pro and Excel
- Effect of CBR value with physical properties of subgrade soil.
- Modeling water flow and solute transport using HYDRUS-1D
- Coastal rainwater harvesting
- Packing density method of mix design
- Assessment of delay at signalised intersections under mixed traffic conditions
- Study of non-destructive methods for concrete
- Developing excel sheet for computation of bearing capacity of pile foundation
- Solid waste management
- Development of automated concrete mix design tool
- A case study of cold form steel building
- International Roughness Index: Threshold of Road rehabilitation in Hilly areas
- Footing on reinforced earthbed
- Modelling of traffic flow on highways using simulation technique
- Insect based biodegradable waste management



## 05.02 COMPUTER SCIENCE AND ENGINEERING DEPARTMENT

The Department of Computer Science and Engineering (CSE) 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 (AI)**
2. **Computing Systems (CS)**

The courses run by the department are as per the recent issues related to AI and CS technologies and their applications.

### VISION:

To foster an ecosystem of global standard in the field of computing to serve industry and society.

### MISSION:

- Establish high end computing facilities for technical education, research and skill development.
- Impart education to meet next generation computing challenges.
- To promote recent and futuristic advances in the field of computing for sustainable development.
- To produce skilled engineers and researchers to serve industry and society globally.

### ACADEMIC STAFF:

S. No.	Faculty Name	Designation	Areas of Specialization
1.	Dr. Kamal Kumar	Assistant Professor & Head	WSN, Security, Cloud Computing, Deep Learning, Artificial Intelligence etc.
2.	Dr. Krishan Kumar	Assistant Professor	Real-time Systems, Cloud Security, Virtualization, Computer Vision, Multimedia Analysis, Machine Learning, Deep Learning, Artificial Intelligence.
3.	Dr. Nitin Kumar	Assistant Professor	Biometrics, Pattern Recognition, Image Processing, Visual Attention Modeling, Machine Learning.
4.	Dr. Abhimanyu Kumar	Assistant Professor	Cryptography, Cryptographic Key Establishment, Secure Multicasting.
5.	Dr. Maroti Deshmukh	Assistant Professor	Cryptography and Multimedia Data Security, Secret Sharing Schemes, Machine Learning.
6.	Dr. Maheep Singh	Assistant Professor	Image Processing, Machine Learning, Network Security
7.	Dr. Parveen Kumar	Assistant Professor	Digital Image Processing, Pattern Recognition and Machine Learning, Computer Vision, Theory of Computation, Analysis of Algorithm
8.	Dr. 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

**NON-TEACHING STAFF:**

S.No.	Name	Designation
1.	Mr. Vikas Kothari	Technical Assistant
2.	Mr. Vikas Singh Chauhan	Technical Assistant
3.	Mr. Rajesh Kumar	Technical Assistant
4.	Mr. Jai Dev	Technician
5.	Mr. Manoj Kumar	Technician
6.	Mr. Yudhbir Singh Negi	Technicians
7.	Mr. Robin Manish Kujur	Technician
8.	Mr. Sachin Sharma	Technician

**Ph.D. STUDENTS:**

S. No	Student ID	Name	Full/Part Time	Name of Supervisor/ Co- Supervisor	Status
1.	DT16CSJ001	Shiv Naresh Shivhare	Part-Time	Dr. Nitin Kumar	Completed
2.	DT17CSJ001	Vivek Kumar Singh	Full – Time		Completed
3.	DT17CSJ002	Manisha	Full – Time		Completed
4.	DT19CSJ001	Prabhjot Kaur	Part-Time	Dr. Kamal Kumar	On-going
5.	DT19CSJ002	Arun Singh Bhadwal	Full – Time		On-going
6.	DT19CSJ003	Soni Chaurasia	Part-Time	Dr. Abhimanyu Kumar	On-going
7.	DT20CSJ009	Sachin Choudhary	Full – Time		On-going
8.	DT20CSJ003	Shubhashish Goswami	Part-Time	Dr. Maheep Singh	On-going
9.	DT20CSJ001	Neeraj Rathore	Part-Time		On-going
10.	DT20CSJ004	Gaurav Sharma	Part-Time	Dr. Krishan Kumar	On-going
11.	DT20CSJ005	Parul Saini	Part-Time		On-going
12.	DT20CSJ008	Alok Negi	Part-Time	Dr. Maroti Deshmukh	On-going
13.	DT20CSJ002	Arvind Kumar Vishwakarma	Part-Time		On-going
14.	DT20CSJ006	Arjun Singh Rawat	Full – Time		On-going
15.	DT20CSJ010	Bhawana Parihar	Part-Time		On-going
16.	DT20CSJ011	Baldivya Mitra	Part-Time	Dr. Abhimanyu Kumar	On-going
17.	DT20CSJ007	Amit Panwar	Part-Time		On-going
18.	DT20CSJ013	Devendra Prasad	Part – Time	Dr. Parveen Kumar	On-going
19.	DT21CSJ007	Ajeet Kumar Bhartee	Part-Time	Dr. Surendra Singh	On-going
20.	DT21CSJ004	Sandeep Chand Kumain	Full – Time	Dr. Maheep Singh	On-going
21.	DT21CSJ005	Kavi Bhushan	Part-Time	Dr. Praveen Kumar	On-going
22.	DT21CSJ002	Harendra Singh	Full – Time	Dr. Nitin Kumar	On-going
23.	DT21CSJ001	Manmohan Pundir	Full – Time	Dr. Abhimanyu Kumar	On-going
24.	DT21CSJ003	Vivek Tomar	Part-Time	Dr. Nitin Kumar	On-going
25.	DT21CSJ006	Vivek Kumar	Part-Time	Dr. Kamal Kumar & Dr. Maheep Singh	On-going
26.	DT21CSJ008	Kashid Shamal Sanjay	Full – Time	Dr. Krishan Kumar	On-going
27.	DT22CSJ001	Deep Kumar	Part-Time	Prof. L.K. Awasthi	On-going

**RESEARCH AND DEVELOPMENT INFRASTRUCTURE/LABORATORIES:**

The Department is equipped with latest Servers/Computers/workstations with Intel Xeon/i7 processor, 1TB Hard disk, 4 GB RAM and 23 inch monitors for comfortable view for students.

1. Servers	Server 1:	4-Dell M610 Blade Servers
	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 Internet Connectivity	
4. Network Security	Cyberoam 1500ing XP	
5. Storage	Dell PowerVault NX3200	

The Department comprises of the five laboratories which are equipped with latest hardware and software like C/C++ Compilers, Java Run Time Environment, Python, Matlab, Weka, Cisco Packet Tracer, PHP with MySql, Microsoft Office, Ubuntu 21.04, Fedora 31 and Open source software.

S. No.	Name of Laboratory	No. of Computer Systems	Software Installed	Online UPS Supply
1.	Programming Lab	30	C/C++, JAVA, MATLAB	10 KVA
2.	Linux Lab	35	Ubuntu Linux, C/C++, JAVA, MATLAB, LEX and FLEX	20 KVA
3.	Network Lab	35	C/C++, JAVA, MATLAB	
4.	Software Lab	30	C/C++, JAVA, MATLAB	10 KVA
5.	Project Lab	20 Workstations	Open Source Software	10 KVA

#### HARDWARE CONFIGURATION:

S. No.	Name of Laboratory	Hardware Configuration	
1.	Programming Lab Linux Lab Network Lab	Operating System	Windows 10, Ubuntu 17.04
		Processor	Intel core i3
		RAM	4 GB
		2. Hard Disk	500 GB
		Graphics Card	Inbuilt
		Display	19 inch
3.	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
4.	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

Some photographs of the departmental laboratories are depicted below:



**Programming Lab**



**Network Lab**



**Project Lab**



**Linux Lab**

### DETAILS OF R&D PROJECTS

S. No.	Title of the R&D Project	Funding Agency	Name of PI/Co-PI	Sanctioned Amount Rs. (in Lacs)	Status
1.	Development and Analysis of Cancellable Biometric Template Generation for Per Person Identification	Uttarakhand State Council for Science and Technology (UCOST), Dehradun	Dr. Nitin Kumar (PI)	2.09	Completed
2.	Secret Sharing Scheme Based Technology for Multimedia Security over Cloud	Department of Science and Technology, Gol	Dr. Krishan Kumar (PI)	40	Ongoing

### DETAILS OF CONFERENCES/STC/FDPS ETC ORGANIZED

1. Dr. Nitin Kumar, Organizing Secretary, International Conference on Robotics, Control and Computer Vision to be organized during Feb. 19-20, 2022 at NIT Uttarakhand.
2. Dr. Nitin Kumar, Organizing Chairman, International Conference on Paradigms of Communication, Computing and Data Sciences organized during May 07-09, 2021 at NIT Kurukshetra.
3. Dr. Krishan Kumar (Convener), Dr. Abhimanyu Kumar, Dr. Parveen Kumar and Ms. Sneha Chauhan (Coordinator), Five days Online Faculty Development Programme organized by department of Computer Science and Engineering on *Research Trends in Security and Computing* during February 28- March 04, 2022.
4. Dr. Krishan Kumar, Coordinator, Five days Virtual *Workshop on Startup and Entrepreneurship Skills, Attitude and Behaviour Development* at NIT Uttarakhand, February 16-20, 2022.

### DETAILS OF CONFERENCES/STC/FDPS ETC ATTENDED

#### OUTREACH ACTIVITIES

1. Two extension lectures on "Soft Skills Transform an individual into a Professional" and "Importance of Personality Development for Placement" delivered by Dr. Nitin Kumar at Government College, Aharwala (Bilaspur), Affiliated to Kurukshetra University, Kurukshetra on Jan. 22, 2022.
2. Invited talk on Random Permutation Principal Component Analysis for Cancelable Biometric Recognition by Dr. Nitin Kumar at Department of Computer Science, University of Delhi, New Delhi on Sep. 22, 2021.
3. Dr. Krishan Kumar delivered talk on *Multimedia Analysis using Deep Learning and its Applications* in Online FDP on Computer Vision and Image Processing at SKIT, Jaipur, February 3, 2022.
4. Dr. Krishan Kumar delivered Expert Talk on *Cloud Computing and its Current Trends* in Online Webinar at VIT Bhopal, December 18, 2021.
5. Dr. Krishan Kumar delivered Expert Talk on *How to publish your book with an academic publisher* in One-Week FPD on Research Prospects in Nursing at Galgotia University, Greater Noida, September 2021.
6. Dr. Krishan Kumar delivered Expert Talk on *Role of AI Techniques in Digital Era* in Online Summit on AI and Multidisciplinary Research: Opportunities and Challenges at G L BITM, Greater Noida, July 2021.

7. Dr. Krishan Kumar delivered Keynote speech on *Applications of Deep Learning in Digital Era* in Online AICTE sponsored STTP on AI and Deep Learning at MIET, Jammu, July 2021.
8. Dr. Krishan Kumar delivered Keynote speech on *Key Observations to Publish the Research work in Reputed Journals* in One Week FDP on Research Manuscript Writing and Publication in Reputed Journals at SVIM, Indore, April 2021.
9. Dr. Krishan Kumar delivered Keynote speech on *Role of Open Source tools in Teaching-Learning Process* in ISTE sponsored Two Week STTP on Pedagogy For Effective Use of ICT In Engineering Education at P. R. PCEM, Amravati, April 2021.
10. Dr. Kamal Kumar delivered an Expert Lecture on Drug Design: Application of Artificial Intelligence in a 5 Day FDP titled, "Contemporary and Futuristic applications of Applied Artificial Intelligence" at Chitkara University, Chandigarh

### SPECIAL ACHIEVEMENTS:

Dr. Krishan Kumar appointed as Editor at IETE Journal of Research (SCI, IF-2.333)

### STUDENT'S ACHIEVEMENTS:

- Student Projects
- Industrial Visit
- Student's Internship

### INTERNSHIP DETAIL FOR 2018-22 BATCH

S. No.	Name	Roll No.	Company Name	Stipend (In Rs.) Per Month
1.	Saumya Agarwal	BT18CSE017	Shipsy, Plot 149, Anu Tower, Sector-44, Gurgaon, Haryana	40,000/-
2.	Esha Sachan	BT18CSE012	People Strong Technologies Pvt. Ltd., Gurgaon, Haryana	55,000/-
3.	Himanshu Pandey	BT18CSE020	People Strong Technologies Pvt. Ltd., Gurgaon, Haryana	55,000/-
4.	Gajendar	BT18CSE011	Unicommerce eSolutions Pvt. Limited, Gurgaon, Haryana	20,000/-
5.	Nalla Shanmukeshwara Rao	BT18CSE014	Cvent Pvt. Limited, Gurugram, Haryana	40,000/-
6.	Utkarsh Bhandari	BT18CSE006	Samsung SDS India Pvt. Ltd. DLF Cybercity, Gurgaon, Haryana	30,000/-
7.	Anshul Kumar	BT18CSE008	ITH Technologies, Kanpur, Uttar Pradesh	25,000/-
8.	Pooja Daga	BT18CSE030	Samsung SDS India Pvt. Ltd. DLF Cybercity, Gurgaon, Haryana	30,000/-
9.	Akhilesh Yadav	BT18CSE015	Samsung SDS India Pvt. Ltd. DLF Cybercity, Gurgaon, Haryana	30,000/-

10.	Bharat Goyal	BT18CSE029	Samsung SDS India Pvt. Ltd. DLF Cybercity, Gurgaon, Haryana	30,000/-
11.	Meenu Yadav	BT18CSE021	Cvent Pvt. Limited, Gurugram, Haryana	40,000/-
12.	Chintoo Kumar	BT18CSE005	Samsung SDS India Pvt. Ltd. DLF Cybercity, Gurgaon, Haryana	30,000/-
13.	Vishnu Priy Agnihotri	BT18CSE018	ZS Associates, Gurugram	35,000/-
14.	Ujjwal Khanduri	BT18CSE007	Samsung R&D Institute, Noida	Offer Letter Pending
15.	Ujjwal Rawat	BT18CSE027	Samsung SDS India Pvt. Ltd., Gurgaon	30,000/-
16.	Anil Singh	BT18CSE024	Tiger Analytics India Consulting Pvt. Ltd. ,Chennai	30,000/-
17.	Akshobhya Pal	BT18CSE023	Optym India Pvt. Ltd.	50,000/-
18.	Divakar Lakhera	BT18CSE002	Samsung R&D Bangalore	50000
19.	Ramanand	BT18CSE003	Samsung Research India- Bangalore	50000
20.	Anurag Sisodiya	BT18CSE022	Samsung Electronics	50000
21.	Kanha Khatri	BT18CSE025	Optym	50000
22.	Peddi Varun Kumar	BT18CSE031	Samsung R&D Institute India Bangalore	50000
23.	Mayak Verma	BT18CSE026	Optym India Private Ltd	40000

### STUDENT'S GATE SCORE

S.No.	Name of Student	Roll No.	Category SC/ST/OBC/Gen	All India Rank
1.	Himanshu Patel	BT17CSE010	GEN	3878
2.	Rishabh Gupta	BT17CSE022	GEN	11537
3.	Anadi Mitra	BT17CSE044	SC	30743
<b>List of GATE-2022 Qualified Students:</b>				
1.	Himanshu	BT18CSE001	SC/ST	10918

### PLACEMENT PERCENTAGE (2018-22 BATCH):

90% with 06 students bagged two offers. Best Placement Ever since inception with Average Package 12.20LPA, Median Package 10 LPA and Highest Package 36LPA.

S.No.	Name	Branch	Companies Placed	Another Offer
1	Divakar Lakhera	CSE	Innovaccer	



2	Ramanand	CSE	Publicis Sapiant	
3	Chintoo Kumar	CSE	Infosys	
4	Utkarsh Bhandari	CSE	Publicis Sapiant	
5	Ujjwal Khanduri	CSE	Tredence Analytics	Accenture
6	Anshul kumar	CSE	ITH Technologies	
7	Pankaj Kumar	CSE	Publicis Sapiant	
8	Gajendar	CSE	Unicommerce	
9	Esha Sachan	CSE	People Strong	
10	Nalla Shanmukeswara Rao	CSE	Cvent	
11	Akhilesh Yadav	CSE	Publicis Sapiant	
12	Saumya Agarwal	CSE	Cvent	Adobe
13	Vishnu Priy Agnihotri	CSE	ZS Associates	
14	Yogita Chauhan	CSE	Zycus Technologies	
15	Himanshu Pandey	CSE	People Strong	
16	Meenu Yadav	CSE	Cvent	
17	Anurag Sisodiya	CSE	Atlassian	
18	Akshobhya Pal	CSE	Publicis Sapiant	carrier corporation
19	ANIL SINGH	CSE	Tiger Analytics	
20	Kanha Khatri	CSE	People Strong	Atlassian
21	Mayank Verma	CSE	Publicis Sapiant	Optym
22	Ujjwal Rawat	CSE	Deloitte USI	
23	Reena	CSE	Zycus Technologies	
24	Bharat Goyal	CSE	Deloitte USI	
25	Pooja Daga	CSE	Capgemini	Accenture
26	Peddi Varun Kumar	CSE	People Strong	



### 05.03 ELECTRICAL ENGINEERING DEPARTMENT

The Department of Electrical Engineering was established during the inception of the Institute in 2010 and has a fine blend of young and dynamic faculty. The Department is currently offering B.Tech. in Electrical & Electronics Engineering and M. Tech program in Electrical Engineering with two specializations i.e., Power System & Control, and Power Electronics & Drives. The department is also offering Ph.D. program in the emerging areas of Electrical Engineering for both full time and part time researchers. The major areas of expertise of faculty of department are Power Systems, Power Electronics, and Control Systems. The faculty of the department has been constantly carrying out research on state of art technologies and regularly publishing research work in top international journals and conferences. The department is well equipped with laboratories and research facilities for B.Tech., M.Tech. and Ph.D. programs. The department is also running IEEE student branch chapters.



#### VISION:

To be a centre of eminence in Electrical Engineering and contributing sustainable development for industry and society by nurturing human resources.

#### MISSION:

- To empower the students and professionals with state of art knowledge and technological skills in Electrical Engineering.
- To enable industries to adopt effective solutions in the domain of Electrical Engineering through research and consultancy.
- To inculcate the sustainable technical development for social needs.

#### ACADEMIC STAFF:

S. No.	Faculty Name	Designation	Areas of Specialization
1.	Dr. Prakash Dwivedi	Assistant Professor	Control System
2.	Dr. Mahiraj S Rawat	Assistant Professor	Power System & Renewable Energy
3.	Dr. Sourav Bose	Assistant Professor	Power Electronics, Electric Drives &

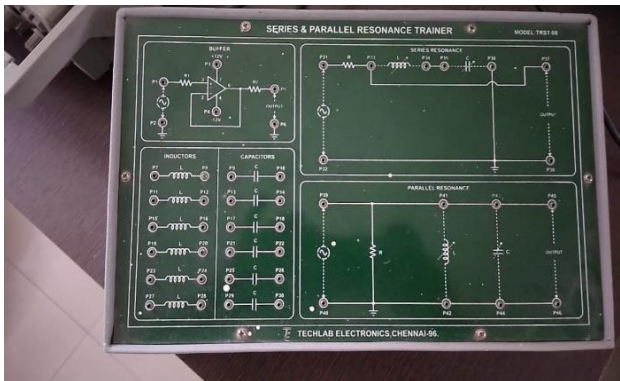
			Renewable Energy
4.	Dr. V. G. Durgarao Rayudu	Assistant Professor	Control System
5.	Dr. Suryanarayana Gangolu	Assistant Professor	Power System
6.	Dr. Tripurari Nath Gupta	Assistant Professor	Power Electronics
7.	Dr. Rohit Kumar	Assistant Professor	Electric Drives, Power Electronics And Renewable Energy
8.	Mr. Nitesh Kumar	Trainee Teachers	Power Electronics
9.	Mr. Himesh Kumar	Trainee Teachers	Power System

### NON-TEACHING STAFF:

S. No.	Staff Name	Designation
1.	Mr. Alok Kumar Patel	Technical Assistant
2.	Mr. Pradeep Kumar	Technician

### RESEARCH AND DEVELOPMENT INFRASTRUCTURE/LABORATORIES

#### BASIC ELECTRICAL CIRCUIT LABORATORY:



#### LIST OF EXPERIMENTS

1. To verify and finding the equivalent circuit of a Thevenin's theorem.
2. To verify and finding the equivalent circuit of a Norton's theorem.
3. To verify Maximum Power Transfer theorem.

4. To verify Super Position theorem.
5. To study the operation of Series and Parallel Resonance of a RLC circuit.
6. To find the power of a 3- $\phi$  balanced and unbalanced system.
7. To study the operation of a Transformer as a Coupled circuit and determination of its
  - a. Self-Inductance
  - b. Mutual Inductance
  - c. Coupling Coefficient.
8. To verify Telligen's theorem.
9. Transient response of a RL and RC Circuits.
10. To find the various Two- Port network parameters of a given network.

#### LIST OF MAJOR EQUIPMENT'S

1. Maximum Power Transfer Theorem kit
2. Series and Parallel Resonance of a RLC circuit kit
3. Verification of Telligen's theorem kit
4. Two- Port network parameters Kit

#### CONTROL SYSTEM LABORATORY:



#### LIST OF EXPERIMENTS:

1. Error Detector Using Potentiometer and Synchros.
2. Time Response Behavior of Different Blocks of Control System.
3. System Identification.
4. Ziegler-Nichols tuning of PID Controller.
5. To study the effect of addition of pole on transient response to the second order closed loop control system by using MATLAB & LABVIEW.
6. To study the stability analysis of linear system.
7. To study the effect of addition of zero & pole to open loop transfer function of second order unity feedback control system by using root locus technique (using MATLAB& LABVIEW).

#### ADDITIONAL EXPERIMENTS

8. To study the effect of addition of pole on frequency response to the second order closed loop control system by using MATLAB & LABVIEW.
9. To study the frequency response of Lag, Lead, Lag-Lead network.
10. To study the speed characteristics of BLDC Motor.

#### LIST OF MAJOR EQUIPMENT'S

1. Temp. Control System Trainer
2. BLDC Motor trainer system
3. PID Controller
4. Relay Control System
5. Stability analysis of Linear System
6. Transducer Instrumentation & Control trainer
7. Qbot
8. AERO
9. Inverted Pendulum

### ELECTRICAL DRIVES LABORATORY:

#### LIST OF EXPERIMENTS

1. Study of chopper/DC-DC converter-controlled DC Drive.
2. Study of Rectifier controlled DC Drive.
3. Study of PWM controlled Inverter fed Induction Motor
4. Study of electrical braking operation of DC Motor
5. Study of electrical braking operation of AC motor
6. Study of V/f control operation of 3phase induction motor drive.
7. Study of permanent magnet synchronous motor drive fed by PWM Inverter.
8. Study of Closed-Loop Control of DC Drives.
9. Study of slip power recovery control of induction motors.
10. Study of two-quadrant operation of DC-DC Converter.

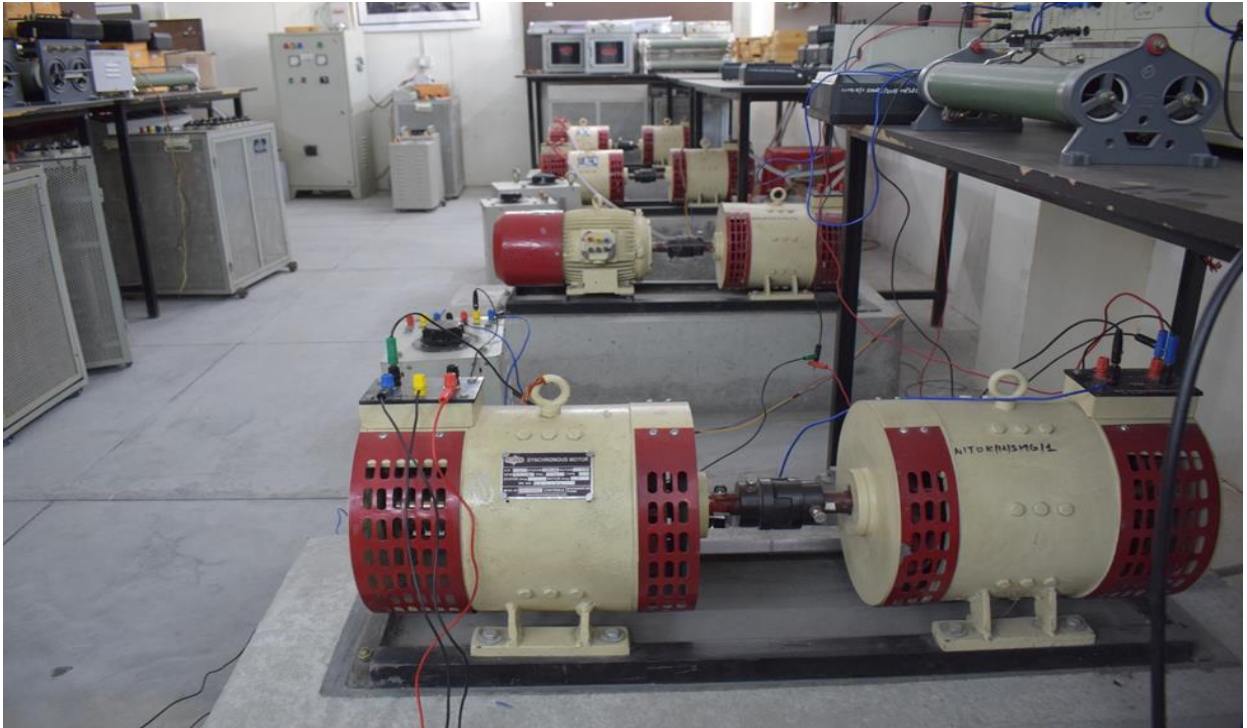


#### LIST OF MAJOR EQUIPMENT'S

1. DC-Motor Gen System (3kw)-NI LabVIEW based
2. Induction Generator System- NI LabVIEW based instruments.
3. 3-phase Synch motor gen System, 3 kW
4. Three Phase Squirrel Cage Induction –Controlled by NI-LabVIEW and VFD Drives
5. Switched reluctance Motor kit 0.3 kW
6. 3-Phase Universal Motor Controller
7. PM Synch Motor Kit 3 kW
8. PMBLDC- Kit 0.25 kW
9. Solar and Wind Power Trainer Kit (NI LabView)
10. Smart Grid Monitoring Module
11. Three-phase half and fully controlled rectifier.
12. Variable frequency drives.
13. Voltage Source Inverter.



### ELECTRICAL MACHINE LABORATORY-I:



#### LIST OF EXPERIMENTS

1. To determine the efficiency of single-phase Transformer by conducting Sumpner's back- to- back test.
2. To conduct load test on DC shunt generator and to draw the external and internal characteristics of DC shunt generator.
3. To conduct Hopkinson's test on a pair of identical DC machines to pre-determine the efficiency of the machine as generator and as motor.
4. To perform the scott connection of transformer and to obtain the two-phase supply from three phase supply.
5. To determine the efficiency of the two given dc series motors which are mechanically coupled.
6. To study of the speed control of a dc shunt motor using conventional Ward- Leonard method.
7. To draw the magnetization characteristics of dc shunt generator.
8. To conduct brake test on DC compound motor for long shunt cumulative & differential connections and to draw the performance characteristics.
9. To perform parallel operation of two dissimilar Transformer and determine combined and individual transfer efficiency.
10. To perform the Swinburne's test of the DC machine and pre-determine the efficiency of the machine as generator and as motor.

### ELECTRICAL MACHINE LABORATORY-II:

#### LIST OF EXPERIMENTS

1. To determine speed- torque characteristics of single-phase Induction motor and study the effect of voltage variation.
2. To draw the circle diagram of 3-phase induction motor by conducting no load and blocked rotor test.
3. To study speed control of three phase Induction motor by varying supply voltage and keeping  $v/f$  constant.

4. To determine V-curve and inverted V-curve of a three-phase synchronous motor.
5. To predetermine the regulation of 3-phase alternator by EMF and MMF methods and also draw the vector diagram.
6. To determine the efficiency of 3-phase induction motor by performing load test.
7. To study synchronization of an alternator with infinite bus using
  - (A) Dark lamp method
  - (B) Two bright and one dark lamp method
8. To determine the percentage regulation of an alternator by ZPF method.
9. To study the power angle curve of synchronous generator.
10. To determine  $x_d$  and  $x_q$  of a salient pole synchronous motor using the slip test.

#### LIST OF MAJOR EQUIPMENT'S

1. 3-Phase Rectifier
2. DC Shunt Motor
3. Squirrel Cage IM
4. Dc Power Supply SCR Based
5. DC compound Gen Set
6. Slip Ring Motor
7. Synchronous Motor 4 pole coupled with DC Shunt Generator
8. Synchronous Motor, with Induction motor Coupled Dc Shunt gen. 220V, 3 kW, 1500rpm
9. Synchronous Motor, 1HP, Coupled Dc Shunt gen. 220V, 3kW, 1550 rpm
10. Servo Stabilizer 3-ph
11. Multi Winding Transformer

#### ELEMENTARY ELECTRICAL ENGINEERING LABORATORY:



#### LIST OF EXPERIMENTS

1. To study and verify Kirchoff's current and voltage laws for a circuit.
2. To study the performance & phasor diagram of RLC series circuit.
3. To study the speed control of DC shunts motor.
4. To perform the open circuit & Short circuit test for measuring the losses of the transformer.
5. To study the performance & phasor diagram of RLC parallel circuit.
6. Study of different types of machines.
7. To test the polarity of the single phase transformer.
8. Determine B/H curve for magnetic material.
9. To calculate the efficiency & voltage regulation of a single phase transformer.
10. Calculation of slip(s) of Induction motor for clock wise and anti-clock wise rotation of rotor.

### LIST OF MAJOR EQUIPMENT'S

1. DC Supply 110-220 V.
2. Ammeter DC 1-0-1 Amp.
3. DC 0.5-1 Amp.
4. Rheostat 110 $\Omega$ , 2.8 Amp; 1089  $\Omega$ , 0.6 Amp.
5. Variac Input 220 V, output 270V, 5 Amp
6. Ammeter AC 2.5-5 Amp.
7. Voltmeter 150-300 V.
8. Transformer 220 V, 1KVA, 4.5 Amp.
9. Wattmeter 2.5-5 Amp, 75-150-300 V.
10. Capacitor 0-10  $\mu$ F
11. Single Phase lamp load input 220 V

### MEASUREMENT LABORATORY:



### LIST OF EXPERIMENTS

1. Measurement of unknown medium resistance by using Wheat Stone Bridge
2. Measurement of unknown small resistance by using Kelvin Double Bridge
3. Measurement of unknown medium inductance by using Maxwell Bridge
4. Measurement of unknown high inductance by using Hay' Bridge
5. Study of analog meters-PMDC, Electro Dynamo Meter, Moving Iron
6. Measurement of small distance variations by using LVDT
7. Measurement of weight by using Strain Gauge
8. Measurement of Torque
9. Study of CRO (Cathode Ray Oscilloscope)
10. Measurement Wind using Digital Anemometer
11. Measurement of solar irradiance using Digital Pyranometer (Solar Power meter)

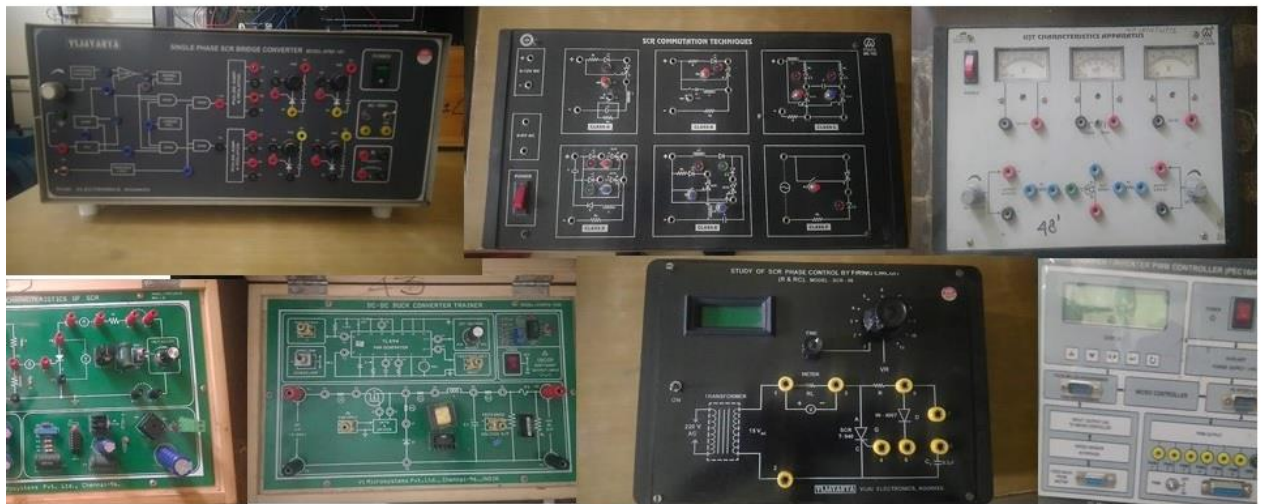
### LIST OF MAJOR EQUIPMENT'S

1. **Wheat Stone Bridge** Source-5V R1 -1K $\Omega$ , 10K $\Omega$ , 100K $\Omega$ . R2- 10K. R3-, 10 $\Omega$ , 100 $\Omega$ , 1K $\Omega$ , 10K $\Omega$ , 100K $\Omega$
2. **Kelvin Double Bridge** Source-5V. R1 -1K $\Omega$ , 10K $\Omega$ , 100K $\Omega$ . R2- 100 $\Omega$ , R3-1K $\Omega$ , 10K $\Omega$ , 100K $\Omega$ .
3. **Maxwell Bridge Source**-1KHz Oscillator R1-10K. R2-0.1mf. R3 -10 $\Omega$ , 100 $\Omega$ , 1K $\Omega$ , 10K $\Omega$ , 100K $\Omega$



4. **Hay' Bridge Source**-1KHz Oscillator R2 -10 $\Omega$ , 100 $\Omega$ , 1K $\Omega$ , 10K $\Omega$ , 100K $\Omega$ . R3 -10 $\Omega$ . R4 -10 $\Omega$
5. PMMC, Electro Dynamo Meter, Moving Iron
6. **LVDT** Input 203 AC Display 0-10 V Displacement range 0-20 mm
7. **Strain Gauge** Measuring Range-0-5,Kg Non-linearity Error -  $\pm 1\%$  Excitation Source-D.C. Excitation (5Volts) Display- 3(1/2) Digit LED
8. **Torque** Measuring Range-0-2.5Newton meter. Non-linearity Error -  $\pm 1\%$  Source-D.C. Excitation (5Volts) ; Working Temperature-0-500C Display- 3(1/2) Digit LED
9. **CRO (Cathode Ray Oscilloscope)**
10. **Anemometer** Display-LCD ,Size-65x25 mm Operating Temperature-0-500C(32- 1220F) Air Velocity Sensor Structure- Conventional twisted vane arms and low friction ball-bearing design. Power supply-006P DC 9V battery Power Consumption-Approx DC 9mA Weight-325g/0.72lb(Including Battery)
11. **Pyranometer** (Solar Power meter) Sensor-High Sensitivity Silicon Photodiode Range-0~2000W/m<sup>2</sup>(0~634BTU/ft<sup>2</sup>.h) Tilt angle range- 00~90 Store temp .&relative humidity- -100C~600 C(140F~1400F Less than 85%RH) Memory-20 point memory Accessories-9V battery

#### POWER ELECTRONICS LABORATORY:



#### LIST OF EXPERIMENTS

1. To study the V-I characteristics of SCR.
2. To study the V-I characteristics of TRIAC.
3. To study UJT characteristics.
4. To study SCR phase control.
5. To study SCR commutation techniques.
6. To study the performance of boost converter.
7. To study the performance of buck converter.
8. To study the operation of full bridge-controlled converter with R-Load.
9. To study single phase full bridge inverter.
10. To study single phase ac voltage controller
  - a. Based on SCR
  - b. Based on TRIAC

#### LIST OF MAJOR EQUIPMENT'S

1. PEC16M1B Trainer Kit
2. PEC16M1C Trainer Kit



3. ME547D Trainer Kit
4. SCR-06 Trainer Kit
5. SCR commutation (ME-793) Trainer Kit
6. DC-DC Boost converter (VSMPS-06A)
7. DC-DC Buck converter (VSMPS-05A)
8. SPBC-101 Trainer Kit
9. PEC16M3 & 16HV2B Trainer Kit
10. PEC14M14AC Trainer Kit

#### SIMULATION LABORATORY:



#### LIST OF EXPERIMENTS (SOFT COMPUTING TECHNIQUES LAB)

1. Programs on Matrix operations to understand the basic concepts of MatLab.
2. To print all the Continuous Discrete Membership Functions by using MatLab.
3. To perform different fuzzy operations on Membership Functions by using MatLab.
4. Design a Fuzzy controller for Air conditioning system/Washing Machine.
5. Identification of a system using Perceptron/Radial Base Function Network (RBFN).
6. Identification of a system by using Backpropagation algorithm.
7. Minimizing the objective function by using Genetic Algorithm (GA)
8. Minimizing the objective function by using Particle Swarm Optimization (PSO)
9. Minimizing the objective function by using Cuckoo Search Algorithm (CSA)
10. Minimizing the objective function by using Ant Colony Optimization (ACO)
11. Minimizing the objective function by using Differential Evolutionary (DE) algorithm
12. Minimizing the objective function by using Cat Swarm Optimization (CSO)

#### LIST OF EXPERIMENTS (POWER SYSTEM LAB)

##### MATLAB/SIMULINK BASED EXPERIMENTS

1. Static Load Flow Analysis of Standard IEEE bus system using N-R method.
2. Dynamic Analysis of IEEE 9 bus System.
3. Small signal Stability Analysis of Single Machine Infinite Bus System.
4. Short circuit Analysis of IEEE 9 bus power system.

##### DIGSILIENT POWER FACTORY BASED EXPERIMENTS-

1. Modeling and Analysis of Low Voltage Distribution Network (Mesh and Radial).
2. Study of Relay Coordination and Time grading Calculation using PowerFactory.
3. Power Quality and Harmonics Analysis of Power System.
4. Modeling IEEE 8 bus power system and analyzing/creating different operation Scenarios using PowerFactory.

5. Transient stability & Voltage Stability Analysis of Standard Power System.
6. Contingency Analysis of standard Power System.

### LIST OF SOFTWARE

1. DigSlient PowerFactory 2018
2. MatLab 2019b
3. LabView 2013

### DESKTOP COMPUTER DETAILS

Total No of Computer- 27

Specification Intel Core I i5-4590 CPU @3.30 GHz, RAM – 4GB, OS-64bit Microsoft Windows 10

### SWITCH GEAR & PROTECTION LABORATORY:



### LIST OF EXPERIMENTS

1. To study the protection of transformer with percentage biased differential relay (Microcontroller based numerical relay).
2. To study IDMT over current relay (single phase) and to determine the pickup and reset value and determine the time and current characteristics.
3. To study the working of Buchholz relay.
4. To analyze the underground cable fault using Varley loop test.
5. To study the directional over current protection.
6. To study the breakdown voltage of transformer oil by adjusting electrode gap length.
7. To study and draw the characteristics of numerical overcurrent relay.
8. To study and analyze the different type of symmetrical and unsymmetrical faults occurs in transmission line.
9. To study microcontroller based over/under voltage relay.
10. To study the complete protection of alternator unit.
11. To study the protection of feeder system.
12. To study the principle of reverse power protection.

### LIST OF MAJOR EQUIPMENT'S

1. IDMT over current relay kit (ME2471R)
2. Buchholz relay unit
3. Varley loop test kit (VPL-83A)

4. Transformer oil test kit
5. Feeder protection unit
6. Symmetrical and unsymmetrical fault analysis (NVI57065)
7. Microcontroller based over/under voltage relay (VPL-05)
8. Reverse power protection Panel
9. Protection of Alternator unit (PWS-3012A)
10. Percentage biased differential relay
11. (ME2473RD)
12. Directional overcurrent relay (JRP 011)
13. Numerical overcurrent relay (ANSI NO. 50&51)

#### ADVANCED ELECTRICAL DRIVES LABORATORY:



#### LIST OF EXPERIMENTS

1. Design simulation of Single phase rectifier with R, RL and RLE loads using MATLAB.
2. Study and analysis of open and closed loop control of three phase induction motor using DSP microcontroller board.
3. Study and analysis of open and closed loop control of BLDC motor using DSP microcontroller board.
4. Study and analysis of open and closed loop control of Switch Reluctance Motor using FPGA.
5. Study and analysis of open and closed loop control of PMDC motor using DSP microcontroller board.
6. Study and analysis of three level diode clamp three phase MLI for open and closed loop control of Induction motor using FPGA Board.
7. Study and analysis of five level cascaded MLI operation through FPGA control Board.

8. Study and analysis of various operation by Matrix Converter through FPGA Controlled Board.
9. Study and analysis of closed loop control of BLDC and Three Phase Induction Motor parameter on Real Time GUI FPGA platform.

#### LIST OF MAJOR EQUIPMENT'S

1. Real Time – GUI FPGA Controller Based
  - I. Induction Motor Set up
  - II. DC Motor Drive Set Up
  - III. BLDC Motor Drive Set up
  - IV. SR Motor Drive Set up.
2. Matrix Converter Power Module
3. Three Phase Five Level Cascaded Multilevel Inverter.
4. Three Phase Three Level Diode Clamped Multilevel Inverter Power Module.
5. DSPIC4011 Microcontroller Based PWM Controller.
6. FPGA PWM Controller
7. AC/DC Current Measurement Cards with auxiliary power supply
8. AC/DC Voltage Measurement Card with auxiliary power supply
9. Single IGBT Project card with Opt coupler based driver circuit
10. Dual IGBT Project card with Opt coupler based driver circuit
11. Opal RT Real Time HIL Simulator and HIL Controller
12. Typhoon HIL Simulator.
13. Workstation Dell

#### Ph.D. RESEARCH FACILITIES



1. Aero
2. Qbot
3. Inverted Pendulum
4. FPGA PWM Controller
5. OPAL-RT-Real Time Digital HIL Simulator for Power System, Power Electronics Machine and Drives Applications
6. Typhoon HIL Hardware in the Loop Real Time Simulator Power Electronics and Renewable Energy (Simulator)-
7. Digital Signal Processor (TMS320F28335)
8. Matrix Converter Power Module
9. Three Phase Five Level Cascaded Multilevel Inverter.
10. Electrical Vehicle (E-Rickshaw)

#### SOFTWARES

11. MatLab 2019b
12. DigSalient PowerFactory 2018
13. Labview 2013

### INDUSTRY COLLABORATIVE LABORATORY

The Department of Electrical Engineering, NIT Uttarakhand has an Industry Collaborated lab established by Mitsubishi Electric India Pvt. Ltd. under MoU between NITUK and MITSUBISHI Electric India Pvt. Ltd. The following equipment's/software are provided to the Electrical Engineering Department of NIT Uttarakhand under MoU between NITUK and MITSUBISHI Electric India Pvt. Ltd.

1. MELSOFT MX OPC Server (Integrated solution for plant engineering)
2. MELSOFT MC Works 64 (Integrated solution for plant engineering)
3. FA learning kit; Inverter (FR-A820) and Servo Amplifier (MR-J4W3).



### DETAILS OF R&D PROJECTS:

Sr. No.	Title of the R&D Project	Funding Agency	Name of PI/Co-PI	Sanctioned Amount Rs. (in Lacs)	Status
1.	Solar powered robust E-Rickshaw control with bidirectional DC-DC converter using regenerative cycle boost charging	MeitY	Dr. Prakash Dwivedi & Dr. Sourav Bose	30.02	Ongoing

### DETAILS OF CONSULTANCY PROJECTS:

S. No.	Title of the Consultancy Project	Funding Agency	Name of PI/Co-PI	Sanctioned Amount Rs. (in Lacs)	Status
1.	Technical Vetting of GFC Drawing	RCC Developers	Dr. Aditya Anupam & Dr. Prakash Dwivedi	2.31	completed
2.	Technical Vetting of GFC Drawing	RCC Developers	Dr. Aditya Anupam & Dr. Prakash Dwivedi	0.29	completed

### DETAILS OF CONFERENCES/STC/FDPS ETC ORGANIZED:

1. Five days Online Short Term Course on "Stability Issues, Challenges and Solutions in Renewable Integrated Power Systems" from 28th Feb-04th March, 2022, organized by Department of Electrical Engineering, NIT Uttarakhand.

- Organized one week virtual Workshop on "Challenges & Opportunities towards Sustainable Energy & Environmental Technology in India" February 21-25, 2022 as a Coordinator.
- Organized 1st International Conference on Robotics, Control and Computer Vision (ICRCCV-2022), organized by NIT Uttarakhand from Feb 19-20, 2022 as Secretary.
- Organized "8th IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON 2021)" from November 11th -13th, 2021 as **Conference Chair**. **Link: <http://upcon2021.in/>**
- Organizing "Conference on Science, Technology and Agriculture (CONSTA-21)" from November 27th -28th, 2021 as **Conference Secretary**.
- 5 Days, inhouse online workshop on FA learning kit, under Mitsubishi Lab. (Sept. 2021).
- 3 Days, inhouse online workshop on Software module of SCADA of FA learning kit, under Mitsubishi Lab. (Nov. 2021).
- 2 Days, inhouse workshop and hands-on training on the PLC module of Mitsubishi FA learning kit, under Mitsubishi Lab. (May 2021).

#### DETAILS OF CONFERENCES/STC/FDPS ETC ATTENDED:

- One Week **Workshop on "Recent Development in Mathematical Modelling in Engineering Sciences"** during December 27-31, 2021 which is being organized by the Department of Mathematics, NIT Uttarakhand
- A **Five Day Online Short-Term Course (STC) on "Stability Issues, Challenges and Solutions in Renewable Integrated Power Systems"** from 28<sup>th</sup> Feb- 4<sup>th</sup> March 2022, organized by the Department of Electrical Engineering, NIT Uttarakhand
- A five-day virtual **workshop on "Design Thinking, Critical Thinking and Innovative Design"** during **February 28- March 04**, 2022 (Evening) organized by the Department of Mechanical Engineering, NIT Uttarakhand
- A One-week Online Workshop on "Intelligent Control and Protection Techniques for **HYBRID Microgrid**" from 5<sup>th</sup> - 9<sup>th</sup> March 2022, organized by the Department of Electrical Engineering, MNNIT Allahabad.
- A webinar on "a visual introduction to deep learning" on 12<sup>th</sup> March 2022 organized by Super Computer facility at Computer Engineering Depart of Government Engineering College, Rajkot

#### SWAYAM/NPTEL/MOOCs COURSES:

Dr. Rohit Kumar attended NPTEL courses on renewable energy organised by IISC Bangalore.

#### SPECIAL ACHIEVEMENTS:

Dr. Rohit Kumar completed his Ph.D. on 12<sup>th</sup> Oct 2022 and promoted as an assistant professor (Gr-II)

#### STUDENT PROJECTS:

Group No.	Roll No.	Name of Student	Project Topic
1.	BT18EEEE001	Aanchal Mehra	Control Scheme of Power Converter
	BT18EEEE017	Shivangi Upadhyay	
	BT18EEEE023	Metikala Prabhu Prasanna Kumar	
2.	BT18EEEE002	Utkarsh Dyundi	Relaying in Modern Power System
	BT18EEEE018	Sushmit Chauhan	
	BT18EEEE019	Shivam Chamoli	
3.	BT18EEEE006	Mohd Mustafa Kamal	Smart Energy Management System

	BT18EEEE007	Utkersh Rajvenshi	
	BT18EEEE011	Ankit Agarwal	
4.	BT18EEEE021	Sagar Arya	Design and simulation of solar power cells under different environmental conditions.
5.	BT18EEEE022	Saurabh Jaiswal	Smart Grid
6.	BT18EEEE024	Shivam Bisht	Fast Charging of Electric Vehicles.

**STUDENT'S INTERNSHIP:**

S.No.	Roll No.	Name	Organization of Internship
1.	BT18EEEE003	Shivansh Giri	Unicommerce eSolution Pvt. Ltd (Paid internship)
2.	BT18EEEE010	Mayank Bhati	Oracle Solution Services Pvt. Ltd (Paid internship)
3.	BT18EEEE011	Ankit Agarwal	Cogo Freight Pvt. Ltd (Paid internship)
4.	BT17EEEE018	Jitendra Parihar	Room Heater Temperature Controller (June 2021)
5.	BT17EEEE018	YuvarajSingh Chaudhary	
6.	BT18EEEE009	Siddharth Thakur	Sun Tracking Control System for Solar Panels (July 2021)
7.	BT18EEEE010	Mayank Bhati	
8.	BT18EEEE012	Faizan Ashraf	
9.	BT18EEEE027	Mansi Gusain	Voice Controlled Robot Using Arduino Uno (July 2021)
10.	BT18EEEE013	Ashninendra	
	BT18EEEE028	Suyash Singh	

**STUDENT'S GATE SCORE:**

S. No.	Student Roll Number	Name	Gate registration/ Roll number	Gate Rank	Gate Score
1.	BT18EEEE029	Ayush Dixit	EE22S25017068	2241	585
2.	BT18EEEE005	Adarsh bharti	EE22S28008031	12641	307
3.	BT18EEEE017	Shivangi Upadhyay	EE22S28005039	4298	489
4.	BT18EEEE016	Promise Bhati	EE22S23006341	3137	539
5.	BT18EEEE009	Siddharth Thakur	EE22S28036043	8230	378
6.	BT18EEEE025	Deepanshu Chittora	EE22S23024070	5378	450
7.	BT18EEEE029	Ayush Dixit	EC22S35017083	2244	496
8.	BT18EEEE025	Deepanshu Chittora	EC22S33024038	9131	325
9.	BT18EEEE018	Sushmit Chauhan	EE22S28036057	6965	407
10.	BT18EEEE017	Shivangi Upadhyay	IN22S48005145	1693	379

**ANY OTHER ACTIVITIES:**

- Ayush Dixit (BT18EEEE029) of Electrical Engg. Dept. joined direct Ph.D. Programm at IIT Delhi, as per MoU between NITUK and IIT Delhi. He completed his 7th and 8th semester at IIT Delhi.

## 05.04 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 the 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.

### VISION:

To offer academic excellence in the field of Electronics and Communication Engineering with a strong emphasis towards research and development to cater to the needs of the society

### MISSION:

- Establish a vibrant learning environment for the students of Electronics and Communication Engineering.
- Enable students to develop skills to solve complex technological problems by promoting collaborative and multidisciplinary activities.
- To establish the Centre of Excellence to nurture the spirit of innovation and creativity among faculty and students.
- Provide ethical and value based education by promoting activities addressing societal needs.

### ACADEMIC STAFF:

S. No.	Faculty Name	Designation	Areas of Specialization
1	Dr. Hariharan Muthusamy	Associate Professor	Biomedical Signal and Image Processing, Hyperspectral Image Processing, Soft Computing Methods for Microwave and Millimeter-Wave Design, Evolutionary Techniques for System Identification, Evolving Deep Convolutional Neural Networks, Speech Signal Processing
2	Dr. Sarika Pal	Assistant Professor	Optical Communication, Optical Sensors, Optoelectronics, Communication System, Plasmonic sensors, Digital Communication, Wireless Communication
3	Dr. Siva Kumar Tadepalli	Assistant Professor	Multidimensional Systems, Finite Word length Effects, Delayed and Uncertain Systems, Discrete Control Systems, Robotics, Computer Vision
4	Dr. Tajinder Singh Arora	Assistant Professor	Analog Circuit design, Analog Signal Processing, Current- mode circuits, Electronic Devices and Circuits.
5	Dr. Hemant Kumar Singhal	Assistant Professor	Radio Frequency Active Circuits and Passive Circuits such as Power Amplifier, Baluns, low loss power combining topology, etc.
6	Dr. Ghanapriya Singh	Assistant Professor	Signal Processing for IoT, Machine Learning, Deep learning, Context Awareness, Image



			Processing, Speech Processing, Bio medical signal processing
7	Dr. Tushar Goel	Assistant Professor	Planar Antennas for Inter-satellite link and Future mobile technologies, Microwave Harvesting, Microwave Hazards on Ecosystem, Microwave applications for Bio-Medical, Information extraction from radar images using image processing, Radar signal processing, Target detection and estimation, Radar based remote sensing, Disaster Management.
8	Dr. Pankaj Kumar Pal	Assistant professor	Semiconductor Device Physics & Modeling, Novel MOS based Device-Circuit Co-design, Low-power Memory/SRAM circuits Design
9	Mrs. Sarita Yadav	Teacher Trainee	Device Circuit Interaction in multi-gate Devices, Low power FinFET devices, Novel MOS Devices, Semiconductor Device Physics & Modeling
10	Mr. Nitanshu Chauhan	Teacher Trainee	Modeling and simulation on Cryogenic FinFET/NCFET/MOSFET, Impact of Random Spatial Fluctuation in Non-Uniform Crystalline Phases on the Device Variation of NCFET, Effective Current Method for delay estimation in NCFET
11	Mr. Vivek Kumar	Teacher Trainee	Analysis of Thermal Effects in FinFET, Analysis of Thermal Effect in Nanosheet, Analysis of RF FinFET and Nanosheet transistor.

**NON-TEACHING STAFF:** 02 Technical Assistant and 01 Technician

**PH.D. STUDENTS:** Full-Time Scholar – 09, Part-Time Scholar – 11

S. No.	Student ID/Roll.No.	Name of Student	Status (Full Time/Part Time)	Name of Supervisor
1.	DT22ECJ001	Rahul Prakash	Full-Time	Dr. Siva Kumar Tadepalli
2.	DT22ECJ002	Kuldip Kumar	Part-Time	Dr. Hemant Kumar Singhal
3.	DT21ECJ001	Virendra Kumar	Full-Time	Dr. Hemant Kumar Singhal
4.	DT21ECJ002	Ashish Pratap Singh	Full-Time	Dr. Hariharan Muthusamy
5.	DT21ECJ003	Ritu Tanwar	Full-Time	Dr. Ghanapriya Singh
6.	DT21ECJ004	Mahesh Kumar Aghwariya	Part-Time	Dr. Tushar Goel
7.	DT20ECJ001	Rajeev Kumar	Part-Time	Dr. Sarika Pal
8.	DT20ECJ002	Avinash Bhatt	Part-Time	Dr. Tushar Goel
9.	DT20ECJ003	Satendra Pathak	Full-Time	Dr. Tushar Goel
10.	DT20ECJ004	Vipin Kumar Verma	Part-Time	Dr. Sarika Pal
11.	DT19ECJ001	Varun Kumar Kakar	Part-Time	Dr. Pankaj Kumar Pal
12.	DT19ECJ002	Lalit Kumar Garia	Part-Time	Dr. Hariharan Muthusamy
13.	DT19ECJ003	Sachin Tiwari	Full-Time	Dr. Tajinder Singh Arora
14.	DT19ECJ004	Maneesh Kumar Singh	Full-Time	Dr. Sarika Pal
15.	DT19ECJ006	Rishi Nigam	Part-Time	Dr. Siva Kumar Tadepalli
16.	DT19ECJ008	Km. Ruchi Juyal	Full-Time	Dr. Hariharan Muthusamy
17.	DT19ECJ009	Arvind Kumar	Part-Time	Dr. Tajinder Singh Arora
18.	DT19ECJ010	Arvind Bisht	Full-Time	Dr. Pankaj Kumar Pal
19.	DT17ECJ001	Yogendra Pratap Pundir	Part-Time	Dr. Pankaj Kumar Pal
20.	DT17ECJ002	Rajesh Saha	Part-Time	Dr. Pankaj Kumar Pal

## RESEARCH AND DEVELOPMENT INFRASTRUCTURE/LABORATORIES

**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.



**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.



**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.



**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 analyse its basic proper ties like time shifting, modulation, filtering, scaling, and compression on a virtual platform such as lab-view and code composers.



**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.



**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.



**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.



**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.



**LIST OF EXPERIMENT:****COMMUNICATION LAB:**

- 1) Study of DSB Amplitude modulation (AM).
- 2) Study of DSB Amplitude demodulation.
- 3) Study of SSB Amplitude modulation.
- 4) Study of SSB Amplitude Demodulation.
- 5) Study of Frequency modulation (FM) using Varactor Modulator
- 6) Study of Frequency modulation (FM) using Reactance Modulator.
- 7) Study of Frequency demodulation.
- 8) Study of Pulse amplitude modulation. (PAM)
- 9) Study of Pulse width modulation. (PWM)
- 10) Study of Pulse position modulation. (PPM)
- 11) Study of Time-division multiplexing. (TDM)

**ANALOG ELECTRONICS LAB:**

- 1) To Measure the Op-amp characteristics using IC-741.
- 2) Design of Inverting and Non-inverting amplifier using IC-741.
- 3) Design of Integrator and differentiator using IC-741.
- 4) Design of Instrumentation amplifier using IC-741.
- 5) Design of Active Low pass, High pass filters using Op-amp IC-741.
- 6) Design of Active Band pass and Band Notch filter using IC-741.
- 7) Design of Astable multivibrator using Op-amp IC-741.
- 8) Design of Monostable multivibrator using Op-amp IC-741.
- 9) Design of Schmitt Trigger and Triangular wave generator using IC-741.
- 10) Design of RC Phase-Shift oscillator using IC-741.
- 11) Design of Wein Bridge Oscillator using IC-741.
- 12) Design of Astable multivibrator using IC-555 timer.
- 13) Design of Monostable multivibrator using IC-555 timer.

**DIGITAL ELECTRONICS LAB:**

- 1) To verify operation of basis logic gates.
- 2) Realization of Logic functions with the help of Universal Gates (NAND /NOR Gate).
- 3) Design a BCD to Excess 3 code /Binary to Gray code converter.
- 4) Simplify the Boolean function using K-map and implement it using logic gates.
- 5) To construct half adder, full adder and subtractor circuit and verify it's working.
- 6) Implementation of Full adder using half adder.
- 7) Implementation of a 4-bit adder using 7483 IC.
- 8) Implementation of a Boolean function using 4:1 Multiplexer.
- 9) Realize a 1-bit and 2-bit magnitude comparator.
- 10) To construct a 4-bit ripple counter using two 7476 ICs.
- 11) Verify the truth tables of S-R, J-K, T and D type flip-flops.
- 12) Design a 4-bit left/right shift register.
- 13) Design and verify a 4-bit synchronous counter.
- 14) Design and Verify a 4-bit asynchronous counter.
- 15) Design and verify a BCD counter.

**MICROCONTROLLER & INTERFACING LAB:**

- 1) To perform Addition of Two 8 Bit Numbers.
- 2) To perform Subtraction of Two 8 Bit Numbers.
- 3) To perform Addition of Two 16 bit Numbers.
- 4) To perform Subtraction of Two 16 bit Numbers.
- 5) To perform multiplication of two 8 bit Numbers.
- 6) To perform Division of two 8 bit Numbers.
- 7) To arrange given no. of arrays in ascending order.

- 8) To arrange given no. of arrays in descending order.
- 9) To perform square of a given Number.
- 10) To find Factorial of a given Number.
- 11) To print Fibonacci series.
- 12) To find Smallest Number from given array.
- 13) To find square root of a given Number.
- 14) To find largest number from given array.
- 15) To find 1s 2s compliment of a given Number.

#### ANALOG COMMUNICATION LAB:

- 1) Introduction to Current Feedback Operational amplifier (CFOA). (Current Feedback Operational Amplifiers and Their Applications)
- 2) To study novel lossless and lossy grounded inductor simulators consisting of a canonical number of components.
- 3) To study lossy/loss-less synthetic floating inductance configuration realized with only two CFOAs.
- 4) CFOA-based lossless and lossy inductance simulators.
- 5) To study CFOA based grounded capacitance multiplier.
- 6) To study CFOA-based state-variable biquad and its high-frequency compensation.
- 7) To study the generation of CCII and CFOA filter from passive RLC Filters.
- 8) To study inverse active filters employing CFOAs.
- 9) To study new CFOA-based sinusoidal oscillators retaining independent control of oscillation frequency even under the influence of parasitic impedances.
- 10) To study synthesis SRCOs using CFOA-based state-variable approach.
- 11) To study two-CFOA-GC SRCO.
- 12) To study a new voltage-mode quadrature oscillator using grounded capacitors: An application of CDBA.
- 13) To study the Realization of Other Building Blocks like CDBA, CDTA, OTRA, etc. using CFOAs.

#### RF & MICROWAVE LAB:

- 1) Study of Reflex Klystron
- 2) Study of Frequency measurement using Klystrons
- 3) Study of Attenuator
- 4) Study of VSWR measurement
- 5) Study of Gunn Oscillator
- 6) Study Frequency and wavelength measurement using Gunn Oscillator
- 7) Study of Isolator and Circulator
- 8) Study of Impedance measurement
- 9) Study of Dielectric Measurement.
- 10) Study of Phase shift Measurement
- 11) Study of Magic TEE characteristics
- 12) Study of Horn antenna Characteristics and measurement
- 13) Study of Polarization of antenna
- 14) Study of Directional coupler

#### LIST OF MAJOR EQUIPMENTS:

- 1) Logic Analyser, 34 Channel, 250 MHz State (2015)
- 2) HP Workstation Z840 and Z440
- 3) Dell Workstation with Intel Xeon silver 4214 Processor 64GB (Precision 7920DT)
- 4) Spectrum Analyzer 1GHZ
- 5) 100 MSPS Analog Discovery Kit.
- 6) DSO (TDS-2024C, 200MHZ, 4channel color Display)
- 7) Multimeter 4.5 digital Model - U1252B
- 8) ARM9 Development board (ST6201)
- 9) Arbitrary Waveform Generator, Keysight 33521B, 30MHz, 1CH

- 10) Weller Non-integrated Temperature Controlled Soldering Station with platinum sensor
- 11) Programmable Triple Output DC Power Supply (Model- 2230G-30-3)
- 12) Data Gloves (Left hand), Data Gloves (Right hand), Wireless Kit for Data Gloves

#### SOFTWARES:

- 1) Synopsys AsiaPAC Advance TCAD (3D) University Bundle
- 2) Advanced Design System Software (ADS)
- 3) CAD Tool
- 4) Optisystem V15.1
- 5) CST Studio Suite Electromagnetic Solver/Simulator
- 6) Cadence Front End and Backend Tools with 5 licenses.
- 7) Mentor Graphics Front End and Backend Tools with 1000 licenses.
- 8) Xilinx HLS Vivado with 25 licenses.
- 9) NI Academic site license lab view software.
- 10) Mat Lab Software.

#### HIGHLIGHTS/ACHIEVEMENTS:

- 1) **Dr. Hariharan Muthusamy** has been awarded a research project entitled, "Deconet- Development Of Indigenous System For Deciphering Envisioned Speech From Eeg Signals Using Optimized Deep Convolutional Neural Network Models" with a total tentative outlay of **Rs.28.11 lakhs by SERB, DST under Core Research Grant Scheme(file Number: CRG/2021/007147).**
- 2) **Dr. Hariharan Muthusamy** has been **appointed as Academic Editor** in PLOS ONE Journal.
- 3) **Dr. Hariharan Muthusamy** delivered an expert talk in high end workshop on **"Role of artificial Intelligent in Biomedical and Health Informative"** on 11/04/2022
- 4) **Dr. Hariharan Muthusamy** has been **appointed as Associate Editor** in International Journal of Biomedical and Clinical Engineering, IGI Global Publishing House.
- 5) **Dr. Hariharan Muthusamy** was the General Chair, Asian Conference on "Intelligent Computing and Data Science (ACIDS-2020), 24 – 25 May, 2021, Malaysia.
- 6) **Dr. Sarika Pal** has organized online Alumni meet successfully on 26<sup>th</sup> March as Institute Alumni Coordinator.
- 7) **Dr. Sarika Pal** has reviewed SCI indexed Journals of Nature Scientific reports, IEEE Access and Optical and Quantum Electronics.
- 8) **Dr. Tajinder Singh Arora** received the recognition as Fellow Member from Indian Society for VLSI Education (ISVE) Ranchi.
- 9) **Dr. Tushar Goel** reviewed 3 journal papers for Taylor and Fransis, and MOTL.
- 10) **Dr. Tushar Goel submitted a project proposal as (Co-CI)** with Dr. Pankaj Kumar Pal under Chip to startup (under MEITY) in Cat. P-II as participating Institute under a consortium of IIT BHU (Nodal Institute) and IIIT Sricity, IIT Naya Raipur and DCRUST, Murthal as other participating institutes.
- 11) **Dr. Tushar Goel submitted a project proposal (as PI)** with Dr. Pankaj Kr. Pal entitled as,"Retrieval of snowpack density catering power generation in Upper Garhwal Himalayan Region by Utilizing Polarimetric Synthetic Aperture Radar (SAR) Images" under SERB CRG 2022.
- 12) **Dr. Tushar Goel submitted a project proposal (as PI)** with Dr. Pankaj Kr. Pal entitled as,"Microwave energy harvesting to assist the on-board batteries for increasing the life span of a satellite by using rectenna systems integrated into solar panels." under SAC ISRO 2022.
- 13) **Dr. Pankaj Kumar Pal submitted a project proposal (as co-CI)** with Dr. Ghanapriya Singh entitled as "IoT-based Multifunctional Scalable Real-Time Farm Monitoring System for Smart Agriculture" under **Agriculture & Water Technology Development Hub (AWaDH) scheme**, IIT Ropar which was principally accepted and presently modifying it as per the review's received.

- 14) **Dr. Pankaj Kumar Pal** prepared a project proposal under Chip to startup (under MEITY) in Cat. P-II as participating Institute under a consortium of IIT BHU (Nodal Institute) and IIIT Sricity, IIT Naya Raipur and DCRUST, Murthal as other participating institutes.
- 15) **Dr. Pankaj Kumar Pal** delivered an invited talk on “INNOVATIONS IN VLSI TESTING” conducted by Institute Innovation council, Siddharth Institute of Sciences and Technology, Puttur on Jan. 22, 2022.
- 16) **Dr. Ghanapriya Singh and Dr. Hemant Kumar Singhal** submitted workshop proposal to **SERB** for conducting Advanced Virtual Workshop on Next-Generation Technology: RF and ML conducting
- 17) **Dr. Ghanapriya Singh and Dr. Prashant Tiwari** submitted a research proposal to ICMR.
- 18) **Dr. Ghanapriya Singh** gave a guest lecture in AICTE Training And Learning (ATAL) Academy Online Elementary FDP conducted by Institute of Technology, Gopeshwar on "IOT" from October 5, 2021 to October 9, 2021.
- 19) **Dr. Ghanapriya Singh** gave a guest lecture in AICTE Training And Learning (ATAL) Academy Online Elementary FDP conducted by Shri Shankaracharya Technical Campus Bhilai on "Technological Innovation of Artificial Intelligence in Medical Diagnostics" from December 6, 2021 to December 10, 2021.
- 20) **Dr. Ghanapriya Singh** gave a guest lecture in AICTE Training And Learning (ATAL) Academy Online Elementary FDP conducted by NIT Patna on "Application of Novel Methods in Biomedical" (ANMB-2021) from November 23- 27, 2021.
- 21) **Mr. Nitanshu Chauhan** was invited for the talk in **University of California Berkeley, USA on 01.04.2022.**
- 22) **Mr. Nitanshu Chauhan** is invited for the talk in **IIITPDM, Jabalpur** in March-2022.
- 23) **Mr. Nitanshu Chauhan, Trainee Teacher** is going to submit his Ph.D Thesis at IIT Roorkee by the end of June-2022.
- 24) **Mr. Nitanshu Chauhan, Trainee Teacher** received an invitation regarding discussion on his PhD related work with experts from **UC Berkeley USA** and **Purdue University** along with his supervisor (IIT Roorkee).
- 25) **Mrs. Sarita Yadav** submitted her Ph.D Thesis titled “**FinFET Device Circuit Interaction in Low voltage domain**” at IIT Roorkee on 15<sup>th</sup> Feb, 2022.

#### DETAILS OF PATENTS:

S. No.	Title	Application Number	Date of Filing/Publication/Award	National/ International	Name of Inventors
1.	Open vs enclosed spatial environment classification for a mobile or wearable device using microphone and deep learning method	US10943602B2	03.09.2021	International	Mahesh Chowdhary, Arun Kumar, Ghanapriya Singh, Rajendar Bahl
2.	A system for improved long-range surface plasmon resonance sensor with ultrahigh imaging sensitivity and figure of merit	202022100430	07.02.2022	International	Dr. Sarika Pal, Maneesh Kumar Singh, Vipin Verma and Y. K. Prajapati

#### DETAILS OF R&D PROJECTS:

S. No.	Title of the R&D Project	Funding Agency	Name of PI/Co-PI	Sanctioned Amount Rs. (in Lacs)	Status
1.	DECOMET- Development of Indigenous System for Deciphering Envisioned Speech From EEG Signals Usng Optimized Deep Convolutional Neural models	SERB, Under Core Research Grant Scheme	Dr. Hariharan Muthusamy	28.11	On-going

**CONFERENCES/STC/FDPS ETC ORGANIZED:**

- 1) Two days **International Conference** on “Robotics, Control & Computer Vision” during 19<sup>th</sup> & 20<sup>th</sup> February, **2022**
- 2) Five days’ **Workshop** on “Frontier Area of Electronics and Communication Engineering: An Industry Academia Convergence” during 27<sup>th</sup> to 1<sup>st</sup> October, **2021**.
- 3) Two days’ **Workshop** on “Project Proposal Writing for Research Grants” during 11<sup>th</sup> to 12<sup>th</sup> January, 2021

**COLLABORATIVE ACTIVITIES:**

**Dr. Tushar Goel** submitted a project proposal (as PI) with Dr. Pankaj Kr. Pal (Co-PI-1) in collaboration with **Prof. Rajib Kumar Panigrahi, IIT Roorkee (Co-PI-2)** entitled as, “Retrieval of snowpack density catering power generation in Upper Garhwal Himalayan Region by Utilizing Polarimetric Synthetic Aperture Radar (SAR) Images” under SERB CRG 2022.

**Swayam/NPTEL/MOOCs Courses:**

Sr. No.	Name of the course	Organizing Institute/ Agency	Name of Institute Course Coordinator	No. students Registered	Duration
1.	86 IIRS Outreach Program on Remote Sensing and Digital Image Analysis.	IIRS Dehradun, ISRO	Dr. Tushar Goel	01	16-08-2021 to 10-09-2021
2.	85 IIRS Outreach Program on Basics of Remote Sensing, Geographic Information System and Global Navigation Satellite System.	IIRS Dehradun, ISRO		02	16-08-2021 to 26-11-2021
3.	72 IIRS Outreach Program on Basics of Geocomputation and GeoWeb Services.	IIRS Dehradun, ISRO		02	19-10-2021 to 29-10-2021

**STUDENT’S ACHIEVEMENTS:**

Mr. Maneesh Singh (DT19ECJ004) is going to submit his Ph.D Thesis titled as “Design and Modeling of SPR sensor based on 2D nanomaterial: Antimonene” by 15<sup>th</sup> June 2022 under supervision of Dr. Sarika Pal, Asst. Prof. ECE dept. He has published 06 SCI/Scopus indexed journals, 01 book chapter and 02 conference research papers from Ph.D research work.

**STUDENT PROJECTS**

S. No.	Roll.No.	Name of Student	Title of the Project	Supervisor
1.	BT19ECE008	Manoj Moond	Microcontroller based Electric Circuit board controller for home appliances using DTMF decoder and RFID	Dr. Tushar Goel
2.	BT19ECE011	Devendra Meena	Microcontroller based Electric Circuit board controller for home appliances using DTMF decoder and RFID	



## STUDENT'S INTERNSHIP

S. No.	Roll.No.	Name of Student	Branch	Company Name	Stipend/ Month (in Rupees)
1.	MT20ECE005	Ms. Nelakurthy Sahithi	ECE	Intel India (Bangalore)	40,000.00/-

## STUDENT'S GATE SCORE

S. No.	Roll.No.	Name	GATE RANK
1.	BT19ECE002	Rahul Raikuni	851
2.	BT19ECE005	Nishant Kandpal	2446
3.	BT18ECE031	Arihant Jain	2244
4.	BT18ECE003	Kartik Nautiyal	2474

## CURRENTLY PLACED B.TECH (BATCH-2018) STUDENTS

Total 22 B.Tech. students (Batch 2018) out of 30 were placed at various industries located in India/outside India

S. No.	Name	Roll No.	Companies Placed	Package (LPA)	Another Offer
1	Abhishek Maletha	BT18ECE020	Publicis Sapient	7.5	-
2	Kaushal Devrari	BT18ECE006	Publicis Sapient	7.5	-
3	Saumya Pande	BT18ECE007	Publicis Sapient	7.5	-
4	Aman Khandelwal	BT18ECE027	Publics sapient	7.5	-
5	Ashish Dhyani	BT18ECE005	Deloitte USI	7.6	Accenture 9.9lpa
6	Puneet Prakash Arya	BT18ECE017	Deloitte USI	7.6	-
7	Srishti Shukla	BT18ECE016	Deloitte USI	7.6	-
8	Akanksha Saini	BT18ECE002	ZS Associates	13	-
9	Sunil	BT18ECE028	ITH Technologies	7.5	-
10	Utkarsh Saxena	BT18ECE023	Unicommerce	10	-
11	Vaibhav Tonk	BT18ECE011	Capgemini	7.5	-
12	Puneet Chhabra	BT18ECE018	Capgemini	7.5	-
13	Aaris Ahmed	BT18ECE001	Infosys (SE) (bonus company)	3.6	Cogoport (12 LPA CTC)
14	Aditi Pathak	BT18ECE008	ORACLE	8.22	-
15	Etamsetty Hari Sai Raju	BT18ECE024	CAPGEMINI phase 2 hiring	7.5	-
16	Babita Negi	BT18ECE032	Cogoport Technologies	12	-
17	Pranjul Agarwal	BT18ECE021	Accenture	9.9	Algoshef Off-Campus 18 LPA
18	Anchal Singh	BT18ECE019	Accenture	9.9	-
19	Karthik Nautiyal	BT18ECE003	Cognizant	6.75	Mckinley & Rice - 10 LPA
20	Abhishek Mehra	BT18ECE014	Samsung R&D Noida	14.5	-
21	Arihant Jain	BT18ECE031	Byju's	6	-
22	Chhavi Sindhu	BT18ECE029	BEL	8	-

## 05.05 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 20 students per year. The Department offers a four-year B.Tech. course, M.Tech. Program in three specialization; Manufacturing Technology, Machine Design & Thermal Engineering and a Ph.D. 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. Presently, the department has Three Associate Professors, and Twelve Assistant Professors. All the faculty members are well qualified from reputed institutions like IITs and NITs. The area of specialization of all faculties has a lot of diversity that covers various aspects of Mechanical Engineering and is capable to mould young minds into successful professionals. The department is fully equipped with laboratories for core courses such as Machine Tools Laboratory, Strength of Materials Laboratory, Fluid Mechanics and Machines Laboratory, Applied Thermodynamics Laboratory, Heat Transfer Laboratory, Kinematics and Dynamics of Machines Laboratory, Computer Aided Design Laboratory and Mechanical Workshop. These laboratories have state of the art experimental setups and machineries for enhancing the practical knowledge of students at par with the cutting edge technology. The department is now expanding its wings towards elective course laboratories such as Additive Manufacturing, Measurement Laboratory, Robotics Laboratory, Mechatronics Laboratory, Automobile Laboratory, CNC Laboratory, Vibration Laboratory etc. Apart from academics, the department has collaboration with industries and research institutions to setup specialized laboratories and joint research programs. Such initiatives will provide an opportunity to the students to have feel of real on sight situations in the industries and how to handle them. The Department is working on innovative ideas in collaboration with Design Innovation Centre-NITUK for the rural development in the state of Uttarakhand

### VISION:

To become a Centre of Excellence in Mechanical Engineering education and research for sustainable socio-economic development

### MISSION:

- To develop a state-of-the-art infrastructure for imparting quality education.
- To impart technical skills and professional ethics to the students for making them employable and thus contributing in nation building.
- To perform inter-disciplinary as well as collaborative research in the frontier areas of technology for sustainable development of the society.
- To promote leadership, innovation and entrepreneurship among the students.

### PROGRAM EDUCATIONAL OBJECTIVES (PEOs):

1. Imparting engineering skills among the students for the sustainable development of the society.
2. Developing communication skills, leadership and professional ethics among the students.
3. Inculcating the design capability among the students and promote product development, innovation and entrepreneurship.

### PROGRAM SPECIFIC OUTCOME (PSOs) (for UG Programme):

1. Apply innovative ideas for design and development of devices to solve real world problems related to Mechanical Engineering
2. Utilize the renewable energy resources for sustainable development of the society

## PROGRAM OUTCOMES (Pos)

Engineering Knowledge: Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

1. Problem Analysis: Identify, formulate, research literature and evaluate complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
2. Design/ Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations.
3. Conduct investigations of complex problems: use research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of information to provide valid conclusions.
4. Modern Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
5. The Engineer and Society: Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice.
6. Environment and Sustainability: Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.
7. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.
8. Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings.
9. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations and give and receive clear instructions.
10. Project Management and Finance: Demonstrate knowledge and understanding of engineering and management principles and apply these to own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
11. Life-long Learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

## FACULTY & STAFF:

S. No.	Faculty Name	Designation	Areas of Specialization
1	Dr. Sanat Agrawal	Associate Professor	Design Engineering
2	Dr. Gurinder Singh Brar	Associate Professor	Manufacturing Engineering
3	Dr. Lalta Prasad	Associate Professor	Thermal Engineering
4	Dr. Pawan K. Rakesh	Assistant Professor	Manufacturing Engineering
5	Dr. Vinod Singh Yadav	Assistant Professor	Thermal Engineering
6	Dr. Vikas Kukshal	Assistant Professor	Design Engineering
7	Dr. Apurba Mandal	Assistant Professor	Design Engineering
8	Dr. Niraj K Mishra	Assistant Professor	Thermal Engineering
9	Dr. Yogesh K Prajapati	Assistant Professor	Thermal Engineering
10	Dr. Dungali Sreehari	Assistant Professor	Manufacturing Engineering
11	Dr. Hitesh Sharma	Assistant Professor	Manufacturing Engineering
12	Dr. T. Sudhakar	Assistant Professor	Thermal Engineering

13	Dr. Deepak Kumar	Assistant Professor	Thermal Engineering
14	Dr. Gaurav Kumar	Assistant Professor	Manufacturing Engineering
15	Dr. Prasant Tiwari	Assistant Professor	Design Engineering

**NON-TEACHING STAFF:**

S. No.	Name	Designation
1.	Mr. Ram Mohan Gupta	Technical Assistant
2.	Mr. Mohd Arshad Saify	Technical Assistant
3.	Mr. Santosh Singh Rawat	Technician
4.	Mr. Rinku	Technician
5.	Mr. Pawan Rana	Technician
6.	Mr. Krishan Kumar	Technician
7.	Mr. Malkeet Singh	Lab Attendant

**FULL TIME PH.D. SCHOLARS**

S. No.	Roll No.	Name of Student
1	DT17MEJ003	Bhoopendra Pandey
2	DT19MEJ009	Nishant Kumar
3	DT19MEJ010	Amit Kumar
4	DT19MEJ011	Vivek Bahuguna
5	DT20MEJ001	Arun Uniyal
6	DT20MEJ002	Pramod Prabhakar Bijlwan
7	DT20MEJ003	Shaurya Bhatt
8	DT20MEJ004	Hari Narayan Singh
9	DT20MEJ005	Rajesh Kumar
10	DT20MEJ007	Prasoon Chaudhary
11	DT20MEJ008	Ashu Kumar
12	DT21MEJ002	Deepak Kumar
13	DT21MEJ005	Piyush Bhatt

**PART TIME PH.D. SCHOLARS**

S. No.	Roll No.	Name of Student
1	DT16MEJ002	Tushar Adgale
2	DT17MEJ001	Mayank Pokhriyal
3	DT19MEJ001	Ankit Varshney
4	DT19MEJ003	Anurag Maheswari
5	DT19MEJ004	Vineet Singh
6	DT19MEJ007	Neeraj Gupta
7	DT19MEJ012	Gulraj Singh
8	DT20MEJ006	Himanshu Sah
9	DT20MEJ009	Ayush Painuly
10	DT20MEJ010	Ganesh Kumar Sharma
11	DT21MEJ001	Anuj Kumar
12	DT21MEJ003	Mohd Talha Khan
13	DT21MEJ004	Ram Mohan Gupta
14	DT21MEJ006	Hari Om Maurya
15	DT21MEJ008	Pushkar Singh
16	DT21MEJ009	Kapil Mohan
17	DT22MEJ001	Vivek sheel Yadav

**LABORATORIES:****HEAT TRANSFER LAB:****LIST OF EXPERIMENTS:**

- 1 To determine Stefan Boltzmann constant for radiant heat transfer.
- 2 To determine efficiency and effectiveness of the fin by natural using Pin fin apparatus.
- 3 To determine efficiency and effectiveness of the fin by forced convection using Pin fin apparatus.
- 4 To determine forced convection heat transfer coefficient for flow through the given Horizontal tube.
- 5 Determination of thermal conductivity of pipe insulation by lagged pipe apparatus.
- 6 To study the pool boiling phenomenon up to critical heat flux apparatus.
- 7 To determine thermal conductivity of metal rod.
- 8 To determine heat transfer coefficient in parallel and counter flow in a tubular heat exchanger.
- 9 To determine performance of cooling tower
- 10 Shell and tube heat exchanger

**LIST OF EQUIPMENT'S**

- |   |   |
|---|---|
| 1 Refrigeration Test RIG.                   | 10 Pool boiling apparatus.  |
| 2 Thermal Conductivity of Metal Rod.        | 11 Air conditioning Test RIG.   |
| 3 Stefan's Law Apparatus.                   | 12 Tubular Heat Exchanger Experimental Kit.   |
| 4 Heat Transfer from a pin fin.             | 13 Heat conduction unit   |
| 5 Force Convection App.                     | 14 Digital Bomb Calorimeter ( for determination of calorific value of liquids and solids) |
| 6 Boiling curve App.                        | 15 Air Duct Unit  |
| 7 Heat transfer through lagged pipe         | 16 Shell and Tube Heat Exchanger  |
| 8 Cooling Tower Test RIG.                   | 17 Hygrometer   |
| 9 Conduction composite cylinder experiment. |   |

**APPLIED THERMODYNAMICS LAB****LIST OF EXPERIMENTS**

- 1 Study of different type of boilers
- 2 To study the working and function of mountings & accessories in boiler.
- 3 To determine the viscosity of lubricating oil by Redwood Viscometer.

- 4 Determination of calorific value of liquid and solid fuels using oxygen bomb calorimeter
- 5 To study the construction and working of 2-stroke petrol engines.
- 6 To study the construction and working of 4-stroke diesel engine
- 7 To Study of fuel supply system for petrol engine.
- 8 To study the fuel supply system of diesel engine
- 9 To draw the valve timing diagram of the given four stroke diesel engine
- 10 To find out the volumetric efficiency of double stage air compressor
- 11 To find out the volumetric efficiency of an air compressor.
- 12 To study the performance of 2-Stroke Single cylinder Petrol engine connected to a rope brake dynamometer.
- 13 To study the performance of 4-Stroke Single cylinder diesel engine connected to an electric brake dynamometer.
- 14 To prepare a heat balance sheet for 4-Stroke Single cylinder diesel engine connected to an electric brake dynamometer.



### LIST OF EQUIPMENT'S

- |   |   |    |  |
|---|---|----|--|
| 1 | One Cylinder 4 Stroke Diesel Engine Test Rig.                   | 9  | Two Stroke one Cylinder Petrol Engine (Actual Cut Section).  |
| 2 | One Cylinder 4 Stroke Diesel Engine Test Rig 7.5 kw.            | 10 | Fuel Supply System of A petrol Engine (Model).   |
| 3 | Red wood Viscometer   | 11 | Gate Valve, Fusible Plug, Gate Valve Lever Safety Valve, Lever Safety Valve, Steam Injector, Spring Loaded Safety valve. |
| 4 | One Cylinder 2 Stroke Petrol Engine Test Rig.                   | 12 | Babcock & Wilcox Boiler Model  |
| 5 | Single stage Air compressor test Rig.                           | 13 | Lancashire Boiler Model.   |
| 6 | Double stage Test Air Compressor.                               | 14 | Vertical Water Tube Boiler Model.  |
| 7 | Four stroke single cylinder water cooled Diesel Engine (Model). | 15 | Model of Cornish Boiler.   |
| 8 | Four stroke Diesel Engine                                       | 16 | VCR Multifuel Engine   |

### FLUID MECHANICS LAB

#### LIST OF EXPERIMENTS:

- 1 To study of the different types of hydraulic turbines.
- 2 To verify the momentum equation experimentally.
- 3 To study the performance characteristics of a centrifugal pump and to determine the characteristic with maximum efficiency.
- 4 To study the performance characteristics of a reciprocating pump and to determine the characteristic with maximum efficiency.



- 5 To draw the characteristics curves of gear oil pump and also to determine efficiency of given gear oil pump.
- 6 To conduct load test on pelton wheel turbine and to study the characteristics of pelton wheel turbine
- 7 To conduct load test on Francis turbine and to study the characteristics of Francis turbine.
- 8 To study the two pump performances, both in series and parallel operation and to draw the characteristics curves in both series and parallel arrangement.
- 9 To verify Bernoulli's equation.
- 10 To reproduce the dye line experiment as performed by Reynolds and to obtain the criteria for Laminar and Turbulent flow.
- 11 Determination of coefficient of discharge, coefficient of contraction, coefficient of velocity of orifice & mouthpiece.
- 12 To calculate coefficient of discharge,  $C_d$  of Venturi meter.
- 13 To calculate coefficient of discharge,  $C_d$  of Orifice meter.
- 14 To compare theoretical and actual value of flow over notch.
- 15 To study free and forced vortices.
- 16 To find the Coriolis component of acceleration and verify the result.
- 17 To determine the friction factor of a given pipe of circular cross section.
- 18 To determine the Metacentric height of a floating body (i.e. a model of ship) and to locate the center of Buoyancy, e fuelling and center of gravity.
- 19 To determine the percentage error in Rotameter with the actual flow rate.



#### LIST OF EQUIPMENT'S

1	Bernoulli's Theorem kit.	11	Pelton wheel Turbine test Rig.
2	Loses in pipe kit.	12	Axial flow Runner, Francis Runner model.
3	Orifice, venture's kit.	13	Francis Turbine test Rig.
4	Corelli's force Demonstration.	14	Gear Pump Set Up
5	Metacentric height kit.	15	Centrifugal Pump Test Rig.
6	Notches kit.	16	Cut section model Centrifugal pump, Cut section model gear pump.
7	Impact of Jet kit.	17	Reciprocating Pump Test Rig.
8	Reynolds's Apparatus.	18	Pelton Turbine Model, Centrifugal Pump model, Cut section Gear pump suction.
9	Free and forced vortices.	19	Series & Parallel Pump setup
10	Orifice and Mouthpiece.	20	Centrifugal pump model, Piston pump cutaway model, gear pump model

## SOLID MECHANICS LAB



### LIST OF EXPERIMENTS

- 1 To verify Hooke's law for a spring and to determine the spring's elastic constant by static deformation
- 2 To study the Brinell hardness testing machine and the Brinell hardness test
- 3 To determine the impact strength (toughness) of steel by Izod impact test.
- 4 To determine the impact strength (toughness) of steel by Charpy impact test.
- 5 To conduct tensile test on mild steel specimen using Universal Testing Machine
- 6 To find the compressive strength of given specimen.
- 7 To determine experimentally the value of flexural (EI) rigidity for a cantilever beam carrying point loads and to verify the result with analytical method.
- 8 To determine experimentally the deflection at mid-point on a simply-supported beam carrying point loads and to verify the result with analytical method.
- 9 To conduct torsion test on mild steel specimens to find out modulus of rigidity.
- 10 To determine the endurance limit of given specimen under fatigue loading or cyclic loading.
- 11 To determine the moment of inertia of sample object by using Tri-filar suspension system.

### LIST OF EQUIPMENT'S

- |   |                                      |
|---|--------------------------------------|
| 1 Brinell hardness testing.                   | 9 Euler column experiment apparatus. |
| 2 Universal Testing Machine.                  | 10 Try filler suspension.            |
| 3 Impact Testing Machine.                     | 11 Izod & Charpy testing M/C         |
| 4 Buckling of Euler bars apparatus.           | 12 Torsion Testing Machine           |
| 5 Hook's law apparatus.                       | 13 Fatigue Testing Machine           |
| 6 Deformation of curved axis beam.            | 14 Digital Weighing Balance          |
| 7 Deformation of the straight beam apparatus. | 15 Shore Hardness Tester             |
| 8 Deformation of U/S shaped from apparatus.   |                                      |

## KINEMATICS OF MACHINE LAB

### LIST OF EXPERIMENTS

- 1 To calculate the efficiency of Single Start Worm and Worm Wheel.
- 2 To determine the coefficient of friction between a belt and pulley with the help of a combined coil and belt friction apparatus
- 3 To determine the moment of inertia of sample object by using Tri-filar suspension system.





- 4 To calculate the mechanical advantage, velocity ratio and efficiency of double purchase winch crabs machine.
- 5 To check experimentally the method of calculating the position of counter balancing weight in rotating mass system.
- 6 To perform experiment on Watt Governors to prepare performance characteristic Curves, and to find stability & sensitivity.
- 7 To determine the whirling speed of shafts with various diameters experimentally and compare it with theoretical values.
- 8 To analyses the motion of a motorized gyroscope when the couple is applied along its spin axis.
- 9 Experimental studies of vibration of a cantilever beam on mode shapes.
- 10 To study gyroscopic effects through models.
- 11 To study the various types of dynamometers.
- 12 To perform the experiment for static balancing on static balancing machine.



### LIST OF EQUIPMENT'S

- |  |  |
|--|--|
| 1 Two Stage Spur Gear Model.               | 9 Double hook Coupling.                        |
| 2 Slotted Link Mechanism Model.            | 10 Static and Dynamic Balancing                |
| 3 Planetary Gear Model.                    | 11 Governor Apparatus.                         |
| 4 V Belt drives Model.                     | 12 Winch                                       |
| 5 Multi plate Clutch actual Model.         | 13 Whirling of Shafts Apparatus                |
| 6 Single Stages Spur Gear Model.           | 14 Combined Flat & 'V' belt friction Apparatus |
| 7 With Worth Quick Return Mechanism Model. | 15 Motorized Gyroscope                         |
| 8 Crank and Connection Rod.                | 16 Worm and Worm Wheel Apparatus.              |

### COMPUTER AIDED DESIGN LAB



### LIST OF EXPERIMENTS

- 1 To draw a part drawing in catia  
Make 3D model and practice the detailed part drawing and assembly of Belt roller Support using
- 2 AutoCAD software tool. All dimensions are in mm  
Make 3D model and practice the detailed part drawing and assembly of universal coupling using
- 3 AutoCAD software tool. All dimensions are in mm
- 4 Make the assembly of the given parts in AutoCAD software tool. All dimensions are in mm.
- 5 Complete the assembly of the following exercises using AutoCAD software tool  
Make 3D model and practice the part design using following data. Extract the front view, side view
- 6 and elevation of the part using AutoCAD software tool. All dimensions are in mm.
- 7 Practice the following exercises using AutoCAD
- 8 Practice the following exercises using AutoCAD software tool.

### LIST OF EQUIPMENT'S/SOFTWARE

- |  |  |
|--|--|
| 1 Desktop Computer-30                    | 4 AUTOCAD Software installed on 30 systems |
| 2 ANSYS Software installed on 30 systems | 5 MATLAB installed on 30 systems           |
| 3 CATIA Software installed on 30 systems | 6 Lab View Software (NI Instruments)       |

### MEASUREMENT LAB



### LIST OF EXPERIMENTS

- 1 To understand construction of Vernier Caliper and calculate its least count.
- 2 To understand construction of outside micrometer and calculate its least count
- 3 Study & Observe Vernier Height gauge, Digital Height gauge and Vernier Depth gauge.
- 4 Study of Depth micrometer
- 5 Direct and indirect measuring instruments like Screw pitch gauge, radius gauge, small hole gauge, Telescopic gauge and Feeler gauge.
- 6 To study and use Vernier Bevel Protractor.
- 7 To find unknown angle of a given component using Sine Bar.
- 8 Micrometer calibration by Slip Gauges
- 9 To study characteristic graph of LVDT sensor.

### LIST OF EQUIPMENT'S

- |                                   |                                      |
|-----------------------------------|--------------------------------------|
| 1 Sine Bar 6" & 12"               | 15 LG Microwave Oven                 |
| 2 Feeler Gauge                    | 16 Strain Gauge Trainer              |
| 3 Height Gauge                    | 17 Peristaltic Pump                  |
| 4 Slip Gauge block set            | 18 Weighing Machine                  |
| 5 Surface plate (Granite)         | 19 Abrasive Wheel Polishing Machine  |
| 6 Plug Gauge (Go, No-Go Gauge)    | 20 Digital Vernier efuell (300mm)    |
| 7 Bevel Protector                 | 21 Radius Gauge                      |
| 8 Comparator (Mechanical)         | 22 V Block with C Clamp              |
| 9 Wire Gauge                      | 23 Spirit Level                      |
| 10 Micrometre                     | 24 Gear tooth vernier caliper        |
| 11 Vernier efuell (150mm, 200mm)  | 25 Vernier efuell                    |
| 12 Research Binocular Microscope  | 26 Portable surface roughness tester |
| 13 Material Processing Micro oven | 27 Stereo zoom microscope            |
| 14 LVDT Trainer                   |                                      |

### MACHINE TOOL LAB



### LIST OF EXPERIMENTS

- 1 Study about the machining processes
- 2 To study the characteristic features of lathe Machine
- 3 To perform the Turning, Facing, Grooving and Threading operations on given mild steel rod

- 4 To study the characteristic features of Milling Machine
- 5 To study the characteristic features of Shaper Machine
- 6 To machine a V block
- 7 To drill and tap holes on the mild steel rod as shown in the sketch
- 8 To perform the grinding operation on surface grinder Machine
- 9 Introduction about non-conventional machining processes

**LIST OF EQUIPMENT'S**

- |  |  |
|--|--|
| 1 Lather Machine 01; Lather Machine 03 | 9 Fly Wheel Press (Hand Press)           |
| 2 Shaper Machine                       | 10 Hydraulic Press                       |
| 3 Surface Grinder                      | 11 Ultrasonic Machining Machine          |
| 4 Universal Milling Machine            | 12 Digital Vernier efuell (150mm) 02 nos |
| 5 Bench Drill Machine                  | 13 Dynamometer                           |
| 6 Shearing Machine                     | 14 Bench Grinder                         |
| 7 Anvil Small                          | 15 Hand Drill Machine                    |
| 8 Power Hacksaw                        |  |

**MECHANICAL WORKSHOP LAB****LIST OF EXPERIMENTS**

- 1 To file the given two Mild Steel pieces in to a square shape of 48 mm side as shown in Figure.
- 2 To file the given Mild Steel pieces in to a stepped cut piece of having equal step-dimension E1
- 3 To make V- fit from the given two MS plates as shown in Figure -E2
- 4 To make a T-lap joint
- 5 To make a dovetail lap joint
- 6 To make a mortise and tenon joint
- 7 To make a single v-butt joint, using the given mild steel pieces of by arc welding.
- 8 To make a double lap joint, using the given mild steel pieces and by arc welding.
- 9 To make a corner joint, using the given mild steel pieces and by arc welding.
- 10 To make a T- joint, using the given mild steel pieces and by arc welding
- 11 To make a cylinder using the given G-I SHEET joint by the spot welding process.
- 12 To prepare a wooden pattern (solid pattern).
- 13 To make a square tray of given dimension (75mm × 75 mm ) using given GI sheet.

**LIST OF EQUIPMENT'S**

- |                          |                        |
|--------------------------|------------------------|
| 1 Arc Welding Machine-1. | 9 Carpentry Vice-8     |
| 2 Gas Welding Setup      | 10 Cope & Drag-3       |
| 3 Spot Welding Machine.  | 11 TIG Welding Machine |
| 4 Muffle Furnace -1      | 12 Wood Lathe Machine  |
| 5 Anvil Big & Small      | 13 Reciprocal Shaker   |
| 6 Carpentry Vice-4       | 14 Jack Planer-2       |
| 7 Bench Vice-2           | 15 Arc Welding Machine |
| 8 Bench Vice-9           | 16 Moulding Box-03     |

**VIBRATION LAB UNDER KOM LAB****LIST OF EXPERIMENTS**

- 1 To verify the relation of simple pendulum

- 2 To determine the radius of gyration 'k' of a given compound pendulum
- 3 To determine the radius of gyration of given bar by using Bi-Filer suspension.
- 4 To study the Torsional Vibrations of single rotor system.
- 5 To study the Free Vibration of Two Rotor System and to determine the Natural Frequency of Vibration Theoretically & Experimentally.
- 6 To study the Damped Torsional Oscillation & to determine the damping co-efficient C.
- 7 To verify the Dunker ley's Rule Viz.
- 8 To study the longitudinal vibration of helical spring and to determine the frequency and time period of oscillation theoretically and actually by experiment.
- 9 To study the undamped free vibration of equivalent spring mass system and To find the frequency of undamped free vibration of equivalent spring mass system.
- 10 To study the Forced damped Vibration of Equivalent Spring Mass System and To find the frequency of forced damped equivalent spring mass system and To find amplitude of vibration.
- 11 To study the forced vibration of the beam for different damping. And
- 12 To find frequency of beam at different damping.

#### LIST OF EQUIPMENT'S

- |   |  |   |  |
|---|--|---|--|
| 1 | Universal Vibration Setup                | 3 | Multi channel Band Pass Filter                 |
| 2 | Multi channel Sensing and Actuation Unit | 4 | Dynamic Vibration Shaker with Power Oscillator |

#### HIGHLIGHTS/ACHIEVEMENTS:

1. Dr. Vinod Singh Yadav has appointed the reviewer of INSPIRE AWARD-MANAK 2021-22 under National Innovation Foundation-India, GOI.
2. Dr. Vinod Singh Yadav has received Innovative Technological Researcher & Dedicated, Excellent Professional Achievement Award by The society of Innovative Educationalist & Scientific Research Professional Accredited with Innovative Scientific Research Professional Malaysia Sdn Bhd.

#### DETAILS DETAILS OF R&D PROJECTS:

S. No.	Title of the R&D Project	Funding Agency	Name of PI/Co-PI	Sanctioned Amount Rs. (in Lacs)	Status
1.	Title : Development of domestic cooking stove based on biomass gasification with porous radiant burner	SERB, DST under Core Research Grant Scheme	Dr. Niraj Kumar Mishra (PI)	23.42 lakhs	Awarded
2.	Title: Fabrication and Testing of Lower Limb Prosthesis for Transtibial Amputee using Biocomposites with Energy Restoring Capability	Indian Institute of Medical Research (ICMR), New Delhi (2022)	Dr. Pawan Kumar Rakesh (PI) & Dr. Sanat Agarwal (Co-PI)	27.7 Lakhs	Awarded

#### CONFERENCES/STC/FDPS ETC ORGANIZED:

S. No.	Coordinator/Secretary	Workshop Details	Venue	Date
1.	Dr. Prashant Tiwari	One week workshop on Interview Skills	NIT Uttarakhand	24 <sup>th</sup> -29 <sup>th</sup> Aug, 2021

2	Dr. Vikas Kukshal	1 <sup>st</sup> International Conference on Robotics, Control and Computer Vision (ICRCCV 2022)	NIT Uttarakhand	19-20 February 2022.
3	Dr. Vikas Kukshal	Five day virtual workshop on “Startup and Entrepreneurship Skills, Attitude and Behaviour Development” as a Coordinator	NIT Uttarakhand	16 <sup>th</sup> February-20 <sup>th</sup> February 2022.
4	Dr. Vikas Kukshal	One-week virtual workshop on “Challenges and Opportunities towards Sustainable Energy & Environmental Technology in India”	NIT Uttarakhand	21 <sup>st</sup> February – 25 <sup>th</sup> February 2022.
5	Dr. Vikas Kukshal	One-week virtual workshop on “Design Thinking, Critical Thinking and Innovative Design	NIT Uttarakhand	28 <sup>th</sup> February – 04 <sup>th</sup> March 2022

**CONFERENCES/STC/FDPS ETC ATTENDED:**

S. No.	Faculty Name	Conference Details	Venue	Date
1.	Dr. Gaurav Kumar	International Conference on Advanced Manufacturing and Materials Processing (CAMMP-2021)	MNIT, Jaipur	24 <sup>th</sup> – 25 <sup>th</sup> July 2021
2.	Dr. Sanat Agrawal	3D Printing solutions for Medical Innovation (3DPSMI-2021)	Online (NIT Calicut)	17 <sup>th</sup> to 18 <sup>th</sup> July, 2021

**COLLABORATIVE ACTIVITIES:****M.Tech. Supervision:**

S. No.	Faculty Name	Project Details	Student's Name	Year
1.	Dr. Dungali Sreehari	To study the effect of GTA cladding parametric variation on SDSS clads over AISI 1020 Steel	Mr. Love Goel, SLIET Longowal	2019 - 2021
2.	Dr. Vinod Singh Yadav	A Study To Evaluate The Slurry Abrasion Wear And Dry Sliding Wear Performance Of Wc Based Cermet Coatings Deposited On En8 By Kerosene Fuelled Hvf Thermal Spray Process	Mr. Honey Khan, SLIET Longowal	2019 - 2021

**OUTREACH ACTIVITIES**

1. Dr. Vikas Kukshal contributed as Resource Person in AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "3D Printing and Design" from 25/10/2021 to 29/10/2021 at Centre for Electronic Governance.
2. Dr. Vikas Kukshal delivered expert lecture in Five Days Online Faculty Development Program on Advancement & Innovation In Materials And Manufacturing Techniques For Industry 4.0 Held from 07<sup>th</sup> - 11<sup>th</sup> March, 2022.
3. Dr. Apurba Mandal has chaired a Technical Session on Robotics and Autonomous Vehicles in the International Conference on Robotics, Control and Computer Vision (ICRCCV-2022) organized by the Department of Electronics Engineering, National Institute of Technology Uttarakhand, India in association with Eötvös Loránd University, Hungary, during 19 – 20 February, 2022.
4. Dr. T Sudhakar has delivered an expert lecture on the topic “Micro, Meso and Macro Scale Numerical Techniques for Fluid Flows” at Lingaya’s Vidyapeeth, Faridabad on 10/11/2021.
5. Dr. T Sudhakar has delivered an expert lecture on the topic “Introduction to CFD and Numerical Techniques

based on the Scale Approaches” at Annamacharya Institute of Technology & Sciences, Rajampet on 07/06/2021.

6. Dr. Hitesh Sharma has delivered an expert talk on “Primary and Secondary Processing of PMCs” in AICTE Training and Learning (ATAL) Faculty Development Program on Processing of Novel Materials held at Indian Institute of Technology, BHU during November 22-26, 2021.
7. Dr. Hitesh Sharma has delivered an Expert talk on “Processing & Characterization of PMCs” in AICTE Training and Learning (ATAL) Faculty Development Program on Processing of Novel Materials held at Indian Institute of Technology, BHU during September 20-24, 2021.
8. Under Rastriya Aaviskar Abhiyan Dr. Yogesh Kumar Prajapati from the Mechanical Engineering Department along with four team members visited the Government upper primary school Dang (Khirsu block) on 17 May 2022. In this program the importance of science and technology for the betterment of the human being, society and overall environment was emphasized. Students were made aware about the important innovations that took place due to science.
9. Under Rastriya Aaviskar Abhiyan Dr. Niraj Kumar Mishra from the Mechanical Engineering Department along with four team members visited the schools and conducted the orientation sessions for the students and teachers. In the four schools selected by the state government in Khirsu and Kot blocks of Pauri district in the 3<sup>rd</sup> week of May 2022.

#### STUDENT'S ACHIEVEMENTS:

1. Students of SAE club participated in AEROTHON 2021 competition under the supervision of Dr. Vinod Singh Yadav
2. Navjyot Bijarniya, B.Tech (2015-2019) achieved all India rank of 52 in GATE 2022.
3. Best paper award in the session in the International Conference on Latest Trends in Civil, Mechanical and Electrical Engineering (LTCMEE- 2021), held online during April 12-13, 2021, jointly organized by the Department of Civil, Mechanical and Electrical Engineering, MANIT Bhopal for the paper titled “Additive fabrication of 3D physical maps with Braille legends for geographical education of visually challenged persons” by Dr Sanat Agrawal and Mr Vikas Khoj, M.Tech student of batch 2019-21.

**STUDENT'S GATE SCORE:** Navjyot Bijarniya, B.Tech (2015-2019) achieved all India rank of 52 in GATE 2022.

## 05.06 DEPARTMENT OF PHYSICS

The Department of Physics is established in June 2019. Earlier it was the part of Department of Sciences and Humanities. Department offers core and elective courses in Physics for undergraduate B.Tech. programme of the Institute. Our courses are created in such a way that they are interdisciplinary in nature and can be chosen from any department within NITUK, so one can tailor their degree to their interests. In addition, the department offers Ph.D. programme in Physics. Doctoral research is carried out in all major areas of Physical sciences. Major thrust areas are Condensed Matter Physics, Optics and Theoretical Physics. The Department has a dedicated team of distinguished faculty and staff members, trained at renowned Institutes in India and abroad. The Department offers a vibrant atmosphere to students and faculty to nurture the spirit of scientific inquiry and to pursue cutting-edge research in a highly encouraging environment.

### VISION

To impart quality education and focus on interdisciplinary research in Physics and Nanotechnology to meet the global standards.

### MISSION

- To develop state of art educational and research environment for students.
- To educate undergraduate students about principles & applications of Physics in Engineering.
- Excel in scientific R & D and consultancy.

### ACADEMIC STAFF:

S. No.	Faculty Name	Designation	Areas of Specialization
1	Dr. Manvendra Singh Khatri	Assistant Professor & Head	Thin films, Nanowires, Multilayers, Composite Materials
2	Dr. Indrajit M. Nagpure	Assistant Professor	Optical, Biomedical, Solar Cell Materials and Devices
3	Dr. Hardeep Kumar	Assistant Professor	Magnetism, Thin films, Spintronics, Nanotechnology, Sensors
4	Dr. Jagrati Sahariya	Assistant Professor	X-Ray Scattering, Charge and Magnetic Compton Profile, Ab-Initio Calculations, Density Functional Theory, Solar Cell Materials

### NON-TEACHING STAFF:

- Mrs Neha Raturi, Technical Assistant (Physics)

### Ph.D. STUDENTS:

S. No.	Name	Research Area
1	Mr. Hardepinder Singh	Study of magnetic materials for spintronics applications
2	Ms. Preeti Negi	Study of magnetic materials
3	Mr. Himanshu Saini	Electrodeposited nano-composite coatings

### RESEARCH AND DEVELOPMENT INFRASTRUCTURE/LABORATORIES

- i. Electrochemical Workstation: Utilized for electrochemical analysis and for the deposition of thin films
- ii. Spray pyrolysis: Utilized for fabrication of thin films and devices
- iii. Weighing balance
- iv. Magnetic stirrer with hot plate





#### DETAILS OF R&D PROJECTS:

S. No.	Title of the R&D Project	Funding Agency	Name of PI	Amount Rs.(Lacs)	Status
1.	Study of FeRh epitaxial films and heterostructures for spintronics applications	UGC-DAE CSR, Indore	Dr. Hardeep Kumar	5.21	On-going
2.	Fabrication and haracterization of Co based CoPt/Pt multilayered films by Electrodeposition	UGC-DAE CSR, Mumbai	Dr. M. S. Khatri	0.45	On-going

#### DETAILS OF CONFERENCES/STC/FDPs ORGANIZED:

- i. Dr. Hardeep Kumar, Dr. M. S. Khatri and Dr. I. M. Nagpure have organised a STC on Smart Materials: Processing and Applications Jointly organized by Department of Physics, NIT Uttarakhand and Department of Physics, IIT Roorkee during November 15-19, 2021.
- ii. Dr. Jagrati Sahariya, Convener, 3<sup>rd</sup> National Conference on “Recent Advances in Physical Sciences (NCRAPS-2021)” jointly organized by Department of Chemistry, Physics and Mathematics, during December 19-20, 2021.
- iii. Dr. Jagrati Sahariya: General Chair, “2<sup>nd</sup> International Conference on Intelligent Computing Techniques for Smart Energy Systems-2021 (ICTSES-2021) ” Jointly organized by NITUK and Manipal University Jaipur.

#### OUTREACH & OTHER ACTIVITIES

- (i) Dr. M. S. Khatri has served as reviewer of innovative ideas/innovations received under the INSPIRE Awards-MANAK for the year 2020-21.
- (ii) Dr. Jagrati Sahariya has delivered a lecture entitled “Importance of Science & Technology” to students of J.N.V. Khairasain School under “Vigyan Jyoti Project” on August 7, 2021.
- (iii) Dr. Hardeep Kumar has served as a Reviewer for J. of Materials Science, Applied Surface Science Advances.
- (iv) Lauch of “I-STEM Internship Program”, 03/01/2022.
- (v) One Day Discussion Meeting on “Materials Science with Synchrotron Radiation Source”, UGC-DAE CSR, Indore Center on 22/10/2021.

## 05.07 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.

### 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.

### ACADEMIC STAFF:

S. No.	Faculty Name	Designation	Areas of Specialization
1.	Dr. Kuldeep Sharma	Assistant Professor & HoD	Computational Mechanics & Numerical Methods
2.	Dr. Dharmendra Tripathi	Associate Professor	Biofluid –Mechanics, Mathematical Modelling, CFD, Pumping Flow, Bone Mechanics, Microfluidics, Nanofluids, Non-Newtonian fluids, Heat transfer and Energy
3.	Dr. Dheerendra B. Singh	Assistant Professor	Nonlinear Wave propagation in Gaseous Media, Quasilinear Hyperbolic System of PDEs, CFD
4.	Dr. Nitin Sharma	Assistant Professor	Mathematical Biology & Molecular Dynamics
5.	Dr. Kusum Sharma	Assistant Professor	Approximation Theory & Summability Theory

### NON-TEACHING STAFF:

1. Technical Assistant - 01
2. Laboratory Assistant -01

### PH.D. STUDENTS:

One student Ms. Anjali Bhardwaj joined the department in the session 2021-2022 in Ph.D. program and with this total number of students increased to 10.

### DETAILS OF PATENTS:

S. No.	Title	Application Number	Date of Filing/Publication/Award	National/International	Name of Inventors
1.	Portable Stair Climbing Mechanism for the Conventional Trolley	202111055446	30/11/2021	National	Rakesh Kumar, Palash Suresh Behra, Dharmendra Tripathi and Rakesh K. Mishra,



**WORKSTATIONS IN THE DEPARTMENT**

**DETAILS OF CONFERENCES/STC/FDPS ORGANIZED:**

- 3<sup>rd</sup> National Conference on “Recent Advances in Physical Sciences (NCRAPS-2021)” jointly organized by Department of Chemistry, Physics and Mathematics, during December 19-20, 2021 at NIT Uttarakhand through virtual mode.
- One-week workshop on “Recent Development in Mathematical Modelling in Engineering Sciences” during December 27-31, 2021 organized by Department of Mathematics, NIT Uttarakhand.
- Dr. Dharmendra Tripathi organized One-week Workshop on “Design Thinking, Critical Thinking and Innovative Design” organized by the R&C Section during 28 February- 04 March 2022. **Convener**
- Dr. Dharmendra Tripathi organized a Webinar on “Integrated Approach in S&T for Sustainable Future” on occasion of National Science Day organized by Research & Consultancy Section, NIT Uttarakhand on 28th February, 2022. Convener
- Dr. Dharmendra Tripathi organized One-week Workshop on "Challenges & Opportunities towards Sustainable Energy & Environmental Technology in India" organized by the R&C Section during February 21-25, 2022. **Convener**
- Dr. Dharmendra Tripathi organized 4th International Conference on Advances in Mechanical Engineering and Nanotechnology (ICAMEN 2022) during February 18-19, 2022 jointly organized by Department of Mechanical Engineering, MUJ and R&C section NIT Uttarakhand. **Honorary Chair**
- Dr. Dharmendra Tripathi organized one Week Workshop on “Startup and Entrepreneurship Skills, Attitude and Behaviour Development” during February 16-20, 2022 organized by the Research and Consultancy Section, NIT Uttarakhand. **Convener**
- Dr. Dharmendra Tripathi contributed as Convener, HERICANE-2022 during February 11-13, 2022 jointly organized by E-Cell and AIC @MUJ and R&C section of NIT Uttarakhand.
- Dr. Dharmendra Tripathi organized 04 Expert Lectures by Dr Varun and Dr Naveen Chauhan on Renewable Energy and Internet of Things on Feb 08 & 09, 2022 under R&C section, NIT Uttarakhand.
- Dr. Dharmendra Tripathi contributed as an **organizing secretary** in International Conference on Biotechnology for Resource Efficiency, Energy, Environment, Chemicals and Health (BRE3CH-2021) organized by CSIR-IIP, Dehradun, BRSI, CEES-India, CDC, and NIT Uttarakhand during December 1-4, 2021.
- Dr. Dharmendra Tripathi organized ‘Prof. Shyam Lal Soni Memorial Lecture’ delivered by PadmaShri Dr Satish Kumar, Ex-Director, NIT Kurukshetra under R&C Section, NIT Uttarakhand on October 10, 2021. Convener
- Dr. Dharmendra Tripathi organized 2<sup>nd</sup> Series of International Conference on “Intelligent Computing Techniques for Smart Energy Systems” jointly organized by the School of Electrical, Electronics & Communication Engineering (SEEC), Manipal University Jaipur, Malaviya National Institute of Technology

(MNIT), Jaipur and National Institute of Technology, Uttarakhand during September 01-03, 2021.  
 Honorary Chair/Chairperson

- Dr. Dharmendra Tripathi contributed as an organizing secretary in International Conference on Biotechnology for Sustainable Agriculture, Environment and Health (BSAEH – 2021) jointly organized by MNIT Jaipur, BRSI, CDC and NIT Uttarakhand during April 4 - 8, 2021.

#### DETAILS OF CONFERENCES/STC/FDPS ETC ATTENDED:

- Dr. Dharmendra Tripathi presented a paper on “Mathematical Modelling for Virus Transport in a Viscous Fluid Medium” in 74<sup>th</sup> Annual Meeting of the APS Division of Fluid Dynamics during November 21-23, 2021 at Phoenix, Arizona, USA.
- Dr. Dharmendra Tripathi presented a paper on “Thermal effects on the spread of Corona Virus in Viscous Fluid Medium: A Mathematical Model” in 66th Congress of ISTAM Conference (Virtual International Conference) organized by School of Mechanical Engineering & School of Advanced Sciences, VIT-AP University, Amaravati, Andhra Pradesh, India during 3<sup>rd</sup> to 5<sup>th</sup> December, 2021.
- Dr. D. Tripathi participated in the 87<sup>th</sup> Annual conference of Indian Mathematical Society organized by Department of Applied Sciences, MGM University, Aurangabad during December 04-07, 2021.

#### COLLABORATIVE ACTIVITIES:

- Book Edited Amit Soni, D. Tripathi, Jagrati Sahariya, and Kamal Nayan Sharma, Energy Conversion & Green Nanotechnology, CRC Press, in collaboration with Manipal University Jaipur.
- SIAM News written with collaboration with Anuj Mubayi, Mathematics, Illinois State University Dharmendra Tripathi, Dinesh Singh Bhandari, and Anuj Mubayi, Progression of SARS-CoV-2 From Successful Intake to Establishment of Infection in a Tissue, SIAM News Blog Feb 16, 2022

#### OUTREACH ACTIVITIES

- Dr. Dharmendra Tripathi is an Associate Editor of the Journal of International Academy of Physical Sciences in honorary capacity for a period of two years (2022 & 2023).
- Dr. Dharmendra Tripathi served as Guest Editor for Critical Reviews™ in Biomedical Engineering, Begell House
- Dr. Dharmendra Tripathi, Editor, Journal of Physics and Advanced Applications – JPAA ([https://journalofphysics.net/journal/editorial\\_board\\_member/Dharmendra-Tripathi/National-Institute-of-Technology/332](https://journalofphysics.net/journal/editorial_board_member/Dharmendra-Tripathi/National-Institute-of-Technology/332))
- Dr. Dharmendra Tripathi reviewed various papers of the Journals like Physics of Fluids, ICHMT, CJPHY, JEM, JPM, etc.
- Dr. Dharmendra Tripathi moderated 10 sessions and chaired one session of International Conference on Biotechnology for Sustainable Agriculture, Environment and Health (BSAEH–2021) jointly organized by MNIT Jaipur, BRSI, CDC and NIT Uttarakhand during April 4 - 8, 2021.
- Dr. Kuldeep Sharma, Chaired a session in 4th international conference on “Frontiers in Industrial and Applied Mathematics (FIAM-2021)” organized by Department of Mathematics, Sant Longowal Institute of Engineering & Technology, Longowal during 21-22 December, 2021.
- Dr. D. B. Singh, Chaired a session in 4th international conference on “Frontiers in Industrial and Applied Mathematics (FIAM-2021)” organized by Department of Mathematics, Sant Longowal Institute of Engineering & Technology, Longowal during 21-22 December, 2021.
- Dr. Nitin Sharma, Chaired a session in the international conference on “Recent Trends in Applied Sciences and Computing Engineering (RTASCE 2021)” organized by VIT Bhopal University in association with Indian Institute of Technology (Indian School of Mines) Dhanbad, during 17-19 December, 2021.
- Dr. Nitin Sharma, Chaired a session in the 4th international conference on “Frontiers in Industrial and Applied Mathematics (FIAM-2021)” organized by Department of Mathematics, Sant Longowal Institute of Engineering & Technology, Longowal during 21-22 December, 2021.

- Dr. Kusum Sharma reviewed papers of the journals like Indian Journal of Pure and Applied Mathematics, European Journal of Pure and Applied Mathematics, etc.

### SPECIAL ACHIEVEMENTS:

- Listed in Year 2022 Edition of Research.com Ranking of Top 1000 Scientists in the field of Mechanical and Aerospace Engineering. Ranked #809 in the world and #11 in India (<https://research.com/scientists-rankings/mechanical-and-aerospace-engineering> )
- Awarded 'Prof PR Sharma Memorial Award' for 2021 by the International Academy of Physical Sciences in the Inaugural session of the Conference on 4th December 2021.
- Listed in 100,000 top-scientists over the world (Indian Rank 404) as per August 2021 data-update for "Updated science-wide author databases of standardized citation indicators" based on c-score (with and without self-citations) or a percentile rank of 2% or above.
- Dr. D. Tripathi recognized by various journals of Elsevier, Springer, AIP, etc. as Guest Editor & Reviewers.

### MEMBERSHIP OF PROFESSIONAL BODIES:

- Dr. Dharmendra Tripathi acquired life membership of International Bioprocessing Association-An International Forum on Industrial Bioprocesses (IBA-IFIBiop) [Membership No: LM 327]
- Dr. Dharmendra Tripathi acquired life membership of Biotech Research Society, India (BRSI) [Membership No: LM 2569]
- Dr. Kusum Sharma acquired life membership of Indian Mathematical Society, India(IMS) [Membership No.: L/2022/6]
- Dr. Kusum Sharma acquired life membership of Ramanujan Mathematical Society, India(RMS) [Membership No.: 1719]
- Dr. Kusum Sharma acquired life membership of Ramanujan Society of Mathematics and Mathematical Sciences, India (RSMAMS) [Membership No.: RSMAMS/59/12]

### DELIVERED LECTURES

- Dr. Dharmendra Tripathi delivered an invited lecture on "Impact of Mathematical Modelling during the Covid-19 Pandemic on the Youth" Youth Global Summit: An International Conference during March 15 - 17, 2022 organized by Rajiv Gandhi National Institute of Youth Development, Tamil Nadu, India.
- Dr. Dharmendra Tripathi delivered a Keynote lecture on "Electroosmotic Flow Models: Applications to Biological Transport" and addressed as Chief Guest of Inaugural ceremony in 1st International Conference on EMMA-2021 (Engineering, Medicine, Management, Arts and Sciences), organized by Chendur Research Foundation Chennai (CRF) in association with Panipat Institute of Engineering & Technology (PIET), Haryana, India during December 24-26, 2021.
- Dr. Dharmendra Tripathi delivered a session in "IEEE International Conference on Technology, Research and Innovation for Betterment of Society (TRIBES - 2021)" organized by IIIT Naya Raipur, Chhattisgarh during December 17 - 19, 2021
- Dr. Dharmendra Tripathi delivered a Keynote lecture on "Mathematical Approach for SARS-Cov-2 Transport in Viscous Medium" in 16th India-Japan Bilateral Conference (BICON-2021) on "Recreating Higher Education in the Post-Pandemic World" organized by Biyani Group of Colleges (India) during December 14 - 18, 2021.
- Dr. Dharmendra Tripathi delivered a Keynote lecture on "Transmission of COVID-19 in Viscous Medium: Mathematical Modelling" in International Conference "Recent Advances in Material Science and Computational Techniques (RAMSACT-2021)" organizing by Manipal University Jaipur during November 24-26, 2021.
- Dr. Dharmendra Tripathi delivered an expert lecture on "Mathematical Modelling of Physiological Transport Phenomenon" in Refresher course on "Advances in Mathematical and Physical Sciences" organized by Department of Physics, Dr. H.S. Gour University, Sagar, M.P. during November 16-30, 2021.

- Dr. Dharmendra Tripathi delivered an expert lecture on “Fractional Calculus Approach in Viscoelastic Fluid Flow Models” International Workshop on “Fractional Derivatives: Theory & Computations with Applications (FDTCA-2021)” organized by Department of Mathematical Sciences, Indian Institute of Technology (BHU) Varanasi, November 12-14, 2021.
- Dr. Dharmendra Tripathi delivered a Keynote lecture on “Virus Transport in Fluid Medium: Mathematical Modelling” in Indo-US Conference on “The Science of Mathematical Modeling, and Decision-Making: A Changing Trajectory into The Future, from Past to Post COVID-19 Pandemic” organized by Sri Sathya Sai Institute of Higher Learning, Vidyagiri, AP during October 28-30, 2021.
- Dr. Dharmendra Tripathi delivered a Keynote lecture on “Biological Transport Process: Mathematical Modelling” in 27th International Conference of the International Academy of Physical Sciences (CONIAPS XXVII) on Mathematical Modelling in Biological Sciences (M2BS 2021) organized by Department of Mathematics, NIT Silchar during 26 -28, October 2021.
- Dr. Dharmendra Tripathi delivered an Expert lecture on “Applications of Mathematics in Engineering” VIGYAN JYOTI (PHASE-II) organized by Jawahar Nayodaya Vidyalay Khaira Sain on Oct 12, 2021 under An Initiative to promote interest in Science & technology amongst girls’ students (Sponsored and funded by Department of Science & Technology, Govt. of India)
- Dr. Dharmendra Tripathi delivered an Expert lecture on “Mathematical Models on Transport Phenomena” in the 2nd International online Workshop on Advanced Topics in Mathematics (IWATM-21) from 08 - 12 October 2021 organized by The Center for Applied Mathematics (CAM), IIIT Naya Raipur
- Dr. Dharmendra Tripathi delivered a Keynote lecture on “Mathematical Modelling in Science and its Technological Applications” in Interdisciplinary Online Refresher Course on Science and Technology during 28th Sept- 11th Oct 2021 organized by Mizoram University
- Dr. Dharmendra Tripathi delivered an Expert lecture on “Applications of Mathematics in Biomedical Science and Engineering” in One-week Online Faculty Development (FDP) Program on “Mathematics and Its Application in Science & Engineering” during 27th September–01st October, 2021 organized by Shri Mata Vaishno Devi University, Jammu.
- Dr. Dharmendra Tripathi delivered an Expert lecture on “Modelling and Simulation of Biological Flows in Single and Multilayered Regimes” in One-week Short Term Course on “Modelling of Multiphase Flows (MMF-2021)” September 27 – October 1, 2021 organized by Department of Applied Mechanics, MNNIT Allahabad, Prayagraj.
- Dr. Dharmendra Tripathi delivered an Expert lecture on “Mathematical Approach for Physiological Systems” in Refresher Course on “Mathematical Tools for Physical and Computational Sciences” from Sept 24-Oct 08, 2021 organized by HRDC, Department of Mathematics, Dr. Harisingh Gour Vishwavidyalaya Sagar (M.P.)
- Dr. Dharmendra Tripathi delivered an Expert lecture on “Role of Mathematics in Engineering Sciences” in Webinar organized by Department of Applied Sciences & Humanities, Rajkiya Engineering College, Azamgarh, India on August 04, 2021.
- Dr. Dharmendra Tripathi delivered an Expert lecture on “Role of Mathematical Models in Engineering Sciences” Faculty Development Programme on “New Paradigms of Teaching Pedagogy & Research” organized by School of Agricultural Sciences, GD Goenka University, Gurugram during July 26-30, 2021.
- Dr. Dharmendra Tripathi delivered an Expert lecture on “Applications of PDEs in Health Care” in the Workshop on “Differential Equations: Theory, Analysis and Applications with Matlab” organized by Department of Mathematics, DIT Dehradun during July 12-16, 2021.
- Dr. Kusum Sharma delivered an expert lecture on “Importance of Mathematics for Future Career” on 4<sup>th</sup> September 2021 organized by Jawahar Navodaya Vidhyalaya under an Initiative to promote interest in Science & technology amongst girls’ students (Sponsored and funded by Department of Science & Technology, Govt. of India)

## 05.08 DEPARTMENT OF CHEMISTRY

Department of Chemistry was established in the year 2019 and erstwhile it was an integral part of Department of Science & Humanities since 2010. Department is teaching Applied Chemistry course and Applied Chemistry Lab Course for B.Tech 1<sup>st</sup> year (first and second semester). Courses. Faculty from the department are also teaching Engineering Chemistry and Quantum Chemistry courses to other than 1<sup>st</sup> year B.Tech. Department also offers various open elective courses for PhD course work. The main goal of offering these courses is to develop requisite proficiency and abilities to meet the challenges in engineering field to succeed in engineering career. Department comprises well-equipped Chemistry Laboratory along with state-of-the-art research laboratory. Currently ten PhD students are working in the department whereas one PhD student has been awarded with PhD degree. Department of Chemistry entails five grade-I Assistant Professors with PhD degree. The average experience of faculty members including PhD degree is ~15 years. Departmental faculty are actively engaged in teaching, research along with other important assignments given by the institute. Department also offers consultancy in Synthesis of Organic and Inorganic compounds. Faculty members are discharging important administrative responsibilities like Associate Dean (FW), Associate Dean (R&C), Associate Dean (Acad), Chairman (IPC), Assistant Registrar (Legal Cell) and Assistant Librarian etc.

### ACADEMIC STAFF:

S. No.	Faculty Name	Designation	Areas of Specialization
1	Dr. Rampal Pandey	Assistant Professor & Head	Synthesis and Structural Chemistry, Metal-Organic Frameworks, Supramolecular Chemistry, Soft and responsive materials, Catalysis and photo-catalysis,
2	Dr. Saroj Ranjan De	Assistant Professor	Development of new methodology reactions, Total Synthesis of Bioactive Natural Products, Transition-Metal-Catalyzed C-H Activation Reactions,
3	Dr. Rakesh K. Mishra	Assistant Professor	Small Molecule Probes, Fluorescent Materials, Covalent-Organic Frameworks, Biochar based Functional Materials,
4	Dr. Pankaj Kandwal	Assistant Professor	Theoretical calculations on molecules and materials, Computational material science, Membrane Science and Technology, Separation of hazardous contaminants from aqueous streams,
5.	Dr. Kamal Kant Tiwari	Assistant Professor	Ground water quality, Coordination Chemistry and Biological Applications of metal-complexes.

### NON-TEACHING STAFF:

Permanent: 1) Mrs. Neha Raturi (Technical Assistant), 2) Mr. Anil Bhatt (Technician)  
 Outsourcing: Mr. Manish Chamoli (Data Entry Operator)

#### 1. Ph.D. STUDENTS:

S. No.	Student Name	Supervisor	Co-supervisor
1.	Mr. Zafar Iqbal	Dr. Saroj R. De	--
2.	Ms. Asha Joshi	Dr. Saroj R. De	--
3.	Ms. Vaishali Singh	Dr. Rampal Pandey	--
4.	Mr. Masood Zafar	Dr. Rakesh K. Mishra	--
5.	Ms. Himani Sharma	Dr. Kamal Kant Tiwari	Dr. Rampal Pandey
6.	Mr. Sandeep Singh	Dr. Saroj R. De	--
7.	Mr. Sandeep Joshi	Dr. Rampal Pandey	--
8.	Ms. Rashmi Raghav	Dr. Kamal Kant Tiwari	Dr. Pankaj Kandwal
9.	Ms. Apoorva Anthawal	Dr. Pankaj Kandwal	--
10.	Ms. Neha Thakur	Dr. Rampal Pandey	--

## RESEARCH AND DEVELOPMENT INFRASTRUCTURE/LABORATORIES

Research and Instrumentation labs have been developed.



## HIGHLIGHTS/ACHIEVEMENTS:

### (a) PhD DEGREE

1. One Ph.D. scholar Rohit Kumar was awarded Ph.D. degree (Under the supervision of Dr. P. Kandwal) on the Thesis entitled “*Studies on Separation of Valuable Radionuclides Using Supported Liquid Membrane*”.
2. One Ph.D. scholar Durgesh Singh (under the Co-supervision of Dr. RP Pandey) has given Pre-Thesis submission seminar and likely to submit in the month of July 2022 on the title “*Synthesis & Characterization of Metal Organic Frameworks (MOFs) for Luminescence and Electrochemical Application.*”

### (b) INVITED LECTURES

1. **Dr. Rampal Pandey** Delivered lecture on Refresher Course-Chemistry-biology & material sciences Interfaces, in the HRDC Centre Sagar Vishwavidyalaya on Nov. 13, 2021.
2. **Dr. Rampal Pandey** Delivered a lecture in Recent Advances in Chemical Science at 27<sup>th</sup> International Conference of International Academy of Physical Sciences (CONIAPS XXVII) jointly organized by BHU-JNU during Oct. 26-28, 2021.
3. **Dr. Rampal Pandey** Delivered a lecture on “Green Chemistry and Technology” at Govt. Arts and Commerce College Sagar on March 24, 2022.



4. **Dr. Pankaj Kandwal** chaired a session in two days virtual International Conference on “Molecules to Materials” (MTM – 2021) organized by Department of Chemistry, Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat-07, Gujarat on 17-18th December 2021.
5. **Dr. Pankaj Kandwal** delivered a talk on “*Density Functional Theory*” in the short-term course (STC) entitled “Analytical Techniques in the Realm of Molecules & Materials” (ATRMM-21) organized by SLIET Longowal during 26-31 July 2021.

#### DETAILS OF PATENTS:

S. No.	Title	Application Number	Date of Filing/ Publication/Award	National / International	Name of Inventors
1.	Portable Stair Climbing Mechanism For The Conventional Trolley	20211105544 6	10/10/2021	National	Dr. Rakesh Kumar, Mr. Palash Suresh Behra, Dr. Dharmendra Tripathi, and Dr. Rakesh K. Mishra
2.	A Process for Carbon Dioxide Adsorption Induced Switchable Antibacterial Activity of a Smart Covalent Organic Framework	20221100069 6	06/01/2022.	National	A. Ajayaghosh, A. Mal, Rakesh K. Mishra, D. B. S. Kumar, J. Jacob, S. Shankar

#### DETAILS OF CONFERENCES/STC/FDPS ETC ORGANIZED:

1. Five days Virtual Workshop on “*Design Thinking, Critical Thinking and Innovative Design*” from 28 February- 04 March **2022** (**Dr. R.K. Mishra**, Convener).
2. Five-day virtual workshop on “*Challenges & Opportunities towards Sustainable Energy & Environmental Technology in India*” during February 21-25, **2022** (**Dr. R.K. Mishra**, Convener).
3. Conducted the “**HERICANE**”, a hackathon for women entrepreneurs of India and abroad during February 11-13, 2022 in virtual mode in collaboration with Manipal University Jaipur (**Dr. R.K. Mishra**).
4. Celebrated National Science Day on February 28, **2022** by organizing two expert lectures by Prof. T. Pradeep (Padma Shri) Institute Professor, Indian Institute of Technology Madras and Prof. Chandra Shakher, Honorary Professor Indian Institute of Technology Delhi.
5. Five-day virtual workshop on “*Startup and Entrepreneurship Skills, Attitude and Behaviour Development*” during February 16-20, **2022** (**Dr. R.K. Mishra**, Convener).
6. The 3<sup>rd</sup> National Conference on Recent Advancement in Physical Science (**NCRAPS-2021**), December 19-20, **2021** jointly organized by Department of Chemistry, Department of Physics and Department of Mathematics, National Institute of Technology Uttarakhand (**Dr. RP Pandey & R.K. Mishra**, Organizing Secretary).
7. International Conference on *Biotechnology for Resource Efficiency, Energy, Environment, Chemicals and Health* (**BREEECH-2021**) during December 01-04, **2021** at CSIR-IIP, Dehradun (**Dr. R.K. Mishra**, Organizing Secretary).
8. Jointly organized international conference International Conference on *Biotechnology for Sustainable Agriculture, Environment and Health* (**BSAEH-2020**) during April 04-08, **2021** at MNIT Jaipur (**Dr. R.K. Mishra**).

### DETAILS OF CONFERENCES/STC/FDPS ATTENDED:

1. Attended one-day International webinar on "*Post-COVID challenges and opportunities for the Chemist*" jointly organized by the Indian Science Congress Association (Delhi Chapter) and Department of Chemistry, University of Delhi on December 28, 2021.
2. Chaired the session in International Conference on Biotechnology for Resource Efficiency, Energy, Environment, Chemicals and Health (**BREEECH-2021**) during 01-04 December, 2021 at CSIR-IIP, Dehradun.
3. Chaired the session in International Conference on *Biotechnology for Sustainable Agriculture, Environment and Health* (**BSAEH-2020**) during April 04-08, **2021** at MNIT Jaipur.
4. Chaired the session in the 3<sup>rd</sup> National Conference on Recent Advancement in Physical Science (**NCRAPS-2021**), December 19-20, 2021 jointly organized by Department of Chemistry, Department of Physics and Department of Mathematics, National Institute of Technology Uttarakhand.

### COLLABORATIVE ACTIVITIES:

Research collaborations are underway with;

1. CSIR–Indian Institute of Petroleum (CSIR-IIP), Dehradun
2. Department of Chemistry, Institute of Science, Banaras Hindu University, Varanasi
3. CSIR–National Institute for Interdisciplinary Science and Technology (CSIR-NIIST), Thiruvananthapuram
4. Indian Institute of Technology, Hyderabad
5. Indian Institute of Technology, Varanasi
6. National Institute of Technology, Kurukshetra
7. Guru Ghasidas Vishwavidyalaya Bilaspur, CG, India

### OUTREACH ACTIVITIES:

#### MEMBERSHIPS OF EDITORIAL BOARD AND PROFESSIONAL SOCIETIES

- Dr. Rampal Pandey has been elected as a Section Editor-Inorganic Chemistry, of mega journal Current Indian Science (Bentham Science)
- Dr. Rampal Pandey has become a Life member of Solar Energy Society of India (SESI) (ID No. 4685) and Indian Society of Chemists & Biologists (ISCB) (LF 1153/2022)
- Dr. Rakesh K. Mishra has become a Life member of Material Research Society of India (MRSI) and Indian Science Congress Association (ISCA)

#### SWAYAM/NPTEL/MOOCs COURSES

- Dr. Rampal Pandey has been coordinating to run the MOOC course entitled d–Block Elements, Quantum Chemistry and Spectroscopy.

#### SPECIAL ACHIEVEMENTS:

- Dr. Rampal Pandey has been appointed as Editor of book "Ethanol Chemistry: Production, Modelling, Applications, and Technological Aspects". Publisher: IntechOpen, London, UK.
- Dr. Rakesh K. Mishra has become a Member of editorial board of Journal of Energy and Environmental Sustainability (JEES).

## 05.09 DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

With a persistent commitment towards value oriented education, the Department of Humanities and Social Sciences came into existence in June 2019. Striving to reach higher goals of global standards as a part of department of Sciences and Humanities since 2010, the department facilitates multifarious and value added learning to B. Tech, M. Tech. and PhD students. Catering to the academic and extra-curricular needs of the students, the department offers various courses in Communication English, Social Sciences, Literature and Cinema, Screenwriting and Creative Writing which strengthen the professional and personal growth of students. The department strives to creating learning environment that is inclusive and diverse and promotes better learning experience and outcome. 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.

### VISION:

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

### MISSION:

1. Facilitating students with communicative excellence and life skills and prepare them to achieve global competence.
2. Igniting young minds to build critical thinking and creative perception towards their social surroundings.
3. Promulgating social values and ethical behavior and to contribute towards the sustainable development of industry and society.
4. Fostering inter-disciplinary research in the discipline of humanities and social sciences, contributing towards the growth of community and nation at large.

### ACADEMIC STAFF:

S. No.	Faculty Name	Designation	Areas of Specialization
1	Dr. Renu Bhadola Dangwal	Assistant Professor & Head	Postcolonial Studies, Environmental Studies, Cultural Studies, Children's Literature, Indian English Writing, ELT & Communication
2.	Dr. Ajay Kumar Chaubey	Assistant Professor (On Lien)	Diaspora Studies, Popular Culture, Travel Writing, Translation Studies, Indian English Writing, ELT & Communication

### NON-TEACHING STAFF:

S. No.	Name	Designation
1.	Ms. Neha Raturi	Technical Assistant
2.	Mr. Anil Bhatt	Technician
3.	Mr. Manish Chamoli	Data Entry Operator

### Ph.D. STUDENTS:

S. No.	Name of the Scholar	Area of Research
1.	Joe Philip	Subaltern Studies
2.	Satyanarayan Tiwari	Postcolonial Studies
3.	Dona Soman	Posthumanism & Children Literature
4.	Manvi Sharma	Popular Cultural Representation of Climate Change
5.	Sonalika Chaturvedi	Eco-disaster Studies
6.	Samir Gorai	Disability Studies

## RESEARCH AND DEVELOPMENT INFRASTRUCTURE/LABORATORIES:

The department has well equipped Communication Skill Laboratory. It is a platform which offers an assortment of tools to sharpen basic LSRW 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.
- 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



## DETAILS OF CONFERENCES/STC/FDPS ETC ORGANIZED:

### National Conference on “Ecological Humanities: Recent Paradigms” organized by the department during 6-7 March 2021.

The department organized a two-day National Conference on Ecological Humanities: Recent Pardigms” during 6-7 March 2021 in collaboration withThe Convener, Dr. Ajay Kr Chaubey, Assistant Professor English & Head, Dept. of HSS, welcomed all the guests. Dr. Dharmendra Tripathi, Dean R&C, and the Special Guest of the event delivered his warm address. The Chief Guest of Honour, Dr. Ashis De from Vidyasagar University, threw light on the significance of Ecological Humanities and its current trends. The inaugural speech was delivered by the eminent thinker and academician Prof. Pramod Kumar Nayar, University of Hyderabad, who was the Chief Guest in the event, gave enlightening speech on “Vulnerable Ecosystems: Biosecurity and the invasion Narrative”. At the end of the speech, discussion was invited on the topic.

The First Plenary Session (2.05-3.05) was delivered by Dr. Ashis De, who requested him to present his speech on “Civilizational Crisis of Climate Change: Ecological Humanities and the Ethical Amitav Ghosh”. Like

the key note speech at the end of plenary session, a brief discussion proceeded. Then everyone refreshed themselves through the sip of tea. Technical Session-I (03:30 pm-5:00 pm) was chaired by Dr. Ajay Kumar Chaubey. In total seven dignitaries presented their papers during this session. Some of the papers were presented during the session are as follows:

- 1) “Bioregional Literature and Its Contribution to a Sustainable Culture” by Dr Deepa Vanjan (PMB Science College, Indore).
- 2) “Future Perfect: Post-human Ecology in Kurt Vonnegut’s Galápagos” by Ankit Raj (HSS, IIT Roorkee Uttarakhand.)
- 3) “Punjab Indigenous Cultures in the Age of Anthropocene” by Amanpreet Kaur (Punjab University Patiala)

The day two of the conference started with Plenary Session which started at 10.00 am. The session was chaired by Dr. Renu Bhadoal Dangwal. After giving a brief introduction of the plenary speaker, Dr. Animesh Roy, St. Xavier’s College, Simdega, Jharkhand, she invited him to present his valuable speech on “Provincializing the Global South Literature, Culture and Ecology”. Like the earlier plenary session a discussion followed on after the speaker had finished his talk.

The Technical Session II (11.30-1.00), six papers were presented on the conference topic by PhD scholars from various institutes of India. A few examples should be mentioned here;

- 1) “Ecological concerns in 'Chembarathi Nadakangal'(Hibiscus Dramas), a Social Media Theatre” by Swathy H,( Kannur University, Kerala).
- 2) “Hemingway’s The Old Man and the Sea: The Representative Universality of Human Conflict with Environment” by Arun Ghorai (Vidyasagar University, West Bengal).
- 3) Relevance of 'Inattentional Blindness' in 'Pesticide Toxicity' through K. V. Dominic's "Endosulfan Tragedy" by Ramya Kalaivani K (Karamadai, Tamil Nadu).

Technical Session-III (2:30 pm - 4:00 pm): This is the final technical session chaired by Dr. Ajay Kr. Chaubey. Research scholars from various parts of India presented 8 papers in this session. Few examples of them are as follows;

- 1) “Avatar and the Deep Ecology: A Study of The Lived Eco-consciousness” by Padm Nabh Trivedi (HSS, IIT Roorkee Uttarakhand).
- 2) “Ecological Concerns in Amitav Ghosh's The Great Derangement” by Pallavi & Dr. Jyoti Sheoran, (CRS University, Haryana).
- 3) “Myth and the Restoring of Ecological Consciousness: A Study of Amitav Ghosh's The Hungry Tide and Gun Island” by Dr. Ashish Ghildiyal (HNBGU, Uttarakhand).

Finally Valedictory Programme was held at 4 pm with the welcome note by Dr. Renu Dangwal , followed by the address of the chief guest, Dr. G. S. Brar, Dean (Academics). There after conference report was provided by Dr Dangwal and feedbacks from the presenters were received. Finally, with vote of thanks from Dr. Ajay Kr. Chaubey the conference reached its end. The conference garnered successful feedback and appreciation for creating fruitful discourse on Ecological Humanities by inviting 26 papers from different corners of country.

#### DETAILS OF CONFERENCES/STC/FDPS ETC ATTENDED:

1. Sonalika Chaurvedi was selected to present paper in internationally acclaimed ACLA Conference in 2021.
2. Manvi Sharma and Dona Soman were selected to present paper in Internationally acclaimed ASLE Conference 2021
3. Manvi Sharma has been selected for internationally acclaimed ACLALS Conference, Ontario Canada 2022.

## 06.00 RESEARCH & CONSULTANCY SECTION

### 06.01 PUBLICATIONS IN NATIONAL/INTERNATIONAL JOURNALS

- [1] J. Akram, N. S. Akbar, and D. Tripathi, "Thermal Analysis on MHD Flow of Ethylene Glycol-based BNNTs Nanofluids via Peristaltically Induced Electroosmotic Pumping in a Curved Microchannel," *Arabian Journal for Science and Engineering*, 2021.
- [2] Anita and A. Yadav, "An Intelligent Model for the Detection of White Blood Cells using Artificial Intelligence," *Computer Methods and Programs in Biomedicine*, vol. 199, 2021.
- [3] T. S. Arora, "A Current Mode Universal Filter and a Single Resistance Controlled Oscillator Employing only Grounded Passive Elements: Applications of VDCC," *Electronics*, vol. 25, pp. 65-76, 2021.
- [4] T. S. Arora, "VDCC Based Sinusoidal Oscillators Using All Grounded Capacitors: A Series of Realization," *Wireless Personal Communications*, vol. 116, pp. 383-409, 2021.
- [5] S. Banchhor, N. Chauhan, and B. Anand, "A new physical insight into the zero-temperature coefficient with self-heating in silicon-on-insulator fin field-effect transistors," *Semiconductor Science and Technology*, vol. 36, 2021.
- [6] P. Bhandari and Y. K. Prajapati, "Thermal performance of open microchannel heat sink with variable pin fin height," *International Journal of Thermal Sciences*, vol. 159, 2021.
- [7] S. Bhatra and P. Maheshwari, "Effect of Adjacent Axle Loads on Uplift of Rails on Geocell-Stone Column Improved Tensionless Foundation," *Geotechnical and Geological Engineering*, vol. 39, pp. 1059-1078, 2021.
- [8] V. Bijalwan, V. B. Semwal, G. Singh, and R. G. Crespo, "Heterogeneous computing model for post-injury walking pattern restoration and postural stability rehabilitation exercise recognition," *Expert Systems*, 2021.
- [9] K. Bisht and M. Deshmukh, "A novel approach for multilevel multi-secret image sharing scheme," *Journal of Supercomputing*, vol. 77, pp. 12157-12191, 2021.
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- [14] P. Dwivedi and S. Pandey, "Tuning rules: Graphical analysis and experimental validation of a simplified fractional order controller for a class of open-loop unstable systems," *Asian Journal of Control*, vol. 23, pp. 2293-2310, 2021.
- [15] C. Garg, N. Chauhan, A. Sharma, S. Banchhor, A. Doneria, S. Dasgupta, et al., "Investigation of Trap-Induced Performance Degradation and Restriction on Higher Ferroelectric Thickness in Negative Capacitance FDSOI FET," *IEEE Transactions on Electron Devices*, vol. 68, pp. 5298-5304, 2021.
- [16] A. Gaur, K. Khan, B. R. Bhagat, J. Sahariya, A. Soni, and A. Dashora, "Role of intermediate band and carrier mobility in Sn/Fe doped CuAlS<sub>2</sub> thin film for solar cell: An ab-initio study," *Solar Energy*, vol. 215, pp. 144-150, 2021.
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## 06.04 DETAILS OF PATENTS (NATIONAL/INTERNATIONAL)

S. No.	Title	Application Number	Date of Filing/Publication/Award	National/International	Name of Inventors
1.	Portable Stair Climbing Mechanism For The Conventional Trolley	202111055446 A	30-11-2021	National	Dr. Rakesh Kumar, Mr. Palash Suresh Behra, Dr. Dharmendra Tripathi, and Dr. Rakesh K. Mishra
2.	Highly-Directional Compact Semicircular Angular-Phased Antenna Array in 9.35-42.89 GHz	201811035222	19-09-2018	National	Tushar Goel & Amalendu Patnaik
3.	A Solar heating apparatus	App No.-201911	14-09-2019	National	Vinod Singh Yadav, Vineet Singh, Manoj Kumar Singh, Niraj Kumar, Anurag Maheswari, Vishwa Ratna mishra, Vinod Yadav, Akash Nigam
4.	An Economical, Automated, Non-Invasive Device For Spinal Curvature Measurement	201911003426	28-01-2019	National	AK Tiwari, Shivam Saini, Anil Sharma, Manish Rawat, Dharmendra Tripathi
5.	A hybrid iron sulfide impregnated anion exchanger (HISIX) for selective removal of hexavalent chromium from contaminated water	201911024268	19-06-2019	National	Prof. Sudipta Sarkar, Mr. Laiju A. R.
6.	Co(NO <sub>3</sub> ) <sub>2</sub> Autocatalyzed Decarboxylation of Itaconic Acid Leads to the Formation of Methacrylic Acid and Co(II)-MOFs: Fluorescent Co(II)-MOFs Detect Hg <sup>2+</sup> , Fe <sup>3+</sup> and Cu <sup>2+</sup> Ions	201811018132	15-05-2018	National	Rampal Pandey, Neha Thakur, Mrituanjay D. Pandey
7.	"A System And A Micromachining Process Using Cow Urine (Gau-Mutra)"	201811040311A	25-10-2018	National	Pankaj Kumar Gupta, Kishore Debnath, Krrishnakant Dhakar
8.	Fluorescence Readout for Identification of Hg <sup>2+</sup> by Anthraimidazoledione Based Probe in Real Water Samples	201711019223	06-01-2017	National	Dr. Mrituanjay D. Pandey, Rampal Pandey, Neha Thakur, Manzoor Ahmad Wani
9.	Open vs. enclosed spatial	US Provisional	07-01-2019	International	Mahesh Chowdhary,

	environment classification for a mobile or wearable device using microphone and deep learning method	Patent Application no. 62/789,406			Arun Kumar, Ghanapriya Singh, Rajendar Bahl
10.	Method and apparatus for determining probabilistic context awareness of a mobile device using a single sensor and/or multi-sensor data fusion	US Patent 9870535	26.05.2015	International	Mahesh Chowdhary, Arun Kumar, Ghanapriya Singh, Rajendar Bahl
11.	Context awareness of a smart device through sensing transient and continuous signals	US Patent Publication No. 20190227096	25-01-2018	International	Mahesh Chowdhary, Arun Kumar, Ghanapriya Singh, Rajendar Bahl
12.	Method for generating a personalized classifier for human motion activities of a mobile or wearable device user with unsupervised learning	US Patent Application No. US15/600,057	19-05-2017	International	Mahesh Chowdhary, Arun Kumar, Ghanapriya Singh, Rajendar Bahl
13.	Method and apparatus for energy efficient probabilistic context awareness of a mobile or wearable device user by switching between a single sensor and multiple sensors	US Patent Application No. US 15/299,656	21-10-2016	International	Mahesh Chowdhary, Arun Kumar, Ghanapriya Singh, Rajendar Bahl
14.	Hybrid Solar Air Heater for Space Heating and Crop Drying	202111000280	04-01-2021	National	Dr. Vinod Singh Yadav
15.	Solar Pump Irrigation Based on Photovoltaic (PV) Cell Technology	202111000580	05-01-2021	National	Dr. Vinod Singh Yadav
16.	A Composition for fabricating of pine needle ash particulates reinforced surface composite.	202022100826.4	14-04-2022	International	Dr. Manoj Gupta, Dr. Nitesh Singh, Dr. Pawan Kumar Rakesh

### 06.05 FUNDED SPONSORED RESEARCH PROJECTS

S. No.	Title of the R&D Project	Funding Agency	Name of PI/Co-PI	Sanctioned Amount Rs. (in Lacs)	Status
1.	Synthesis and development of polymeric compounds (phenylated	DST-SERB, New Delhi	Dr. I. M. Nagpure	22,49,600.00	Completed



	quinolone based) for OLED (Organic light emitting devices) applications				
2.	Regioselective synthesis of fused polyaryl compounds via nucleophilic addition to borylbenzenes: application to the synthesis of topopyrone C & D	DST-SERB, New Delhi	Dr. Saroj Ranjan De	18,60,000.00	Completed
3.	Synthetic Structural and optical aspects of Photoactive MOFs	DST, New Delhi	Dr. Rampal Pandey	14,29,095.00*	Completed
4.	Special Man Power Development Programme Chip to System Design (SMDP-C2SD)	Department of Electronics and Information Technology (DeitY)	Dr. Pankaj Kumar Pal	77,90,000.00	Completed
5.	Development and Analysis of Cancelable Biometric Template Generation for Person Identification	UCOST, Uttarakhand	Dr. Nitin Kumar	02,09,000.00	Completed
6.	Solar Pump Irrigation Based On PV Cell Technology	CRS-MHRD scheme	Dr. Vinod Singh Yadav (Co-PI)	9,67,000.00	Completed
7.	Hybrid Solar Air Heater Used For Commercial Purpose	CRS-MHRD scheme	Dr. Vinod Singh Yadav (Co-PI)	12,61,000.00	Completed
8.	Development of solar powered thermoelectric cooler using desiccant dehumidification	CRS-MHRD scheme	Dr. Yogesh Kumar Prajapati (Co-PI)	9,71,000.00	Completed
9.	Design and Innovation Centre (DIC)	MoE, Govt. of India	Dr. Pawan K. Rakesh	82,00,000.00	Ongoing
10.	Secret Sharing Scheme Based Technology for Multimedia Security Over Cloud	DST, New Delhi	Dr. Krishan Kumar	40,00,000.00	Ongoing
11.	Analysing Online Reviews of Universities and Colleges using Machine Learning	TEQIP-III, UTU, Dehradun	Dr. Nitin Kumar (Co-PI)	2,00,000.00	Ongoing
12.	Fault Tolerant Control Scheme for PWM Inverter Fed Induction Motor Based Electric Vehicle	TEQIP-III, UTU, Dehradun	Dr. Saurav Bose (Co-PI)	3,00,000.00	Ongoing
13.	Open Circuit Fault Tolerant Operation of Five Phase Induction Motor Drive Used in Electric Vehicle	TEQIP-III, UTU, Dehradun	Dr. Saurav Bose (Co-PI)	2,00,000.00	Ongoing
14.	Solar powered robust E-Rickshaw control with bidirectional DC-DC Converter using regenerative cycle boosts charging	Ministry of Electronics & Information Technology	Dr. Prakash Dwivedi & Dr. Saurav Bose	30,02,000.00	Ongoing
15.	Study of FeRh epitaxial films and heterostructures for spintronics applications	UGC DAE CSR, Indore	Dr Hardeep Kumar	05,21,000.00	Ongoing
16.	Fabrication and haracterization of	UGC-DAE CSR,	Dr. M. S. Khatri	45, 000.00	Ongoing

	Co- based CoPt/Pt multilayered films by Electrodeposition	Mumbai	(PI)		
17.	Development of domestic cooking stove based on biomass gasification with porous radiant burner	SERB, DST under Core Research Grant Scheme	Dr. Niraj Kumar Mishra	21,13,000.00	Ongoing
18.	“DECONET- Development Of Indigenous System For Deciphering Envisioned Speech From EEG Signals Using Optimized Deep Convolutional Neural Network Models”,	Core Research Grant Scheme, SERB, Govt. of India.	Dr. Hariharan Muthusamy	40,70,845.00	Ongoing
19.	Fabrication and Testing of Lower Limb Prosthesis for Transtibial Amputee using Biocomposites with Energy Restoring Capability	Indian Institute of Medical Research (ICMR),	Dr. Pawan Kumar Rakesh (PI) & Dr. Sanat Agarwal (Co-PI)	27,70,000.00	Ongoing

### 06.06 DETAILS OF CONSULTANCY PROJECTS

S. No.	Title of the Consultancy Project	Funding Agency	Name of PI /Co-PI	Sanctioned Amount ₹. (in Lacs)	Status
1.	LNA Infraprojects Private Limited, Vidhya Nagar, Jaipur	LNA Infraprojects Private Limited, Vidhya Nagar, Jaipur	Dr. Aditya Kumar Anupam	59,000.00	Completed
2.	M/s Dharamraj Contracts India Pvt. Ltd.	M/s Dharamraj Contracts India Pvt. Ltd.	Dr. Aditya Kumar Anupam	2,41,900.00	Completed
3.	M/s RCC Developers Limited [GFC Drawings/ Design]	M/s RCC Developers Limited	Dr. Aditya Kumar Anupam	2,31,280.00	Completed
4.	PWD Srinagar [Soil Testing – Liquid Limit, Plastic Limit, C.B. R. Value, Grain Size Distribution]	PWD Srinagar	Dr. Aditya Kumar Anupam	35,400.00	Under Process
5.	PWD Srinagar [Soil Testing – Liquid Limit, Plastic Limit, C.B. R. Value, Grain Size Distribution]	PWD Srinagar	Dr. Aditya Kumar Anupam	47,200.00	Under Process
6.	NKG Infrastructure, New Delhi [Soil Investigation]	NKG Infrastructure, New Delhi	Dr. Aditya Kumar Anupam	1,77,000.00	Completed
7.	RCC Developers limited, Meerut [Soil Investigation]	RCC Developers limited, Meerut	Dr. Aditya Kumar Anupam	47,200.00	Completed
8.	Hillways Construction Company Pvt. Ltd [Design Mix (JMF) of Dense Bituminous Macadam (DBM) and Bituminous Concrete (BC)]	Hillways Construction Company Pvt. Ltd	Dr. Aditya Kumar Anupam	70,800.00	Under Process

9.	M/s RCC Developers Limited [GFC Drawings/ Design]	M/s RCC Developers Limited	Dr. Aditya Kumar Anupam	29,500.00	Under Process
10.	M/s NKG Infrastructure Limited [Technical vetting/ approval for GFC Design and Drawing]	M/s NKG Infrastructure Limited	Dr. Shashi Narayan	7,08,000.00	Completed
11.	M/s RCC Developers Limited [Technical vetting/Approval for GFC Drawings/Design]	M/s RCC Developers Limited	Dr. Shashi Narayan	1,41,600.00	Completed
12.	URBAN SOLUTIONS [Quotation for Material Testing]	URBAN SOLUTIONS	Dr. Aditya Kumar Anupam	47,200.00	Completed
13.	RK VATS [Soil Report Vetting]	RK VATS	Dr. Aditya Kumar Anupam	88,500.00	Completed
14.	Soigne Engineering Consultant [Technical Vetting/Approval of Soil Investigation]	Soigne Engineering Consultant	Dr. Aditya Kumar Anupam	1,77,000.00	Under Process
15.	LNA Infraprojects Private Limited, Vidhya Nagar, Jaipur [Quotation of Cement Test]	LNA Infraprojects Private Limited, Vidhya Nagar, Jaipur	Dr. Aditya Kumar Anupam	11,210.00	Under Process
16.	M/s Keslec Design [for Vetting of Structural Design & Drawing]	M/s Keslec Design	Dr. Shashi Narayan	9,38,100.00	Completed
17.	M/s RCC Developers limited, Meerut [Third Party Visit for Medical College and Hospital project of Bulandshahr]	M/s RCC Developers limited, Meerut	Dr. Aditya Kumar Anupam	1,41,600.00	Under Process
18.	M/s RCC Developers limited, Meerut	M/s RCC Developers limited, Meerut	Dr. Aditya Kumar Anupam	1,41,600.00	Under Process
19.	M/s Keslec Design Solution [Quotation for Vetting of Structural Design and Drawing of Barrack and Dining Block at Supreme Court of India]	M/s Keslec Design Solution	Dr. Shashi Narayan	20,060.00	Completed
20.	M/s RCC Developers Limited Third Party Visit (Cement, Aggregate, Concrete)	M/s RCC Developers Limited	Dr. Aditya Kumar Anupam	82,600.00	Under Process
21.	NKG Infrastructure, New Delhi [Third Party Visit]	NKG Infrastructure, New Delhi	Dr. Aditya Kumar Anupam	59,000.00	Under Process
22.	Road Construction Coy (GREF) Job Mix Design for WMM work (1.50 cm thick)	Road Construction Coy (GREF)	Dr. Aditya Kumar Anupam	47,200.00	Under Process
23.	Rajshri Construction, Ghaziabad [Test Report of Stone Boulder regarding Crushing Value, Impact Value & Water Absorption.]	Rajshri Construction, Ghaziabad	Dr. Aditya Kumar Anupam	23,600.00	Under Process

24.	Ministry of Environment, Forest and Climate Change, New Delhi [Construction of Multipurpose Hall at FRI, Dehradun and Extension of Examination hall and Academic Building]	Ministry of Environment, Forest and Climate Change, New Delhi	Dr. Kranti Jain	1,65,200.00	Under Process
25.	Third Party Inspection of Quality of Various works under Smart City Project Dehradun [M/s Dehradun Smart City Limited]	Third Party Inspection of Quality of Various works under Smart City Project Dehradun	Dr. Shashank Bhatra	90,00,000.00	Under Process
26.	Birla Corporation Ltd. Madav Nagar Sector-III Chanderia [Consultancy Charges for vetting of Structural design and Drawings at various sites]	Birla Corporation Ltd. Madav Nagar Sector-III Chanderia	Mr. Amardeep	23,600.00	Under Process
27.	M/s Hindustan Steelworks Costruction Ltd. [Concrete Design Mix M-25 and M-30]	M/s Hindustan Steelworks Costruction Ltd.	Mr. Amardeep	2,36,000.00	Under Process

## 06.07 DETAILS OF CONFERENCES/STC/FDPS ETC ORGANIZED:

- Online Faculty Development Program on "Research Trends in Security and Computing from **28th February - 04th March 2022.**
- Five days Virtual Workshop on "**Design Thinking, Critical Thinking and Innovative Design**" from **28 February- 04 March 2022.**
- Organized Five Day online STC program on "Stability Issues, Challenges and Solutions in Renewable Integrated Power Systems" **28th Feb– 04th March, 2022.**
- Organized one week virtual Workshop on "Challenges & Opportunities towards Sustainable Energy & Environmental Technology in India" **February 21-25, 2022.**
- Celebrated National Science Day on **28th February 2022 by organising two expert lectures by** Prof. T. Pradeep (Padma Shri) Institute Professor, Indian Institute of Technology Madras (**Title: Affordable Clean Water using Advanced Materials**) and Prof. Chandra Shakher, Honorary Professor Indian Institute of Technology Delhi (**Title: Light and Light based Technologies**).
- Convener, Workshop on Challenges & Opportunities towards Sustainable Energy & Environmental Technology in India during **February 21-25, 2022.**
- International Conference on Robotics, Control and Computer Vision to be organized during **Feb. 19-20, 2022** at NIT Uttarakhand.
- Five-day virtual workshop on "**Startup and Entrepreneurship Skills, Attitude and Behaviour Development**" during **February 16-20, 2022.**
- R&C Section, NIT Uttarakhand has organized following **Expert Lectures** on **February 09 & 10, 2022.**
- 3<sup>rd</sup> National Conference on "Recent Advances in Physical Sciences (NCRAPS)" jointly organized by Department of Chemistry, Physics and Mathematics, during **December 19-20, 2021.**
- Five days Workshop on "Frontier Area of Electronics and Communication Engineering: An Industry Academia Convergence" during **27th to 1st October, 2021.**
- One-week online FDP on "**Design for Excellence: A step Towards Innovation**" **September 26-30, 2021,**

- Twelve Days Summer course on “ICT Tools for Teaching, Learning Process & Institutes” during **10<sup>th</sup> to 21<sup>th</sup> August, 2021.**
- One week workshop on Interview Skills, **24<sup>th</sup> -29<sup>th</sup> Aug, 2021**
- A virtual 3 day workshop on Orientation to Nurturing Start-up on August 28, 2021, **September 04, 2021 & September 11, 2021.** Mr. Rohit Swarup (an educationalist, corporate mentor, entrepreneur, Founder, Director Xplora Design Skool & Future Xplored) was invited as a guest speaker. The session started with the introduction of the speaker, Mr. Rohit Swarup by **Dr. Vikas kukshal** (Coordinator, IIC & IEDC NIT Uttarakhand).
- As per directives of the Ministry of Education's Innovation Cell (MIC), Two Impact Lectures were organized on **September 28, 2021.**

- |    |        |   |  |
|----|--------|---|--|
|    | Expert | : | <b>Smt. Sangeeta Nagar</b><br>Scientist F, Patent Facilitating Centre (PFC), TIFAC |
| 1. | Topic: | : | Accessing Patent Information and Conducting Patent Searches                        |
|    | Time   | : | 2:30 - 4:00 PM   |
|    | Expert | : | <b>Sh. Govind Sharma</b><br>Ex-Chief, NRDC, New Delhi                              |
| 2. | Topic: | : | Licensing /commercialization of IP/Technologies                                    |
|    | Time   | : | 4:00 - 5:30 PM.  |

- Organized the **Prof. Shyam Lal Soni Memory Lecture** on **October 10, 2021** which was delivered by an eminent speaker, Padma Shri, **Dr. Satish Kumar** (Ex-Director, NIT Kurukshetra) on “The Next Generation Manufacturing Revolution: Challenges & Opportunities”

- The following Experts Lectures were organized on **October 25, 2021;**

- |    |        |   |  |
|----|--------|---|--|
| 1. | Expert | : | <b>Ms. Aditi Singh,</b><br>Asst. Professor, Department of Industrial Design, SPA New Delhi |
|    | Topic: | : | <b>Design and Critical Thinking</b>  |
|    | Time   | : | 2:30 - 4:00 PM   |
| 2. | Expert | : | <b>Mr. Uttam Banerjee,</b><br>Co-Founder, CEO, Ekam Eco Solutions Pvt. Ltd                 |
|    | Topic  | : | Concept to Consumer  |
|    | Time   | : | 4:00 - 5:30 PM.  |

- The following Experts Lectures were organized on **November 08, 2021;**

- |        |   |  |
|--------|---|--|
| Expert | : | <b>Prof. Rajinder Kumar Deswal,</b><br>Professor & Head, Deptt. of Business Admin. And Coordinator IPR Cell, NIT Kurukshetra |
| Topic: | : | <b>IPR related Issues in Academics</b>   |
| Time   | : | 05:00PM - 06:00 PM   |

## 06.08 DETAILS OF CONFERENCES/STC/FDPS ETC ATTENDED:

- Badweeti, K., Kumar A., & Badweeti, A. (2021). Analysis of Pedestrian Crossing Speed (PCS) for Single and Two-stage Crossings at Signalized Intersections under Mixed Traffic Conditions. In *1<sup>st</sup> International Online Conference on Sustainable Development in Civil and Electrical Engineering (SDCEE), National Institute of Technology Kurukshetra, India, December 17-19, 2021.*
- International Conference on Paradigms of Communication, Computing and Data Sciences organized during May 07-09, 2021 at NIT Kurukshetra.

### 06.09 COLLABORATIVE ACTIVITIES:

- Smart Materials: Processing and Applications, Jointly organized by Department of Physics, NIT Uttarakhand and Department of Physics, IIT Roorkee (**November 15-19, 2021**).
- 2<sup>nd</sup> International Conference on Intelligent Computing Techniques for Smart Energy Systems (**ICTSES-2021**) which is scheduled on **September 1-3, 2021** with Manipal University, Jaipur.
- International Conference on Biotechnology for Sustainable Agriculture, Environment and Health (BSAEH-2020) during **04-08 April, 2021**
- Conducted the “**HERICANE**”, a hackathon for women entrepreneurs of India and abroad during February 11-13, 2022 in virtual mode in collaboration with Manipal University Jaipur.
- R&C section, NIT Uttarakhand has jointly organized the **International Conference on Advances in Mechanical Engineering and Nanotechnology (ICAMEN-2022) on February 18-19, 2022** (virtual/physical mode) with Department of Mechanical Engineering, Manipal University Jaipur at MUJ Campus, Jaipur.
- International Conference on Biotechnology for Resource Efficiency, Energy, Environment, Chemicals and Health (**BREEECH 2021**) during 01-04 December, 2021 at CSIR-IIP, Dehradun.
- As a collaborative activity, the International Conference on Biotechnology for Resource Efficiency, Energy, Environment, Chemicals and Health (**BRE3CH-2021**) is being organized jointly CSIR-Indian Institute of Petroleum, Dehradun, NIT Uttarakhand, Biotechnology Research Society of India (BRSI), the International Bioprocessing Association, France, the Centre for Energy and Environment (CEES)-India, Centre for Development Communication (CDC) Jaipur, as well as International Solid Waste Management Association (India Chapter) during **December 01-04, 2021** at CSIR-IIP Dehradun.
- 4<sup>th</sup> International conference on Advances in Mechanical engineering and Nanotechnology (ICAMEN 2022) to be jointly organized by Department of Mechanical Engineering, Manipal University Jaipur and R&C Section NIT Uttarakhand on **February 18-19, 2022**.
- The International Conference on Biotechnology for Sustainable Agriculture, Environment and Health (BSAEH-2020), April **4-8, 2021** at Jaipur.

### 06.010 MOU SIGNED

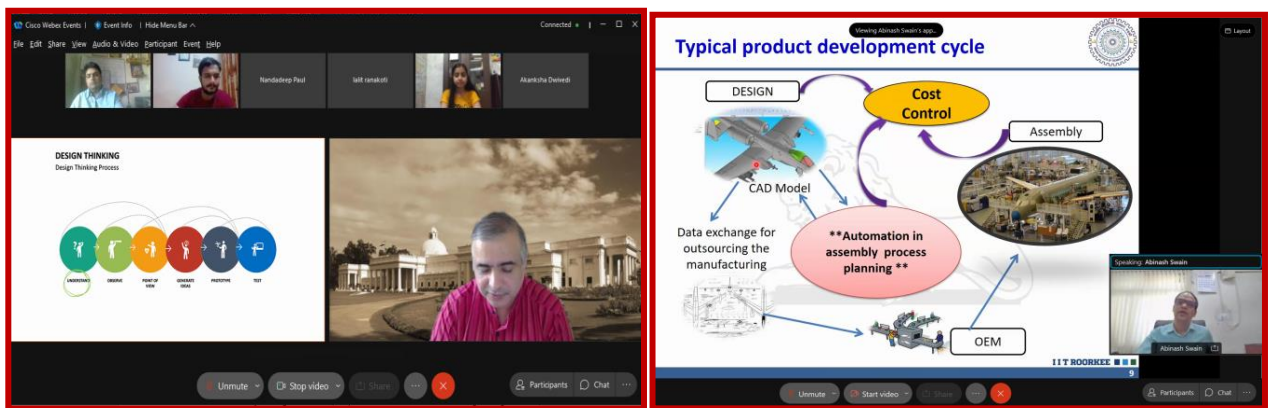
- Central Manufacturing Technology Institute (CMTI), Bengaluru (21/05/2021)
- EMTP (Alliance Software & Services) (19/07/2021)
- Indian Institute of Technology, Ropar (02/09/2021)
- Pawan Hans Limited, Noida (08/10/2021)



## 06.011 DESIGN INNOVATION CENTER

**Organized the Five days online Faculty Development Program on Design for Excellence: A step towards Innovation, 26-30 September, 2021 at NIT Uttarakhand in collaboration with DIC, IIT Roorkee.**

The first session of the five-day Faculty Development Program on 'Design for Excellence: A Step Towards Innovation' was taken by Prof. Gaurav Raheja, Head, Dept. of Architecture and Planning, IIT Roorkee. He delivered a talk on Design Society & Equity: A Design Thinking Approach. His talk started with focus on why? and how? Design matters which then moved to the relationship between the design and society. Prof. Vinay Sharma focused on market for product development and laid emphasis on various aspects of marketing and market development. Prof. Sonal Atreya introduced ergonomics to the participants of the workshops. On final day Prof. Saptrishi Kolay from department of Architecture and Planning delivered talk on Contemporary Design Language and Lab was conducted by Mr. Rachit Birla Project Officer DIC IIT Roorkee.



## 06.012 UNNAT BHARAT ABHIYAN

**Name of Activity:** Vaccinations and its benefits in protections from COVID-19 to the rural populations

We have visited our adopted villages under Unnat Bharat Abhiyan (UBA) and with the help of our Institute Nurse; we tried to educate the rural population about the importance of COVID-19 vaccines. In all the villages we have done door to door survey in order to educate them about the importance of COVID-19. Following are the different points that have been discussed:

- i. About COVID-19, how it is spreading?
- ii. Common symptoms, how to isolate yourself from rest of the family when you develops initial symptoms and about initial treatments.
- iii. When should we get a test for COVID-19?
- iv. About vaccine, who can take the Jab, how vaccine can be used to eliminate the spread of COVID-19 and how it will be used to break the chain?

We found that maximum number of people has taken one jab. Some of the villagers were hesitation about taking the jab, then with the help of our institute medical staff, we tried to convince them and gave them brief information related to the importance of taking the vaccines, side effect if any after taking the jabs.

Some of the photos taken during our recent visits







**Name of Activity:** Creating awareness amongst school students regarding importance of mathematics and science and technology in one's life.

We have visited the schools situated in nearby areas of the adopted villages (Janasu, Pharasu, Dungri Panth and Kaliyasaud) under Unnat Bharat Abhiyan (UBA). In the schools, we had meetings with the school principals and faculties where we tried to understand the problems and various potential amongst the students. We also interacted with the students and tried to make them understood the importance of science and technology as well as the role of mathematics in developing one's life. We also clarified some of the doubts raised by the students regarding small starts-up involving science and technology based upon their subject matter. In the meetings with the principals and faculties, we also convince them to bring their students to our college for the laboratory visits. Moreover, we have made a plan to organise science exhibitions on regular basis so that the students may involve in this activity and tries to develop some models and also tries to express himself in front of some subject experts.

Some of the photos taken during our recent visits:



## 07.00 TRAINING AND PLACEMENT (T&amp;P) CELL

S. No.	Name	Branch	Company Name
1.	Vedant Mamgain	Electronics Engineering	Nirvana Insurance San Fransico, California
2.	Saumya Agarwal	Computer Science & Engineering	Shipsy, Plot 149, Anu Tower, Sector-44, Gurgaon, Haryana
3.	Esha Sachan	Computer Science & Engineering	People Strong Technologies Pvt. Ltd., Gurgaon, Haryana
4.	Himanshu Pandey	Computer Science & Engineering	People Strong Technologies Pvt. Ltd., Gurgaon, Haryana
5.	Gajendar	Computer Science & Engineering	Unicommerce eSolutions pvt. Limited, Gurgaon, Haryana
6.	Medha	Mechanical Engineering	Shipsy, Plot 149, Anu Tower, Sector-44, Gurgaon, Haryana
7.	Nalla Shanmukeshwara Rao	Computer Science & Engineering	Cvent Pvt. Limited, Gurugram, Haryana
8.	Abhishek Maletha	Electronics Engineering	OPTYM India Private Limited, Bangalore
9.	Utkarsh Bhandari	Computer Science & Engineering	Samsung SDS India Pvt. Ltd. DLF Cybercity, Gurgaon, Haryana
10.	Anchal Singh	Electronics Engineering	Samsung SDS India Pvt. Ltd. DLF Cybercity, Gurgaon, Haryana
11.	Anshul Kumar	Computer Science & Engineering	ITH Technologies, Kanpur, Uttar Pradesh
12.	Utkarsh Saxena	Electronics Engineering	Unicommerce eSolutions pvt. Limited, Gurgaon, Haryana
13.	Ashish Dyani	Electronics Engineering	Samsung Data Systems India Pvt. Ltd. Gurugram, Haryana
14.	Sunil	Electronics Engineering	ITH Technologies, Kanpur, Uttar Pradesh
15.	Pooja Daga	Computer Science & Engineering	Samsung SDS India Pvt. Ltd. DLF Cybercity, Gurgaon, Haryana
16.	Akhilesh Yadav	Computer Science & Engineering	Samsung SDS India Pvt. Ltd. DLF Cybercity, Gurgaon, Haryana
17.	Bharat Goyal	Computer Science & Engineering	Samsung SDS India Pvt. Ltd. DLF Cybercity, Gurgaon, Haryana
18.	Meenu Yadav	Computer Science & Engineering	Cvent Pvt. Limited, Gurugram, Haryana
19.	Abhishek Mehra	Electronics Engineering	Unicommerce eSolutions Pvt. Limited, Gurgaon, Haryana
20.	Chintoo Kumar	Computer Science & Engineering	Samsung SDS India Pvt. Ltd. DLF Cybercity, Gurgaon, Haryana
21.	Mayank Bhati	Electrical Engineering	Oracle Solution Services (India) Pvt. Ltd.
22.	Aradhya Purohit	Mechanical Engineering	Tiger Analytics India Consulting Pvt. Ltd. Chennai
23.	Himanshu Bohra	Mechanical Engineering	Envosys Evolutionary System Pvt. Ltd.
24.	Aditya Roda	Mechanical Engineering	Infoedge India Ltd.
25.	Akanksha Saini	Electronics Engineering	ZS Associates
26.	Shivansh Giri	Electrical Engineering	Unicommerce eSolutions Pvt. Limited, Gurgaon, Haryana
27.	Puneet Chhabra	Electronics Engineering	Samsung Data Systems India Pvt. Ltd. Gurugram, Haryana
28.	Vishnu Priy Agnihotri	Computer Science & Engineering	ZS Associates, Gurugram
29.	Ujjwal Khanduri	Computer Science & Engineering	Samsung R&D Institute, Noida
30.	Ujjwal Rawat	Computer Science & Engineering	Samsung SDS India Pvt. Ltd., Gurgaon

31.	Anil Singh	Computer Science & Engineering	Tiger Analytics India Consulting Pvt. Ltd. Chennai
32.	Ankit Agarwal	Electrical Engineering	Cogo. Freight Pvt. Ltd., Mumbai
33.	Akshobhya Pal	Computer Science & Engineering	Optym India Pvt. Ltd.
34.	Stanzin Eshey	Mechanical Engineering	ZS Associates
35.	Pranjul Agarwal	Electronics Engineering	AlgoSec India LLP

### 07.01 SOME EMINENT PLACEMENTS IN B.TECH.

S. No.	Name	Branch	Company Name	Package
1.	Samya Agarwal	Computer Science Engg.	Adobe India	34 LPA
2.	Ramanand	Computer Science Engg.	AlgoSec	18 LPA
3.	Ujjwal Khanduri	Computer Science Engg	Samsung SRI Noida	14.5 LPA
4.	Nalla Shanmukeswara Rao	Computer Science Engg	Cvent	14 LPA
5.	Mayank Verma	Computer Science Engg	Optym	14 LPA
6.	Peddi Varun Kumar	Computer Science Engg	People Strong	12 LPA
7.	Kanha Khatri	Computer Science Engg	Atlassian	14 LPA
8.	Esha Sachan	Computer Science Engg	People Strong	12 LPA
9.	Kaushal Devrari	Electronics Engg.	Samsung R&D Bangalore	20 LPA
10.	Pranjul Agarwal	Electronics SEngg.	AlgoSec	20 LPA
11.	Abhishek Maletha	Electronics Engg.	Optym	14.5 LPA
12.	Aman Khandelwal	Electronics Engg.	AlgoSec	18.5 LPA
13.	Pranjul Agarwal	Electronics Engg.	AlgoSec	20 LPA
14.	Chhavi Sindhu	Electronics Engg.	Bharat Electronics limited.	11 LPA
15.	Abhishek Mehra	Electronics Engg.	Samsung SRI Noida	14.5 LPA
16.	Utkarsh Saxena	Electronics Engg.	Unicommerce eSolutions	12 LPA
17.	Puneet Chhabra	Electronics Engg.	Samsung SDS	13.5 LPA
18.	Utkarsh Dyundi	Electrical Engg.	AlgoSec	18 LPA
19.	Ankit Agarwal	Electrical Engg.	Cogoport Pvt. Ltd	12 LPA
20.	Abhi Barbiyal	Electrical Engg.	Cogoport	12 LPA
21.	Sachin Singh	Electrical Engg.	Upstox	20.4 LPA
22.	Aradhya Purohit	Mechanical Engg.	Tiger Analytics	10 LPA
23.	Stanzin Eshey	Mechanical Engg.	ZS Associates	12.85 LPA
24.	Medha	Mechanical Engg.	Accenture	9.9 LPA
25.	Mansi Joshi	Civil Engg.	Deloitte	7.5 LPA
26.	Abhishek Chauhan	Civil Engg.	Planet Spark	7.1 LPA
27.	Aviral Singh Negi	Civil Engg.	Capgemini	7.5 LPA

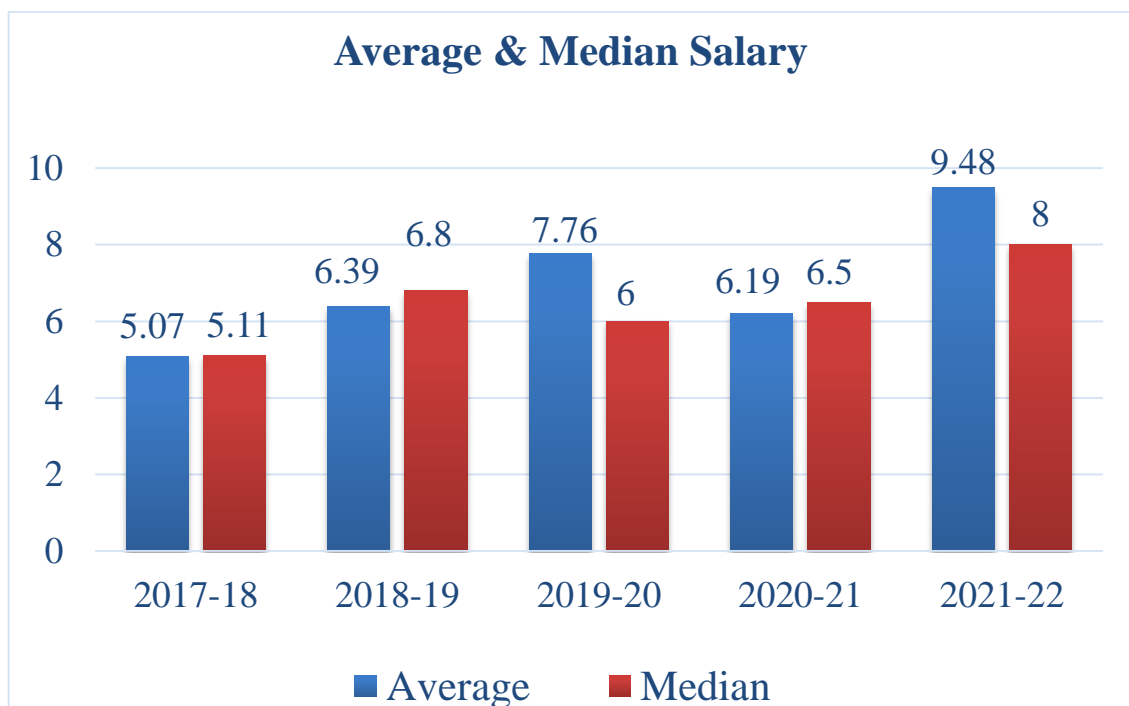
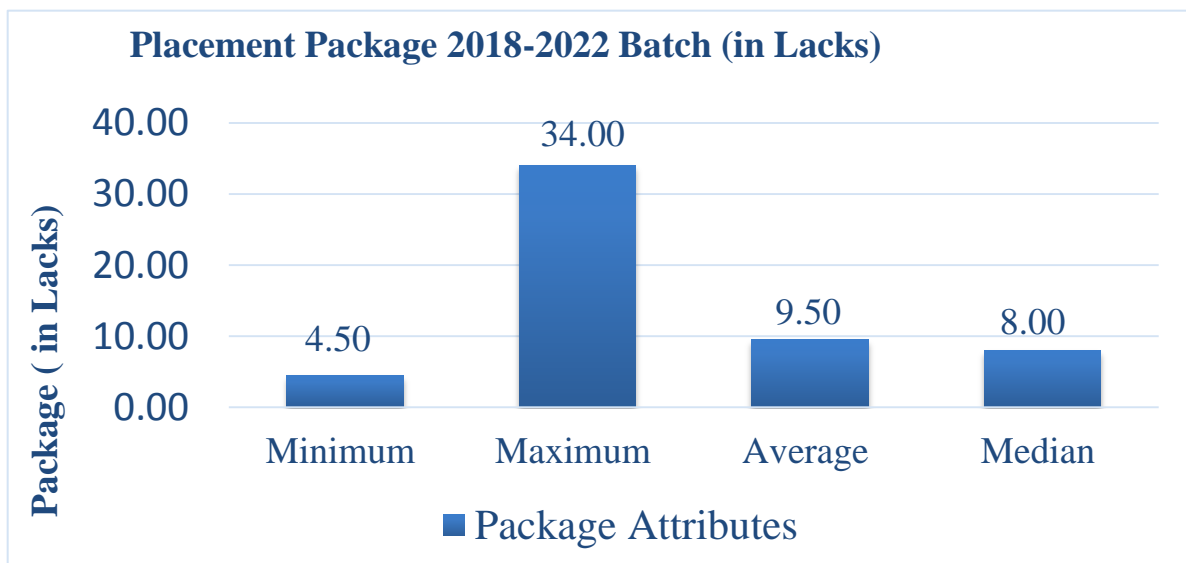
### SOME EMINENT PLACEMENTS IN M.TECH.

S. No.	Name	Branch	Company Name	Package
1.	Nikhil Kumar Singh	Computer Science Engg.	Winjit	10 LPA
2.	Rajni Kant Yadav	Computer Science Engg.	Capgemini	7.5 LPA
3.	Alok Singh Bhandari	Electrical Engg	Intel	7 LPA
4.	Prabhanjan Prasoon	Civil Engg.	Byjus	6.5 LPA
5.	Shahid Mohd	Civil Eengg.	Capgemini	7.5 LPA

## 07.02 PLACEMENT SUMMERY

## No. of Students Placed for Batch 2018-2022

S. No.	Branch Name	Total No. of Students	Total Students Eligible for Placement	Total Students Placed	Placement %
1	Computer Science & Engg.	29	29	27	93
2	Civil Engg.	18	18	07	39
3	Electronics Engg.	29	28	22	79
4	Electrical Engg.	27	27	16	56
5	Mechanical Engg.	26	26	19	73
Total		129	128	91	71



## 08.00 HOSTEL SECTION

The National Institute of Technology, Uttarakhand has 07 hostels (05 Boys and 02 Girls) in Srinagar Garhwal (Uttarakhand). 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 411 students approximately in 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	Boys	15 + 7	2/3 seater	51
2.	NITUK Hostel-2	Boys	22	3 seater	66
3.	NITUK Hostel-3	Girls	23	3 seater	69
4.	NITUK Hostel-4	Boys	18	3 seater	54
5.	NITUK Hostel-5	Boys	36	2 seater	72
6.	NITUK Hostel-6	Girls	14	3 seater	42
7.	NITUK Hostel-7	Boys	19	3 seater	57
<b>Total</b>		-	<b>157</b>	-	<b>411</b>

### Vision/Mission:

- To be a superlative in student accommodation services with a holistic living experience.
- To create a safe, healthy and holistic living experience for all.
- To provide "home away from home" principle based accommodation.

### HOSTEL FACILITIES:

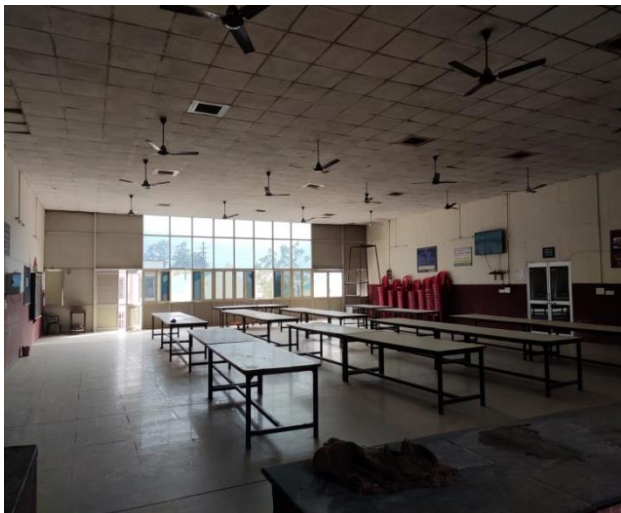
A year-wise hostel system is preferably followed for allocating the hostel rooms to the students. Hostels are fully Wi-Fi connected with emergency/continuous power supply through DG set and equipped with water purifiers, water coolers, geysers and telephone etc. The security cameras for necessary security check and surveillance installed in each hostel. A centralized Mess facility is provided to the students residing in the hostels; further 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 Carom 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).

### HOSTEL STAFF:

All the hostels are administered by a Chief Warden along with 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.

S. No.	Staff	Designation	Contact	Email
1	Dr. I. M. Nagpure	Chief Warden	+91-9557750896	imnagpure@nituk.ac.in
2	Dr. M S Khatri	Warden(Hostel-05&01)	+91-9557750893	mshkhatri@nituk.ac.in
3	Dr. Kusum Sharma	Warden(Hostel-03&06)	+91-9557750899	kusum31sharma@nituk.ac.in
4	Dr. Vikas Kukshal	Warden(Hostel-02)	+91-9557750887	vikaskukshal@nituk.ac.in
5	Dr. D B Singh	Warden(Hostel-04&07)	+91-9897507849	dbsingh@nituk.ac.in
6	Dr. Dungali Sreehari	I/c Assistant Registrar (Hostel)	+91-9557750894	ar_hostel@nituk.ac.in
7	Mrs. Neha Raturi	I/c Superintendent (Hostel)	+91-8194024275	hostel@nituk.ac.in
8	Mr. Anil Bhatt	I/c Junior Assistant (Hostel)	+91-9760382445	hostel@nituk.ac.in
9	Dr. Laiju A R	Mess Coordinator	+91-9760000529	laijuar739@nituk.ac.in
10	Dr. Himesh Kumar	Mess Co-Coordinator	+91-7895780437	himesh.kumar@nituk.ac.in

**GLIMPSE OF HOSTELS OF NIT UTTARAKHAND:**



## 09.00 DISPENSARY SECTION

The dispensary provides complete free basic medical facilities/services for the students and staff members of the institute on 24 × 7 and 7 days. In Dispensary Section, there are four nursing staff is available throughout the day and a visiting doctor from Government hospital (Srikot) offers daily service during evening (6 pm to 7 pm).



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



Procured non-contact thermal scanners to measure of body temperature at the entry main gates of the Institute. Also installed Contactless Hand sanitizer to all Departments, Sections, and Hostels.





## 010.00 LIBRARY SECTION

The library has a rich collection of books on Science and Technology, Engineering, Humanities and Social Sciences and also a good collection of Sports, Yoga, 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 24×7 for the students and the staff members.



### 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 to Sunday).



#### LIBRARY RESOURCES:

#### TOTAL COLLECTION:

Books	36,346
Standards	514
CDs/DVDs	04
NPTEL Video Lectures	135
Online Databases	06
Online Books	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**

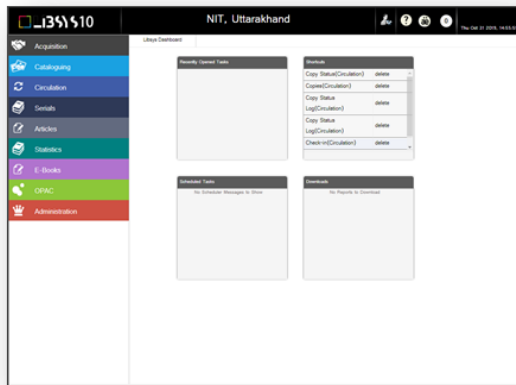
The library is connected to the campus LAN and Wi-Fi facility. The library server works under Windows 10 environment.

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.

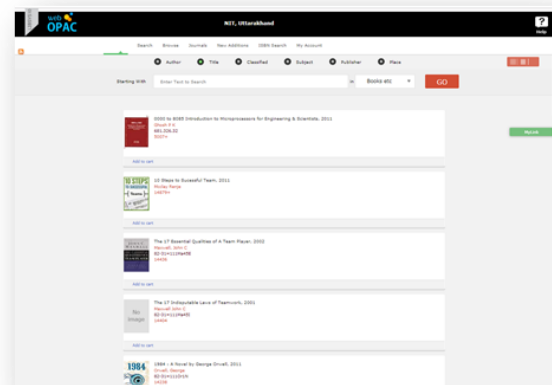


- **In-house Activities:**

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).

- **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.

### NEWSPAPERS AND CATALOGUE:

The library subscribed 05 (4 Hindi and 1 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:**

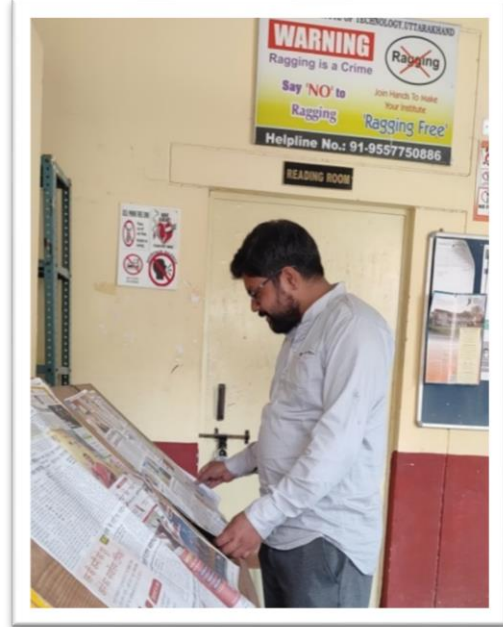
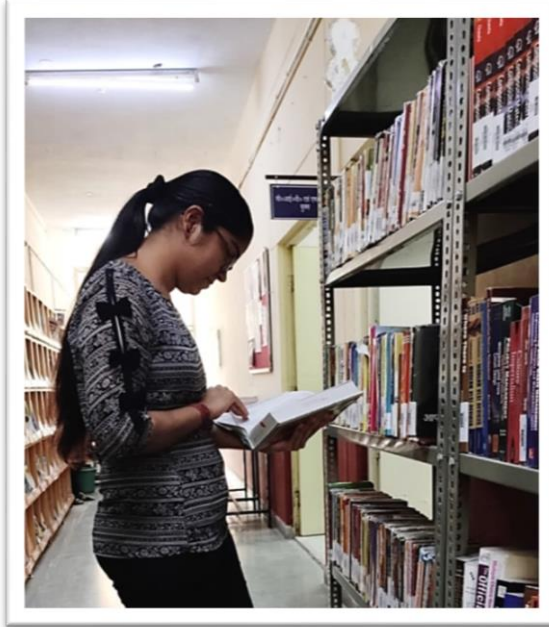
The library maintains and keeps the record of News clips of the news related to the Institute.

- **PLAGIARISM DETECTION SOFTWARE:**

Institute Library provides similarity check software like Urkund 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. 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 I/c Assistant 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.

## 011.00 STUDENT WELFARE SECTION



**Dr. Dharmendra Tripathi**  
 Dean, Faculty Welfare, & Student Affairs

**Contact :**  
**Email :** dean.fw@nituk.ac.in

The Student Welfare Section is one of the most active and vibrant Section of the institute. The Dean of Student Welfare handles all the activities and issues related to student life like, hostel management in association with Chief Warden, Council of Student Activities (CSA) and Sports Section.

The Council of Students Activity consists of the following Six Clubs:

S. No	Name of the Club	Faculty Coordinators
1	Cultural and Fine Arts Club	Dr. Nitin Sharma
2	Technical Club	Dr. T. Sudhakar
3	Sports Club	Dr. Kuldeep Singh
4	Literary Club	Dr. Kusum Sharma
5	Film and Photography Club	Dr. Tushar Goel
6	Adventure Activities and Community Services Club	Dr. Kuldeep Singh

Students actively participate in each of these clubs as Executive Members and Associate Members. The students come up with various proposals through the respective coordinators for conducting various events. NIT Uttarakhand offers some of the unique adventure sports such as rafting, hiking mountain cycling, visit to Kedarnath, Badrinath, and Valley of Flowers under the adventure club. The sports section has some of the best facilities available.

The photography club offers workshops on photography and videography. Literary club motivates students to develop their writing abilities and poetic skills. Students have the opportunity to listen and perform in front of renowned poets and writers. The technical club gives a platform for the students to compete with the best and showcase their technical skills.





Even during the pandemic the students showed their enthusiasm in participating and conducting various events. Some of the events organized by the Cultural and Fine Arts Club include



### ONLINE SINGING COMPETITION “SIZZLING SYMPHONY” (Organized in August 2021)



### LOGO DESIGN COMPETITION (September 2021)



### SOLO DANCE COMPETITION





**HOLI MILAN (Organized on 16<sup>th</sup> March 2022)**



**EID MILAN (Organized On 03/05/2022)**





## 012.00 STUDENT ACTIVITY & SPORTS (SAS) SECTION

Along with academic excellence, NIT Uttarakhand promotes extra-curricular activities to ensure all-round development of personality. The Student Activity and Sports Section is the central hub for student activities, student organizations, programming, events, sports, recreation and fun at the institute campus. The SAS section provides good sports facilities, equipment, and recreational and competitive sports programmes to the students and staff members of the institute and encourages them to take part in games & sports to keep themselves fit and inculcate a spirit of sportsmanship amongst themselves & also encouraging student to participate in various sports competitions.

SAS Section provides Indoor and Outdoor Sports facilities of various Games and sports.





Sports club of the institute, coordinate all the sports activities. In spite of being a new NIT, the Institute has been successful in developing a firm foundation in the field of sports. Students have opportunity to play at any time to have fun. SAS Section organized various Sports competitions in the year 2021-22, Under the Azadi ka Amrit Mahotsav/Fit India Movement. FIT INDIA Movement was launched on 29<sup>th</sup> August, 2019 by Hon'ble Prime Minister with a view to make fitness an integral part of our daily lives. The mission of the Movement is to bring about behavioral changes and move towards a more physically active lifestyle. Fit India Movement is a nation-wide movement in India to encourage people to remain healthy and fit by including physical activities and sports in their daily lives. Details of the events are:

- Organized intra NIT Badminton, Table Tennis and Chess tournament for staffs and faculty members of the Institute from 27<sup>th</sup> July to 07<sup>th</sup> August 2021.

S.No.	Position	Badminton Single	Badminton Doubles	Chess	Table tennis
1.	Winner	Dr. Vinod Singh Yadav	Dr. Kuldeep Singh & Mr. Paras Shah	Dr. Apurba Mandal	Dr. Hitesh Sharma
2.	Runner Up	Dr. T Sudhakar	Dr. Hitesh Sharma & Dr. T Sudhakar	Dr. T Sudhakar	Dr. Kuldeep Singh
3.	2 <sup>ND</sup> Runner-up	Pankaj Singh	Dr. Vinod Singh Yadav & Pankaj Singh	Dr. Nitin Sharma	Dr. Vikash Kutsal

- Organized intra NIT Cricket & Tug of War tournament for M.Tech, Ph.D, Staff and Faculty from 27<sup>th</sup> November to 12<sup>th</sup> December 2021. Details of the winners are as below:

S.No	Position	Cricket	Tug of War Men	Tug of War Women
1.	Winner	Faculty XI	M.Tech	Teaching & Non-Teaching staff
2.	Runner Up	Ph.D. Scholar	Non-Teaching staff	Ph.D. students

- Organized cycling event for staffs and faculty members of the Institute from 13<sup>th</sup> July to 29<sup>th</sup> August 2021. All the participants divided into two groups; the first group started 20 km cycling per day in the morning from 13<sup>th</sup> August to 20<sup>th</sup> August 2<sup>nd</sup> group from 21<sup>st</sup> to 29<sup>th</sup> August 2021. The cycling was organized in the morning 5:15 am to 6:45 am. Slow cycling events were conducted on 02<sup>nd</sup> Sept. 2021 at NITUK poly technic campus.

S.No	1 <sup>st</sup> place	2 <sup>nd</sup> Place	3 <sup>rd</sup> place
1.	Mr. Manoj Kumar	Dr. Hemant Singhal	Dr. T. Sudhakar

- Organized the Intra NIT Volleyball & Athletics tournament for M.Tech, Ph.D, Staff and Faculty from 15<sup>th</sup> January to 30<sup>th</sup> January 2022.

S. No	1 <sup>st</sup> place Volleyball	2 <sup>nd</sup> Place Volleyball
1.	Staff & Faculty	M.Tech

- Sports club of the institute organized Onlne Chess tournament

S. No	1 <sup>st</sup> place	2 <sup>nd</sup> Place	3 <sup>rd</sup> place
1.	Nikhil Singh	Nishant Kandpal	Pooja Daga

- Sports club of the institute organized Intra Cricket tournament for B Tech, M.Tech, Ph.D, Staff and Faculty members of the Institute in the month of 05<sup>th</sup> to 12<sup>th</sup> March,2022.

S. No	1 <sup>st</sup> place Volleyball	2 <sup>nd</sup> Place Volleyball
1.	Staff & Faculty	PHD Scholar

- Organized Azadi ka Amrit Mahotsav Run on 15<sup>th</sup> August 2021 and virtual Run. 03 Km run organized from ITI Campus to Poly Campus on 15<sup>th</sup> Aug.2021 & Virtual run organized from 29<sup>th</sup> Aug. 2021 to 02<sup>nd</sup> Oct. 2021.
- The world environment day is celebrated every year on 5<sup>th</sup> June to raise global awareness to take positive environmental action to protect nature and the planet earth. On the eve of World Environment Day, NIT Uttarakhand organized a plantation drive in the campus adhering to the social distancing parameters in view of COVID-19. Through such initiatives, we would like to set an example and particularly motivate the people to contribute to the protection of the environment. 100 different types of plants like Amarpali Mango, Lychee, Lemon, Jackfruit, Jamun, amla tree and mulberry etc. were planted in the institute campus and playground. Plantation drive was done under the leadership of honorable Registrar & Dean Students Welfare. The event was conducted successfully with whole hearted participation and awareness for a greener World.
- Institute Cricket team secured a 2<sup>nd</sup> place In Open Cricket Tournamnet organized by *Bharatiya Janata Yuva Morcha Srinagar* from 02Dec. to 13<sup>th</sup> Dec. 2021 at Srinagar. The main purpose to organize the same events to motivate the faculty and staff members towards physical activity in their day to day life.
- On the occasion of International Yoga Day, a five days yoga and meditation online training session was organized.

#### FEW GLIMPSES OF THE BADMINTON, CHESS AND TABLE TENIS TOURNAMENT





### FEW GLIMPSES OF THE CRICKET TOURNAMENT





### FEW GLIMPSES OF THE TUG OF WAR TOURNAMENT





## CYCLING EVENT





### VOLLEYBALL & ATHLETICS COMPETITION









### AZADI KA AMRIT MAHOTSAV RUN ON 15<sup>TH</sup> AUGUST 2021 & VIRTUAL RUN



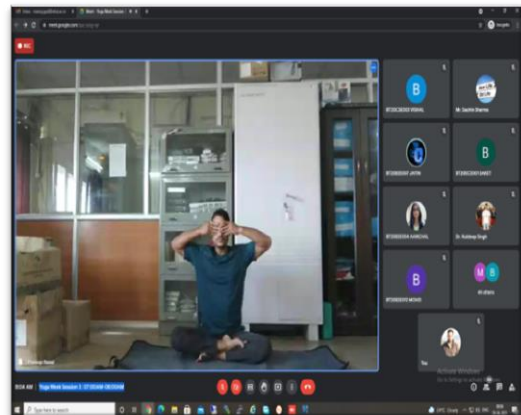
### PLANTATION DRIVE



### OPEN CRICKET TOURNAMENT



### CELEBRATION OF INTERNATIONAL DAY OF YOGA (ONLINE)



## 013.00 ALUMNI CELL

### 013.01 ALUMNI INTERACTION WITH STUDENTS OF DEPARTMENT OF ELECTRONICS

Department of Electronics and Communication Engineering invited Mrs. Amita Giri, Alumna of 2013-17 batch to interact with the students of the department. Mrs. Amita, the gold medalist of her batch, is pursuing her PhD from Indian Institute of Technology Delhi and has recently submitted her thesis. She has now been selected at the prestigious position for Post. Doc. Fellow at Massachusetts Institute of Technology, USA. She interacted with the fellow juniors and had guided them in writing good academic paper and choosing the good research topic. Later she interacted with the Honorable Director of the Institute Prof. Lalit Kumar Awasthi. Director Sir wished her for her future endeavors.



### 013.02 THIRD ALUMNI MEET

National Institute of Technology, Uttarakhand organized 3rd Alumni Meet-2022 on March 26, 2022 in online mode. The event was registered by more than 190 alumni of NITUK from not only India but also from different parts of the world which included Australia, USA, Canada etc. The various developments related to different sections at our Institute were briefed by respective Deans: Dr. Lalita Prasad (Dean Academic Affairs), Dr. Hariharan Muthusamy (Dean Research & Consultancy), Dr. Gurinder Singh Brar (Dean Planning & Development).

Prof. Lalit Kumar Awasthi, Director, NIT Uttarakhand expressed his happiness on overwhelming response from the alumni. He opined that alumni should come forward for providing all the necessary support and directions for their juniors in the form of funding, motivational lectures and placements etc. He also expressed that NITUK will continue to grow in spite of the prevailing situation. Dr. R. K. Tyagi, Chairman (BoG), NITUK expressed his happiness about the organizing the Alumni meet. He also expressed that alumni can contribute in a big way in taking their alma matter to the next level by instituting awards, prizes, joint projects and donation to the corpus fund. Some of alumni from each pass out batch of B.Tech and M.Tech expressed their views about the Institute and alumni meet. Mr. Ajay Singh 2012-2016, Department of Mechanical Engineering, currently working as IES (Indian Engineering Service) in India inspired his juniors through motivational speech. Mr. Shivansh Agrawal 2013-2017, Department of Civil engineering elaborated how Institute thread connects the alumni even in business world with examples. Mr. Ramakrishna Kopanati 2016-2020 (Pursuing Ph.D from IIT Roorkee). Mr. Jay Aditya Nautiyal 2017-2021 Department of Computer science

engineering. Ms. Kirti Gupta 2017-2021 Department of Electrical engineering pursuing perusing PhD from IIT Delhi. Mr. Govind Bajpayee 2016-2020 Department of Electronics and communication engineering and Mr. Abhishek Kumar 2016-2020, Department of Electronics and communication engineering. Some of alumni from each pass out batch of B.Tech and M.Tech expressed their views about the Institute and alumni meet.



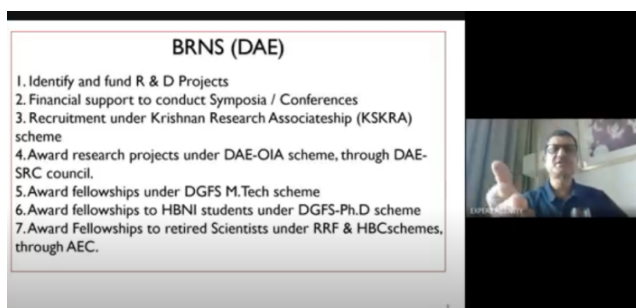
## 014.00 FACULTY WELFARE SECTION

### EXPERT LECTURE (1<sup>st</sup>) July 05, 2021

The first expert lecture for the faculty members of NIT Uttarakhand was delivered by Dr Bhanu Pant (Ret Outstanding Scientist VSSC/ ISRO) on July, 05, 2021 at 10:00 AM through virtual mode. Dr Pant spoke on "Exploring Application Oriented Research Manufacturing and Materials at NIT - Uttarakhand". Dr Pant illustrated the funding opportunities in India and also guided faculty members about how to write research projects.

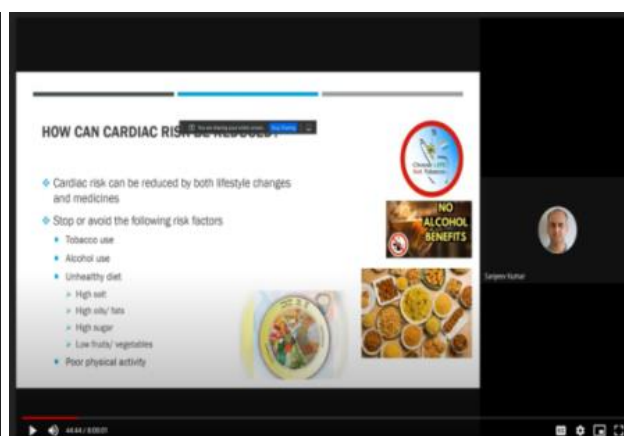
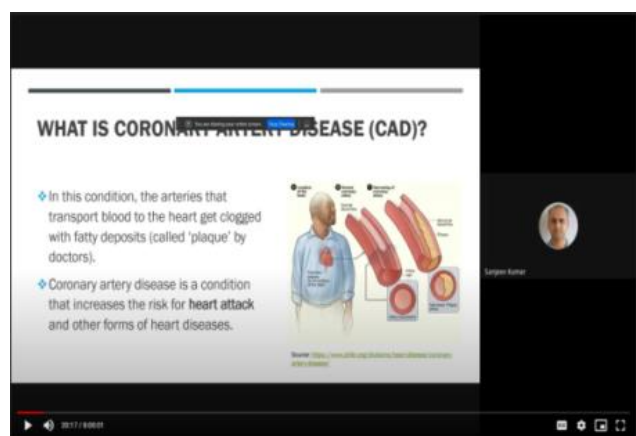
### EXPERT LECTURE (2<sup>nd</sup>) July 23, 2021

The second expert lecture for the faculty members of NIT Uttarakhand was delivered by Dr KC Bahuguna [Scientist 'F', Joint Director, Instruments Research & Development Establishment (IRDE), Defence Research and Development Organisation (DRDO),) on July, 23, 2021 at 10:30 AM onwards through virtual mode. The expert discussed in detail about laser technology and the laser systems developed at IRDE, project management, project categories etc. and guided/answered to the queries made by faculty members.



### EXPERT LECTURE (3<sup>rd</sup> & 4<sup>th</sup>), September 03, 2021 and October 22, 2021

The third and fourth expert lectures for the faculty members were delivered by Dr Sanjeev Kumar, Associate Professor, AIIMS Bhopal on September, 03, 2021 at 3:00 PM onwards through virtual mode. The expert discussed in detail about cardiac Risk reductions (Pre- and Post-Covid19 infection)-what to do and what not to do, CAD disease and its treatment, etc. and guided/answered to the queries made by faculty members. In the 4<sup>th</sup> Expert lecture delivered by Dr Sanjeev Kumar on October 22, 2021 at 3:00 PM onwards, he discussed on Myths and Misconceptions about Dietary Advices (Best Dietary suggestions).



## 015.00 CENTRAL COMPUTER CENTRE (CCC)

Central Computer Centre (CCC) is a central facility, which caters to the needs of different academic departments and various sections of the institute. The mission of CCC at NIT Uttarakhand is to create and maintain a computing environment for the pursuit of academic excellence. The ultimate aim of the center is to provide professional services, promote and assist the use of new computing technology among the students, staff and administration. Central Computer Centre at NIT Uttarakhand aspires to be a leading computational facility in higher education. Computer Centre manages various computing and communication facilities throughout the campus. NIT Uttarakhand has state-of-the-art campus wide network over the fiber backbone, wi-fi and videoconferencing. To facilitate the use of the latest information technology in Institute, CCC caters to the needs of different academic departments and various sections of the institute. Center has servers from IBM, Dell etc.

The Institute Computer Centre has the following Central computing facilities for the Students, Faculties and Staff.

S. No.	Items	Details
1.	Internet Connectivity	Whole Campus, Departments and Hostels are covered with Internet onnectivity of Leased Line of 1 Gbps terminated at Cisco ME3800X Series router from NKN and provided by BSNL.
2.	Wi-Fi Campus	The whole NITUK Campus is connected via Wi-Fi. The Wi-Fi is available 24*7*365.
3.	Servers	The Institute has two high Capacity Servers and one Network Storage Device installed in the Central Computing Centre; <b>Server 1:</b> 4-Dell Blade Servers and <b>Server 2:</b> 4-IBM Blade Servers
4.	Network Storage Device	Dell Power Vault NX3200 (6TB)
5.	Network security	Cyberoam Unified Thread Management appliance (1500 ing XP) for Internet and network security management.
6.	Antivirus Client Server Version	eScan Total Security for Business.
7.	Email Web Server	Institute Web mail server of nituk.ac.in domain at Google suite Cloud.
8.	Online Ups	20 KVA Installed at Institute Server Room for power backup of network and server devices.
9.	CCTV Surveillance	The entire campus are covered with latest Cameras for CCTV monitoring

### CENTRAL COMPUTER CENTRE TEAM

S. No	Name	Portfolio
1.	Dr. Surendra Singh	Head, Central Computer Centre
		Coordinator, (Video Conferencing, e-Classrooms and (E-Governance)
2.	Dr. Parveen Kumar	Coordinator, (Central Computer Centre)
		Coordinator (Campus Networking, Telephone, CCTV)
3.	Dr. Abhimanyu Kumar	Coordinator (ERP)
4.	Mr. Sunny Kumar	Technical Officer
5.	Mr. Vineet Kumar	Programmer

## 016.00 INTERNAL COMPLIANTS COMMITTEE (ICC)

The Internal Complaints Committee (ICC) is a grievance redressal forum to address the grievances of the Sexual Harassment of women at the Workplace. The Government of India notified the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act in 2013. Consistent with the Vishaka judgment, the Act aspires to ensure women's right to workplace equality and free from sexual harassment. The objectives of ICC are as follows:

- To create a welcoming working environment at NIT Uttarakhand, free of gender discrimination and sexual harassment for female staff and students.
- To increase awareness and sensitivity to this critical issue amongst all concerned.

S.No.	Name/Designation	Position in the Committee
1.	Dr Jagrati Sahariya, Assistant professor, Department of Physics	Chairperson
2.	Dr Sarika Pal, Assistant Professor, Department of Electronics Engineering	Member
3.	Dr Vineeta Negi Panwar, Assistant Registrar	Member
4.	Mrs. Shashi Raturi, NGO Member	Member from NGO

## WOMEN'S DAY CELEBRATION

International Women's Day is celebrated on March 8 every year to rejoice women's cultural, political, and socioeconomic achievements. The idea behind celebrating the day is also to highlight the extraordinary roles played by women in every sphere of life and to greet their courage and determination. The theme of Women's Day 2022 was — *Gender Equality Today for a Sustainable Tomorrow*.

NIT Uttarakhand celebrated women's day on March 8. On the occasion of Women's day, poster making, slogan writing, and poem reciting competitions were organized for students and staff of the institute based on the theme of Women's day 2022. Prof Lalit Kumar Awasthi, Director NIT Uttarakhand, was the Chief Guest of the Event. Dr. Hariharan Muthuswamy (Dean R&C, NIT Uttarakhand) and Dr. Dharmendra Tripathi (Dean FW, NIT Uttarakhand) grace the occasion with their presence. The program was started with the greeting of Dr. Jagrati Sahariya, Chairperson ICC. The Chief Guest, Director, NIT Uttarakhand, enlightens the audience with valuable words. The celebration ended with the prize distribution followed by the cake cutting ceremony. Some glimpses of the Women's day celebration are shown below:







## 017.00 VIGILANCE AWARENESS WEEK-2021

### INTEGRITY PLEDGE

Total no. of employees who have undertaken e-Pledge/pledge	Total no. of customers who have undertaken e-Pledge/pledge	Total no. of citizen who have undertaken e-pledge
34	--	03

### ACTIVITIES/EVENTS ORGANISED WITHIN THE ORGANISATION

Name of State	City/Place	Specify program (Debate/Elocution/Panel discussion etc.)	No. of participants	Whether copy of award winning activities attached
Uttarakhand	Srinagar (Garhwal)	Essay writing competition	20	attached
Uttarakhand	Srinagar (Garhwal)	Painting competition	19	attached
Uttarakhand	Srinagar (Garhwal)	Poster making competition	14	attached
Uttarakhand	Srinagar (Garhwal)	Slogan writing Competition	14	attached
Uttarakhand	Srinagar (Garhwal)	Quiz Competition	48	attached

### VIGILANCE AWARENESS WEEK-2021 October 26 to Nov 01, 2021

The Vigilance Awareness Week -2021 was observed during Oct 26, 2021 to Nov 01, 2021 in compliance with the Central Vigilance Commission Circular no. 15/09/21 vide letter no. 021/VGL/045 dated 01/09/2015. This year the theme is “**Independent India@75: Self Reliance with Integrity**”. NIT Uttarakhand observed the week to generate awareness amongst its staff and young faculty and students about vigilance in the work atmosphere and in their community. They were encouraged to pursue a life of uprightness and honesty. The observance of such events brings us a step closer to our dream of achieving a utopian society free from corruption and other social anomalies.

To create awareness, several activities were carried out during the week. The students, staff, faculty and their families were informed regarding the observance of the week with reference to the notice ref. no. NITUK/CVO/2021/51 dated 26 Oct 2021 by email and displaying at various locations within the campus mentioning the theme of the week and the activities to be carried out. In the events held during the week, the students, faculty members, staff members and their family members were encouraged to participate. An overwhelming response was witnessed. The observance of the week commenced with the Integrity Pledge taken by the employees of NIT Uttarakhand at 11:00AM on Tuesday, October 26, 2021. The faculty members and staff of the institute were also encouraged to take E-pledge. In total, 34 faculty and staff members of the institute took integrity pledge. The citizens were also made aware of the vigilance in public life and prevent corruption by social media. They were encouraged to take E-pledge.

The observance began with the slogan writing competition organized in the evening of 26 October 2021 on the theme of the week “**Independent India@75: Self Reliance with Integrity**”. A total of 14 persons participated in the event. Next day an essay competition was organized in the afternoon of October 27, 2021 on the topics related to the theme of the week. There were twenty participants, in total, including the students,

faculty and staff members. The painting competition was organized on 28 Oct 2021 in the evening. There were nineteen participants. In the afternoon session of October 29, 2021, a poster making competition was conducted in which total fourteen participants took part. Online events pertaining to the same activities were organized on all of the days for faculty and students not present in the campus. The observance of the event ended with the Quiz Competition on 1 Nov, 2021 which was conducted online. A total of 48 faculty and staff members participated in the event.

As envisioned, the vigilance awareness week with its different kinds of activities, was successful in creating awareness regarding the adherence to honesty, integrity and leading a corruption free life, amongst the participants. It invited remarkable participation not only from students, staff and faculty but also from their family members.



Banner displayed at different noticeboards



Taking Integrity Pledge on Oct 26, 2021



Banner displayed at the main gate and Institute premises



Slogan writing competition held on Oct.26, 2021



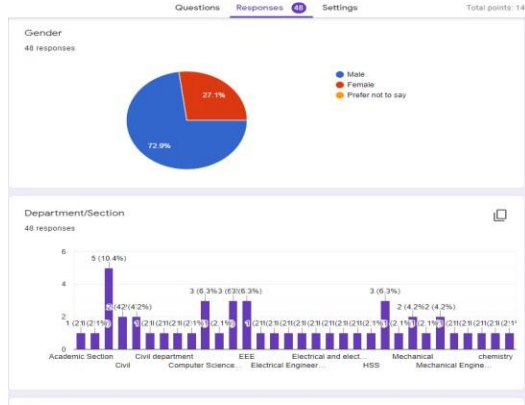
Essay competition on Oct 27, 2021



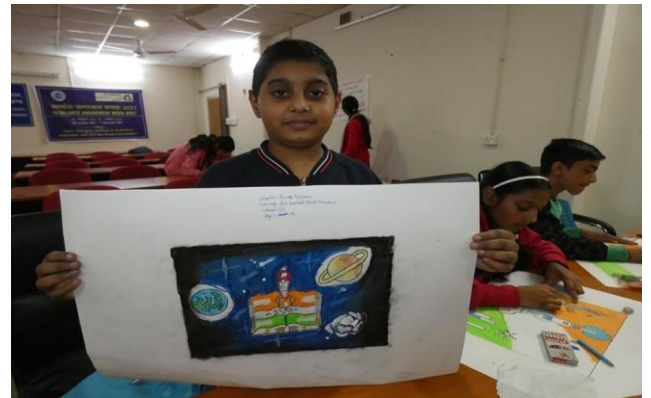
Painting competition held on Oct 28, 2021



Poster making competition held on Oct 29, 2021



Quiz competition held on Nov.01, 2021



First prize in the painting competition (upto 11 Years)



First prize in the painting competition (upto 18 Years) First prize in the painting competition (Senior Group)

## 018.00 PLANNING AND DEVELOPMENT (P&D) SECTION

The Planning and Development section formulates short and long term plans, policies, procedures to operationalize various programmes and activities of the Institute. The section involves Dean (Planning and Development) – Dr. Gurinder Singh Brar and two Associate Deans (Dr. Aditya Kumar Anupam and Dr. Prakash Dwivedi) looking after various activities along with various Coordinators and supporting staff. The technical staff includes – Mr. Sumit Kumar, JE (Electrical) and Mr. Paras Sah, I/C JE (Civil). The activities of the section include: Overall monitoring and fulfilment of the P&D Activities, strategic management, water and waste management, construction, electrical and civil maintenance, asset management etc.

The section is actively involved in creating infrastructure at Extension Campus (Srinagar, Pauri Garhwal) and Permanent Campus (Sumari, Pauri Garhwal).

### SRINAGAR CAMPUS:

The Srinagar campus of NIT, Uttarakhand is being constructed at Resham farm and ITI land. The work has been divided into two phases with approximate total cost of Rs. 7881 Lakhs. Construction work of phase-I of extension campus NITUK has been assigned to CPWD for amounting Rs 37.72 crores. The Phase – I of construction for which work order has been placed consists of six blocks (five hostel blocks and one dining block) and site development to accommodate 530 students at a cost of Rs. 3772 Lakhs. Construction of 5 Hostel block & 1 Mess Block has started in Phase 1. Work Construction phase-II will be started after disbursement of HEFA loan for the following construction activities:

S. No	Name of the Building	Total Area (in sqm)
1	Class room & Laboratories	4100
2	Academic Amenity complex	1000
3	Recreation Facility	2000
4	Administrative block	500
	<b>Grand Total</b>	<b>7600</b>

The phase –II of campus has been planned to construct some administrative buildings, laboratories etc.

### CAMPUS DEVELOPMENT STATUS – SRINAGAR CAMPUS – PHASE I

Total project cost also includes development of site. Site development is limited to the extent required for various functional requirements of newly constructed Hostels, including Pathway and Boundary wall.

### SUMARI CAMPUS:

The Sumari campus of NIT, Uttarakhand is being constructed at Sumari village. The first phase of the campus has been planned to accommodate 1260 students on a land of 60 acres with approximate total construction cost of Rs. 59675 Lakhs. Tendering process for award of work has been completed and MoU signing between NIT Uttarakhand and NBCC (India) Ltd. is under process.

Construction of water tank having capacity of 800KI has been started by Uttarakhand Jal Nigam. Apart from construction activities, routine maintenance and infrastructural development activities are also being carried out by P&D section. Some of the activities recently carried out under P&D section are listed below:

- Installation of 40 KVA online ups in the Department of CSE at ITI campus to facilitate different computer labs by power backup.
- Scheduling of APFC panel at ITI campus, which enable us to increase power factor of the distribution system by which consecutively reduce the power consumption.
- Increase power transfer capacity of H-2 and H-5 by installation of higher rating of electricity cables which can easily withstand high load demand during peak load hours.
- Carried out servicing of air conditioning units installed at Institute premises and maintenance of air conditioners installed at lecture halls.
- Service and maintenance of DG sets (06 No's) installed at both campus of Institute by which we provide 24\*7 power backup within Institute.
- Installation of earthing in Electrical machine lab Electrical engineering department. Total 12 no's of machine included motors and generators installed at machine lab of EE department facilitate with GI earthing to avoid any harm due to leakage current.
- Installation of New air conditioning units in CSE and ECE dept.
- maintenance of different lab equipment installed at Civil , Physics , Chemistry and Mechanical Engg dept.
- Increase the power transfer capacity in polytechnic campus by installation of 200 Amp Changeover switch, which consecutively increase power handling b/w DG set and supply mains.
- Maintain load balance among all power back-up units, which reduce the oil consumption in DG sets with reduce cost of fuel.
- Redressal of different complains received from department and hostels.
- To provide adequate water supply within hostels, capacity of pumping system increased and a new 3Hp water pump installed in water well at polytechnic campus.



## 019.00 INSTITUTE RECOGNITION

## 019.01 NATIONAL INSTITUTE RANKING FRAMEWORK (NIRF)



019.02 ATAL RANKING OF INSTITUTIONS ON INNOVATION ACHIEVEMENTS (ARIIA)



The certificate is presented on a dark blue background with a yellow curved border on the left and right sides. At the top, there are three logos: the Innovation Cell (Government of India), the Ministry of Education (Government of India), and AICTE. Below these logos is the title 'ATAL RANKING OF INSTITUTIONS ON INNOVATION ACHIEVEMENTS' with a yellow paper airplane icon. The main title 'Certificate of Recognition' is in large white font. Below it, the text reads: 'This is to certify that NATIONAL INSTITUTE OF TECHNOLOGY UTTARAKHAND is recognised in the band "PROMISING" under the category "Institute of National Importance & Central Universities/CFTs (Technical)" in Atal Ranking of Institutions on Innovation Achievement (ARIIA) 2021, a flagship program of the Ministry of Education, Government of India. 29th December 2021.' At the bottom, there are three signatures and their respective titles: Dr. Anil D Sahasrabudhe (Chairman, AICTE), Shri K Sanjay Murthy (Secretary (HE), MoE), and Dr. Abhay Jere (Chief Innovation Officer, MoE's Innovation Cell).

  
INNOVATION CELL  
(Government of India)

  
Ministry of Education  
(Government of India)



 ATAL RANKING OF INSTITUTIONS  
ON INNOVATION ACHIEVEMENTS

**Certificate of Recognition**

This is to certify that

**NATIONAL INSTITUTE OF TECHNOLOGY UTTARAKHAND**

is recognised in the band "PROMISING" under the category  
"Institute of National Importance & Central Universities/CFTs (Technical)"  
in Atal Ranking of Institutions on Innovation Achievement (ARIIA) 2021,  
a flagship program of the Ministry of Education, Government of India.  
29th December 2021.

  
Dr. Anil D Sahasrabudhe  
Chairman, AICTE

  
Shri K Sanjay Murthy  
Secretary (HE), MoE

  
Dr. Abhay Jere  
Chief Innovation Officer  
MoE's Innovation Cell



020.00 ANNUAL ACCOUNT 2021-22







## NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND

INDEX 2021-22		Page No.
PARTICULARS		
1	BALANCE SHEET 2021-22	1
2	INCOME & EXPENDITURE ACCOUNT 2021-22	2
3	SCHEDULE 1- CORPUS FUND	3
4	SCHEDULE 1.1- CAPITAL FUND	4
5	SCHEDULE 2- DESIGNATED/EARMARKED/ENDOWMENT FUND	5
6	SCHEDULE 2A- DESIGNATED/EARMARKED/ENDOWMENT FUNDS OF R&D/PROJECT ACCOUNT	6
7	SCHEDULE 2.1- DESIGNATED & EARMARK/ENDOWMENT FUNDS	7
8	SCHEDULE 2.2- PLAN GRANT- LIABILITY FOR ASSETS	8
9	SCHEDULE 2.3- EARMARKED FUNDS PLAN GRANTS	9
10	SCHEDULE 3- CURRENT LIABILITIES & PROVISION	10
11	SCHEDULE 3A- SPONSORED PROJECT	11
12	SCHEDULE 3B- SPONSORED FELLOWSHIPS AND SCHOLARSHIPS	12
13	SCHEDULE 3C- UNUTILISED GRANT FROM UGC GOVT. OF INDIA AND STATE GOVT.	13
14	SCHEDULE 4- FIXED ASSETS	14
15	SCHEDULE 4A- FIXED ASSETS R&D AND PROJECT 2021-22	15
16	SCHEDULE 4B- NON PLAN	16
17	SCHEDULE 4C- INTANGIBLE ASSETS	17
18	SCHEDULE 4C (i)- PATENTS AND COPYRIGHTS	18
19	SCHEDULE 4D: FIXED ASSETS R&D AND PROJECTS 2021-22	19
20	SCHEDULE 4D (i) OTHER (INSTITUTE FUNDS)	20
21	SCHEDULE 5- INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS/OTHERS	21
22	SCHEDULE 5A- INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS (FUND WISE)/CORPUS FUND	22-25
23	SCHEDULE 6- INVESTMENTS OTHERS	26
24	SCHEDULE 7- CURRENT ASSET	27
25	SCHEDULE 7- ANNEXURE (A)	28
26	SCHEDULE 7A- CURRENT ASSETS-R&D AND PROJECTS	29
27	SCHEDULE 8- LOANS, ADVANCES & DEPOSITS	30
28	SCHEDULE 9- ACADEMIC RECEIPTS	31
29	SCHEDULE 10- GRANTS / SUBSIDIES ( IRRECOVERABLE GRANTS RECEIVED)	32
30	SCHEDULE 11- INCOME FROM INVESTMENTS	33
31	SCHEDULE 12- INTEREST EARNED	34
32	SCHEDULE 13- OTHER INCOME	35
33	SCHEDULE 14- PRIOR PERIOD INCOME	36
34	SCHEDULE 15- STAFF PAYMENTS & BENEFITS (ESTABLISHMENT EXPENSES)	37
35	SCHEDULE 16- ACADEMIC EXPENSES	38
36	SCHEDULE 17- ADMINISTRATIVE AND GENERAL EXPENSES	39
37	SCHEDULE 18- TRANSPORTATION EXPENSES	40
38	SCHEDULE 19- REPAIRS & MAINTENANCE	41
39	SCHEDULE 20- FINANCE COSTS	42
40	SCHEDULE 21- OTHER EXPENSES	43
41	SCHEDULE 22- PRIOR PERIOD EXPENSES	44
42	RECEIPTS AND PAYMENTS	45-46
43	SCHEDULE 23- SIGNIFICANT ACCOUNTING POLICIES	47-53
		54-57





 NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 BALANCE SHEET OF INSITUATE AND R&D FUNDS AS ON 31ST MARCH, 2022

SOURCES OF FUNDS	Schedule	(Figures in Rupees)	
		Current Year	Previous year
CORPUS / CAPITAL FUND	1	1,01,25,56,705.00	95,66,01,815.00
DESIGNATED / EARMARKED / ENDOWMENT FUNDS	2	5,54,04,904.00	4,52,42,384.00
R&D AND PROJECTS	2A	1,48,90,660.00	1,12,18,423.00
CURRENT LIABILITIES & PROVISIONS	3	44,66,26,756.00	49,19,57,758.00
<b>TOTAL</b>		<b>1,52,94,79,025.00</b>	<b>1,50,50,20,380.00</b>
APPLICATION OF FUNDS			
FIXED ASSETS	4		
Tangible Assets		20,35,92,367.00	21,14,84,991.00
Intangible Assets		86,46,555.00	1,31,63,835.00
Capital Works-In-Progress		3,45,58,977.00	3,80,42,900.00
INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS	5		
Long Term		-	-
Short Term		89,00,00,000.00	89,80,67,289.00
INVESTMENTS - OTHERS	6	-	-
CURRENT ASSETS	7	23,10,65,327.00	20,64,71,333.00
R&D AND PROJECTS	4D & 7A	1,48,90,660.00	1,12,18,423.00
LOANS, ADVANCES & DEPOSITS	8	14,67,25,139.00	12,65,71,609.00
<b>TOTAL</b>		<b>1,52,94,79,025.00</b>	<b>1,50,50,20,380.00</b>

 SIGNIFICANT ACCOUNTING POLICIES  
 CONTINGENT LIABILITIES AND NOTES TO ACCOUNTS

 23  
 24

  
 REGISTRAR  
 (DR. PRABHAKAR MANI KALA)  
 PLACE: SRINAGAR GARHWAL  
 DATED: MAY 30, 2022

  
 DIRECTOR  
 (PROF. LALIT KUMAR AWASTHI)


NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2022

(Figures in Rupees)

Particulars	Schedule	Current year	Previous year
<b>INCOME</b>			
Academic Receipts	9	4,19,62,282.00	4,64,98,640.00
Grants / Subsidies	10	23,82,11,526.00	26,45,94,805.00
Income from investments	11	2,92,71,035.00	3,44,28,745.00
Interest earned	12	1,06,91,005.00	34,52,058.00
Other Income	13	1,32,716.00	1,97,160.00
Prior Period Income	14	-	-
<b>TOTAL (A)</b>		<b>32,02,68,564.00</b>	<b>34,91,71,408.00</b>
<b>EXPENDITURE</b>			
Staff Payment & Benefits (Establishment Expenses)	15	16,80,51,997.00	16,07,52,560.00
Academic Expenses	16	3,20,45,492.00	2,55,82,195.00
Administrative and General Expenses	17	3,72,19,888.00	7,15,42,496.00
Transportation Expenses	18	2,58,093.00	8,48,904.00
Repairs & Maintenance	19	5,47,553.00	51,54,273.00
Finance costs	20	4,900.00	-
Depreciation	4	2,73,73,001.00	2,69,65,178.00
Other Expenses	21	-	-
Prior Period Expenses	22	83,603.00	7,14,377.00
<b>TOTAL (B)</b>		<b>26,55,84,527.00</b>	<b>29,15,59,983.00</b>
<b>Balance being excess of Income over Expenditure (A-B)</b>		<b>5,46,84,037.00</b>	<b>5,76,11,425.00</b>
<b>Transfer to / from Designated Fund</b>			
Student Activity Fund		29,30,000.00	31,42,000.00
Development fund		36,24,000.00	35,44,000.00
Sustainability Fund TEQIP III		65,64,564.00	67,66,128.00
Alumni Association fund		90,500.00	73,500.00
<b>Balance being Surplus / (Deficit) Carried to :</b>			
Capital/Corpus Fund		4,14,74,973.00	4,40,85,797.00



  
 DIRECTOR  
 (PROF. LALIT KUMAR AWASTHI)

  
 REGISTRAR  
 (DR. PRABHAKAR MANI KALA)  
 PLACE: SRINAGAR GARHWAL  
 DATED: MAY 30, 2022




**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH, 2022**

**SCHEDULE -1 CORPUS**

(Figures in Rupees)

Particulars	Current Year	Previous Year
Balance at the beginning of the year	47,19,49,602.00	42,43,19,806.00
Add: Contributions towards Corpus/Capital Fund	36,24,000.00	35,44,000.00
Add: Other Additions	-	-
Add: Excess of Income over expenditure transferred from the Income & Expenditure Account	4,14,74,973.00	4,40,85,797.00
<b>Total</b>	<b>51,70,48,575.00</b>	<b>47,19,49,602.00</b>
Less: Intt. TFR to Corpus	-	-
<b>Total</b>	<b>51,70,48,575.00</b>	<b>47,19,49,602.00</b>
(Deduct) Deficit transferred from the Income & Expenditure Account	-	-
<b>Balance at the end of the year</b>	<b>51,70,48,575.00</b>	<b>47,19,49,602.00</b>



  
**REGISTRAR**  
**(DR. PRABHAKAR MANI KALA)**  
**PLACE: SRINAGAR GARHWAL**  
**DATED: MAY 30, 2022**

  
**DIRECTOR**  
**(PROF. LALIT KUMAR AWASTHI)**



**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022**

**SCHEDULE -1.1 CAPITAL FUND**

Particulars	(Figures in Rupees)	
	Current Year	Previous Year
Balance at the beginning of the year	48,46,52,213.00	46,19,52,985.00
Additions	1,14,79,174.00	2,27,82,831.00
Deduction	-	-
<b>Total</b>	<b>49,61,31,387.00</b>	<b>48,47,35,816.00</b>
Reserves and Provision	-	-
Additions	1,24,993.00	2,457.00
Deduction	7,48,250.00	86,060.00
<b>Total</b>	<b>(6,23,257.00)</b>	<b>(83,603.00)</b>
Add: Excess of Income over expenditure transferred from the Income & Expenditure Account	-	-
<b>Total</b>	<b>49,55,08,130.00</b>	<b>48,46,52,213.00</b>
(Deduct) Deficit transferred from the Income & expenditure Account	-	-
<b>Balance at the year end</b>	<b>49,55,08,130.00</b>	<b>48,46,52,213.00</b>

REGISTRAR  
(DR. PRABHAKAR MANI KALA)

PLACE: SRINAGAR GARHWAL  
DATED: MAY 30, 2022



DIRECTOR  
(PROF. LALIT KUMAR AWASTHI)




**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022**

**SCHEDULE-2-DESIGNATED / EARMARKED / ENDOWMENT FUND**

PARTICULARS	(Figures in Rupees)				
	2.1	2.2	2.3	Current year	Previous Year
Balance B/F	4,52,42,384.00	-	-	4,52,42,384.00	3,54,47,362.00
Add: Receipts during the year	1,11,73,493.00	-	-	1,11,73,493.00	1,10,58,110.00
<b>Total (a)</b>	<b>5,64,15,877.00</b>	-	-	<b>5,64,15,877.00</b>	<b>4,65,05,472.00</b>
Less Refunds	-	-	-	-	-
Less : Utilized for Revenue Expenditu	10,10,973.00	-	-	10,10,973.00	12,63,088.00
Less : Utilized for Capital Expenditur	-	-	-	-	-
<b>Total (b)</b>	<b>10,10,973.00</b>	-	-	<b>10,10,973.00</b>	<b>12,63,088.00</b>
Unutilized carried forward (a-b)	5,54,04,904.00	-	-	5,54,04,904.00	4,52,42,384.00
Less : Transfer to Capital Fund	-	-	-	-	-
<b>Total</b>	<b>5,54,04,904.00</b>	-	-	<b>5,54,04,904.00</b>	<b>4,52,42,384.00</b>



  
 DIRECTOR  
 (PROF. LALIT KUMAR AWASTHI)

  
 REGISTRAR  
 (DR. PRABHAKAR MANI KALA)  
 PLACE: SRINAGAR GARHWAL  
 DATED: MAY 30, 2022

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022

SCHEDULE-2A DESIGNATED/EARMARKED/ ENDOWMENT FUNDS OF R&D/PROJECT ACCOUNT

PARTICULARS	PROJECT WISE BREAKUP													TOTAL	
	SDPC (PI- Dr. IM Nagpure)	SFEFISA (PI - Dr. Hardeep Kumar)	CRS-M-308 (PI - Dr. MS Khatri)	DACBTGPI (PI- Dr. Nitin Kumar)	DIC (PI - Dr. PK Rakesh)	STHCB (PI- Dr. RP Pauley)	SNMP (Dr. PK Pal)	SSRTMSOC (PI-Dr. Krishna Kumar)	E-Rickshaw (PI-Dr. P. Dwivedi)	DDISDEA (PI-Dr. Bharan Mishra)	DDCSBBG (PI-Dr. N.K. Mishra)	R&C	Current Year	Previous Year	
A)															
a) Opening balance	7,631.50	32,862.00	22,205.00	24,848.50	49,29,774.50	26,193.00	7,48,124.00	18,10,626.00	16,00,134.50	-	5,32,800.00	97,95,199.00	65,41,190.50		
b) Additions during the year	6,35,767.00	5,21,406.00	22,795.00	-	-	-	8,28,542.00	-	31,35,140.00	10,50,000.00	24,33,500.00	86,27,150.00	82,56,725.00		
c) Income from investment made of the funds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
d) Accrued Interest on investments/ Advances	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
e) Interest on Savings Bank a/c	1,627.00	3,058.00	749.00	383.00	1,26,839.00	716.00	18,137.00	49,200.00	39,543.00	1,593.00	48,761.00	2,92,283.00	2,55,766.00		
f) Other additions (Specify nature)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Adjustment of Loss during the year	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Adjustment during the year	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total (A)	6,45,025.50	5,57,326.00	45,749.00	25,231.50	50,56,613.50	26,909.00	15,94,803.00	18,59,826.00	16,99,677.50	31,36,733.00	30,15,061.00	1,87,14,632.00	1,50,53,681.50		
B)															
Utilisation/Expenditure towards objectives of funds															
i) Capital Expenditure	-	-	-	-	-	-	-	-	2,08,704.00	-	-	-	2,08,704.00	-	
ii) Revenue Expenditure	6,42,870.00	5,09,820.50	41,013.50	7,559.50	4,95,087.50	-	9,71,228.00	-	1,90,023.50	-	12,93,877.00	41,51,479.50	52,58,482.50		
iii) Grant Refunded	528.50	-	-	17,289.00	-	-	6,23,575.00	-	-	-	-	6,41,392.50	-		
iv) Interest Refunded	-	-	-	-	1,22,294.00	-	-	40,626.00	-	-	-	1,62,920.00	-		
Total (B)	6,43,398.50	5,09,820.50	41,013.50	24,848.50	6,17,381.50	-	15,94,803.00	40,626.00	3,98,727.50	-	12,93,877.00	51,64,496.00	52,58,482.50		
C) R&D/Project Account - Capital	-	-	-	-	-	-	-	-	-	-	-	-	-		
D) R&D/Project Account - Current Liabilities	-	-	-	-	-	-	-	-	-	-	-	-	-		
Closing balance at the year end (A-B+C)	1,627.00	47,505.50	4,735.50	383.00	44,29,232.00	26,909.00	-	18,19,200.00	13,00,950.00	31,36,733.00	17,21,184.00	1,48,90,660.00	1,12,18,423.00		



  
DIRECTOR  
(PROF. LALIT KUMAR AWASTHI)

  
REGISTRAR  
(DR. PRABHAKAR MANI KALA)  
PLACE: SRINAGAR GARHWAL  
DATED: MAY 30, 2022


 NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022

## SCHEDULE-2.1 DESIGNATED / EARMARKED / ENDOWMENT FUNDS

SCHEDULE 2.1	Particulars										Total	
	Student Activity Fund	Alumni Asso. Fund	DASA Fund	National Physical Laboratory	TEQIP - III Fund	NMEICT	CSAB/CCMT FUND	MNREGA Fund	Workshop/S TC	R & C FUND	Current Year 2022	Previous Year 2021
A.												
a) Opening balance	1,47,06,803.00	9,94,683.00	2,55,000.00	20,000.00	2,62,23,603.00	7,93,253.00	8,49,240.00	4,48,583.00	-	9,51,219.00	4,52,42,384.00	3,54,47,362.00
b) Additions during the year	29,30,000.00	90,500.00	-	-	65,64,564.00	-	10,58,168.00	-	1,28,000.00	4,02,261.00	1,11,73,493.00	1,10,58,110.00
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)	-	-	-	-	-	-	-	-	-	-	-	-
Total (A)	1,76,36,803.00	10,85,183.00	2,55,000.00	20,000.00	3,27,88,167.00	7,93,253.00	19,07,408.00	4,48,583.00	1,28,000.00	13,53,480.00	5,64,15,877.00	4,65,05,472.00
B.												
Utilisation/Expenditure towards objectives of funds												
i) Capital Expenditure	-	-	-	-	-	-	-	-	-	-	-	-
ii) Revenue Expenditure	71,888.00	2,598.00	-	-	5,30,435.00	-	3,22,168.00	33,592.00	-	50,292.00	10,10,973.00	12,63,088.00
Total (B)	71,888.00	2,598.00	-	-	5,30,435.00	-	3,22,168.00	33,592.00	-	50,292.00	10,10,973.00	12,63,088.00
Closing balance at the year end (A-B)	1,75,64,915.00	10,82,585.00	2,55,000.00	20,000.00	3,22,57,732.00	7,93,253.00	15,85,240.00	4,14,991.00	1,28,000.00	13,03,188.00	5,54,04,904.00	4,52,42,384.00

DIRECTOR  
(PROF. LALIT KUMAR AWASTHI)



REKHA RAR  
(DR. PRABHAKAR MIANI KALA)  
PLACE: SRINAGAR GARHWAL  
DATED: MAY 30, 2022






**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022**

**SCHEDULE 2.2 PLAN GRANT LIABILITY FOR ASSETS**

(Figures in Rupees)		
A. Plan Grants: Government of India	Current year	Previous Year
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>	-	-



  
**DIRECTOR**  
**(PROF. LALIT KUMAR AWASTHI)**

  
**REGISTRAR**  
**(DR. PRABHAKAR MANI KALA)**  
**PLACE: SRINAGAR GARHWAL**  
**DATED: MAY 30, 2022**



NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022

**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**  
 (DR. PRABHAKAR MANI KALA)

**PLACE: SRINAGAR GARHWAL**  
**DATED: MAY 30, 2022**



  
**DIRECTOR**  
 (PROF. LALIT KUMAR AWASTHI)



NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022  
 SCHEDULE 3- CURRENT LIABILITIES & PROVISIONS

PARTICULARS	(Figures in Rupees)	
	Current Year	Previous Year
<b>A. CURRENT LIABILITIES</b>		
1. Deposits from Staff	-	-
2. Deposits from Students	3,14,32,028.00	2,41,60,546.00
3. Sundry Creditors		
a) For Goods & Services	1,66,75,527.00	2,04,94,900.00
b) Others	6,10,740.00	-
4. Deposit-Others ( including EMD, Security Deposit)	6,95,693.00	7,69,786.00
5. Statutory Liabilities (GPF, TDS, WC TAX, CPF, GIS, NPS) :	29,09,433.00	22,59,011.00
a) Overdue	-	-
b) Others	-	-
6. Other Current Liabilities		
a) Fees Received in Advance	81,61,472.00	80,10,380.00
b) Salaries	1,12,09,651.00	95,93,727.00
c) Receipts against sponsored projects	-	-
d) Receipts against sponsored fellowships & Scholarships	5,95,235.00	3,49,205.00
e) Unutilised Grants	-	-
f) Grants in advance	34,47,62,866.00	38,95,28,771.00
g) Interest Earned on GJA (Refundable)	2,51,49,636.00	3,13,77,679.00
h) Other- Expenses Payable	40,04,119.00	51,50,571.00
i) Other liabilities	4,20,356.00	2,63,182.00
<b>Total (A)</b>	<b>44,66,26,756.00</b>	<b>49,19,57,758.00</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	-	-
<b>Total (B)</b>	<b>-</b>	<b>-</b>
<b>Total (A+B)</b>	<b>44,66,26,756.00</b>	<b>49,19,57,758.00</b>



  
 DIRECTOR  
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 DATED: MAY 30, 2022



**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022**

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

1. Sr. No.	2. Name of the Project	2a Pl. Name	Opening Balance		5. Receipts/Interest/ Recoveries during the year	6. Total	7. Expenditure/Refund during the year	(Figures in Rupees) Closing Balance	
			3. Credit	4. Debit				8. Credit	9. Debit
1	Synthesis and development of polymeric compounds (phenylated quinolone based) for OLED (Organic light emitting devices) applications- (SDPC)	Dr. IM. Nagpure		7,631.50	6,37,394.00	6,43,398.50	-	1,627.00	
2	Study of FeRh epitaxial films and heterostructures for spintronics applications (SFEFHS)	Dr. Hardeep Kumar		32,862.00	5,24,464.00	5,09,820.50	-	47,505.50	
3	Fabrication and characterization of Co-based CoP/OT Multilayered films by electrodeposition (CRS-M-308)	Dr. MS Khatri		22,205.00	23,544.00	41,013.50	-	4,735.50	
4	Development and analysis of cancellable biometric template generation for person identification (DACBTGP1)	Dr. Nitin Kumar		24,848.50	383.00	24,848.50	-	383.00	
5	National Initiative for Design Innovation (DIC)	Dr. Pawan Kumar Rakesh		49,29,774.50	1,26,839.00	50,56,613.50	-	44,39,232.00	
6	Synthesis, Structural and Photocatalytic Properties of Photoactive Mofs (STHCB)	Dr. Ram Pal Pandey		26,193.00	716.00	26,909.00	-	26,909.00	
7	Special Manpower Development Programme Chip to System Design (SMDP-C2SD)	Dr. PK Pal		7,48,124.00	8,46,679.00	15,94,803.00	-	-	
8	Secret Sharing Scheme based technology for Multimedia Security Over Cloud (SSBTMSOC)	Dr. Krishan Kumar		18,10,626.00	49,200.00	18,59,826.00	-	18,19,200.00	
9	Solar powered robust E-Rickshaw control with bidirectional DC-DC converter using regenerative cycle boost charging (E-Rickshaw)	Dr. Prakash Dwivedi		16,60,134.50	39,543.00	16,99,677.50	-	13,00,950.00	
10	Deconet-Development of Indigenous System for Deciphering Envisioned Apech From EEG Signals Using Optimized Deep Convolutional Neural Network Models (DDISDEA)	Dr. Harsharan Muthuswamy		-	31,36,733.00	31,36,733.00	-	31,36,733.00	
11	Development of Domestic cooking stove based on biomass gasification with porous radiant burner (DDCSBBG)	Dr. Niraj Kumar Mishra		-	10,51,677.00	10,51,677.00	-	10,51,677.00	
	<b>Total</b>		-	<b>92,62,399.00</b>	<b>64,37,172.00</b>	<b>1,56,99,571.00</b>	-	<b>1,18,28,952.00</b>	

- The Projects may be listed agency-wise, with sub-totals for each agency.
- The total of Col. 8 (Credit) will appear under the above head on the liabilities side of the Balance Sheet (Schedule 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  
(DR. PRABHAKAR MANI KALA)  
PLACE: SRINAGAR GARHWAL  
DATED: MAY 30, 2022



  
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**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022**  
**SCHEDULE-3 (B) SPONSORED FELLOWSHIPS AND SCHOLARSHIPS**

SL NO 1.	2. Name of Sponsor	(Figures in Rupees)					
		Opening Balance as on 01.04.2021		Transactions during the year		Closing Balance as on 31.03.2022	
		3	4	5	6	7	8
		CR.	DR.	CR.	DR.	CR.	DR.
1	University Grants Commission	-	-	-	-	-	-
2	Ministry of SJ&E	2,79,205.00	-	4,33,280.00	1,87,250.00	5,25,235.00	-
3	Others (Specify individually):						
	(i) Swami Dayanand Education Foundation	-	-	40,000.00	40,000.00	-	-
	(ii) Madhya Pradesh S.G.	-	-	55,167.00	55,167.00	-	-
	(iii) Uttarakhand S.C.	70,000.00	-	-	-	70,000.00	-
	<b>Total</b>	<b>3,49,205.00</b>	<b>-</b>	<b>5,28,447.00</b>	<b>2,82,417.00</b>	<b>5,95,235.00</b>	<b>-</b>

**Note:**

- The total of Column 7, (Credit) will appear under the above head, on the liabilities side of the balance sheet ( Schedule 3).
- 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**  
**(DR. PRABHAKAR MANI KALA)**

**PLACE: SRINAGAR GARHWAL**  
**DATED: MAY 30, 2022**



**DIRECTOR**  
**(PROF. LALIT KUMAR AWASTHI)**

**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022**

**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	42,09,06,450.00	38,84,17,407.00
Add: Receipts during the year	22,58,01,000.00	30,33,75,000.00
Add: TSA Grant Receivable	30,90,743.00	-
Add: Interest earned during the year	86,57,957.00	1,64,91,679.00
<b>Total (a)</b>	<b>65,84,56,150.00</b>	<b>70,82,84,086.00</b>
Less Refunds	-	-
(i) Unutilized Grant-in-Aid pull back by TSA	2,39,66,948.00	-
(i) Refund to MHRD (Interest)	1,48,86,000.00	-
(iii) Utilized for Revenue Expenditure	23,82,11,526.00	26,45,94,805.00
(iv) Utilized for Capital Expenditure	1,14,79,174.00	2,27,82,831.00
<b>Total(b)</b>	<b>28,85,43,648.00</b>	<b>28,73,77,636.00</b>
<b>Unutilized carried forward (a - b)</b>	<b>36,99,12,502.00</b>	<b>42,09,06,450.00</b>
<b>B. UGC grants: Plan</b>		
Balance B/F		
Receipts during the year		
<b>Total (c)</b>	<b>-</b>	<b>-</b>
Less Refund		
Less: Utilized for Revenue Expenditure		
Less: Utilized for capital expenditure		
<b>Total (d)</b>	<b>-</b>	<b>-</b>
Unutilized carried forward (c-d)	<b>-</b>	<b>-</b>



  
**DIRECTOR**  
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 (DR. PRABHAKAR MANI KALA)

**PLACE: SRINAGAR GARHWAL**  
**DATED: MAY 30, 2022**

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022

SCHEDULE 4 FIXED ASSETS

S.No.	Tangible Assets Heads	Gross Block					Depreciation for the Year- 2021-22			Net Block		
		ORIGINAL COST AS ON 01.04.2021	Additions	Gross Block Adjustment	Deductions	Closing Balance	Depreciation on Opening Balance	Depreciation for the year	Deductions / Adjustment	Total Depreciation	31.03.2022	31.03.2021
1	Land	1.00	-	-	-	1.00	-	-	-	-	1.00	1.00
2	Site Development	-	-	34,83,923.00	-	34,83,923.00	-	-	-	-	34,83,923.00	-
3	Buildings	17,93,87,424.00	-	-	-	17,93,87,424.00	-	-	-	35,87,749.00	2,90,57,659.00	15,03,29,765.00
4	Sports Equipment	-	-	-	-	-	-	-	-	-	-	15,39,17,514.00
5	Tubewells & Water Supply	1,10,787.00	7,428.00	-	-	1,18,215.00	-	-	-	2,364.00	12,711.00	1,05,504.00
6	Sewerage & drainage	-	-	-	-	-	-	-	-	-	-	1,00,440.00
7	Electrical Installation and equipment	1,07,15,584.00	95,010.00	-	-	1,08,10,594.00	-	-	-	5,40,540.00	39,59,959.00	68,50,635.00
8	Plant & Machinery	13,36,089.00	-	-	-	13,36,089.00	-	-	-	66,805.00	3,56,715.00	9,79,374.00
9	Scientific & Laboratory Equipment	4,39,39,104.00	5,60,775.00	-	-	4,44,99,879.00	-	-	-	2,15,67,008.00	2,51,27,006.00	1,93,72,873.00
10	Office Equipment	50,72,716.00	1,97,320.00	-	-	52,70,036.00	-	-	-	3,95,260.00	27,63,563.00	25,06,473.00
11	Audio Visual Equipment	58,16,613.00	-	-	-	58,16,613.00	-	-	-	4,36,248.00	33,79,395.00	24,37,218.00
12	Computers & Peripherals	4,99,28,574.00	75,517.00	-	-	5,00,04,091.00	-	-	-	4,68,46,440.00	14,63,328.00	4,72,55,069.00
13	Furniture, Fixtures & Fittings	2,80,16,724.00	20,708.00	-	-	2,80,37,432.00	-	-	-	21,02,826.00	1,72,06,210.00	1,08,31,222.00
14	Vehicles	39,48,471.00	-	-	-	39,48,471.00	-	-	-	3,94,848.00	30,60,764.00	8,87,707.00
15	Lib. Books & Scientific Journals	1,80,78,116.00	7,61,576.00	-	-	1,88,39,692.00	-	-	-	1,60,50,605.00	27,89,087.00	12,82,555.00
16	Small Value Assets	17,22,107.00	38,450.00	-	-	17,60,557.00	-	-	-	38,444.00	17,60,310.00	247.00
17	Stock	25,026.00	-	-	-	25,026.00	-	-	-	-	-	25,026.00
18	Project Development (Office Equipment)	16,480.00	-	-	-	16,480.00	-	-	-	1,236.00	4,944.00	11,536.00
19	Audio Visual (CSA)	33,490.00	-	-	-	33,490.00	-	-	-	2,634.00	13,844.00	19,646.00
20	Computer & Peripherals (CSA)	26,200.00	-	-	-	26,200.00	-	-	-	5,238.00	24,898.00	1,302.00
21	Electrical Equipments (CSA)	2,700.00	-	-	-	2,700.00	-	-	-	135.00	675.00	2,025.00
22	Sports Equipment (CSA)	3,70,412.00	-	-	-	3,70,412.00	-	-	-	29,633.00	1,61,383.00	2,09,029.00
23	Furniture & Fixture (CSA)	1,200.00	-	-	-	1,200.00	-	-	-	90.00	450.00	750.00
24	Small Value Assets (CSA)	8,560.00	-	-	-	8,560.00	-	-	-	-	8,558.00	2.00
	Total (A)	34,85,56,378.00	17,56,784.00	34,83,923.00	-	35,37,97,085.00	-	-	-	1,41,88,030.00	15,02,04,718.00	20,35,92,367.00
25	Capital Work in Progress (B)	3,80,42,900.00	-	-	-	3,45,58,977.00	-	-	-	-	-	3,45,58,977.00
	Total											3,80,42,900.00
S.No.	Intrangible Assets	ORIGINAL COST AS ON 01.04.21	Additions	Gross Block Adjustment	Deductions	Closing Balance	Amortization on Opening Balance	Amortization for the Year	Deductions / Adjustment	Total Amortization	31.03.2022	31.03.2021
26	Software	5,21,45,243.00	1,06,200.00	-	-	5,22,51,443.00	5,05,82,809.00	4,96,813.00	9,97,478.00	5,20,77,100.00	1,74,343.00	15,02,434.00
27	E-journals, Books	3,27,62,116.00	96,16,190.00	-	-	4,23,78,306.00	2,11,60,715.00	1,11,79,218.00	15,66,161.00	3,39,06,094.00	84,72,212.00	1,16,01,401.00
	Total (C)	8,49,07,359.00	97,22,390.00	-	-	9,46,29,749.00	7,17,43,524.00	1,16,76,031.00	25,63,639.00	8,59,83,194.00	86,46,555.00	1,31,63,835.00
	Grand Total (A+B+C)	47,15,06,637.00	1,14,79,174.00	34,83,923.00	34,83,923.00	48,29,85,811.00	20,88,14,911.00	2,58,64,061.00	15,08,940.00	23,61,87,912.00	24,67,97,399.00	26,26,91,726.00

REGISTRAR  
(DR. PRABHAKAR MANI KALA)  
PLACE: SRINAGAR GARHWAL  
DATED: MAY 30, 2022



*(Signature)*  
DIRECTOR  
(PROF. LALIT KUMAR AWASTHI)


 NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022

## SCHEDULE 4A FIXED ASSETS PLAN

S.No.	Tangible Assets Heads	Gross Block					Depreciation for the Year- 2021-22			Net Block		
		ORIGINAL COST AS ON	Additions	Adjustment	Deductions	Closing Balance	Depreciation on Opening Balance	Depreciation for the year	Deductions / Adjustment	Total Depreciation	31.03.2022	31.03.2021
1	Land	1.00	-	-	-	1.00	-	-	-	-	1.00	1.00
2	Site Development	-	-	34,83,923.00	-	34,83,923.00	-	-	-	-	34,83,923.00	-
3	Buildings	17,93,87,424.00	-	-	-	17,93,87,424.00	2,54,69,910.00	35,87,749.00	-	2,90,57,659.00	15,03,29,765.00	15,39,17,514.00
4	Sports Equipment	-	-	-	-	-	-	-	-	-	-	-
5	Tubewells & Water Supply	1,10,787.00	7,428.00	-	-	1,18,215.00	10,347.00	2,364.00	-	12,711.00	1,05,504.00	1,00,440.00
6	Severage & drainage	-	-	-	-	-	-	-	-	-	-	-
7	Electrical Installation and equipment	1,07,15,584.00	95,010.00	-	-	1,08,10,594.00	34,19,419.00	5,40,540.00	-	39,59,959.00	68,50,635.00	72,96,165.00
8	Plant & Machinery	13,36,089.00	-	-	-	13,36,089.00	2,89,910.00	66,805.00	-	3,56,715.00	9,79,374.00	10,46,179.00
9	Scientific & Laboratory Equipment	4,39,39,104.00	5,60,775.00	-	-	4,44,99,879.00	2,15,67,008.00	35,59,998.00	-	2,51,27,006.00	1,93,72,873.00	2,23,72,096.00
10	Office Equipment	50,72,716.00	1,97,320.00	-	-	52,70,036.00	23,68,303.00	3,95,260.00	-	27,63,563.00	25,06,473.00	27,04,413.00
11	Audio Visual Equipment	58,16,613.00	-	-	-	58,16,613.00	29,43,147.00	4,36,248.00	-	33,79,395.00	24,37,218.00	28,73,466.00
12	Computers & Peripherals	4,99,28,574.00	75,517.00	-	-	5,00,04,091.00	4,68,46,440.00	14,63,328.00	(10,54,699.00)	4,72,55,069.00	27,49,022.00	30,82,134.00
13	Furniture, Fixtures & Fittings	2,80,16,724.00	20,708.00	-	-	2,80,37,432.00	1,51,03,384.00	21,02,826.00	-	1,72,06,210.00	1,08,31,222.00	1,29,13,340.00
14	Vehicles	39,48,471.00	-	-	-	39,48,471.00	26,65,916.00	3,94,848.00	-	30,60,764.00	8,87,707.00	12,82,555.00
15	Lib. Books & Scientific Journals	1,80,78,116.00	7,61,576.00	-	-	1,88,39,692.00	1,44,89,951.00	15,60,654.00	-	1,60,50,605.00	27,89,087.00	35,88,165.00
16	Small Value Assets	17,22,107.00	38,450.00	-	-	17,60,557.00	17,21,866.00	38,444.00	-	17,60,310.00	247.00	241.00
17	Stock	25,026.00	-	-	-	25,026.00	-	-	-	-	25,026.00	25,026.00
	<b>Total (A)</b>	<b>34,80,97,336.00</b>	<b>17,56,784.00</b>	<b>34,83,923.00</b>	<b>-</b>	<b>35,33,38,043.00</b>	<b>13,68,95,601.00</b>	<b>1,41,49,064.00</b>	<b>(10,54,699.00)</b>	<b>14,99,89,966.00</b>	<b>20,33,48,077.00</b>	<b>21,12,01,735.00</b>
18	Capital Work in Progress (B)	3,80,42,900.00	-	-	-	3,45,58,977.00	-	-	-	-	3,45,58,977.00	3,80,42,900.00
19	<b>Total (A+B)</b>	<b>38,61,40,236.00</b>	<b>17,56,784.00</b>	<b>34,83,923.00</b>	<b>34,83,923.00</b>	<b>38,78,97,020.00</b>	<b>13,68,95,601.00</b>	<b>1,41,49,064.00</b>	<b>(10,54,699.00)</b>	<b>14,99,89,966.00</b>	<b>23,79,07,054.00</b>	<b>24,92,44,635.00</b>



*(Signature)*  
 DIRECTOR  
 (PROF. LALIT KUMAR AWASTHI)

*(Signature)*  
 REGISTRAR  
 (DR. PRABHAKAR MANI KALA)  
 PLACE: SRINAGAR GARHWAL  
 DATED: MAY 30, 2022





NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022

SCHEDULE 4B- NON PLAN

S.No.	Tangible Assets Heads	ORIGINAL COST AS ON 01.04.2021			Gross Block			Depreciation for the Year- 2021-22		Net Block	
		Additions	Adjustment	Deductions	Closing Balance	Depreciation on Opening Balance	Depreciation for the year	Deductions/ Adjustment	Total Depreciation	31.03.2022	31.03.2021
1	Land	-	-	-	-	-	-	-	-	-	-
2	Site Development	-	-	-	-	-	-	-	-	-	-
3	Buildings	-	-	-	-	-	-	-	-	-	-
4	Sports Equipment	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-
17	Stock	-	-	-	-	-	-	-	-	-	-
18	Project Development (Office Equipment)	-	-	-	-	-	-	-	-	-	-
19	Audio Visual (CSA)	-	-	-	-	-	-	-	-	-	-
20	Computer & Peripherals (CSA)	-	-	-	-	-	-	-	-	-	-
21	Electrical Equipments (CSA)	-	-	-	-	-	-	-	-	-	-
22	Sports Equipment (CSA)	-	-	-	-	-	-	-	-	-	-
23	Furniture & Fixture (CSA)	-	-	-	-	-	-	-	-	-	-
24	Small Value Assets (CSA)	-	-	-	-	-	-	-	-	-	-
	Total (A)	-	-	-	-	-	-	-	-	-	-
25	Capital Work in Progress (B)	-	-	-	-	-	-	-	-	-	-



*(Signature)*  
DIRECTOR  
(PROF. LALIT KUMAR AWASTHI)

*(Signature)*  
REVISOR  
(DR. PRABHAKAR MANI KALA)  
PLACE: SRINAGAR GARHWAL  
DATED: MAY 30, 2022



NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022

SCHEDULE 4 C - INTANGIBLE ASSETS

S.NO	Assets Heads	Gross Block			Depreciation for the Year 2021-22			Net Block			
		OP Balance 01.04.2021	Additions	Deductions	CI Balance	Depreciation/ Amortizations Opening Balance	Depreciation / Amortization for the Year	Deductions / Adjustment	Total Depreciation/ Amortization	31.03.2022	31.03.2021
1	Patents & Copyrights	-	-	-	-	-	-	-	-	-	-
2	Computer Software	5,21,45,243.00	1,06,200.00	-	5,22,51,443.00	5,05,82,809.00	4,96,813.00	9,97,478.00	5,20,77,100.00	1,74,343.00	15,62,434.00
3	E- Journals	3,27,62,116.00	96,16,190.00	-	4,23,78,306.00	2,11,60,715.00	1,11,79,218.00	15,66,161.00	3,39,06,094.00	84,72,212.00	1,16,01,401.00
	<b>Total</b>	<b>8,49,07,359.00</b>	<b>97,22,390.00</b>	<b>-</b>	<b>9,46,29,749.00</b>	<b>7,17,43,524.00</b>	<b>1,16,76,031.00</b>	<b>25,63,639.00</b>	<b>8,59,83,194.00</b>	<b>86,46,555.00</b>	<b>1,31,63,835.00</b>

(Figures in Rupees)

REGISTRAR

(DR. PRABHAKAR MANI KALA)

PLACE: SRINAGAR GARHWAL

DATED: MAY 30, 2022



DIRECTOR

(PROF. LALIT KUMAR AWASTHI)





**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022**

**SCHEDULE 4D: FIXED ASSETS R&D AND PROJECTS 2021-22**

S.NO	Tangible Assets Heads	Gross Block (ASSETS)				Depreciation for the Year- 2020-21				Net Block	
		Original Cost as on 01.04.21	Additions	Deductions	C1 Balance	Depreciation On Opening Balance	Depreciation for the year	Deductions / Adjustment	Total Depreciation	31.03.2022	31.03.2021
1	Small Value Assets (SMDP)	-	-	-	-	-	-	-	-	-	-
2	Computer & Peripherals (SMDP)	-	-	-	-	-	-	-	-	-	-
3	Laboratory & Scientific Equipments (IMN)	5,00,000.00	-	-	5,00,000.00	-	-	-	-	5,00,000.00	5,00,000.00
4	Laboratory & Scientific Equipments (SRD)	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>-</b>	<b>-</b>	<b>13,40,524.00</b>	<b>13,40,524.00</b>

(Figures in Rupees)

REGISTRAR  
 (DR. PRABHAKAR MANI KALA)

PLACE: SRINAGAR GARHWAL  
 DATED: MAY 30, 2022



DIRECTOR  
 (PROF. LALIT KUMAR AWASTHI)


 NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022

## SCHEDULE 4D (i) OTHERS (INSTITUTE FUNDS)

S.No.	Tangible Assets Heads	ORIGINAL COST AS ON 01.04.2021	Gross Block				Depreciation for the Year- 2021-22			Net Block		
			Additions	Adjustment	Deductions	Closing Balance	Depreciation on Opening Balance	Depreciation for the year	Deductions / Adjustment	Total Depreciation	31.03.2022	31.03.2021
1	Project Development (Office Equipment)	16,480.00	-	-	-	16,480.00	3,708.00	1,236.00	-	4,944.00	11,536.00	12,772.00
2	Audio Visual (CSA)	33,490.00	-	-	-	33,490.00	11,210.00	2,634.00	-	13,844.00	19,646.00	22,280.00
3	Computer & Peripherals (CSA)	26,200.00	-	-	-	26,200.00	19,660.00	5,238.00	-	24,898.00	1,302.00	6,540.00
4	Electrical Equipments (CSA)	2,700.00	-	-	-	2,700.00	540.00	135.00	-	675.00	2,025.00	2,160.00
5	Sports Equipment (CSA)	3,70,412.00	-	-	-	3,70,412.00	1,31,750.00	29,633.00	-	1,61,383.00	2,09,029.00	2,38,662.00
6	Furniture & Fixture (CSA)	1,200.00	-	-	-	1,200.00	360.00	90.00	-	450.00	750.00	840.00
7	Small Value Assets (CSA)	8,560.00	-	-	-	8,560.00	8,558.00	-	-	8,558.00	2.00	2.00
	<b>Total</b>	<b>4,59,042.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4,59,042.00</b>	<b>1,75,786.00</b>	<b>38,966.00</b>	<b>-</b>	<b>2,14,752.00</b>	<b>2,44,290.00</b>	<b>2,83,256.00</b>



  
 REGISTRAR  
 (DR. PRABHAKAR MANI KALRA)  
 PLACE: SRINAGAR GARHWAL  
 DATED: MAY 30, 2022

  
 DIRECTOR  
 (PROF. LALIT KUMAR AWASTHI)



**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022**

**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	89,00,00,000.00	89,80,67,289.00
7. Others ( to be specified)	-	-
<b>Total</b>	<b>89,00,00,000.00</b>	<b>89,80,67,289.00</b>



  
**REGISTRAR**  
 (DR. PRABHAKAR MANI KALA)

**PLACE: SRINAGAR GARHWAL**  
**DATED: MAY 30, 2022**

  
**DIRECTOR**  
 (PROF. LALIT KUMAR AWASTHI)



**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022**

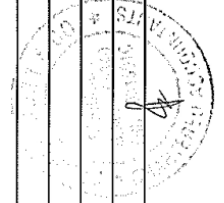
**SCHEDULE 5A: INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS (FUND WISE) CORPUS FUND**  
 (Figures in Rupees)

S.No.	Funds	Current Year	Previous Year
1	ALLAHABAD BANK FDR 50520877169	-	1,99,99,999.00
2	ALLAHABAD BANK FDR 50520950425	-	1,99,99,999.00
3	ALLAHABAD BANK FDR 50521037855	-	1,99,99,999.00
4	FDR ICICI BANK 676813004774	-	1,99,00,000.00
5	FDR ICICI BANK 676813004775	-	97,00,000.00
6	FDR ICICI BANK 676813004776	-	1,99,00,000.00
7	FDR ICICI BANK 676813004777	-	1,99,00,000.00
8	FDR ICICI BANK 676813004778	-	1,99,00,000.00
9	FDR ICICI BANK 676813004779	-	1,90,00,000.00
10	FDR ICICI BANK 676813004780	-	26,00,000.00
11	FDR ICICI BANK 676813004781	-	1,99,00,000.00
12	FDR ICICI BANK 676813004782	-	1,99,00,000.00
13	FDR ICICI BANK 676813004783	-	1,99,00,000.00
14	FDR ICICI BANK 676813004784	-	1,99,00,000.00
15	FDR PNB 085400PU00011280	-	1,99,90,000.00
16	FDR PNB 085400PU00011299	-	1,99,90,000.00
17	FDR PNB 085400PU00011305	-	1,99,90,000.00
18	FDR PNB 085400PU00011314	-	1,99,90,000.00
19	FDR PNB 085400PU00011323	-	1,99,90,000.00
20	FDR PNB 085400PU00011350	-	1,99,90,000.00
21	FDR PNB 085400PU00011378	-	1,99,90,000.00
22	FDR PNB 085400PU00011396	-	1,99,90,000.00
23	FDR PNB 085400PU00011402	-	1,99,90,000.00
24	FDR PNB 085400PU00011411	-	1,99,90,000.00
25	FDR PNB 085400PU00011420	-	1,99,90,000.00
26	FDR PNB 085400PU00011439	-	1,99,90,000.00
27	FDR PNB 085400PU00011448	-	1,99,90,000.00
28	FDR PNB 085400PU00011457	-	1,99,90,000.00
29	FDR PNB 085400PU00011466	-	1,99,90,000.00
30	FDR PNB 085400PU00011475	-	1,99,90,000.00
31	FDR PNB 085400PU00011484	-	1,99,90,000.00





S.No.	Funds	Current Year	Previous Year
32	FDR PNB 085400PU00011493	-	1,99,90,000.00
33	FDR PNB 085400PU00011509	-	1,99,90,000.00
34	FDR PNB 085400PU00011527	-	78,67,294.00
35	FDR PNB 614000PU00011019	-	1,99,99,999.00
36	FDR PNB 614000PU00011028	-	1,99,90,000.00
37	FDR PNB 614000PU00011037	-	1,99,90,000.00
38	FDR PNB 614000PU00011046	-	1,99,90,000.00
39	FDR PNB 614000PU00011055	-	1,99,90,000.00
40	FDR PNB 614000PU00011064	-	1,99,90,000.00
41	FDR PNB 614000PU00011073	-	1,99,90,000.00
42	FDR PNB 614000PU00011082	-	1,99,90,000.00
43	FDR PNB 614000PU00011091	-	1,99,90,000.00
44	FDR PNB 614000PU00011107	-	1,99,90,000.00
45	FDR PNB 614000PU00011116	-	1,99,90,000.00
46	FDR PNB 614000PU00011125	-	1,99,99,999.00
47	FDR PNB 614000PU00011134	-	1,99,90,000.00
48	FDR UNION BANK 526003031043961	1,50,00,000.00	
49	FDR UNION BANK 526003031043962	1,00,00,000.00	
50	CANARA BANK FDR 3485401000349/4	1,50,00,000.00	
51	CANARA BANK FDR 3485401000349/5	1,50,00,000.00	
52	CANARA BANK FDR 3485401000349/6	1,00,00,000.00	
53	FDR SBI 40517765308	1,50,00,000.00	
54	FDR SBI 40520663355	1,50,00,000.00	
55	FDR SBI 40524029380	1,50,00,000.00	
56	FDR SBI 40524905053	1,50,00,000.00	
57	FDR SBI 40530735217	1,50,00,000.00	
58	FDR SBI 40531763641	1,50,00,000.00	
59	FDR SBI 40535644676	1,50,00,000.00	
60	FDR SBI 40537355808	1,50,00,000.00	
61	FDR SBI 40540757080	1,50,00,000.00	
62	FDR SBI 40543215433	1,50,00,000.00	
63	FDR SBI 40546509166	1,50,00,000.00	
64	FDR SBI 40551322013	1,50,00,000.00	
65	FDR SBI 40553450032	1,50,00,000.00	







S.No.	Funds	Current Year	Previous Year
66	FDR SBI 40559823805	1,50,00,000.00	
67	FDR SBI 40563495471	1,50,00,000.00	
68	FDR SBI 40565662736	1,50,00,000.00	
69	FDR SBI 40568302190	1,50,00,000.00	
70	FDR SBI 40570979835	1,50,00,000.00	
71	FDR SBI 40573614498	1,50,00,000.00	
72	FDR SBI 40577327487	1,50,00,000.00	
73	FDR SBI 40579911325	1,50,00,000.00	
74	FDR SBI 40582612988	1,50,00,000.00	
75	FDR SBI 40585170284	1,50,00,000.00	
76	FDR SBI 40589288181	1,50,00,000.00	
77	FDR SBI 40592895995	1,50,00,000.00	
78	FDR SBI 40594540484	1,50,00,000.00	
79	FDR SBI 40597223575	1,50,00,000.00	
80	FDR SBI 40599812648	1,50,00,000.00	
81	FDR SBI 40602355838	1,50,00,000.00	
82	FDR SBI 40606169177	1,50,00,000.00	
83	FDR UNION BANK 526003031043904	1,50,00,000.00	
84	FDR UNION BANK 526003031043905	1,50,00,000.00	
85	FDR UNION BANK 526003031043906	1,50,00,000.00	
86	FDR UNION BANK 526003031043908	1,50,00,000.00	
87	FDR UNION BANK 526003031043909	1,50,00,000.00	
88	FDR UNION BANK 526003031043910	1,50,00,000.00	
89	FDR UNION BANK 526003031043912	1,50,00,000.00	
90	FDR UNION BANK 526003031043913	1,50,00,000.00	
91	FDR UNION BANK 526003031043916	1,50,00,000.00	
92	FDR UNION BANK 526003031043918	1,50,00,000.00	
93	FDR UNION BANK 526003031043919	1,50,00,000.00	
94	FDR UNION BANK 526003031043921	1,50,00,000.00	
95	FDR UNION BANK 526003031043923	1,50,00,000.00	
96	FDR UNION BANK 526003031043934	1,50,00,000.00	
97	FDR UNION BANK 526003031043937	1,50,00,000.00	
98	FDR UNION BANK 526003031043938	1,50,00,000.00	
99	FDR UNION BANK 526003031043940	1,50,00,000.00	
100	FDR UNION BANK 526003031043945	1,50,00,000.00	





S.No.	Funds	Current Year	Previous Year
101	FDR UNION BANK 526003031043947	1,50,00,000.00	
102	FDR UNION BANK 526003031043948	1,50,00,000.00	
103	FDR UNION BANK 526003031043950	1,50,00,000.00	
104	FDR UNION BANK 526003031043952	1,50,00,000.00	
105	FDR UNION BANK 526003031043954	1,50,00,000.00	
106	FDR UNION BANK 526003031043957	1,50,00,000.00	
107	FDR UNION BANK 526003031043960	1,50,00,000.00	
	<b>Grand Total</b>	<b>89,00,00,000.00</b>	<b>89,80,67,289.00</b>



REGISTRAR

(DR. PRABHAKAR MANI KALA)

PLACE: SRINAGAR GARHWAL

DATED: MAY 30, 2022




DIRECTOR

(PROF. LALIT KUMAR AWASTHI)



NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022

**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>	-	-

REGISTRAR  
 (DR. PRABHAKAR MANI KALA)

PLACE: SRINAGAR GARHWAL  
 DATED: MAY 30, 2022



DIRECTOR  
 (PROF. LALIT KUMAR AWASTHI)


 NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULE FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022

## SCHEDULE 7- CURRENT ASSETS

		(Figures in Rupees)	
Particulars	Current Year	Previous Year	
<b>1. Stock:</b>			
a) Stores and Spares	64,207.00	-	
b) Loose Tools	-	-	
c) Publications	-	-	
d) Laboratory Chemicals, consumables and glass ware	1,30,950.00	-	
e) Building Material	-	-	
f) Electrical Material	-	-	
g) Stationery	1,61,023.00	-	
h) Water supply material	-	-	
i) Others	3,34,743.00	-	
<b>2. Sundry Debtors :</b>			
a) Debts Outstanding for a period exceeding six months	4,865.00	-	
b) Others : Recovery from Employees	1,825.00	1,825.00	
<b>3. ACCRUED INTEREST</b>			
4. T.D.S. on FDR Interest	-	3,03,13,420.00	
<b>5. Cash and Bank Balances</b>			
a) With Scheduled Banks:			
<b>In Current Accounts:</b>			
1. SBI Main Account No. 31091775379	4,75,631.00	20,37,031.00	
2. TSA RBI Account No. 10682501001	-	-	
3. ESCROW 3 HEFA Loan Account 120000588506	-	-	
4. ESCROW 4 HEFA Loan Account 120000591797	-	-	
<b>In term deposit Accounts</b>			
<b>In Savings Accounts:</b>			
1. ICICI Main Saving Account No.676801701094	-	11,69,551.00	
2. ICICI Saving Fees Account No.676801701095	-	3,58,17,840.00	
3. Indian Bank Account No. 50511577145	41,744.00	3,32,939.00	
4. SBI Main Saving Account No. 37530566069	19,18,14,679.00	12,39,20,884.00	
5. SBI Student Fees Account No. 37530602667	3,66,30,588.00	1,05,74,956.00	
6. SBI Student Function Account No. 37530603682	7,07,739.00	6,88,947.00	
7. SBI TEQIP-III Account No. 37843015175	6,97,333.00	6,15,947.00	
<b>b) With Non-Scheduled Banks:</b>			
In term deposit Accounts	-	-	
In Savings Accounts	-	-	
<b>6. Post Office- Savings Accounts</b>			
<b>TOTAL</b>	<b>23,10,65,327.00</b>	<b>20,64,71,333.00</b>	



  
 DIRECTOR  
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 DATED: MAY 30, 2022

**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022**

**Annexure "A"**

(Figures in Rupees)

Particulars	Current Year	Previous Year
<b>I. Saving Bank Accounts</b>		
1. ICICI Main Saving Account No.676801701094	-	11,69,551.00
2. ICICI Saving Fees Account No.676801701095	-	3,58,17,840.00
3. Indian Bank Account No. 50511577145	41,744.00	3,32,939.00
4. SBI Main Saving Account No. 37530566069	19,18,14,679.17	12,39,20,884.00
5. SBI Student Fees Account No. 37530602667	3,66,30,587.82	1,05,74,956.00
6. SBI Student Function Account No. 37530603682	7,07,738.75	6,88,947.00
7. SBI TEQIP-III Account No. 37843015175	6,97,333.00	6,15,947.00
<b>II. Current Bank Accounts :</b>		
1. SBI Main Account No. 31091775379	4,75,631.00	20,37,031.00
2. TSA RBI Account No. 10682501001	-	-
3. ESCROW 3 HEFA Loan Account 120000588506	-	-
4. ESCROW 4 HEFA Loan Account 120000591797	-	-
<b>TOTAL</b>	<b>23,03,67,713.74</b>	<b>17,51,58,095.00</b>

  
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NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022  
 SCHEDULE 7A- CURRENT ASSETS -R&D AND PROJECTS

Particulars	(Figures in Rupees)	
	Current Year	Previous Year
<b>I. Stocks:</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)	26,700.00	19,200.00
<b>3. ACCRUED INTEREST</b>	-	-
<b>4. RECOVERABLE AMOUNT OF NPS</b>	-	-
<b>5. Cash and Bank Balances</b>		
a) With Scheduled Banks:		
<b>In Accounts</b>		
SBI A/C No 3351969550 SDPC (INN)	-	-
SBI A/C No 3351969550 SERB (SRD)	-	-
SBI A/C No 37530603172 R & D (Saving)	1,35,23,436.00	91,10,575.00
SBI A/C No 37357884648 SMDP (Saving)	-	7,48,124.00
SBI A/C 34936696386 SMDP (PP)	-	-
<b>In term deposit Accounts</b>		
In Savings Accounts	-	-
b) With Non-Scheduled Banks:		
In term deposit Accounts	-	-
In Savings Accounts	-	-
<b>4. Post Office- Savings Accounts</b>	-	-
<b>TOTAL</b>	<b>1,35,50,136.00</b>	<b>98,77,899.00</b>



  
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 SCHEDULE FORMING PART OF BALANCE SHEET AS ON 31ST MARCH, 2022

## SCHEDULE 8 - LOANS, ADVANCES &amp; 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	-	-
<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	12,55,51,649.00	12,55,51,649.00
b) to Suppliers	-	-
c) Others	-	-
<b>4. Prepaid Expenses</b>		
a) Insurance	21,234.00	-
b) Other expenses	10,043.00	-
<b>5. Deposits</b>		
a) Telephone	12,439.00	12,439.00
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	1,66,09,702.00	-
b) On Investments- Others	-	-
c) On Loans and Advances	-	-
d) Other (includes income due unrealized)	-	-
<b>7. Other- Current assets receivable from IUGC/sponsored projects</b>		
a) Debit balances in Sponsored Projects	-	4,58,416.00
b) Debit balances in Sponsored Fellowships & Scholarships	-	-
c) Grants Receivable T.S.A	30,90,743.00	-
d) Other Receivables	-	-
<b>8. Claims Receivable</b>		
	8,80,224.00	-
<b>TOTAL</b>	<b>14,67,25,139.00</b>	<b>12,65,71,609.00</b>

  
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Page 30

  
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NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2022

**SCHEDULE 9- ACADEMIC RECEIPTS**

(Figures in Rupees)	
FEES FROM STUDENTS	Previous year
<b>Academic</b>	
1. Tuition fee	3,21,14,825.00
2. Book Bank Fees	3,91,000.00
3. Examination Fees	10,10,600.00
<b>Other Fees</b>	
1. Seat Rent	22,42,712.00
2. Hostel Receipts	3,22,375.00
3. Transcript Fees	11,601.00
4. Convocation Fees	1,47,000.00
5. Security Services fees	10,67,220.00
6. Miscellaneous Fees- Duplicate Documents Fees	21,700.00
7. Thesis Submission Fees	-
8. Alumni Association Fees	5,000.00
9. Student Related Activity Fees	90,500.00
10. Development Fees	73,500.00
11. Duplicate ID Card Charges	29,30,500.00
12. IRG Electricity and Water	31,42,000.00
13. Admission Cancellation Fees	36,24,000.00
14. Late Fees Charges	35,44,000.00
15. Misc. Academic Income	20,200.00
16. PHD Application Fees	20,200.00
17. PHD Examination Fees	100.00
18. PHD Registration Fees	5,55,134.00
<b>TOTAL</b>	<b>4,19,62,282.00</b>



  
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 NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2022

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

Particulars	Plan		Current Year	Previous Year
	Govt. of India			
Balance B/F			42,09,06,450.00	38,84,17,407.00
<b>Add: Receipts during the Year</b>			-	30,33,75,000.00
i) Grant-in-Aid through TSA	14,89,01,000.00		14,89,01,000.00	-
ii) Grant-in-Aid without TSA	7,69,00,000.00		7,69,00,000.00	-
iii) Interest Earned	86,57,957.00		86,57,957.00	1,64,91,679.00
iv) Grant Receivable by TSA	30,90,943.00		30,90,743.00	
<b>Total</b>	<b>23,75,49,900.00</b>		<b>65,84,56,150.00</b>	<b>70,82,84,086.00</b>
Less: Refund to MHRD (Interest)	-		1,48,86,000.00	-
<b>Total Grants available</b>			<b>64,35,70,150.00</b>	<b>70,82,84,086.00</b>
Less: Utilised for Capital expenditure (A)			1,14,79,174.00	2,27,82,831.00
<b>Balance</b>			<b>63,20,90,976.00</b>	<b>68,55,01,255.00</b>
Less: Utilized for Revenue Expenditure (B)			23,82,11,526.00	26,45,94,805.00
<b>Gross Amount</b>			<b>39,38,79,450.00</b>	<b>42,09,06,450.00</b>
Unutilized Grant-in-Aid pull back by TSA			2,39,66,948.00	-
<b>Balance C/F (C)</b>			<b>36,99,12,502.00</b>	<b>42,09,06,450.00</b>

(Figures in Rupees)

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

B- Appears as income in the income &amp; 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.

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**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2022**

**SCHEDULE 11- INCOME FROM INVESTMENTS**

Particulars	(Figures in Rupees)			
	Earmarked/Endowment Funds		Other Investments	
	Current Year	Previous Year	Current Year	Previous Year
<b>1. Interest</b>				
a. On Government Securities	-	-	-	-
b. Other Bonds/Debentures	-	-	-	-
<b>2. Interest on Term Deposits</b>	2,92,71,035.00	3,44,28,745.00	-	-
<b>3. Income accrued but not due on term deposits/ Interest bearing advances to employees</b>				
<b>4. Interest on Savings Bank Accounts</b>	-	-	-	-
<b>5. Others (Specify)</b>	-	-	-	-
<b>Total</b>	<b>2,92,71,035.00</b>	<b>3,44,28,745.00</b>	-	-
<b>Transferred to Earmarked/Endowment Funds</b>				
<b>Balance</b>	<b>2,92,71,035.00</b>	<b>3,44,28,745.00</b>	-	-

  
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**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULE FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR 31ST MARCH, 2022**

**SCHEDULE 12: INTEREST EARNED**

Particulars	(Figures in Rupees)	
	Current Year	Previous Year
1. On Savings Accounts with Scheduled banks	1,06,91,005.00	34,52,058.00
2. On Loans	-	-
a. Employees/ Staff	-	-
b. Others	-	-
3. On Debtors and Other Receivables	-	-
<b>Total</b>	<b>1,06,91,005.00</b>	<b>34,52,058.00</b>

**Note:**

- 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.
- Items 2(a) is applicable only if revolving funds have not been constituted for such advances.

  
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**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND**  
**SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2022**

**SCHEDULE 13 - OTHER INCOME**

	(Figures in Rupees)	
	Current Year	Previous Year
1. Recruitment Fees	-	1,06,750.00
2. RTI Fees	64.00	160.00
3. Tender Fees	3,000.00	28,000.00
4. Sale of application form (recruitment)	-	-
5. Misc. receipts	9,000.00	1,800.00
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	-	-
9. Others - Forfeiture of Security Deposits	-	-
10. Vendor Registration Fees	-	-
11. Lab Facility Charges	-	-
12. Notice Pay Received	-	-
13. Sponsorship AIINIT Sports	-	-
14. Excess & Short	-	-
15. Student Medical Insurance Charges	17,252.00	60,450.00
16. Workshop Fees	1,03,400.00	-
<b>Total</b>	<b>1,32,716.00</b>	<b>1,97,160.00</b>



  
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NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2022

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	-	-
<b>Total</b>	-	-

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**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND**  
**SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2022**  
**SCHEDULE 15 - STAFF PAYMENTS & BENEFITS (ESTABLISHMENT EXPENSES)**

(Figures in Rupees)

	Current Year			Total	Plan	Non Plan	Total
	Plan	Non Plan	Total				
<b>a) Salaries and Wages</b>	<b>14,25,85,327.00</b>	-	<b>14,25,85,327.00</b>	<b>13,48,19,850.00</b>	-	<b>13,48,19,850.00</b>	
Teaching Staff	10,90,00,688.00	-	10,90,00,688.00	10,20,51,416.00	-	10,20,51,416.00	
Non-Teaching Staff	3,33,68,106.00	-	3,33,68,106.00	3,20,34,293.00	-	3,20,34,293.00	
Earned Leave Encashment	2,16,533.00	-	2,16,533.00	7,34,141.00	-	7,34,141.00	
<b>b) Allowances and Bonus</b>	<b>21,06,814.00</b>	-	<b>21,06,814.00</b>	<b>3,04,301.00</b>	-	<b>3,04,301.00</b>	
<b>Hill Allowances</b>	-	-	-	-	-	-	
Teaching Staff	-	-	-	-	-	-	
Non-Teaching Staff	-	-	-	-	-	-	
DA Arrears	9,91,194.00	-	9,91,194.00	-	-	-	
Bonus	-	-	-	-	-	-	
Cumulative Professional Development Allowance	11,15,620.00	-	11,15,620.00	3,04,301.00	-	3,04,301.00	
<b>c) Contribution to Provident Fund</b>	-	-	-	-	-	-	
<b>d) Contribution to Other Fund</b>	-	-	-	-	-	-	
<b>e) Leave Salary &amp; Pension Contribution</b>	<b>1,24,488.00</b>	-	<b>1,24,488.00</b>	<b>5,49,135.00</b>	-	<b>5,49,135.00</b>	
<b>f) Staff welfare Expenses</b>	-	-	-	-	-	-	
<b>g) Retirement and Terminal Benefits</b>	<b>1,69,62,664.00</b>	-	<b>1,69,62,664.00</b>	<b>1,49,41,553.00</b>	-	<b>1,49,41,553.00</b>	
<b>h) LTC facility</b>	<b>19,76,493.00</b>	-	<b>19,76,493.00</b>	<b>37,92,378.00</b>	-	<b>37,92,378.00</b>	
<b>i) Medical facility</b>	<b>23,58,106.00</b>	-	<b>23,58,106.00</b>	<b>31,18,913.00</b>	-	<b>31,18,913.00</b>	
Medical And Dispensary	2,49,460.00	-	2,49,460.00	4,02,941.00	-	4,02,941.00	
Medical Reimbursement/Healthcare	21,08,646.00	-	21,08,646.00	27,15,972.00	-	27,15,972.00	
<b>j) Children Education Allowance</b>	<b>15,39,000.00</b>	-	<b>15,39,000.00</b>	<b>14,30,200.00</b>	-	<b>14,30,200.00</b>	
<b>k) Honorarium</b>	<b>62,844.00</b>	-	<b>62,844.00</b>	<b>1,94,668.00</b>	-	<b>1,94,668.00</b>	
<b>l) Consultancy/Professional Charges</b>	<b>3,36,261.00</b>	-	<b>3,36,261.00</b>	<b>16,01,562.00</b>	-	<b>16,01,562.00</b>	
<b>m) Others (specify)</b>	-	-	-	-	-	-	
<b>Total</b>	<b>16,80,51,997.00</b>	-	<b>16,80,51,997.00</b>	<b>16,07,52,560.00</b>	-	<b>16,07,52,560.00</b>	



  
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**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND**  
**SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2022**  
**SCHEDULE 16 - ACADEMIC EXPENSES**

(Figures in Rupees)

	Current Year		Previous Year		Total
	Plan	Non Plan	Plan	Non Plan	
a) Laboratory Expenses	3,74,456.00	-	11,99,510.00	-	11,99,510.00
b) Field work/Participation in Conferences	2,96,565.00	-	5,08,944.00	-	5,08,944.00
c) Expenses on Seminars/Workshops	7,45,652.00	-	1,22,032.00	-	1,22,032.00
d) Payment to Visiting faculty	-	-	-	-	-
e) Examination	2,02,750.00	-	1,41,270.00	-	1,41,270.00
f) Student Welfare expenses	-	-	-	-	-
g) Admission Expenses	-	-	20,000.00	-	20,000.00
h) Convocation Expenses	5,33,519.00	-	5,33,519.00	-	-
i) PHD Scholars	2,08,24,949.00	-	1,31,17,295.00	-	1,31,17,295.00
j) Stipend/means-cum-merit Scholarship	89,76,013.00	-	97,60,287.00	-	97,60,287.00
k) Subscription Expenses	-	-	-	-	-
l) Other- Prefect Concession	91,588.00	-	91,588.00	-	7,12,857.00
i) Sports Consumables/Tours	44,088.00	-	44,088.00	-	5,93,458.00
ii) Curriculum Development	-	-	37,908.00	-	37,908.00
iii) Survey & Project Camp	-	-	-	-	-
iv) Training & Placement Exp.	-	-	34,591.00	-	34,591.00
v) Training Teachers PHD Tuition Fees	47,500.00	-	46,900.00	-	46,900.00
vi) Student Related Expenses	-	-	-	-	-
<b>Total</b>	<b>3,20,45,492.00</b>	<b>-</b>	<b>3,20,45,492.00</b>	<b>-</b>	<b>2,55,82,195.00</b>

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**SCHEDULE 17- ADMINISTRATIVE AND GENERAL EXPENSES**

	Current year		Total	Previous year		Total
	Plan	Non Plan		Plan	Non Plan	
	(Figures in Rupees)					
<b>A. Infrastructure</b>						
a) Electricity and power	11,82,351.00	-	11,82,351.00	43,20,755.00	-	43,20,755.00
b) Water charges	3,22,752.00	-	3,22,752.00	2,95,331.00	-	2,95,331.00
c) Insurance	-	-	-	-	-	-
d) Rates and Taxes (including property tax)	6,000.00	-	6,000.00	6,500.00	-	6,500.00
e) Building Rent	-	-	-	36,04,603.00	-	36,04,603.00
f) Generator Running expenses	1,55,447.00	-	1,55,447.00	1,13,066.00	-	1,13,066.00
<b>B. Communication</b>						
g) Postage and Stationery	1,02,285.00	-	1,02,285.00	81,276.00	-	81,276.00
h) Telephone, Fax and Internet Charges	3,37,768.00	-	3,37,768.00	12,65,283.00	-	12,65,283.00
<b>C. Others</b>						
<b>i) Printing and Stationery (consumption)</b>						
i) Computer Consumables	1,75,500.00	-	1,75,500.00	5,47,445.00	-	5,47,445.00
ii) Printing & Stationery	2,02,105.00	-	2,02,105.00	3,69,571.00	-	3,69,571.00
j) Travelling and conveyance Expenses	6,72,475.00	-	6,72,475.00	1,00,53,354.00	-	1,00,53,354.00
k) Hospitality	21,685.00	-	21,685.00	62,233.00	-	62,233.00
l) Auditors Remuneration	-	-	-	-	-	-
m) Professional Charges	-	-	-	-	-	-
n) Advertisement and Publicity	-	-	-	3,52,237.00	-	3,52,237.00
o) Magazines & Journals	7,902.00	-	7,902.00	8,437.00	-	8,437.00
<b>p) Others Utilities (staff Welfare)</b>						
i) Security Services	1,55,96,214.00	-	1,55,96,214.00	2,23,51,730.00	-	2,23,51,730.00
ii) Upkeep & Sanitation	1,59,89,713.00	-	1,59,89,713.00	2,25,98,479.00	-	2,25,98,479.00
<b>q) Others</b>						
i) NIT Transit House	-	-	-	3,50,000.00	-	3,50,000.00
ii) Bank Charges	-	-	-	4,236.00	-	4,236.00
iii) Other Consumables	31,989.00	-	31,989.00	1,31,535.00	-	1,31,535.00
iv) Misc. Expenses	10,21,756.00	-	10,21,756.00	4,01,672.00	-	4,01,672.00
v) Board & Committee Meeting	4,89,169.00	-	4,89,169.00	4,01,378.00	-	4,01,378.00
vi) CRA Service Charges	19,192.00	-	19,192.00	21,473.00	-	21,473.00
vii) Legal Expenses/ Audit fees	3,02,426.00	-	3,02,426.00	97,320.00	-	97,320.00
viii) National Events & Celebration	89,275.00	-	89,275.00	98,119.00	-	98,119.00
ix) Staff Welfare	3,56,171.00	-	3,56,171.00	1,81,704.00	-	1,81,704.00
x) Spic Macey Expenses	-	-	-	4,08,126.00	-	4,08,126.00
xi) Office Consumables	-	-	-	-	-	-
xii) Audit Expenses	66,636.00	-	66,636.00	1,68,630.00	-	1,68,630.00
xiii) Other Expenses	4,577.00	-	4,577.00	25,03,490.00	-	25,03,490.00
<b>r) Staff Recruitment</b>	66,500.00	-	66,500.00	7,44,513.00	-	7,44,513.00
<b>Total</b>	<b>3,72,19,888.00</b>	<b>-</b>	<b>3,72,19,888.00</b>	<b>7,15,42,496.00</b>	<b>-</b>	<b>7,15,42,496.00</b>

DIRECTOR  
 (PROF. LALIT KUMAR AWASTHI)



REGISTRAR  
 (DR. PRABHAKAR MANI KALA)  
 PLACE: SRINAGAR GARHWAL  
 DATED: MAY 30, 2022





**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND**  
**SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2022**  
**SCHEDULE 18 - TRANSPORTATION EXPENSES**

(Figures in Rupees)

Particulars	Current Year			Previous year		
	Plan	Non Plan	Total	Plan	Non Plan	Total
<b>1. Vehicles (owned by institution)</b>						
Own Vehicle Expenses	2,56,093.00	-	2,56,093.00	4,50,614.00	-	4,50,614.00
a) Running Expenses	1,72,026.00	-	1,72,026.00	2,85,275.00	-	2,85,275.00
b) Repairs & Maintenance	84,067.00	-	84,067.00	1,65,339.00	-	1,65,339.00
c) Insurance Expenses	-	-	-	-	-	-
<b>2. Vehicles taken on rent/lease</b>						
a) Rent/lease Expenses	2,000.00	-	2,000.00	-	-	-
<b>3. Vehicle (Taxi) Hiring Expenses</b>						
	-	-	-	3,98,290.00	-	3,98,290.00
<b>Total</b>	<b>2,58,093.00</b>	<b>-</b>	<b>2,58,093.00</b>	<b>8,48,904.00</b>	<b>-</b>	<b>8,48,904.00</b>



  
**REGISTRAR**  
**(DR. PRABHAKAR MANI KALA)**  
**PLACE: SRINAGAR GARHWAL**  
**DATED: MAY 30, 2022**

  
**DIRECTOR**  
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**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND**  
**SCHEDULE FORMING PART OF INCOME EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2022**  
**SCHEDULE 19 - REPAIRS & MAINTENANCE**

(Figures in Rupees)

Particulars	Current Year		Total	Previous year		Total
	Plan	Non Plan		Plan	Non Plan	
<b>a) Buildings</b>	<b>4,81,870.00</b>	-	<b>4,81,870.00</b>	<b>21,61,054.00</b>	-	<b>21,61,054.00</b>
i) Civil Maintenance	1,26,451.00	-	1,26,451.00	20,57,188.00	-	20,57,188.00
ii) Electrical Maintenance	84,848.00	-	84,848.00	85,755.00	-	85,755.00
iii) Hostel Maintenance	2,70,571.00	-	2,70,571.00	18,111.00	-	18,111.00
iv) Other Maintenance (Sewage & Water pump)	-	-	-	-	-	-
<b>b) Furniture &amp; Fixtures</b>	-	-	-	-	-	-
<b>c) Plant &amp; Machinery</b>	-	-	-	<b>1,18,790.00</b>	-	<b>1,18,790.00</b>
i) Diesel, Petrol & Oil	-	-	-	-	-	-
ii) Repair of Equipments	-	-	-	1,18,790.00	-	1,18,790.00
<b>d) Office Equipment</b>	<b>33,382.00</b>	-	<b>33,382.00</b>	<b>65,820.00</b>	-	<b>65,820.00</b>
i) Minor Equipment Repairs and maint.	33,382.00	-	33,382.00	65,820.00	-	65,820.00
<b>e) Computers</b>	<b>14,220.00</b>	-	<b>14,220.00</b>	<b>12,82,949.00</b>	-	<b>12,82,949.00</b>
f) Laboratory & Scientific equipment	-	-	-	15,00,661.00	-	15,00,661.00
<b>g) Audio Visual equipment</b>	-	-	-	-	-	-
<b>h) Cleaning Material &amp; Services</b>	-	-	-	-	-	-
<b>i) Hostel Equipments</b>	-	-	-	-	-	-
<b>j) Gardening</b>	-	-	-	-	-	-
<b>k) Estate Maintenance</b>	-	-	-	-	-	-
<b>l) Other (Specify)</b>	-	-	-	-	-	-
<b>m) Website</b>	<b>18,081.00</b>	-	<b>18,081.00</b>	<b>24,999.00</b>	-	<b>24,999.00</b>
<b>Total</b>	<b>5,47,553.00</b>	-	<b>5,47,553.00</b>	<b>51,54,273.00</b>	-	<b>51,54,273.00</b>

  
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**PLACE: SRINAGAR GARHWAL**  
**DATED: MAY 30, 2022**




**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND**  
**CHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2022**  
**SCHEDULE 20 - FINANCE COSTS**

Particulars	(Figures in Rupees)			
	Current Year		Previous Year	
	Plan	Non Plan	Plan	Total
a) Bank charges	4,900.00	-	-	4,900.00
b) Other (Specify)	-	-	-	-
<b>Total</b>	<b>4,900.00</b>	<b>-</b>	<b>-</b>	<b>4,900.00</b>

**Note:-**

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

  
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NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
 SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2022

SCHEDULE 21- OTHER EXPENSES

Particulars	(Figures in Rupees)					
	Current Year		Previous Year		Total	
	Plan	Non Plan	Plan	Non Plan	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>	<b>NIL</b>	<b>NIL</b>	<b>NIL</b>	<b>NIL</b>	<b>NIL</b>	<b>-</b>

REGISTRAR  
 (DR. PRABHAKAR MANI KALA)

PLACE: SRINAGAR GARHWAL  
 DATED: MAY 30, 2022



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**NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND**  
**SCHEDULE FORMING PART OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 2022**  
**SCHEDULE 22: PRIOR PERIOD EXPENSES**

(Figures in Rupees)

Particulars	Current Year			Previous Year		
	Plan	Non Plan	Total	Plan	Non Plan	Total
1 Establishment Expenses	78,000.00	-	78,000.00	74,170.00	-	74,170.00
2 Academic Expenses	-	-	-	48,645.00	-	48,645.00
3 Administrative Expenses	5,603.00	-	5,603.00	4,26,526.00	-	4,26,526.00
4 Transportation Expenses	-	-	-	1,65,036.00	-	1,65,036.00
5 Repairs & Maintenance	-	-	-	-	-	-
6 Other Expenses	-	-	-	-	-	-
<b>Total</b>	<b>83,603.00</b>	<b>-</b>	<b>83,603.00</b>	<b>7,14,377.00</b>	<b>-</b>	<b>7,14,377.00</b>



  
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**PLACE: SRINAGAR GARHWAL**  
**DATED: MAY 30, 2022**

NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND  
RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED ON 31ST MARCH, 2022

RECEIPTS	Current Year	Previous Year	PAYMENTS	Current Year	Previous Year
<b>I. Opening Balances</b>			<b>I. Expenses</b>	<b>1,84,05,929.00</b>	<b>13,36,85,949.00</b>
a) Cash Balances			a) Establishment Expenses	58,37,253.00	11,53,17,146.00
b) Bank Balances	18,50,16,795.00	26,99,80,872.00	b) Academic Expenses	10,49,581.00	10,42,260.00
SBI CA NO. 31091775379	20,37,031.00	1,79,93,825.00	c) Administrative Expenses	1,14,69,475.00	1,15,27,750.00
INDIAN BANK 50511577145	3,32,959.00	-	d) Transportation Expenses	-	4,16,290.00
SBI TEQIP III 37843015175	6,15,947.00	3,27,548.00	e) Repairs & Maintenance	10,620.00	53,33,858.00
SBI SA NO 37530566069	12,39,20,884.00	7,42,52,173.00	f) J & K Relief (deductions From Salaries)		
SBI SA NO 37530602667	1,05,74,956.00	57,98,929.00	g) Prior period Expenses	39,000.00	48,645.00
SBI SA NO 37530603682	6,88,947.00	6,70,533.00			
SBI SB NO 37530603172 (R&D)	91,10,576.00	56,91,875.00			
SBI SB NO 37357884648 (SMDP)	7,48,124.00	8,56,516.00			
ICICI SA NO. 676801701094	11,69,551.00	12,19,36,795.00			
ICICI SA NO. 676801701095	3,58,17,840.00	4,24,52,678.00			
TSA RBI CA NO. 10682501001	-	-			
ESCROW 3 HEFA LOAN	-	-			
ESCROW 4 HEFA LOAN	-	-			
<b>II. Grants Received</b>			<b>II. Payment against Earmarked/Endowment Funds</b>	<b>8,63,514.00</b>	<b>-</b>
a) From Government of India			Plan Grant (Refund of int on GIA)	3,88,52,948.00	
Plan Grant	22,58,01,000.00	30,33,75,000.00	Hostel welfare fund		
Other Funds( Earmarked funds)			Other Fund (Designated/Earmarked)	-	4,38,975.00
Corpus fund			Corpus fund		
b) From State Government			Capital fund	7,47,050.00	83,603.00
c) From other sources (details)					
securely if available)					
<b>III. Academic Receipts (from students)</b>	5,39,81,909.72	5,00,21,881.00	<b>III. Payments against Sponsored Projects/ R&amp;D</b>	57,15,435.50	53,10,310.00
<b>IV. Receipts against Earmarked/ Endowment Funds</b>	3,44,261.00	4,06,801.00	<b>IV. Payment against Sponsored</b>	2,72,28,350.00	2,20,09,074.00
<b>V. Receipts against Sponsored Projects/ R&amp;D</b>	93,80,173.00	86,20,619.00	<b>V. Investment and Deposits made</b>	89,00,000,000.00	65,95,53,125.00
			a) Out of Earmarked / Endowments Funds		
			b) Out of own fund (Investment- Others)		
<b>VI. Receipts against sponsored Fellowships and</b>			<b>VI. Term Deposits with Scheduled Banks</b>		



*(Signature)*  
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DATED: MAY 30, 2022



RECEIPTS	Current Year	Previous Year	PAYMENTS	Current Year	Previous Year
VII. Income on Investment from General, Earmarked & Other	5,26,55,637.00	2,62,25,325.00	VII. Expenditure on Fixed Assets and Capital Works-in-Progress		
			a) Fixed Assets	99,94,190.00	1,18,953.00
VIII. Interest received on			b) UP Rajkiya Nirman Nigam (WIP)		
a) Bank Deposits			VIII. Other Payments Including		
b) Loans and Advances			EMD		8,40,000.00
c) Savings Bank Accounts	1,06,51,015.00	34,32,473.00	Security Deposit		18,13,979.00
			Statutory Liabilities	4,99,93,785.00	4,65,03,371.00
			Other Liabilities	11,09,37,273.00	7,42,46,612.00
			Fees		
			Central Seat allocation board		3,81,242.00
IX. Investments Encashed	89,80,67,289.00	62,04,77,244.00	IX. Refunds of Grants		
			Deposited from students	43,11,183.00	1,01,71,967.00
			Deposited from Staff		
			Electricity Security Deposited		
X. Term Deposit with Scheduled Banks encashed			X. Deposits and Advances	13,34,161.00	-
XI. Other Income	1,15,477.00	1,36,710.00	XI. Other Payments		
Salaries Wages & Other			Recoverable Advance		18,22,879.00
			Lease line (PrePaid Exp.)		
			Others	12,54,54,571.48	14,78,78,974.00
XII. Deposits and Advances					
Security Deposit		59,985.00			
EMD		1,15,000.00			
Deposits from Students	2,22,500.00	1,08,636.00	XII. Closing balances		
			a) Cash in hand		
			b) Bank Balances	24,38,91,149.74	18,50,16,795.00
			SBI CA NO. 31091775379	4,75,631.00	20,37,031.00
			SBI TEQIP-III 37843015175	6,97,333.00	6,15,947.00
			SBI SAE CLUB 37933821967		
			SBI SA NO. 375530566069	19,18,14,679.17	12,39,20,884.00
			SBI SA NO. 37550602667	3,66,30,587.82	1,05,74,956.00
			SBI SA NO. 37553063172 (R&D)	7,07,738.75	6,88,947.00
			SBI SB NO. 37557886448 (SMDP)	1,35,23,436.00	91,10,576.00
			INDIAN BANK 50511577145	41,744.00	7,48,124.00
			ICICI SA NO. 676801701094		3,32,939.00
			ICICI SA NO. 676801701095		11,69,551.00
			TSA RBI CA NO. 10682501001		3,58,17,840.00
			ESCROW 3 HEFA LOAN		
			ESCROW 4 HEFA LOAN		
TOTAL	1,52,77,29,539.72	1,28,98,76,008.00	TOTAL	1,52,77,29,539.72	1,28,98,76,008.00



  
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## 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 are 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:







### 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 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 STOCKS

Expenditure on purchase of chemicals, glassware and other consumable store is accumulated as revenue expenditure, except that the value of closing stocks held on 31<sup>st</sup> March 2022 is setup as closing stock by reducing the corresponding revenue expenditure on the basis of information obtained from Sections/Departments. They are valued at cost.

## 6. RETIREMENT BENEFITS

5.1 Employee benefits under define 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 N.P.S. of employees as on 31st March 2022 has been made.

## 7. 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.



### 8. DESIGNATED/EARMARKED/ENDOWMENT FUNDS

- 8.1 This Fund is created from designated fees received from the students for the exclusive purpose of student specific activities.
- 8.2 The Fees received from Students as "Alumni Fees" are also accounted as "Alumni Fund" and shown under Earmarked Fund.
- 8.3 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.
- 8.4 Funds received from Central Seat Allocation Board/Centralized Counseling for M.TECH./M.ARCH./M.PLAN. Admissions used for the admission counseling of students for allocation of seats for Bachelor/PG courses.
- 8.5 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.
- 8.6 MGNREGA Funds received from Department of Rural Development, Uttarakhand Govt. which is utilized for Time and Motion Study under MGNREGA.
- 8.7 R&D Project is shown under Earmarked Fund under **Schedule 2A** on the Sources of Funds of the Balance Sheet and **Schedule 4D & 7A** on the Application of Funds of the Balance Sheet.





### 9. 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.4.15 Crore is set aside from surplus and transferred to Corpus Fund. No part of Grant-in-aid is included in the Surplus.

### 10. GOVERNMENT 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 promotions. 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.

### 11. SPONCERD PROJECTS

- 11.1 In respect of ongoing sponsored projects, the amount received from the sponsors are credited to the head "Current liabilities and Provisions".
- 11.2 Some scholarships paid from the sponsored projects are accounted in the same way as sponsored projects.





## 12. 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

(DR. PRABHAKAR MANI KALA)

PLACE: SRINAGAR (GARHWAL)

DATED: MAY 30, 2022



DIRECTOR

(PROF. LALIT KUMAR AWASTHI)



SCHEDULE: 24

CONTINGENT LIABILITIES AND NOTES TO ACCOUNTS

**1. CONTINGENT LIABILITIES**

As on 31st March 2022 there is no Contingent Liabilities pending on account of Court Cases and other circumstances.

**2. CAPITAL COMMITMENTS**

The value of contracts remaining to be executed on Capital Account and not provided for amount of Rs 1250 lakhs.

**3. FIXED ASSETS**

3.1 Additions in the year to the Fixed Assets in schedule 4 includes Assets purchased out from Scheme 3670 - Grant-in-Aid for National Institute of Technologies and IIST. Significantly and Institute fund.

3.2 Fixed assets as set out in Schedule 4 do not include assets purchased out of funds of sponsored projects, held and used by the institute stipulations that all such assets purchased out of projects funds will remain the property of the sponsors , until and unless the sponsors transfer the same to the Institute. Such Assets are retained in the Departments to be utilized for research activities. The details of such assets are shown in Schedule 4D.



#### 4. CURRENT DEPOSITS & LIABILITIES

4.1 The amount of Rs. 6,95,693/- 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.

4.2 During the FY 2021-22, an amount of Rs. 83,603/- with respect to F.Y. 2020-21 paid in the current year had been shown under prior period expenses.

#### 5. EXPENDITURE IN FOREIGN CURRENCY

During the year Institute has made transactions of US DOLLARS \$268.48/- which is recorded at INR Rs.19,981/-. 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. Details are as under :

a) Travels	: Nil
b) Foreign Drafts for import of chemicals etc.	: Nil
c) Others	: Rs.19,981/-

#### 6. CURRENT ASSETS, ADVANCES AND DEPOSITS

6.1 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.





- 6.2 Prepaid Expenses amounting to Rs 31,277 have been incurred during the year.
7. The details of the balances all the bank accounts of the Institute are enclosed as Annexure "A" to the Schedule of Current Assets.

#### 8. 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.

9. Figures in the final accounts have been rounded off to the nearest rupee wherever it was necessary.

#### 10. SAR OBSERVATIONS AND ACTION TAKEN THEREON:

Following observations have been made in relation to the points raised by the CAG in their report:

##### A) CURRENT ASSETS

- TDS on FDR interest amounting to Rs 8,80,224.00 has been correctly reported as 'claims receivable' under Loans, Advances & Deposits.
- Interest accrued amounting to Rs 1,66,09,702.00 has been correctly reported as 'Income Accrued' under Loans, Advances & Deposits.

##### B) FIXED ASSETS

- Capital work in Progress amounting to Rs 34.84 lacs has been capitalized and depicted under the head 'Site development'.





### C) GENERAL

- Schedule-3(a), Schedule-3(b), Schedule-3(c) and Schedule-4(c) have now been included as an integral part of the balance sheet.
- Detailed account wise balances of all accounts have been given in Schedule 7 and an Annexure "A" is also enclosed with Schedule 7.
- Prepaid Expenses have been depicted in Schedule 8.
- Department wise closing stock amounting to Rs 690923.00 has been disclosed under Current Assets.

11. Schedule 1 to 24 are annexed to and form an integral part of the Annual Accounts 2021-22 and the Income and Expenditure account for the financial year ended on 31<sup>st</sup> March, 2022.



REGISTRAR

(DR. PRABHAKAR MANI KALA)

PLACE: SRINAGAR (GARHWAL)

DATED: MAY 30, 2022




DIRECTOR

(PROF. LALIT KUMAR AWASTHI)

PRANAY BHATT & CO.  
CHARTERED ACCOUNTANTS



Add: B-4, Hill View Enclave, Jogiwala, Dehradun  
Contact: 9634174147; [capranaybhatt@gmail.com](mailto:capranaybhatt@gmail.com)

To,

The Registrar,  
National Institute of Technology Uttarakhand,  
Srinagar (Garhwal), Uttarakhand

Dear Sir,

**Re: Accountant's Report on the Compilation of Financial Statements of National Institute of Technology, Uttarakhand, Srinagar (Garhwal), Uttarakhand for the year ended 31<sup>st</sup> March 2022.**

We have Compiled the attached Balance Sheet of **National Institute of Technology Uttarakhand, Srinagar (Garhwal), Uttarakhand**. As at 31<sup>st</sup> March 2022 and related Income & Expenditure Account along with Receipts & Payments Accounts for the year ended on that date annexed thereto.

These financial statements are the responsibility of the management. The management is responsible for: -

- i) Completeness and accuracy of the underlying data and complete disclosure of all material and relevant information to the accountants;
- ii) Maintaining adequate accounting and other records and internal control and selecting and applying appropriate accounting policies;
- iii) Preparation and presentation of financial statements in accordance with the applicable laws and regulations, if any;
- iv) Establishing controls to safeguard the assets of the entity and preventing and detecting frauds or other irregularities;
- v) Establishing controls for ensuring that the activities of the entity are carried out in accordance with the applicable laws and regulations and preventing and detecting any non-compliance.

The compilation engagement was carried out by us in accordance with the Standard on Related Services (SRS)4410, "Engagements to compile Financial Information", issued by the ICAI.

We report that: -

1. The statement of accounts dealt with this report are in agreement with the books of account.
2. We have not audited or reviewed these financial statements and accordingly express no opinion thereon.

Place: Srinagar (Garhwal)

Dated: MAY 30, 2022

UDIN: 22455340AKCFEV2575



FOR PRANAY BHATT & CO.

Chartered Accountants

  
(CA Pranay Bhatt)

**Separate Audit Report of the Comptroller & Auditor General of India on the accounts of the National Institute of Technology, Uttarakhand for the year ended 31 March 2022.**

We have audited the attached Balance Sheet of the National Institute of Technology, Uttarakhand, Srinagar (Institute) as at 31 March 2022, Income & Expenditure Account and Receipt & Payment Account for the year ended on that date under Section 19(2) of the Comptroller & Auditor General's (Duties, Powers & Conditions of Services) 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 & Auditor General of India (CAG) 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 & regulations (Propriety and Regularity) and efficiency-cum-performance aspects, etc., if any are reported through Inspection Reports/CAG'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 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 & Expenditure Account and Receipt & Payment 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) Balance Sheet**

**(A.1) Fixed Assets (Schedule-4)**

**Capital Work in Progress**

**Rs. 3.46 Crore**

The Institute has depicted Rs. 3.46 crore under Capital Work in Progress for the works related to site development & other construction activity whereas the same has been completed and handed over to the Institute. This resulted in overstatement of 'Capital work in Progress' by Rs. 3.46 crore and understatement of 'Site development' under 'Fixed Assets' (Schedule-4).

**(B) Income & Expenditure Accounts**

**(B.1) Other Income (Sch-13)**

**Rs. 1.33 lakh**

The above included workshop fee amounting to Rs. 1.03 lakh which should have been included in 'Academic Receipt' (Schedule-9). This resulted in overstatement of 'Other Income'(Schedule-13) by Rs. 1.03 lakh and understatement of 'Academic Receipt' (Schedule-9) by the same amount.

**(B.2) Establishment Expenses (Sch-15)**

**Rs. 16.81 Crores**

The above included Rs. 3.36 lakh as Consultancy & professional Expenses related to Audit consultancy and TDS whereas the same should have been included in 'Administrative and General Expenses' (Schedule17). Thus 'Establishment expenses' (Schedule15) is overstated by Rs. 3.36 lakh and 'Administrative and General Expenses (Schedule17) understated by the same amount.

**General**

**(C.1)** The Institute has not disclosed assets purchased out of funds of sponsored projects in its Notes to Account as required under Format of MHRD.

**(C.2)** The Institute has not made provision for Retirement benefits on actuarial basis as required in AS-15.

**(D)** Grants-in-aid

The Institute received Grants-in-aid of Rs. 22.58 crore & Rs. 0.31 crore (Receivable) from Ministry of Education and earned interest of Rs. 0.86 crore. After taking opening balance of Rs. 42.09 crore total funds worked out to Rs. 65.84crore. The Institute utilized Rs. 24.97 crore and refunded an amount of Rs. 3.88 crore leaving a balance of Rs. 36.99 crore as at 31 March 2022.

**(v)** Subject to our observation in the preceding paragraphs, we report that the Balance Sheet, Income & Expenditure 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 March2022; and

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

**Annexure****1. Adequacy of Internal Audit System**

The Institute has no internal audit wing of its own as such the internal audit of the Institute has not been conducted for the year 2021-22.

**2. Adequacy of Internal Control System**

The Internal Control System in the Institute reflected the following deficiencies:

- i. Non fulfillment of 53 vacant posts against 181 sanctioned posts.
- ii. Non traceability of 750 books in the library of the Institute.
- iii. Non-disposal of unserviceable items in the institute.

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

Physical verification of Fixed Assets has been conducted for the year 2021-22.

**4. System of physical verification of Inventories**

The Institute reported for non-existence of 'Inventory management system'.

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

The Institute is regular in payment of statutory dues.



# National Institute of Technology, Uttarakhand

Srinagar, Distt. Pauri Garhwal, Uttarakhand-246174, Ph-1346-257400(0), 251095

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