

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

**ANNUAL REPORT & ANNUAL ACCOUNTS  
2023-24**



**(AUTHENTICATED)**

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

**Dated:-**

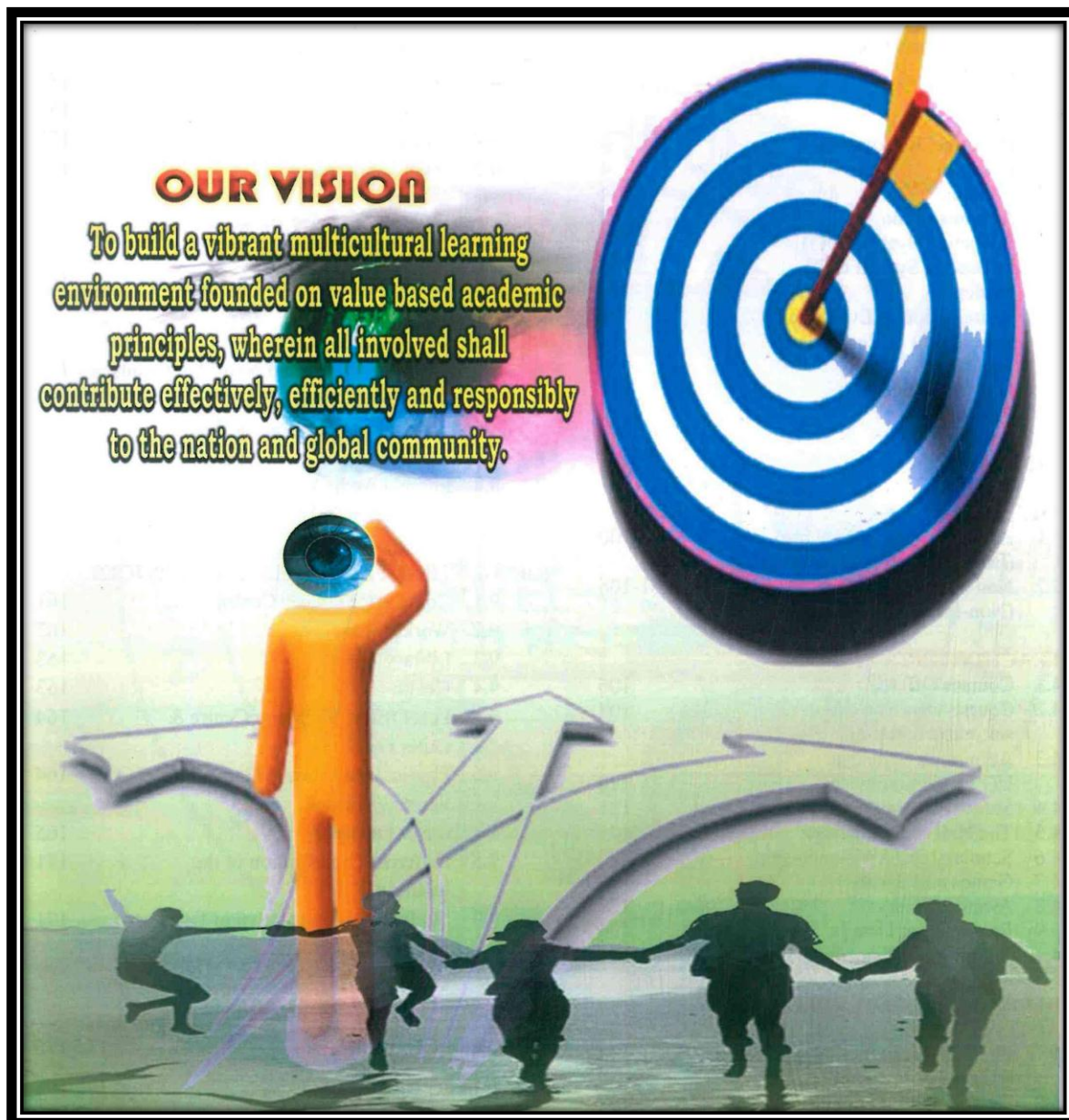
**NATIONAL INSTITUTE OF TECHNOLOGY  
HAMIRPUR (H.P) - 177005**



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## 1.0 Introduction

### 1.1 Vision





## 1.2 Mission

- To achieve academic excellence in engineering, technology, architecture and science by imparting quality and value based education.
- To inspire our students to become responsible citizens and competent professionals with high ethical values.
- To meet the expectations of technical human resource at national and international level.

## 1.3 Goals

**To realize the vision and mission of the Institute following goals are set.**

- Attracting best talent and collaborate globally
- Advance frontiers of knowledge
- Build world class infrastructure to support multi/inter/trans disciplinary research.
- Enhance engagement with Society and Industry
- To take initiatives to achieve financial sustenance
- Outreach activities of National and International level
- To be among top 40 in NIRF ranking of Engineering Institutes
- To develop eco-friendly and green campus
- To continuously evaluate and improve programmes, services and policies

## 1.4 Core Values

The core values adopted by the Institute as enduring principles are Integrity, Excellence, Unity, Accountability, Inclusivity and Empathy.

**Integrity:** To be honest in intension, fair in evaluation, transparent in deeds and adhere to highest standards of ethics in all its activities.

**Excellence:** An unfailing commitment for continuous Improvement and passion to innovate in an environment, encompassing best practices where achievement and merit is duly recognized and acknowledged.

**Unity:** Capacity building through trust in other's abilities and cultivating respect for others as cornerstone of collective efforts.

**Accountability:** To be accountable to the people of India (Through NIT Council and BOG) and all stake holders for the funds it receives from Govt. of India.

**Inclusivity:** No one left behind, no one ignored and decimated, none forgotten in the resolve for nation building through higher learning.

**Empathy:** To identify due space to the problems faced by weaker sections of the society in Research and Educational programmes of the institute.

## **2.0 AN OVERVIEW**

### **2.1 HISTORICAL BACKGROUND**

National Institute of Technology Hamirpur is one of the thirty-one NITs of the country, which came into existence on 7<sup>th</sup> August, 1986 as Regional Engineering College, a joint venture of the Govt. of India and Govt. of Himachal Pradesh.

On 26<sup>th</sup> June 2002, REC Hamirpur was awarded the status of Deemed University and upgraded to National Institute of Technology. NIT Hamirpur is an institute of National importance set up by an act of Parliament namely the National Institute of Technology Act 2007 which received the assent of the President of India on 5<sup>th</sup> June, 2007. The provisions of Act came into force with effect from 15<sup>th</sup> August, 2007 as per notification S.O. 1384 (E) dated 9<sup>th</sup> August, 2007 of the Department of Higher Education, MHRD, New Delhi. The Central Govt issues its First Statutes vide Notification dated 23/04/2009 and since then the Institute is governing under the NITSER Act & Statutes as a Central Technical Institute (CTI).

The goals of the Institute as embodied in logo are truly remarkable in their scope and vision. The Institute offers Bachelor, Master and Doctoral programmes in Engineering, Sciences, Architecture, Management and Humanities. The Institute spares no effort to foster the spirit of national integration among students, a close interaction with industry and laying strong emphasis on research. The institute has the flexibility to evolve and change in response to requirements of the Industry and happenings in technical world. Various programmes serve the purpose of building a comprehensive foundation of knowledge and of enhancing confidence, creativity and innovation in its students.

### **2.2 LOCATION**

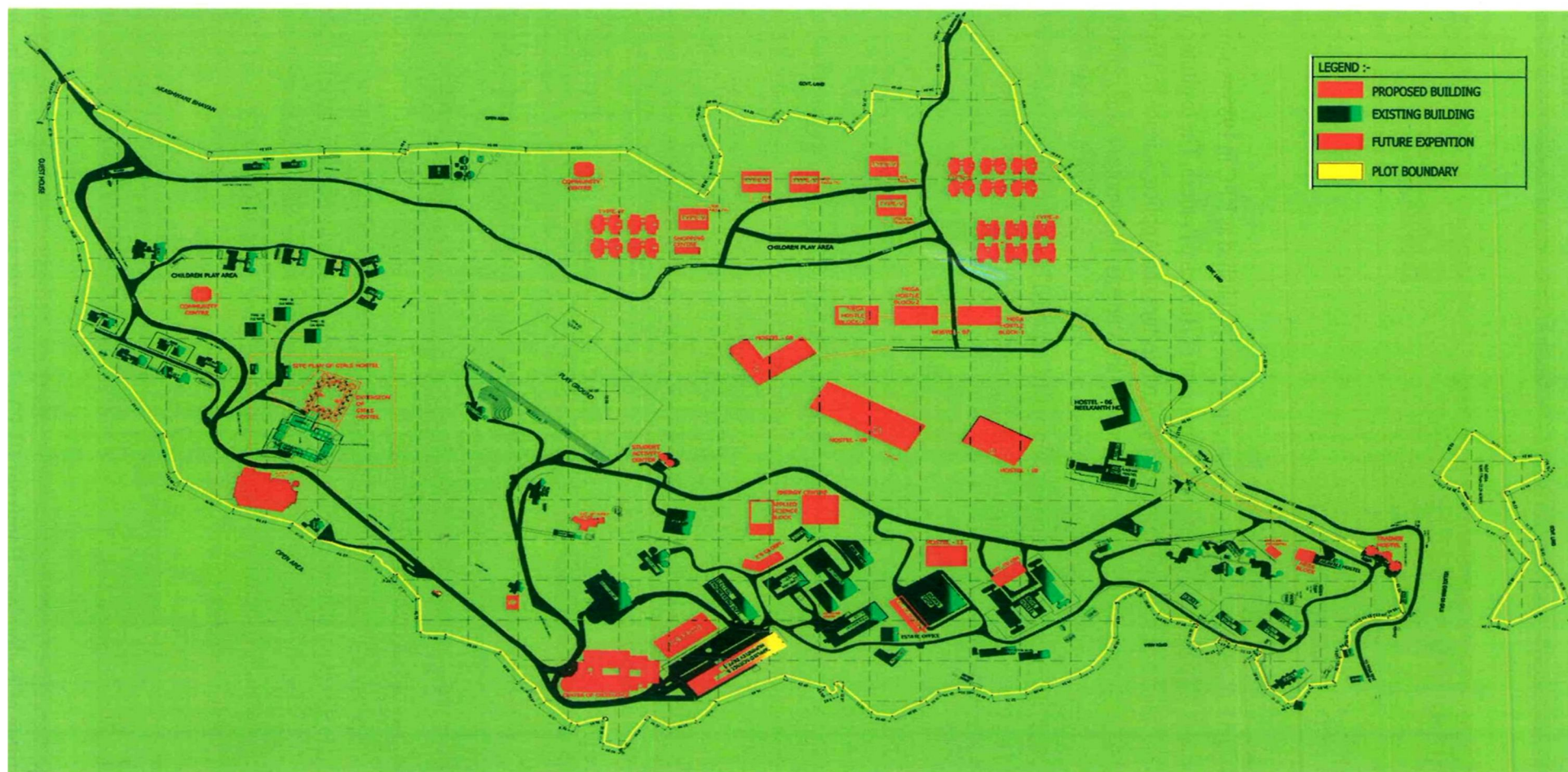
The Institute campus is located on Hamirpur-Awah Devi Road on the outskirts of the Hamirpur town, at a distance of about four (04) kilometer from the bus stand Hamirpur. It is well connected by road from Shimla, Dharmashala, Delhi, Chandigarh, Jalandhar and nearby cities by all weather road. The nearest broad gauge head is at Una (Himachal Pradesh), which is eighty (80) kilometer from Hamirpur. It is about nine hours' journey by

train from Old Delhi to Una and frequent bus services are available from Una to Hamirpur. From Hamirpur bus stand to NIT Campus, taxi services are also available. The nearest airport is at a distance of about eighty five (85) kilometer at Gaggal Kangra at Dharamshala and has direct airlink from Delhi and Chandigarh.

### **2.3 CAMPUS**

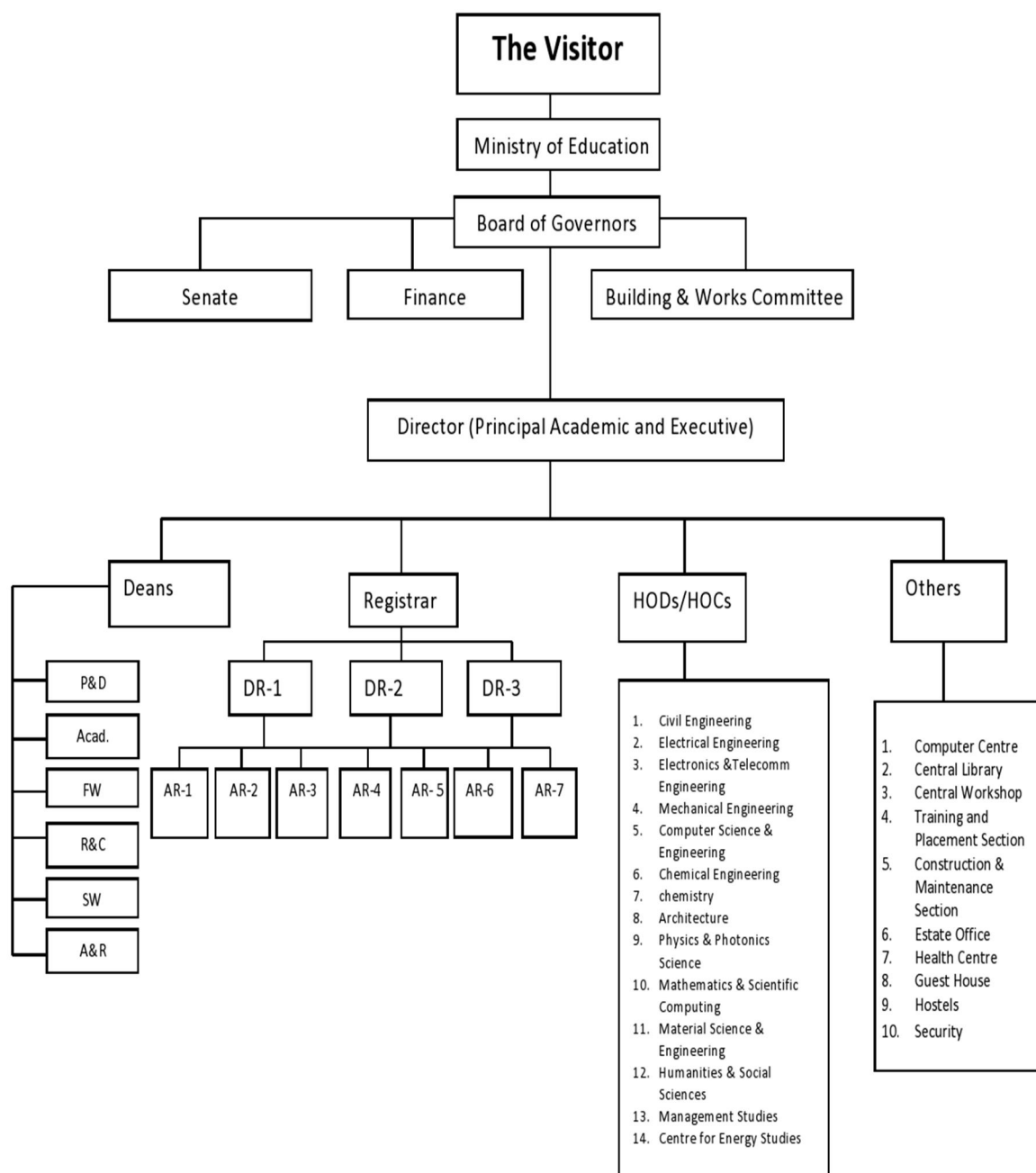
The campus has an area of 177.1 Acres in the picturesque surrounding with lush green pine trees, facing snow clad Dhauladhar mountain ranges. The place has healthy climate with moderate temperature ranging from 4° to 40° at an altitude of 900 meter. It presents a spectacle of harmony in architecture and natural beauty. The land for the Institute has been acquired from the State Government and on this various instructional, administrative, residential buildings, hostels and students' activity centres, openair theatre, auditorium etc. have been constructed.

## Campus Site Plan



## 2.4 ADMINISTRATION

The Director of the Institute is the Principal Academic and Chief Executive Officer and is responsible for proper Administration under the supervision of Board of Governors. He is assist in day-to-day work by the Deans, HODs, Registrar and other Officers and Committee Coordinators of the Institute. The system has been made fully transparent & powers and responsibilities have been abdicated and decentralized.





## 2.5 Academic Section

The office of the Dean (Academic), called the Academic Section, is responsible for the implementation of the decisions taken on academic matters by the SENATE and other Academic bodies. Its functions are as follows:

- i. Receives processes and maintains all records relating to Bachelor, Master and Doctoral Programmes including curricula, courses offered, academic calendar, registration, leave, examinations, grades and award of degrees and prizes.
- ii. Disseminates information pertaining to all relevant academic matters.
- iii. Issues necessary Memoranda/Orders related to Academics.
- iv. Acts as a channel of communication between the students, Departments and other Academic bodies of the Institute.

Academic Section also assists the Academic bodies and its subcommittees in their functioning. Dean (Academic) is the main functionary who ensures the smooth functioning of the academic programmes as approved by the SENATE, executes the policies and decisions of the SENATE and other Academic bodies, and ensures that all records and files are maintained.

## 2.6 Academic Departments

The Institute has following Academic Departments:

S. No.	Name of Department/Centre
1.	Civil Engineering
2.	Electrical Engineering
3.	Mechanical Engineering
4.	Electronics & Communication Engineering
5.	Computer Science & Engineering
6.	Chemical Engineering
7.	Architecture
8.	Mathematics & Scientific Computing
9.	Physics & Photonics Science
10.	Chemistry
11.	Management Studies
12.	Humanities & Social Sciences
13.	Material Science & Engineering
14.	Centre for Energy Studies

## **2.7 Academic Session and Academic Calendar**

### **Academic Session**

The Academic Session of the Institute is divided into two semesters each of approximately eighteen weeks duration.

The semester timeline is defined in the Academic Calendar and is broadly the following:

Semester I (Odd Semester): July to December.

Semester II (Even Semester): January to June.

Each regular semester (odd and even) shall be for thirteen weeks for academic instructions. Generally, the last two weeks of each semester shall be earmarked for the End Semester Examination (ESE) and one week during the semester for Mid Semester Examination (MSE).

### **Academic Calendar**

The exact dates of all the important events, such as orientation, registration, late registration, commencement and end of the classes, submission of documents, examinations, submissions of grades, vacation, mid-semester break, etc., during the Academic Session shall be specified in the Academic Calendar of the Institute. The SENATE shall approve the Academic Calendar prior to start of each Academic Session.

## **2.8 Programmes Offered**

The Institute offers undergraduate, postgraduate and doctoral programmes in various academic Departments/Centres leading to the award of degree of B.Tech., B.Arch., Dual Degree, M.Tech., MBA, MSc and Ph.D. in the disciplines of Engineering, Architecture, Sciences, Social Sciences and Management.

### **2.8.1 UG Programmes**

The following UG Programmes are offered:

#### **B.Tech. Programmes (8 Semesters)**

1. Chemical Engineering
2. Civil Engineering
3. Computer Science and Engineering
4. Electrical Engineering
5. Electronics and Communication Engineering
6. Materials Science and Engineering
7. Mechanical Engineering

8. Mathematics & Computing
9. Engineering Physics

### Dual Degree Programmes (10 Semesters)

1. Computer Science and Engineering
2. Electronics and Communication Engineering

### B.Arch. Programme (10 Semesters)

1. Architecture

### 2.8.2 PG Programmes

The following PG Programmes are offered:

#### M.Tech./M.Arch. Programmes (04 Semesters)

S.No.	Department/Centre	M.Tech. /M.Arch. Programme
1.	Civil Engineering	Geotechnical
		Structures
		Transportation
		Water Resources
		Environment
2.	Electrical Engineering	Power System
		Signal Processing & Control
		Condition Monitoring of Power Apparatus
3.	Mechanical Engineering	Design
		Computational Thermal Engineering
		Manufacturing & Automation
4.	Electronics & Communication Engineering	VLSI Design
		Communication Systems & Networks
5.	Computer Science & Engineering	Computer Science & Engineering
		Artificial Intelligence
6.	Materials Science & Engineering	Materials Science & Engineering
7.	Chemical Engineering	Chemical Engineering
8.	Architecture	M. Arch., (Sustainable Architecture)
9.	Centre for Energy Studies	Energy Technology

**MSc Programmes (04 Semesters)**

Sr. No.	Department	M.Sc.
1.	Physics & Photonics Science	M.Sc. in Physics
2.	Chemistry	M.Sc. in Chemistry
3.	Mathematics & Scientific Computing	M.Sc. in Mathematics & Computing

**MBA Programmes (04 Semesters)**

Master of Business Administration programme is offered by the Department of Management Studies.

**2.8.3 Ph.D. Programmes**

The Ph.D. programmes are offered by the following Departments in various areas of research specialization:

S.No.	Department	Area of Research
1.	Architecture	Architecture, Planning
2.	Civil Engineering	Water Resources, Environment Engineering, Remote Sensing, Geotechnical Engineering & Geology, Structural & Transportation Engineering
3.	Computer Science & Engineering	Networking, Artificial Intelligence, Information Security
4.	Electronics & Communication Engineering	Communication and Networks, VLSI Design, RF and Microwave
5.	Electrical Engineering	Power System, Signal Processing & Control, Instrumentation, Power Electronics & Drives, High Voltage Engineering
6.	Mechanical Engineering	Design, Thermal, Production & Industrial, Energy Technology
7.	Chemical Engineering	Computational Fluid Dynamics, Electrochemical Engineering, Biochemical & Bioprocess Engineering

8.	Materials Science & Engineering	Polymer Matrix Composites/ Nano-composites, Physical/Mechanical Metallurgy, Functional Oxide Materials (Ceramic/Thin Films/Nanoparticles)
9.	Chemistry	Organic Chemistry, Inorganic Chemistry, Physical Chemistry
10.	Physics & Photonics Science	Condensed Matter Physics, Nuclear Physics, High Energy Physics
11.	Mathematics & Scientific Computing	Pure Mathematics, Applied Mathematics, Statistics
12.	Management Studies	Management
13.	Humanities & Social Sciences	Economics, Sociology, Psychology, Behavioural and Social Sciences
14.	Centre for Energy Studies	Solar, PV, Solar Thermal, Bio-Energy, Environment, Wind Energy

## 2.9 Admissions

Number of students admitted during 2023-24 are as follows:

Programme	Number of Students Admitted
UG Programmes (B.Tech./B.Arch./Dual Degree)	923
PG Programmes (M.Tech./M.Arch./MSc/MBA)	299
PhD Programmes	74

Number of students registered (For all Semesters) in different programmes are:

Programme	Number of Students Registered
B.Tech.[All Semesters]	3227
B.Arch. [All Semesters]	270
Dual Degree [All Semesters]	450
M.Tech. [All Semesters]	451
M.Arch. [All Semesters]	25
MSc. [All Semesters]	127
MBA [All Semesters]	60
Ph.D. [All Semesters]	272
Total	4882

### 2.9.1 UG Programmes

The admissions to various UG Programmes (B.Tech., B.Arch. and Dual Degree) are made once in a year normally during June-July. The admission details (2023-24) are as under:

S.No.	Programme	Sanctioned Intake	Actual Admission
<b>B.Tech. Programmes</b>			
1.	Chemical Engineering	76	72
2.	Civil Engineering	123	122
3.	Computer Science and Engineering	124	125
4.	Electrical Engineering	125	124
5.	Electronics and Communication Engineering	117	116
6.	Mechanical Engineering	125	125
7.	Materials Science and Engineering	40	38
8.	Mathematics & Computing	50	48
9.	Engineering Physics	50	48
<b>Dual Degree Programmes</b>			
1.	Computer Science and Engineering	28	27
2.	Electronics and Communication Engineering	28	27
<b>B.Arch. Programme</b>			
1.	Architecture	58	51
<b>Total:</b>		<b>944</b>	<b>923</b>

### 2.9.2 PG Programmes

The admission to PG programmes are made once in an academic year in the beginning of Odd Semester. The students admitted in various PG programmes during 2023-24 are as follows



SNo	M.Tech./M.Arch. Programme	Sanctioned Intake			Actual Admission
		CCMT	Self Finance	Total	
	Civil Engineering Geotechnical)	19	6	25	18
	Civil Engineering (Structures)	19	6	25	18
	Civil Engineering (Transportation)	19	6	25	19
	Civil Engineering (Water Resources)	19	6	25	11
	Civil Engineering (Environment)	19	6	25	15
	Electrical Engineering (Power System)	19	6	25	15
	Electrical Engineering (Signal Processing & Control)	19	6	25	5
	Electrical Engineering (Condition Monitoring of Power Apparatus)	19	6	25	4
	Mechanical Engineering (Computational Thermal Engineering)	19	6	25	3
	Mechanical Engineering (Design)	19	6	25	6
	Mechanical Engineering (Manufacturing & Automation)	19	6	25	7
	Electronics & Communication Engineering (VLSI Design)	19	6	25	15
	Electronics & Communication Engineering (Communications Systems & Networks)	19	6	25	7
	Computer Science & Engineering (Artificial Intelligence)	19	6	25	23
	Computer Science & Engineering	19	6	25	22
	Chemical Engineering	19	6	25	0
	Material s Science & Engineering	19	6	25	0
	Energy Technology	19	6	25	7
	Sustainable Architecture	19	6	25	8
<b>Total</b>		<b>361</b>	<b>114</b>	<b>475</b>	<b>203</b>

SNo	MSc Programme	Sanctioned Intake	Actual Admission
	M.Sc. in Physics	25	21
	M.Sc. in Chemistry	25	19
	M.Sc. in Mathematics and Computing	25	23
<b>Total</b>		<b>75</b>	<b>63</b>
SNo	MBA Programme	Sanctioned Intake	Actual Admission
	Master of Business Administration	40	33

### 2.9.3 Ph.D. Programmes

The admissions to the Ph.D. programmes are made in either or both of the two regular semesters as per decision of SENATE from time to time. Admission shall normally be made in May-June for the Odd Semester and in November-December for the Even Semester. The numbers of students admitted during 2023-24 in various Departments are as follows:

S.No.	Department	Candidates Admitted with MHRD Fellowship	Candidates Admitted Under Other Schemes
1.	Architecture	01	-
2.	Civil Engineering	13	-
3.	Computer Science & Engineering	06	05
4.	Electronics & Communication Engineering		03
5.	Electrical Engineering	01	01
6.	Mechanical Engineering	07	-
7.	Chemical Engineering	02	-
8.	Materials Science & Engineering	-	-
9.	Chemistry	03	-
10.	Physics & Photonics Science	06	-
11.	Mathematics & Scientific Computing	05	08
12.	Management Studies	04	-
13.	Humanities & Social Sciences	03	04

14.	Centre for Energy Studies	01	01
<b>Total</b>		<b>52</b>	<b>22</b>

## 2.10 Results

The summary of results is as follows:

Programme	Students Passed in 2023-24
UG Programmes (B.Tech./B.Arch./Dual Degree) [Final Year]	825
PG Programmes (M.Tech./M.Arch./MSc/MBA) [Final Year]	299
PhD Programmes	35

The results of various programmes are as follows:

### 2.10.1 UG Programmes

Sr. No.	Programme	Students Admitted in 2019-20	Students Passed in 2023-24
<b>B.Tech. Programmes</b>			
1.	Chemical Engineering	64	62
2.	Civil Engineering	118	114
3.	Computer Science and Engineering	120	117
4.	Electrical Engineering	122	121
5.	Electronics and Communication Engineering	116	115
6.	Mechanical Engineering	121	122
7.	Material Science & Engineering	31	31
<b>Total</b>		<b>692</b>	<b>682</b>
<b>Dual Degree Programmes</b>			
		Students Admitted in 2018-19	Students Passed in 2023-24
1.	Computer Science and Engineering	56	56
2.	Electronics and Communication Engineering	56	54
<b>B.Arch. Programme</b>			
1.	Architecture	39	33
<b>Total</b>		<b>151</b>	<b>143</b>
<b>Grand Total</b>		<b>843</b>	<b>825</b>

**2.10.2 PG Programmes**

S. No.	M.Tech./M.Arch. Programme	Students Admitted 2021-22	Students Passed 2023-24
1.	Civil Engineering (Geotechnical)	23	23+1=24 (Part Time)
2.	Civil Engineering (Structures)	24	22
3.	Civil Engineering (Transportation)	25	23
4.	Civil Engineering (Water Resources)	13	12
5.	Civil Engineering (Environmental Engineering)	22	21
6.	Electrical Engineering (Power System)	11	9
7.	Electrical Engineering (Signal Processing & Control)	5	6
8.	Electrical Engineering (Condition Monitoring of Power Apparatus)	7	7
9.	Mechanical Engineering (Thermal)	8	6
10.	Mechanical Engineering (Design)	8	9
11.	Mechanical Engineering (Manufacturing)	5	5
12.	Mechanical Engineering (Energy Technology)	2	2
13.	Electronics & Communication Engineering (Communication Systems & Networks)	4	4
14.	Electronics & Communication Engineering (VLSI Design)	14	11
15.	Computer Science & Engineering (Computer Science & Engineering)	23	18
16.	Computer Science & Engineering (Artificial Intelligence)	20	18
17.	Chemical Engineering (Chemical Engineering)	6	6
18.	Materials Science & Engineering (Material Science & Engineering)	0	0

19.	M.Arch. (Sustainable Architecture)	17	16
<b>Total</b>		<b>237</b>	<b>219</b>
<b>Dual Degree</b>			
1	Computer Science & Engineering	58	54
2	Electronics and Communication Engineering	58	56
<b>Total</b>		<b>116</b>	<b>110</b>
<b>S.No.</b>	<b>M.Sc. Programme</b>	<b>Students Admitted 2021-22</b>	<b>Students Passed 2023-24</b>
1.	Physics	23	17
2.	Chemistry	23	19
3.	Mathematics & Computing	23	21
<b>Total</b>		<b>66</b>	<b>57</b>

<b>S.No.</b>	<b>MBA Programme</b>	<b>Students Admitted in 2021-22</b>	<b>Students Passed in 2023-24</b>
1.	Management Studies	22	18
<b>Total</b>		<b>22</b>	<b>18</b>

### 2.10.3 PhD Programmes

<b>S.No.</b>	<b>Department</b>	<b>PhDs Awarded</b>
1.	Architecture	01
2.	Civil Engineering	07
3.	Computer Science & Engineering	09
4.	Electronics & Communication Engineering	03
5.	Electrical Engineering	07
6.	Mechanical Engineering	-
7.	Chemical Engineering	--
8.	Materials Science & Engineering	01
9.	Chemistry	04
10.	Physics & Photonics Science	01
11.	Mathematics & Scientific Computing	02
12.	Management Studies	--
13.	Humanities & Social Sciences	--
14.	Centre for Energy Studies	-
<b>Total</b>		<b>35</b>

## AWARD AND MEDALS

### MEDALS

Roll No.	Name	CGPI	Branch
195006	Spriha Gautam	9.89	Computer Science & Engineering

### GOLD MEDAL TO 1<sup>ST</sup> BRANCH TOPPERS B.TECH./ DUAL DEGREE/B.ARCH.

Roll No.	Name	CGPI	Branch
191014	Anshul Choudhary	9.62	Civil Engineering
192016	Yamini Sharma	9.67	Electrical Engineering
193108	Tushar Chauhan	9.85	Mechanical Engineering
194064	Parth Saini	9.63	Electronics & Communication Engineering
184553	Satvik Sharma	9.27	Electronics & Communication Engineering (Dual Degree)
195017	Pushdeep Singh	9.96	Computer Science & Engineering
185501	Ishant Kumar	9.67	Computer Science & Engineering (Dual Degree)
197027	Anjali Mehra	9.13	Chemical Engineering
198011	Pranay Hingwasiya	9.47	Materials Science & Engineering
186045	Mitali Bajaj	9.11	Architecture

### GOLD MEDAL TO 1<sup>ST</sup> BRANCH TOPPERS M.TECH./DUAL DEGREE/ M.ARCH./MSC/MBA

Branch	Specialization	Name	Roll No.	CGPI
<b>Civil Engineering</b>	Geotechnical	Anish Pandit	21MCE001	9.45
	Structures	Mohammad Farhan Shaikh	21MCE106	9.73
	Transportation	Abhishek	21MCE201	9.59
	Water	Rajnish Chaudhary	21MCE306	9.73



	Resources			
	Environment	Rachita Gupta	21MCE410	9.55
<b>Electrical Engineering</b>	Power System	Komal Sharma	21MEE004	9.91
	Signal Processing & Control	Jayaprakash Katual	21MEE102	8.50
	Condition Monitoring of Power Apparatus	Patil Shubham Dadaso	21MEE204	8.91
<b>Mechanical Engineering</b>	Thermal	Shuchi Chaurasia	21MME007	9.68
	Design	Ankit Sharma	21MME101	9.27
	Manufacturing	Arpit Jamalta	21MME204	9.45
	Energy Technology	Deepalika	21MME304	9.55
<b>Electronics &amp; Communication Engineering</b>	VLSI Design	Ramandeep Kour	21MEC007	9.27
	Communication Systems & Networks	Pratyush Patel	21MEC104	9.27
	Electronics & Communication Engineering (Dual Degree)	Satvik Sharma	184553	9.40
<b>Computer Science &amp; Engineering</b>	Computer Science & Engineering	Aanchal Kushwaha	21MCS001	9.41
	Artificial Intelligence	Varsha Bhawanishanker Maheshwari	21MCS114	9.41
	Computer Science & Engineering (Dual Degree)	Ishant Kumar	185501	9.80
<b>Chemical Engineering</b>	Chemical	Diksha Suri	21MCH006	8.91

	Engineering			
<b>Architecture</b>	Sustainable Architecture	Abhirami H Nair	21MAR001	9.42
		Akshatha Narayan	21MAR003	9.42
<b>Master of Science</b>	Physics	Karan Roy	21MPH008	9.79
	Chemistry	Sourabh Singh	21MCY011	9.87
	Mathematics & Computing	Manish Singh	21MMA014	9.42
<b>Management Studies</b>	Master of Business Administration	Shama Ghorela	21MMB002	9.23

**SILVER MEDAL TO B.TECH/ DUAL DEGREE / B. ARCH.**

Roll No.	Name	CGPI	Branch
197006	Saksham Sood	9.57	Civil Engineering
192006	Yugank Sharma	9.66	Electrical Engineering
193056	Himanshu Dwivedi	9.50	Mechanical Engineering
194031	Abhay Singh	9.56	Electronics & Communication Engineering
184522	Arush Singh Koundal	9.09	Electronics & Communication Engineering (Dual Degree)
195015	Riya Sharma	9.95	Computer Science & Engineering
185511	Vishal Guleria	9.64	Computer Science & Engineering (Dual Degree)
197026	Ishika Singh	9.11	Chemical Engineering
198003	Premashish Ghosh	9.27	Materials Science & Engineering
186013	Anuj Sharma	8.98	Architecture

**BRONZE MEDAL TO B.TECH./DUAL DEGREE/B.ARCH.**

Roll No.	Name	CGPI	Branch
191036	Mukul Sengar	9.56	Civil Engineering
192013	Atharv Sood	9.34	Electrical Engineering
193058	Dibakar Chaudhary	9.48	Mechanical Engineering

194009	Gautam Rana	9.33	Electronics & Communication Engineering
194030	Ujjwal Chaudhary	9.33	
184509	Snehal Saini	9.02	Electronics & Communication Engineering (Dual Degree)
195008	Avishrant Sharma	9.90	Computer Science & Engineering
185512	Swayam Kaul	9.54	Computer Science & Engineering (Dual Degree)
197032	Aditya Rana	9.08	Chemical Engineering
198038	Raviranjana Kumar	9.11	Materials Science & Engineering
186015	Komanshi Saini	8.78	Architecture

### 2.11 Placement:

The Training & Placement Cell was established in this Institute in the year 1995. Since then lot of activities are being conducted within the ambit of this cell for the benefit of the students and faculty.

### 2.12 Games & Sports:

National Institute of Technology, Hamirpur is one of the premier technical institutes in Northern India. The Institute presently provides sports facilities for both indoor and outdoor activities. A standard size stadium with the provision of pavilion has been provided to the students where the games like Cricket, Football, Hockey, Basket Ball, Lawn Tennis and Athletics are played. The facilities of separate Basket ball and lawn tennis court with the provision of flood lights have also been provided to our students. We have got the provision of indoor hall for Badminton and other indoor games and gymnasium facilities with latest physical fitness machines for both boys and girls separately. The facilities of Billiards and pool table for our students and staff have also been provided.



**2.13 Staff Position:****2.13.1 Head of the Institute:**

Sr. No.	Name of the post	Sanctioned strength	In position
1	Director	01	01-Prof. Hiralal Murlidhar Suryawanshi

**Academic Staff:**

Sr. No.	Name of the Post	Sanctioned Strength	In Position					
			SC	ST	OBC	EWS	Gen	Total
1	Asst. Prof. or equivalent	153	16	05	22	02	58	103
2	Assoc. Prof. or equivalent	62	04	00	02	00	61	67
3	Professor or equivalent	46	00	00	00	00	18	18

**2.13.2 Staff Position:****Faculty**

TOTAL FACULTY 2023-24 (In-Position)				
Name of Department	Professor	Associate Professor	Assistant Professor	Total Faculty in position
DoCE	03	10	10	23
DoEE	04	06	12	22
DoME	03	10	09	22
DoECE	01	10	13	24
DoCSE	01	06	14	21
DoCHE	00	03	08	11
DoMSC	02	02	09	13
DoCHY	00	03	03	06
DoPPS	00	05	06	11
DoHSS	00	02	05	07
DoMS	00	02	04	06
CES	01	01	00	02
DoMSE	01	01	03	05
DoARC	02	05	07	14
Phy.Edu.	00	01	00	01
<b>TOTAL</b>	<b>18</b>	<b>67</b>	<b>103</b>	<b>188</b>

**2.13.3 (A) Officers:**

Sr. No.	Name of the Post	Sanctioned Strength	In Position
1.	Registrar	01	01
2.	Deputy Registrar	03	02
3.	Assistant Registrar	07	06
4.	Executive Engineer(Level-11)	01	00
5.	Executive Engineer (Level-10)	02	02
6.	Assistant Librarian	02	01
7.	Sr. Medical Officer	01	01
8.	Medical Officer	01	00
9.	Sr. Scientific Officer	04	03
10.	Scientific/Technical Officer	04	01
	<b>Total</b>	<b>26</b>	<b>17</b>

**\* Officiating****B .Technical Higher:**

Sr. No.	Name of the Post	Sanctioned Strength	In Position
1	Technical Assistant/ Junior Engineer/ SAS Assistant/Library Information Assistant	32	01
2	Sr. Technical Assistant/ Assistant Engineer/ Sr. SAS Assistant/ Sr. Library Information Assistant/Pharmacist SG-II	22	02
3	Technical Assistant (SG -II) Assistant Engineer SG-II/ SAS Assistant (SG-II)/Library Assistant SG-II	16	10
4	Technical Assistant (SG-I) Assistant Engineer SG-/ SAS Assistant (SG-I)/ Library Assistant SG-I	08	04
	<b>Total</b>	<b>78</b>	<b>17</b>

**C Technical Lower:**

Sr. No.	Name of the Post	Sanctioned Strength	In Position
1	Technician	30	25
2	Sr. Technician	23	14
3	Technician (SG-II), Pharmacist	17	16



4	Technician (SG-I)	08	02
	<b>Total</b>	<b>78</b>	<b>57</b>

**D Administrative/Stenographer (Higher):**

Sr. No.	Name of the Post	Sanctioned Strength	In Position
1	Superintendent/ Accountant	07	04
2	PA	02	02
3	Sr. Superintendent	05	01
4	Sr. PA	01	01
5	Superintendent SG-(II)/ PS	04	03
6	Superintendent SG-(I)	02	01
	<b>Total</b>	<b>21</b>	<b>12</b>

**E Administrative/Stenographer (Lower):**

Sr. No.	Name of the Post	Sanctioned Strength	In Position
1	Jr. Assistant	18	16
2	Sr. Assistant/ Stenographer	12	11
3	Assistant(SG-II) / Sr. Stenographer	09	08
4	Assistant (SG-I)/ Stenographer (SG-II)	05	06
5	Stenographer (SG-I)	01	00
	<b>Total</b>	<b>45</b>	<b>41</b>

**F Supporting Staff:**

Sr. No.	Name of the Post	Sanctioned Strength	In Position
1	Office Attendant/ Lab Attendant	15	--
2	Sr. Office Attendant/ Sr. Lab Attendant	12	08
3	Attendant (SG-II)/ Lab Attendant (SG-II)	08	21
4	Attendant (SG-I)/ Lab Attendant (SG-I)	04	08
	<b>Total</b>	<b>39</b>	<b>37</b>
	<b>Total (A to F)</b>	<b>287</b>	<b>181</b>

**2.13.4 TEMPORARY FACULTY 2023-24:-**

Sr. No.	Name of faculty members	Name of Deptt./Centre	Date of Joining	Remarks
1.	Mr. Sahabaz Quadri	DoArch.	31/08/2023	
2.	Mr. Shiv Dayal Singh	DoArch.	31/08/2023	
3.	Mr. Priyank Jain	DoArch.	01/09/2023	
4.	Ms. Komal Thakur	DoArch.	08/09/2023	
5.	Mr. Kartik Vashishath	DoArch.	08/09/2023	
6.	Dr. Antaram Narayan Sarve	DoCHE	04/09/2023	(Resigned)
7.	Dr. Puneet Siwach	DoCHE	06/09/2023	(Resigned)
8.	Dr. Pratibha	DoHSS	04/09/2023	
9.	Dr. Minakshi Rana	DoHSS	06/09/2023	(Resigned)
10.	Dr. Nikhil Bhardwaj	DoHSS	08/09/2023	
11.	Dr. Rajat Kango	DoCE	31/08/2023	
12.	Dr. Kavimathi K	DoCE	06/09/2023	
13.	Dr. Saikat Das	DoCE	05/09/2023	
14.	Dr. S.K. Sohel Islam	DoCE	06/09/2023	
15.	Dr. Tanuj Bala	DoCSE	31/08/2023	
16.	Dr. Pooja Sharma	DoCSE	31/08/2023	
17.	Dr. Meghna Dhalaria	DoCSE	31/08/2023	
18.	Ms. Meenakshi Nayyar	DoCSE	31/08/2023	
19.	Ms. Vidyotma	DoCSE	31/08/2023	
20.	Mr. Shubham	DoCSE	31/08/2023	
21.	Dr. Pushpendra Kumar	DoCSE	31/08/2023	
22.	Ms. Pooja Rani	DoCSE	31/08/2023	
23.	Mr. Dipender Singh	DoCSE	01/09/2023	
24.	Mr. Keshav Kaundal	DoCSE	01/09/2023	
25.	Ms. Pratibha Singh	DoCSE	01/09/2023	
26.	Dr. Navneet Singh	DoPPS	31/08/2023	
27.	Dr. Pooja Singh Not in Role	DoPPS	31/08/2023	(Resigned)
28.	Dr. Gaurav Katoch	DoPPS	01/09/2023	
29.	Dr. Varun Ranade	DoPPS	04/08/2023	(Resigned)
30.	Dr. Sanjay Kumar	DoMSC	31/08/2023	

31.	Dr. Sumit Koul	DoMSC	31/08/2023	(Resigned)
32.	Dr. Surjeet	DoMSC	01/09/2023	
33.	Dr. Deepti Surya	DoMSC	05/09/2023	
34.	Dr. Manu Vatsal	DoCHY	31/08/2023	
35.	Dr. Himanshu	DoCHY	06/09/2023	
36.	Dr. Abhishek Gupta	DoMSE	31/08/2023	
37.	Dr. Sumeet Kumar Sharma	DoMSE	31/08/2023	
38.	Dr. Abhilash Gunti	DoMSE	04/09/2023	(Resigned)
39.	Dr. Abhijeet Ojha	DoMSE	06/09/2023	
40.	Dr. Sukriti Tiwari	DoEE	31/08/2023	(Resigned)
41.	Dr. Paramjeet Singh Jamwal	DoEE	01/09/2023	
42.	Dr. Swati Katwal	DoEE	01/09/2023	
43.	Dr. Anshu Thakur	DoECE	01/09/2023	
44.	Dr. Apoorva Dwivedi	DoECE	01/09/2023	
45.	Dr. Kali Dass	DoME	01/09/2023	
46.	Dr. Pratima Mishra	DoMS	31/08/2023	
47.	Dr. Adya Isha	CES	06/09/2023	
48.	Ms. Akansha Soni	DoArch.	12/09/2023	
49.	Dr. Kodeeswari M	DoECE.	12/09/2023	
50.	Dr. Anita Chalka	DoHSS	18/09/2023	
51.	Dr. Monika Sethi	DoMSC	01/01/2024	
52.	Dr. Smriti Bansal	DoMSC	01/01/2024	
53.	Dr. Rajat Syal	DoPPS	25/01/2024	
54.	Dr. Shankita Bhardwaj	DoPPS	09/02/2024	

### 2.13.5 RELIEVED:

Sr. No.	Name of faculty members	Name of Department	Date of Relieving
1	Dr. Dharmendra Singh Yadav	DoECE	27/06/2023
2	Dr. Rajesh Kumar	DoME	21/08/2023
3	Dr. Ankit	DoECE	05/01/2024
4	Dr. Pankaj Gautam	DoMSC	26/02/2024

**2.13.6 Retiree Faculty:**

Sr. No.	Name of faculty members	Name of Department	Date of Relieving
-	-	-	-

**2.13.7 Faculty on Lien**

Sr. No.	Name of faculty members	Name of Department	On Deputation
1)	Dr. Lalit Kumar Awasthi, Professor	DoCSE	VC, SPU Mandi
2)	Dr. Pushpendra Singh	DoECE	JNU New Delhi

**2.13.8 New Appointment:**

S.No.	Name	Stream	Designation
1.	Dr. Umesh Pandey	DoCE	Associate Professor
2.	Dr.Chander Prakash	DoCE	Associate Professor
3.	Dr. Sunil Sharma	DoCE	Associate Professor
4.	Dr. Amrit Kumar Roy	DoCE	Associate Professor
5.	Dr Hemant Kumar Vinayak	DoCE	Associate Professor
6.	Dr. Amit Kaul	DoEE	Associate Professor
7.	Dr. Sant Ram Chauhan	DoME	Associate Professor
8.	Dr.Prashant Kumar	DoME	Associate Professor
9.	Dr.Debasish Das	DoME	Associate Professor
10.	Dr. Mohit Pant	DoME	Associate Professor
11.	Dr. Krishan Kumar	DoECE	Associate Professor
12.	Dr. Manoranjan Rai Bharti	DoECE	Associate Professor
13.	Dr. Philemon Daniel	DoECE	Associate Professor
14.	Dr. Rohit Dhiman	DoECE	Associate Professor
15.	Dr. Mahesh Angira	DoECE	Associate Professor
16.	Dr. Pardeep Singh	DoCSE	Associate Professor
17.	Dr. Tapas Palai	DoCHE	Associate Professor
18.	Dr Amit Arora	DoCHE	Associate Professor
19.	Dr. Kalyan Sunder Ghosh	DoCHY	Associate Professor
20.	Dr. Manoj Sharma	DoHSS	Associate Professor
21.	Dr. Vivek Tiwari	DoMS	Associate Professor
22.	Dr.Mohd.Adil	DoMS	Associate Professor
23.	Dr. Vandana Sharma	DoARC	Associate Professor
24.	Dr. Aniket Sharma	DoARC	Associate Professor
25.	Dr. Puneet Sharma	DoARC	Associate Professor
26.	Dr Ashwani Kumar	DoARC	Associate Professor
27.	Dr. Mamta Awasthi	CES	Associate Professor

28.	Dr. K. Nallasivam	DoCE	Asstt. Prof. Gr-I
29.	Dr. Dharmendra	DoCE	Asstt. Prof. Gr-I
30.	Dr. Ray Singh Meena	DoCE	Asstt. Prof. Gr-I
31.	Dr. Manendra Singh	DoCE	Asstt. Prof. Gr-I
32.	Dr. Vimal Kumar	DoCE	Asstt. Prof. Gr-I
33.	Dr. Himesh Handa	DoEE	Asstt. Prof. Gr-I
34.	Dr. Rajesh Kumar	DoEE	Asstt. Prof. Gr-I
35.	Dr. Bharti Koul	DoEE	Asstt. Prof. Gr-I
36.	Dr. Ram Niwash Mahia	DoEE	Asstt. Prof. Gr-I
37.	Dr Vivek Sharma	DoEE	Asstt. Prof. Gr-I
38.	Dr Chandrasekaran S.	DoEE	Asstt. Prof. Gr-I
39.	Dr. Jiwanjot Singh	DoEE	Asstt. Prof. Gr-I
40.	Dr. Param Singh	DoME	Asstt. Prof. Gr-I
41.	Dr. Akhilesh Kumar Choudhary	DoME	Asstt. Prof. Gr-I
42.	Dr. Ajoy Debharma	DoME	Asstt. Prof. Gr-I
43.	Dr. Dilshad Ahmad Khan	DoME	Asstt. Prof. Gr-I
44.	Dr. Deepak Sharma	DoME	Asstt. Prof. Gr-I
45.	Dr. Laxmikant Yadav	DoME	Asstt. Prof. Gr-I
46.	Dr Anshul Sharma	DoME	Asstt. Prof. Gr-I
47.	Dr. Rakesh Sharma	DoECE	Asstt. Prof. Gr-I
48.	Dr. Aman Kumar	DoECE	Asstt. Prof. Gr-I
49.	Dr. Amit Bage	DoECE	Asstt. Prof. Gr-I
50.	Dr. Saurabh Kumar	DoECE	Asstt. Prof. Gr-I
51.	Dr. Chandra Shekhar Prasad	DoECE	Asstt. Prof. Gr-I
52.	Dr. Abhijit Bhattacharyya	DoECE	Asstt. Prof. Gr-I
53.	Dr. Sandeep Kumar Singh	DoECE	Asstt. Prof. Gr-I
54.	Dr. Rajeev Kumar	DoCSE	Asstt. Prof. Gr-I
55.	Dr. Nitin Gupta	DoCSE	Asstt. Prof. Gr-I
56.	Dr. Dharmendra Prasad Mahato	DoCSE	Asstt. Prof. Gr-I
57.	Dr. Arun Kumar Yadav	DoCSE	Asstt. Prof. Gr-I
58.	Dr. Priyanka	DoCSE	Asstt. Prof. Gr-I
59.	Dr. Jyoti Srivastava	DoCSE	Asstt. Prof. Gr-I
60.	Dr. Sangeeta Sharma	DoCSE	Asstt. Prof. Gr-I
61.	Dr. Mohit Kumar	DoCSE	Asstt. Prof. Gr-I
62.	Dr. Arvind Kumar Gautam	DoCHE	Asstt. Prof. Gr-I
63.	Dr. Pooja Thakur	DoCHE	Asstt. Prof. Gr-I
64.	Dr. Rahul Saha	DoCHE	Asstt. Prof. Gr-I
65.	Dr. Suket Kumar	DoMSC	Asstt. Prof. Gr-I
66.	Dr. Om Prakash Yadav	DoMSC	Asstt. Prof. Gr-I
67.	Dr. Subit Kumar Jain	DoMSC	Asstt. Prof. Gr-I
68.	Dr. Rifaqat Ali	DoMSC	Asstt. Prof. Gr-I
69.	Dr. Talari Ganesh	DoMSC	Asstt. Prof. Gr-I
70.	Dr. Raj Kaushal	DoCHY	Asstt. Prof. Gr-I
71.	Dr. Jai Prakash	DoCHY	Asstt. Prof. Gr-I
72.	Dr Sandeep Sharma	DoPPS	Asstt. Prof. Gr-I

73.	Dr. Sunder Kala Negi	DoHSS	Asstt. Prof. Gr-I
74.	Dr. Manoj Kumar Yadav	DoHSS	Asstt. Prof. Gr-I
75.	Dr Preeti Puri	DoHSS	Asstt. Prof. Gr-I
76.	Dr. Sachin Kumar	DoMS	Asstt. Prof. Gr-I
77.	Dr. Neeraj Dhiman	DoMS	Asstt. Prof. Gr-I
78.	Dr. Shampy Kamboj	DoMS	Asstt. Prof. Gr-I
79.	Dr. Richa Joshi	DoMS	Asstt. Prof. Gr-I
80.	Dr. Rita Maurya	DoMSE	Asstt. Prof. Gr-I
81.	Dr. Raj Bahadur Singh	DoMSE	Asstt. Prof. Gr-I
82.	Dr Vikram Verma	DoMSE	Asstt. Prof. Gr-I
83.	Dr. Amanjeet Kaur	DoARC	Asstt. Prof. Gr-I
84.	Dr. Venu Shree	DoARC	Asstt. Prof. Gr-I
85.	Dr. Neetu Kapoor	DoARC	Asstt. Prof. Gr-I
86.	Dr.Sandeep Sharma	DoARC	Asstt. Prof. Gr-I
87.	Dr. Rashmi Kumari	DoARC	Asstt. Prof. Gr-I
88.	Dr Aditi Chauhan	DoCE	Asstt. Prof. Gr-II
89.	Dr Meghna Sharma	DoCE	Asstt. Prof. Gr-II
90.	Dr Swaraj Chowdhury	DoCE	Asstt. Prof. Gr-II
91.	Dr Kunjari Mog	DoCE	Asstt. Prof. Gr-II
92.	Dr. kirti Mahajan	DoCE	Asstt. Prof. Gr-II
93.	Dr. Supriya Jaiswal	DoEE	Asstt. Prof. Gr-II
94.	Dr Sreeram TS	DoEE	Asstt. Prof. Gr-II
95.	Dr Katam Nishant	DoEE	Asstt. Prof. Gr-II
96.	Dr. Upasana Sharma	DoEE	Asstt. Prof. Gr-II
97.	Dr Pankaj Kumar Mishra	DoEE	Asstt. Prof. Gr-II
98.	Dr Mahavir Singh	DoME	Asstt. Prof. Gr-II
99.	Dr. Niharika Gupta	DoME	Asstt. Prof. Gr-II
100.	Dr. Poonam	DoECE	Asstt. Prof. Gr-II
101.	Dr Mohammad Khalid Pandit	DoCSE	Asstt. Prof. Gr-II
102.	Dr Ram Prakash Sharma	DoCSE	Asstt. Prof. Gr-II
103.	Dr Preeti Soni	DoCSE	Asstt. Prof. Gr-II
104.	Dr Ajay Kumar Mallick	DoCSE	Asstt. Prof. Gr-II
105.	Dr. Robin Singh Bhadoria	DoCSE	Asstt. Prof. Gr-II
106.	Dr Manish Kumar Dhiman	DoCHE	Asstt. Prof. Gr-II
107.	Dr Hammad Siddiqi	DoCHE	Asstt. Prof. Gr-II
108.	Dr. Niloy De	DoCHE	Asstt. Prof. Gr-II
109.	Dr Jeetendrasingh Maan	DoMSC	Asstt. Prof. Gr-II
110.	Dr Soniya Chaudhary	DoMSC	Asstt. Prof. Gr-II
111.	Dr Pankaj Kumar	DoMSC	Asstt. Prof. Gr-II
112.	Dr Jagannath Kuchlyan	DoCHY	Asstt. Prof. Gr-II
113.	Dr Abhishek Singh	DoPPS	Asstt. Prof. Gr-II
114.	Dr Neetika	DoPPS	Asstt. Prof. Gr-II
115.	Dr. Biswaranjan Das	DoPPS	Asstt. Prof. Gr-II
116.	Dr. Nisha	DoPPS	Asstt. Prof. Gr-II
117.	Dr. Avijit Dewasi	DoPPS	Asstt. Prof. Gr-II

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118.	Dr Rinshu Dwivedi	DoHSS	Asstt. Prof. Gr-II
119.	Dr Zareena J.M.	DoHSS	Asstt. Prof. Gr-II
120.	Dr Sourojee Dutta	DoARC	Asstt. Prof. Gr-II
121.	Dr Swechha Roy	DoARC	Asstt. Prof. Gr-II

### 3.1 DEPARTMENT OF CHEMICAL ENGINEERING



#### 1. ACADEMIC STAFF:-

**Head of the Department:** Dr. Alok Garg (from August 2023)

**Faculties:-**

Professor	Associate Professor	Assistant Professor
-----	1. Dr. Alok Garg 2. Dr. Amit Arora 3. Dr. Tapas Palai	1. Dr. Radhe Shyam 2. Dr. Subhajit Majumder 3. Dr. Arvind Kumar Gautam 4. Dr. Pooja Thakur 5. Dr. Rahul Saha 6. Dr. Hammad Siddqi 7. Dr. Manish Kumar Dhiman 8. Dr. Niloy De

#### Technical Staff:-

1. Mr Subhash Chand (On outsourcing basis)
2. Mrs. Praveen Kumari (On outsourcing basis)
3. Mr. Akash Sharma (Senior Technician)
4. Mr. Mukesh Chawla (Senior Technician)

#### Ministerial Staff:-

1. Mrs. Deepika Banyal, Clerk (On outsourcing basis)
2. Mr. Kehar Singh, Office Attendant



## 2. DISTINCTION ACHIEVED:

### a) FDP/STC/Workshops organized

S. No.	Name of Faculty	FDP/STC/Workshops organized
1.	Dr. Alok Garg	eSTC- AEET 2023 (Nov 20-24, 2023)
2.	Dr. Amit Arora	eSTC- AEET 2023 (Nov 20-24, 2023)
3.	Dr. Pooja Thakur	eSTC- PAICEE 2024 (Jan 15-19, 2024)
4.	Dr. Subhajit Majumder	e-STC- PAICEE 2024 (Jan 15-19, 2024)
5.	Dr. Manish Kumar Dhiman	e-STC - Advanced Computational Methodologies in Industrial Applications (Jan 17-21, 2024)
6.	Dr. Arvind Kumar Gautam	e-STC - Advanced Computational Methodologies in Industrial Applications (Jan 17-21, 2024)

## 3. Research Publication

### Papers published by Faculties:

S.No.	Name of Faculty	Title of the paper	Name of Journal/Conference in which paper published
1.	Dr. Alok Garg	Photocatalytic Degradation of Ofloxacin in Wastewater Using Mg, Ni CO-Doped TiO <sub>2</sub> Catalyst	Chemical Engineering & Technology; SCI
2.	Dr. Tapas Palai	Adsorptive Removal of Arsenic(III) from Contaminated Water Using Rice Husk, Tea Waste and Sugarcane Bagasse Bio-adsorbents	Water, Air, & Soil Pollution, 234: 308, 1-19, Springer Nature Publication; SCI
3.	Dr. Tapas Palai	Electrochemical Reduction of CO <sub>2</sub> to Useful Fuel: Recent Advances and Prospects	Journal of Applied Electrochemistry, 53 (7), 1295-1319, Springer Nature Publication; SCI
4.	Dr. Tapas Palai	TITLE CITED BY YEAR Microbial Electrosynthesis of Valuable Chemicals from the Reduction of CO <sub>2</sub> : A Review	Environmental Science and Pollution Research (Accepted), Springer Nature Publication; SCI
5.	Dr. Amit Arora	Hydrothermal Carbonisation as Treatment for Effective Moisture Removal from Digestate—Mechanical Dewatering, Flashing-Off, and	Energies; SCI

		Condensates' Processing ,16, 5102, 1-9.	
6.	Dr. Amit Arora	An Experimental and Modeling Study for a Novel Bank-Type Earth Air Heat Exchanger for the Summer Season Using Full Factorial Design,15(2): 021006 (12 pages)	Journal of Thermal Science and Engineering Application (American Society of Mechanical Engineer, ASME) ; SCI
7.	Dr. Amit Arora	Influence of Hydrothermal Carbonization on Catalytic Fast Pyrolysis of Agricultural Biomass,13, 4190, 1-16.	Applied Sciences; SCI
8.	Dr. Subhajit Majumder	A Holistic Analysis of Chemical Process Performance using Pinch Technology (Accepted)	Indian Chemical Engineer; ESCI
9.	Dr. Subhajit Majumder	Energy Integration of Hydrodealkylation (HDA) of Toluene (Accepted)	Materials Today: Proceedings; SCOPUS
10.	Dr. Subhajit Majumder	Numerical Study on the Flow of Bingham Plastic Fluids Around an Array of Cylinders	Materials Today: Proceedings; SCOPUS
11.	Dr. Rahul Saha	Retention of Surfactant by Solid-Liquid Interaction and the Process of Improving Oil Recovery by Inducing Hydrophilic Particles, 37 (18), 13734-13750	Energy & Fuels; SCI
12.	Dr. Rahul Saha	Adsorption behavior of surfactants on sandstone reservoir rocks with carbonate cements and its influence on wettability alteration, 1-16	Journal of Surfactant and Detergent; SCI
13.	Dr. Pooja Thakur	Numerical study on the flow of Bingham plastic fluids around an array of cylinders	Materials Today: Proceedings; SCOPUS
14.	Dr. Pooja Thakur	A Holistic Analysis of Chemical Process Performance using Pinch Technology (Accepted)	Indian Chemical Engineer; ESCI
15.	Dr. Pooja Thakur	Energy Integration of Hydrodealkylation (HDA) of Toluene (Accepted)	Materials Today: Proceedings; SCOPUS
16.	Dr. Manish	CFD simulations of vapour cloud	Journal of Loss Prevention;

	Kumar Dhiman	explosions using PDRFoam	SCI
17.	Dr. Hammad Siddiqi	In-situ synthesis of efficient ZnCl <sub>2</sub> doped pyrolyzed biochar for adsorptive remediation of organic dyes: Performance evaluation, mass transfer and mechanism, Vol. 329, pp. 125096.	Separation and Purification Technology; SCI
18.	Dr. Hammad Siddiqi	Interpreting crystallographic and microcrystalline structural effect for demineralization of low-grade thermal coal in multi-stage chemical leaching: A cleaner combustion approach, Vol. 435, pp. 119435	Powder Technology; SCI
19.	Dr. Hammad Siddiqi	Pyrolysis of household coffee vis-à-vis tea waste: A detailed insight into physicochemical properties, kinetics, and thermodynamics study, Vol. 17, pp. 100587	Chemical Engineering Journal Advances; SCOPUS
20.	Dr. Hammad Siddiqi	A cumulative study on pyrolysis of waste motor oil exploring the design and development of a fixed-bed laboratory scale setup with emphasis on process parameter optimization, COMSOL simulation and preliminary risk assessment, Vol. 185, pp. 1219-1231.	Process Safety and Environmental Protection; SCI

### Book Chapter

- A Kumar, A Verma, T Palai, LM Aeshala, Valorization of Dairy Industry Waste into Functional Food using Lactase, in Thermochemical and Catalytic Conversion for Future Biorefineries, Springer Nature Singapore Pte Ltd. Accepted in 2023.
- Bahiru Tsegaye , Rashaq Abolore , Amit Arora , Swarna Jaiswal and Amit K. Jaiswal, Biohydrogen production from agro-industry waste (green hydrogen): current and future outlooks ( Addition in Agri-food Industry Waste Through Enzyme Technology), Academic Press ( Elsevier), 978-0-323-89928-4,2023.
- A. K. Gautam, N. Pingua, A. Chandra, R. K. Arya, DOMESTIC WASTE MANAGEMENT AND THEIR UTILIZATION, Springer Nature Singapore Pvt. Ltd., 9789813346895, 2024.
- A. K. Gautam,N. Pingua, A. Chandra,S. Kamsonlian, Production of Bio fuels: an Overview on Biodiesel Production from Waste Cooking Oil, IIP Publisher, Michigan, USA, 978-1-68576-456-2, 2024.
- Ritesh S. Malani and Rahul Saha, Improved Enhanced Oil Recovery - Role of Sonication: An Overview, Bentham Books, 978-981-5049-85-5, 2023.

- Pooja Thakur, Subhajit Majumder, A. Thakur, Microalgae Synthesis for Biodiesel Production: Sustainable Clean Energy Production using Waste Biomass - Sustainable energy production and utilization In Clean Energy Production Technologies, Springer-Nature, Accepted, In-press, 2024.
- Subhajit Majumder, Pooja Thakur, A. Thakur, Conventional Methods and Technological Advancements of Ethanol Production from Lignocellulosic Biomass: Sustainable Clean Energy Production using Waste Biomass - Sustainable energy production and utilization In Clean Energy Production Technologies, Springer-Nature, Accepted, In-press, 2024.

### **Conference Publication**

1. A Kumar, L M Aeshala, T Palai, "Development of Bio-electrode for reduction of CO<sub>2</sub> to formate using Escherichia coli", Poster presentation in International Conference on CHEMCON-2023, December 27-30, 2023, HIT Kolkata, India.
2. Radhe Shyam, Deepa Kumar, Sonam Gopaldasji Rajpuriya," Heat Transfer Enhancement Over Spirally Corrugated Tube Placed in Non-Newtonian Power-law Fluid',presentation in 6th International Conference on Frontiers in Industrial and Applied Mathematics (FIAM-2023), December 21-22, 2023 held at Department of General Sciences, BITS Pilani Dubai Campus, UAE.
3. Uddeshya Gangwar, Radhe Shyam," CFD Study of Heat Transfer Enhancement in a Rib-Groove Corrugated Channel Using Nano-Fluids", presentation in International Conference on Energy Transition: Challenges and Opportunities at Chemical Engineering Congress, Indian Institute of Chemical Engineers (CHEMCON-2023) during December 27-30, 2023 held at Heritage Institute of Technology, Kolkata.
4. Rahul Gupta, Subhajit Majumder," Energy Integration of Hydrodealkylation (HDA) of Toluene", presentation in 4th National Conference on Advances in Chemical Engineering and Science (ACES 2023).
5. Arvind K. Gautam, Nandlal Pingua, Yashwant Shukla" Computational analysis on thermodynamic aspects of relaxation phenomena in supercooled liquid water at different cooling" presentation in ACES-2023, IISER Bhopal, India.
6. Pooja Thakur, N. Tiwari and R. P Chhabra," Numerical Study on the Flow of Bingham Plastic Fluid over the Array of Rough Cylinders: An Analysis of Porous Flow" presentation in AJKFED (ASME-JSME-KSME), July 10-13, 2023, Osaka, Japan.
7. De, N., Singh, N., Fulcrand R., Méheust Y., Meunier P., Nadal F.," Convective dissolution of carbon dioxide in 2D watersaturated porous media: an experimental study in two-dimensional micromodels" presentation in EGU general assembly (EGU2023), Vienna, Austria, April, 2023; Scopus.

- i) **Patent: 04**
- ii) **Doctoral Programme:** This department is running Doctoral Programme.
- iii) **Master Thesis completed: 06**
- iv) **Ph.D. Degree awarded: Nil**
- v) **Popular Lectures by outside experts: Nil**
- vi) **Expert Lecturer delivered by faculty: 08**

### Invited Talk/Expert Lecture Delivered

- Invited Lecture on “Bioremediation of Heavy Metals from Wastewater”, at Online Short Term Course entitled Advances in Energy and Environment for Sustainable Development (AEESD 2023), organized by Dr. B.R. Ambedkar NIT Jalandhar, India, 2023.
- Expert Lecture on “Advanced Chromatographic Techniques for Chemical & Biochemical Analysis” at Online Short-Term Course entitled Principles of Analytical Instruments for Chemical and Environmental Engineers (PAICEE-2024), organized by NIT Hamirpur, India, 2024.
- Expert Lecture on “Application of Artificial Neural Networks for the Modelling of Wastewater Treatment” at One Week Online Short-Term Course (e-STC) on “Advanced Environmental and Energy Techniques” (AEET: 2023) Day & Date: Monday, 20th November 2023, organized by Department of Chemical Engineering, National Institute of Technology, Hamirpur, 2023.
- Expert Lecture on “Advanced molecular simulation approach to study the defined renewable energy system” at e-STC Green and Sustainable Energy Technologies (GSET-2023), organized by Advanced molecular simulation approach to study the defined renewable energy system, 2023.
- Expert Lecture on “Employment and scope of molecular simulation approach in chemical engineering” at Online webinar Series on Chemical Engineering organized by MGM University, India, 2023.
- Expert Lecture on “Numerical Studies on the Flow of Bingham Plastic Fluid Over a Cylinder for Varying Surface Roughness” at Soft Matter Young Investigator's Meet (SMYIM) 2023 organized by Ramnagar Uttarakhand, 2023.
- Expert Lecture on “Numerical Study on the Flow of Bingham Plastic Fluid over the Array of Rough Cylinders: An Analysis of Porous Flow” at AJKFED (ASME-JSME-KSME), July 10-13, 2023, Osaka, Japan organized by Japan, 2023.
- Expert Lecture on “Research Basic Concepts Sampling, Research Design “at e-STC on “Statistical Analysis in Research: Basics to Advanced” from 24-28 July 2023 organized by Department of Management Studies NIT Hamirpur.

### 5. Equipment Purchase

Sr. No	Name of Equipment	Qty	Name of Manufacturer / Supplier	Cost in Rs.
1.	Air Compressor	01	M/s SRS Sales Organisation, Bikaner Rajasthan	Rs. 19,499.00
2.	DC Regulated Power Supply	01	M/s Natural Science Equipments, Centre Sala-133104	Rs. 23,850.00
3.	Deep Freezer Horizontal	01	M/s Media Mind 70HS/DC Industrial Estate Ambala Cantt	Rs. 4,79,000.00
4.	Lyophilizer Model	01	M/s Metrex Scientific Instruments	Rs. 3,48,900.00

	MFD-TT		Pvt. Ltd. , New Delhi	
5.	Remi Refrigerated Centrifuge with LCD Display	01	M/s Remi Electro Technik Limited , Palaghar	Rs. 4,96,500.34
6.	Peristaltic Pump	01	M/s Virtual Instrumentations, Chennai	Rs. 23,400.00
7.	Sieve Shaker	01	M/s Media Mind , Ambala Cantt	Rs. 1,24,990.00
8.	Liquid Liquid Extraction	01	M/s Rescholar Equipment 85, Ambala Cantt	Rs. 4,45,710.00
9.	Solid Liquid Extraction	01	M/s Rescholar Equipment 85, Ambala Cantt	Rs. 4,71,250.00
10.	Force Draft Tray Drier	01	M/s Rescholar Equipment 85, Ambala Cantt	Rs. 3,96,590.00
11.	Cascade and Ratio Control Trainer Flow and level	01	M/s V Instruments Plot No. c2, Madurai, Tamil Nadu	Rs. 3,89,999.99
12.	PC Based Pressure Control Trainer	01	M/s V Instruments Plot No. c2, Madurai, Tamil Nadu	Rs. 2,80,000.08
13.	High Quality Water Purification Systems	01	M/s Helix Technology, Chandigarh	Rs. 12,97,998.99
14.	Workstation	01	M/s Netweb Technologies India Ltd.	Rs. 4,99,555.00

## 6. DETAILS OF LABORATORIES:

- Fluid Mechanics Lab
- Chemical Reaction Engineering Lab
- Process Dynamic and Control Lab
- Mechanical Unit Operation Lab
- Mass Transfer Lab
- Process Simulation Lab
- Chemical Technology Lab
- Heat Transfer Lab
- Industrial Pollution Abatement Lab
- Thermodynamics Lab.
- Research Lab

### 3.2 DEPARTMENT OF CIVIL ENGINEERING



**Head: Dr. V.K.Bansal Associate Professor**

Sr. No.	Name of Faculty	Designation
<b>PROFESSOR</b>		
1.	Dr. R.K.Sharma	Professor
2.	Dr. Raman Parti	Professor
3.	Dr. R.K.Dutta	Professor
<b>ASSOCIATE PROFESSOR</b>		
1.	Dr. Pardeep Kumar	Associate Professor
2.	Dr. R.S.Banshtu	Associate Professor
3.	Dr.S.S. Katoch	Associate Professor
4.	Dr. V.S.Dogra	Associate Professor
5.	Dr. V.K.Bansal	Associate Professor, HEAD OF DEPARTMENT
6.	Dr. Amrit Kumar Roy	Assistant Professor Grade-1
7.	Dr. Umesh Kumar Pandey	Assistant Professor Grade-1
8.	Dr. Chander Prakash	Assistant Professor Grade-1
9.	Dr. Sunil Sharma	Assistant Professor Grade-1
10.	Dr. Hemant Kumar Vinayak	Assistant Professor Grade-1
<b>ASSISTANT PROFESSOR Gr.I &amp; II</b>		
1.	Dr. Dharmendra	Assistant Professor Grade-1
2.	Dr. K. Nallasivam	Assistant Professor Grade-1
3.	Dr. Manendra Singh	Assistant Professor Gr-I
4.	Dr. Ray Singh Meena	Assistant Professor Gr-I
5.	Dr.Vimal Kumar	Assistant Professor Gr-I

6.	Dr. Meghna Sharma	Assistant Professor, Gr.II
7.	Dr. Aditi Chauhan	Assistant Professor, Gr.II
8.	Dr. Kunjri Mog	Assistant Professor, Gr.II
9.	Dr. Swaraj Chowdhury	Assistant Professor, Gr.II
10.	Dr. Kirti Mahajan	Assistant Professor, Gr.II
<b>TEMPORARY FACULTY ON CONTRACT BASIS</b>		
1.	Dr. Rajat Kango	Assistant Professor, Gr.II
2.	Dr. Kavinmathi K	Assistant Professor, Gr.II
3.	Dr.S.K Sohel Islam	Assistant Professor, Gr.II

## RESEARCH PUBLICATIONS

Year	Author (s)	Title & Vol. No.	Journal Name	Indexing (SCI) Web of Science/ Scopus
2023	Juneja, Gaurav, and Ravi Kumar Sharma	Numerical Study on the behaviour of geocell-reinforced sand layer overlying soft clay subgrade	Indian Geotechnical Journal	SCOPUS
2023	Bhardwaj A., Sharma R.	Influence of industrial wastes and lime on strength characteristics of clayey soil	Magazine of Civil Engineering	SCOPUS
2023	Kumar, Ankit, and Ravi Kumar Sharma	Numerical analysis of inclined granular pile anchor subjected to uplift forces in expansive soil using abaqus	Journal of Mining and Environment	SCOPUS
2023	Sharma, Vivek, Ravi Kumar Sharma, and Pardeep Kumar	Estimation of Ground Motion Amplification for sub Himalayan Strata due to Hypothetical Earthquake Motions	Journal of Mining and Environment	SCOPUS/ESCI
2023	Guleria, Kashitij, and Ravi Kumar Sharma	Improvement of geotechnical properties of soil using calcium carbide, waste foundry sand and polypropylene fibre	Journal of Mining and Environment	SCOPUS/ESCI
2023	Dilta, Lokeshwar Singh, and Ravi Kumar Sharma	Numerical analysis of strip footing behaviour on a hollow pile stabilized clay slope	Journal of Mining and Environment	SCOPUS/ESCI
2023	Khan, Imran, and Ravi Kumar Sharma	Bearing capacity evaluation of square footing resting on reinforced sand	Journal of Mining and Environment	SCOPUS/ESCI
2023	Juneja, Gaurav, and Ravi Kumar Sharma	Experimental and Numerical analysis of geocell reinforced base layer with different infill materials overlying clay	Journal of Hazardous, Toxic, and Radioactive Waste	SCOPUS/ESCI
2023	Bhardwaj, Avinash, and Ravi Kumar Sharma	Experimental and Numerical Investigations on the Bearing Capacity of Footings on the Layered Soil	International Journal of Geosynthetics and Ground Engineering	SCOPUS
2023	Thakur, Vinay, and Ravi Kumar Sharma	Experimental Evaluation on Behavior of Geocell-Geogrid Reinforced Sand Subjected to Combined Static and Cyclic Loading	Indian geotechnical journal	SCOPUS
2023	N. Pandey, K. Dogra, R. Parti, S. Biswas	Estimation of Influence Width and Shy-away distance of parallel curb parking on undivided urban roads :a theoretical approach	Innovative Infrastructure Solutions	Scopus
2023	Himanshu Yadav, A K Roy, Sai Charan Dasu, Pardeep Kumar, Arun Chanotra,	Wind Responses on Twin Box Girder Bridge Deck Using a Fluid- Structure Interaction Approach	Asian Journal of Civil Engineering	SCOPUS
2023	Japneet Sidhu, Pardeep Kumar,	Development of hydrophobicity in geopolymer composites-Progress and Perspectives	Construction and Building Materials,	SCI
2023	Nisha Saharan, Pardeep Kumar and Joy Pal	Convolutional neural network-based structural health monitoring framework for wind turbine blade	Journal of Vibration and Control	SCI
2023	Navsal Kumar, Arunava Poddar and Vijay Shankar	Kumar, N., Poddar, A., & Shankar, V. (2023). Evaluation of an empirical equation to compute the nonlinearity parameter of a root water uptake model. Irrigation and Drainage, 72(2), 408-421.	Irrigation and Drainage	SCOPUS
2023	Suman Kumari, Ankush Chaudhary and Vijay Shankar	Kumari, S., Chaudhary, A., & Shankar, V. (2023). Modelling of rainfall threshold for the initiation of landslides in lesser Himalayan region using THRESH. Modeling Earth Systems and Environment, 9, 3207–3215.	Modeling Earth Systems and Environment	SCOPUS
2023	Shuying Yu, Jian Peng, Pei Xia, Qi Wang, Robert C Grabowski, Adani Azhoni, Brij Bala,	Yu, S., Peng, J., Xia, P., Wang, Q., Grabowski, R. C., Azhoni, A., Bala, B., Shankar, V., & Meersmans, J. (2023). Network analysis of water-related ecosystem services in search of solutions for sustainable catchment management: A case study in Sutlej-Beas River	Ecosystem Services	SCI and SCOPUS



	Vijay Shankar, and Jeroen Meersmans	systems, India. Ecosystem Services, 63, 101557.		
2023	Sonu Singh, Vijay Shankar and Joseph Tripura	Singh, S., Shankar, V., & Tripura, J. (2023). An Overview of Relationship between Hydro-Thermo-Mechanical Soil Parameters and Electrical Resistivity. Journal of Mining and Environment, 14(1), 97-112.	Journal of Mining and Environment	SCOPUS
2023	Sonu Singh, Vijay Shankar and Joseph Tripura	Singh, S., Shankar, V., & Tripura, J. (2023). Hydrogeophysical Survey for Assessment of Groundwater Budget and Aquifer Protection in Hilly Terrain. Journal of Mining and Environment, 14(4), 1061-1079.	Journal of Mining and Environment	SCOPUS
2023	CSP Ojha, Vijay Shankar, Navsal Kumar and N. S. Chauhan	Ojha, C. S. P., Shankar, V., Kumar, N., & Chauhan, N. S. (2023). Evaluation of discharge coefficients for bottom rack flow under constant and variable specific energy. ISH Journal of Hydraulic Engineering, 29(2), 103-114.	ISH Journal of Hydraulic Engineering	SCOPUS
2023	Abhishish Chandel, Vijay Shankar and Navsal Kumar	Chandel, A., Shankar, V., & Kumar, N. (2023). Neural computing techniques to estimate the hydraulic conductivity of porous media. Water Supply. 23(6), 2586-2603.	Water Supply	SCI and SCOPUS
2023	Kapoor, N., and Bansal, V.K.	Planning at site-level in hill regions using geodesign-based approach.	International Review for Spatial Planning and Sustainable Development, 11(4), 1-18.	Scopus
2023	Bansal, V.K.	A road-based 3D navigation system in GIS, a case study of an institute campus.	International Journal of Applied Geospatial Research (IJAGR), 14(1), 1-20.	Scopus
2023	Kumar, A, Sharma, R.K., and Bansal, V.K.	Spatial prediction of landslide hazard using GIS-multicriteria decision analysis in Kullu District of Himachal Pradesh, India.	Journal of Mining and Environment, 13(4), 943-956.	Scopus
2023	Surya Pratap Singh, Amrit Kumar Roy	Application of Machine Learning to Predict the Dimensionless Bearing Capacity of Circular Footing on Layered Sand under Inclined Loads	Indian Journal of Engineering & Materials Sciences	SCI
2023	Himanshu Yadav, Amrit Kumar Roy, Ajay Kumar, Anoop Kumar, Nitin Chauhan, Vijay Kumar	Analysis of retaining walls along the Beas River's meandering curve	Structures	SCI
2023	Alankrit Walia, Surya Pratap Singh, Amrit Kumar Roy	Simulation of structure collapse in a Himachal Pradesh, India location prone to landslides	Himalayan Geology	SCI
2023	AK Roy, Himanshu Yadav, Sai Charan Dasu, Pardeep Kumar, Arun Chanotra	Wind responses on twin box girder bridge deck using a fluid-structure interaction approach	Asian Journal of Civil Engineering	SCOPUS
2023	Himanshu Yadav, Amrit Kumar Roy, Anoop Kumar	The Influence of Interactions Between Two High-Rise Buildings on the Wind-Induced Moment	Asian Journal of Civil Engineering	SCOPUS
2023	Surya Pratap Singh, Amrit Kumar Roy	Machine learning techniques to predict the dimensionless bearing capacity of circular footing on layered sand under inclined loads	Multiscale and Multidisciplinary Modeling, Experiments and Design	ESCI, SCOPUS
2024	Himanshu Yadav, Amrit Kumar Roy	Study of wind-induced forces on high-rise buildings under interference conditions	Asian Journal of Civil Engineering	SCOPUS
2023	Gyanendra Kumar Chaturvedy; Umesh Kumar Pandey & Harit Kumar	Effect of graphene oxide on the microscopic, physical and mechanical characteristics of rubberized concrete	Journal of Innovative Infrastructure Solutions (Springer, Switzerland), Vol-8(6) Article-163	SCOPUS/Emerging SCI/SCImago/ProQuest
2023	Gyanendra Kumar Chaturvedy; Umesh Kumar Pandey & Maninder Pal Singh	Analyzing the behavior of graphene oxide on high-strength rubberized concrete properties using different optimization techniques	Diamond and Related Materials (Elsevier) Vol.140(B),1-12	SCOPUS/SCI/SCImago/ProQuest
2024	Gyanendra Kumar Chaturvedy & Umesh Kumar Pandey	Investigating the effect of graphene oxide on the physical and mechanical properties of high-strength rubberized concrete using RStudio	Journal of Multiscale and Multidisciplinary Modeling (Springer)	SCOPUS/Emerging SCI/SCImago/ProQuest
2024	Gyanendra Kumar Chaturvedy & Umesh Kumar Pandey	Influence of Graphene oxide on the long term durability behavior of high-strength rubberized concrete	Fullerenes, Nanotubes and Carbon Nanostructures (Taylor & Francis) Vol.-32(1) 22-33	SCOPUS/SCI/SCImago/ProQuest
2024	Mohit Kansotia; Gyanendra Kumar Chaturvedy & Umesh Kumar Pandey	Influence of nano-silica and crumb rubber on the physical and durability characteristics of concrete	Journal of Multiscale and Multidisciplinary Modeling (Springer)	SCOPUS/SCI/SCImago/ProQuest
2024	Raman Saini; Gyanendra Kumar Chaturvedy & Umesh Kumar Pandey	Examining the effect of nano iron oxide on the physical and mechanical characteristics of rubberized concrete	Journal of Innovative Infrastructure Solutions (Springer, Switzerland)	SCOPUS/SCI/SCImago/ProQuest

2023	Amol Sharma, Chander Prakash, Estifanos Lemma Goshu & Rajat Sharma	An artificial intelligence based framework to analyze the landside risk of a mountainous highway	Geocarto International	SCIE
2023	Amol Sharma, Chander Prakash	Impact Assessment of Road Construction on Landslide Susceptibility in Mountainous Region using GIS-Based Statistical Modelling	Journal of the Geological Society of India	SCI
2023	Anita Sharma, Chander Prakash	Glacial lakes mapping using satellite images and deep learning algorithms in Northwestern Indian Himalayas	Modeling Earth Systems and Environment	Scopus
2024	Anita Sharma, Vansheika Thakur, Chander Prakash, Amol Sharma & Rajat Sharma	Deep Learning-Based Glacial Lakes Extraction and Mapping in the Chandra-Bhaga Basin	Journal of the Indian Society of Remote Sensing	SCIE, Scopus
2023	Smily Vishwakarma, Dharmendra, and Deven Singh	Seasonal Variation in Physico-chemical Characteristics of Domestic Wastewater in Himachal Pradesh: a Case Study	Journal of Mining and Environment (JME)	Scopus
2023	Vishwakarma, S., Dharmendra, D., Singh, R., Bharti, B., & Ankita, A.	Engineering Properties of Substrate used in Constructed Wetlands Treating low Strength Sewage under Tropical Conditions 9 (4), 1-10.	Pollution	Scopus
2023	Surbhi Aswal and K. Nallasivam	"Static response of a multi-span suspension bridgesubjected to highway vehicle loading". <a href="https://doi.org/10.1007/s42107-023-00585-6">https://doi.org/10.1007/s42107-023-00585-6</a>	Asian Journal of Civil Engineering	Scopus(Springer); Q-3
2023	MohammadFarhan Shaikh and Nallasivam .K	"Dynamic Response of a Box-Girder Bridge Using theFinite Element Technique". <a href="https://doi.org/10.1007/s42107-023-00633-1">https://doi.org/10.1007/s42107-023-00633-1</a>	Asian Journal of Civil Engineering	Scopus(Springer); Q-3
2023	Surbhi Aswal and K. Nallasivam	"Dynamic response of a multi-span suspension bridge subjected to highway vehicle loading". <a href="https://doi.org/10.1007/s42107-023-00655-9">https://doi.org/10.1007/s42107-023-00655-9</a>	Asian Journal of Civil Engineering	Scopus(Springer); Q-3
2023	Kashyap Shukla and Nallasivam .K	Dynamic Response of High-Rise Buildings with Shearwalls due to Seismic Forces". <a href="https://doi.org/10.1007/s42107-023-00669-3">https://doi.org/10.1007/s42107-023-00669-3</a>	Asian Journal of Civil Engineering	Scopus(Springer); Q-3
2023	K. Kavin Mathi and K. Nallasivam	"Static Analysis of Rigid Airfield Pavement Using FiniteElement Method Vs Closed-Form Solution" , Volume 5, Issue 4 - Serial Number 20, doi:10.22115/CEPM.2023.354941.1219.	Computational Engineering and Physical Modeling	Google Scholar/Publons (Pouyan)
2023	Abhishek Sharma and Nallasivam .K	"Static Analysis of a Concrete Gravity Dam using theFinite Element Technique". doi.org/10.1007/s42107-023-00686-2	Asian Journal of Civil Engineering	Scopus(Springer); Q-3
2023	Ishan Shankar Vats and Nallasivam .K	"Response of a Natural Draught Hyperbolic Cooling Tower Using the Finite Element Technique".doi.org/10.1007/s42107-023-00703-4	Asian Journal of Civil Engineering	Scopus(Springer); Q-3
2023	Khair Ul Faisal Wani and K. Nallasivam	"Modal Analysis of Rigid Pavement Resting on a Two-Parameter Soil Foundation Model Using a Finite Element Framework, doi:10.1108/WJE-11-2022-0461.	World Journal of Engineering	Scopus/ESCI(Emerald);Q-3;H-Index:23
2023	Virajan Verma and K. Nallasivam	"Dynamic interaction analysis of a high-speed trainvehicle and a thin-walled curved box-girder bridge with a sub-track system by finite element method", doi.org/10.1007/s42107-023-00724-z	Asian Journal of Civil Engineering	Scopus(Springer); Q-3
2023	MohammadFarhan Shaikh and Nallasivam .K	"Static and Free Vibration Response of a Box-GirderBridge Using the Finite Element Technique" ,DOI10.1108/MMMS-12-2022-0277	Multidiscipline Modelling in Materialsand Structures	SCIE/Scopus/ESC
2023	Abhishek Sharma and Nallasivam .K	"Comparison of bearing capacity behaviour of stripfooting resting on sand-admixed pond ash reinforced with Natural natural fiber and Geogrid".doi.org/10.1007/s40098-023-00745-0	Indian Geotechnical Journal	Scopus/ESCI(Springer);IF=1.4;Q-3;H-Index:24
2023	Sandeep Bharti, Nallasivam K, and Khair Ul Faisal Wani	"Static analysis of rigid pavement runway under theinfluence of aircraft loading by finite elementsTechnique", 5(4):79–101. <a href="https://doi.org/10.22115/cepm.2023.394133.1236">https://doi.org/10.22115/cepm.2023.394133.1236</a>	Computational Engineering and Physical Modeling	Google Scholar/Publons (Pouyan)
2023	Kashyap Shukla and Nallasivam .K	"Effective Location of Shear Walls in High-Rise RCC Buildings Subjected to Lateral Loads".DOI: 10.22059/CEIJ.2023.350020.1879	Civil Engineering Infrastructures Journal	Scopus/ESCI (University of Tehran);Q-4
2023	Sougata Mukherjee and K. Nallasivam	"Stability Analysis of a Concrete Arch Gravity Dam by 3D Finite Element Technique".36 (2023) 2, 35-59,DOI: 10.31534/engmod.2023.2.n.03a	International Journal of Engineering Modelling	Scopus(University of Split)
2023	Virajan Verma , K. Nallasivam and Khair Ul Faisal Wani	"Forecasting Fatigue Life of Horizontally Curved Thin-Walled Box-Girder Railway Bridge Exposed to Cyclic High-Speed Train Loads", Vol. 23, No.3 (2023), pp. 335–342.	Structural Integrity and Life	ESCI(Society for Structural Integrity and Life and IMS Institute, Serbia);Q-3
2023	Khair Ul Faisal Wani	"Static Analysis of Rigid Pavement Subjected to Aircraft	Computational Engineering and Physical	Google

	and K.Nallasivam	Load Using Finite Element Technique", Volume 6, Issue 2 - Serial Number Doi.22.10.22115/CEPM.2024.418199.1248	Modeling	Scholar/Publons (Pouyan)
2024	Ashutosh Ranjan and Nallasivam.K	"Response of railway sub-track system subjected to railway trains loading by finite element technique", Vol.9(34), pp.1-19, <a href="https://doi.org/10.1007/s41062-023-01336-x">https://doi.org/10.1007/s41062-023-01336-x</a>	Innovative Infrastructure Solutions	Scopus/ESCI(Springer); IF=2.4:Q-2H-Index: 22
2024	Mohd Ibrar and Nallasivam.K	"Free Vibration Analysis of Airfield Runway Rigid Pavement by Finite Element Technique", Vol.9(127), pp.1-20, <a href="https://doi.org/10.1007/s41062-024-01443-3">https://doi.org/10.1007/s41062-024-01443-3</a>	Innovative Infrastructure Solutions	Scopus/ESCI(Springer) ; IF=2.4:Q-2;H-Index: 22
2024	Khair Ul Faisal Wani and K.Nallasivam	"Static and Free Vibration Analysis of Rigid Pavement Based On Winkler and Pasternak Foundation, Vol. 24, No.1 (2024), pp. 49-60.	Structural Integrity and Life	ESCI(Society for Structural Integrity and Life and IMS Institute, Serbia);Q-3
2024	Aniket Chaudhary and Nallasivam.K	"Modal Analysis of a Coupled Ballastless Railway Track Surrounding a Horse Shoe Shape Shield Tunnel Linked to a Box-Girder Bridge with Substructure Using Finite Element Method"	Innovative Infrastructure Solutions	Scopus/ESCI(Springer); IF=2.4:Q-2;H-Index: 22
2023	Shakya, R., Singh, M.,	Static and Dynamic Interaction between Soil and Underground Tunnel.	13th Structural Engineering Convention (SEC-2023) 07-09 December 2023, Visvesvaraya National Institute of Technology, Nagpur Nagpur -Maharashtra (India).	Scopus
2023	Shakya, R., Singh, M., and Tripathi, K.,	Effect of Earthquake on Underground twin-tunnels	6th World Congress On Disaster Management, 28 November - 01 December, 2023 Dehradun, Uttarakhand, India.	Scopus
2023	Saraswat, S., Singh, M.,	Effect of Earthquake on the Footing Placed on the Different Location of the Slope Surface.	In: Muthukkumaran, K., Ayothiraman, R., Kolathayar, S. (eds) Soil Dynamics, Earthquake and Computational Geotechnical Engineering. IGC 2021. Lecture Notes in Civil Engineering, vol 300. 443-451, Springer, Singapore.	Scopus
2023	Amin, M., Singh, M.,	Static and Dynamic Study on the Performance of Modified Stone Column in Ahmedabad Soil.	In: Muthukkumaran, K., Sathiyamoorthy, R., Moghal, A.A.B., Jeyapriya, S.P. (eds) Ground Improvement Techniques. IGC 2021. Lecture Notes in Civil Engineering, vol 297. Springer, Singapore.	Scopus
2023	Krishna, Kotiyal., Manendra, Singh.,	Comparative behaviour of stone columns and vertical drains for mitigation of liquefaction.	Innovations in Clean Energy Technologies (ICET- 2023) at Energy Centre, Maulana Azad National Institute of Technology, Bhopal, Madhya Pradesh, India from 8th-10th April 2023.	Scopus
2023	Ghanshya, Gupta., Manendra, Singh., and Ritu, Raj, Nath.	Static and Dynamic Analyses of a Cut Slope in Himachal Pradesh, India.	Innovations in Clean Energy Technologies (ICET- 2023) at Energy Centre, Maulana Azad National Institute of Technology, Bhopal, Madhya Pradesh, India from 8th-10th April 2023.	Scopus
2023	Shakya, R., Singh, M., and Samadhiya, N. K.,	Response of Underground Tunnels to Combined Dynamic Loadings of Running Metro-train and Earthquake, 14(1), 113-131, 2023	Journal of Mining and Environment	ESCI, Scopus, Web of Science
2023	Shakya, R., Singh, M.,	A Study on the seismic analysis of the underground tunnels for the Delhi Metro, 14(3), 731-754, 2023	Journal of Mining and Environment	ESCI, Scopus, Web of Science
2024	Shakya, R., Singh, M.,	Three Dimensional Elasto-Plastic Analysis of Delhi Metro Underground Tunnels under the seismic loading, Vol. 15, No. 2, 2024, 401-417	Journal of Mining and Environment	ESCI, Scopus, Web of Science
2024	Bashir, M., Singh, M., Kotiyal, K	Behaviour of Horizontally Reinforced Stone Column in a Layered Soil: Enhancing Ground Improvement, Vol. 15, No. 2, 2024, 537-555	Journal of Mining and Environment	ESCI, Scopus, Web of Science
2023	Deus Michael, Ray Singh Meena, Brijesh Kumar, Joel Nobert	Identification of erosion-prone areas using morphometric, hypsometric, and compound factor approaches in the Ruvu River Basin, Tanzania, (2023) DOI: <a href="https://doi.org/10.1007/s40808-023-01829-9">https://doi.org/10.1007/s40808-023-01829-9</a>	Modeling Earth Systems and Environment	Scopus
2024	Chander Kant, Avinash Kumar, Ray Singh Meena	Exploring Climate Variables and Drought Patterns: A Comprehensive Trend Analysis and Evaluation of Beas Basin in Western Himalaya Earth Systems and Environment (2024), DOI: <a href="https://doi.org/10.1007/s41748-024-00376-2">https://doi.org/10.1007/s41748-024-00376-2</a>	Earth Systems and Environment	Scopus, ESCI
2024	Chander Kant and Ray Singh Meena	'Assessment of Snow-Cover Area and Development of Snow-melt Runoff Model for the Larji Sub-Basin in Himachal Pradesh, India (Accepted March 2024)	Water Practice and Technology	SCI
2023	Maloth Naresh, Vimal	A machine learning approach for health monitoring of	Asian Journal Of Civil Engineering	SCOPUS

	Kumar, Joy Pal	a steel frame structure using statistical features of vibration data		
2023	V. Kumar, M. A. Iqbal, A. K. Mittal	Influence of prestressing force on performance of concrete plates	International Journal of Protective Structure	SCOPUS
2023	Suhaib Rasul, Vimal Kumar	Finite Element Analysis of Interlocking Masonry Subjected to Static Loading	Asian Journal Of Civil Engineering	SCOPUS
2023	P Dhiman, V Kumar	Numerical investigation of reinforced concrete beams under impact loading	Asian Journal Of Civil Engineering	SCOPUS
2023	Maloth Naresh, Vimal Kumar, Joy Pal	A convolutional neural network-based architecture for health monitoring of joint damages in a steel plane frame structure under temperature variability	Asian Journal Of Civil Engineering	SCOPUS
2023	Chandesh Palsara; Vimal Kumar; Joy Pal; M. Naresh	Structural health monitoring of ASCE benchmark building using machine learning algorithms	Asian Journal Of Civil Engineering	SCOPUS
2024	Kumar, V., Iqbal, M.A. & Kartik, K.V.	Experimental and Finite Element Study on Performance of RC Panels Subjected to Nearby Explosion.	International Journal of Civil Engineering	SCI
2024	Naresh, M., Kumar, V. & Pal, J.	A convolution neural network-based technique for health monitoring of connections of a multi-story 3D steel frame structure	Multiscale and Multidiscip. Model. Exp. and Des.	Scopus
2023	Tanmoy Das, Meghna Sharma, Deepankar Choudhury	Bearing Capacity and Liquefaction Assessment of Shallow Foundations Resting on Vibro-stone Column Densified Soil in Vallur Oil Terminal, India, 53 (6), 1392-1413, 2023, DOI: 10.1007/s40098-023-00758-9. (Impact Factor – 1.4)	Indian Geotechnical Journal, Springer (Q2)	SCI
2024	Meghna Sharma	Potential of Bio-mediated Calcite Precipitation Methods for Heavy Metal Immobilization and Strength Enhancement of Contaminated Soils	Indian Geotechnical Journal, Springer (Q2)	SCI
2023	Chauhan, A., Desai Y.M., Banerjee S. and Sharma U.K	3D simulation of non-uniform corrosion induced damage in reinforced concrete exposed to real climate, Vol. 56	STRUCTURES (ELSEVIER)	SCI
2023	Mog K., and Anbazhagan P	An expensive Foldscopic approach for quantitative evaluation of the shape of sand particles. Vol. 124	Current Science	SCI/SCIE, Scopus, Web of Science
2023	Swaraj Chowdhury and Nihar Ranjan Patra	"Influence of geogrid reinforcement on dynamic characteristics and response analysis of Panki pond ash", 119, 435-461	Natural Hazards	SCIE (Web of Science)
2023	Swaraj Chowdhury, Suman Roy and Suresh Prasad Singh	"Performance assessment of three alkali-treated fly ashes as a pavement base-course material", 365, 130110	Construction and Building Materials	SCIE (Web of Science)
2024	Swaraj Chowdhury	Earthquake response analysis of pond ash deposit with geocell reinforcement. , 1-16	Iranian Journal of Science and Technology, Transactions of Civil Engineering	SCIE (Web of Science)
2023	Mahajan, K. and Velaga, N.R.,	Fatigue and associated traffic violations: A comparative assessment of long-haul truck drivers and taxi drivers	102nd Annual Meeting of the Transportation Research Board (TRB) of National Academies, 2023, Washington, D.C., USA.	NA
2024	K Mahajan, SSB Masud, A Kondyli	Navigating the landscape of automated truck platooning: A systematic review on stakeholder perspectives, employment implications, and regulatory challenges, Vol. 23	Transportation Research Interdisciplinary Perspectives	6.3

**(III). M. Tech Dissertation Guidance:****M.Tech Completed in 2023-24:**

Sr. No.	Name	Roll No.	Remarks
<b>GEOTECHNICAL ENGINEERING</b>			
1	PRAMJEET	22MCE001	GATE
2	PRITI SHARMA	22MCE002	GATE
3	AKHILESH SHARMA	22MCE003	GATE
4	MAHIPAL SINGH	22MCE004	GATE

5	NITIN MEENA	22MCE005	GATE
6	ABHISHEK	22MCE006	GATE
7	VIVEK KUMAR SHARMA	22MCE007	GATE
8	SAVITA TEKTA	22MCE008	GATE
9	SAHIL KUMAR	22MCE009	GATE
10	AMIT KUMAR	22MCE010	Self-Sponsored
11	ASHUTOSH	22MCE011	Self-Sponsored
12	AKHIL SHARMA	22MCE012	Self-Sponsored
13	PRIYANKA SHANDIL	22MCE013	Self-Sponsored
14	SOURABH KUMAR	22MCE014	Self-Sponsored
15	YOGESHWAR SINGH	22MCE015	Self-Sponsored
16	LOKESH SHARMA	22MCE016	Self-Sponsored
17	MUKUL BIST	22MCE017	Self-Sponsored
18	KARTIKEY SHARMA	22MCE018	Self-Sponsored
19	VAIBHAV KUMAR MISHRA	22MCE019	Self-Sponsored
20	VISHAL KAUSHAL	22MCE020	Self-Sponsored
<b>STRUCTURAL ENGINEERING</b>			
1	NEERAJ KUMAR	22MCE101	GATE
2	RAMAN SAINI	22MCE102	GATE
3	SHILPA THAKUR	22MCE103	GATE
4	RISHABH MEENA	22MCE104	GATE
5	VIPUL CHAUHAN	22MCE105	GATE
6	NEERAJ BALORIA	22MCE106	GATE
7	MOHIT KANSOTIYA	22MCE107	GATE
8	NIRAJ SHARMA	22MCE108	GATE
9	SAKET KUMAR	22MCE109	GATE
10	NUROOL BASHAR	22MCE110	GATE
11	PRAGYA SARASWAT	22MCE112	GATE
12	PRADEEP KUMAR	22MCE113	GATE
13	SAHIL KUMAR	22MCE114	GATE
14	SATISH KUMAR	22MCE115	Self-Sponsored
15	MOHD FAISHAL	22MCE117	Self-Sponsored

16	KARAN KUMAR	22MCE118	Self-Sponsored
17	MUNISH KUMAR	22MCE119	Self-Sponsored
18	ANKIT SHARMA	22MCE120	Self-Sponsored
19	SHIVAM SHARMA	22MCE122	Self-Sponsored
20	SANCHIT DHIMAN	22MCE123	Self-Sponsored
21	ANIKET	22MCE124	Self-Sponsored
<b>TRANSPORTATION ENGINEERING</b>			
1	GUNEET SINGH	22MCE201	GATE
2	SACHIN SHARMA	22MCE202	GATE
3	VISHALI	22MCE203	GATE
4	SATYANSH SINGH	22MCE204	GATE
5	ANKIT KUMAR	22MCE205	GATE
6	CHANDER PRAKASH	22MCE206	GATE
7	SURAJ PATEL	22MCE207	GATE
8	SHUBHAM RANA	22MCE208	GATE
9	PANKAJ KUMAR	22MCE209	GATE
10	MEDHA	22MCE210	GATE
11	MOHD IBRAR	22MCE211	GATE
12	KARISHMA	22MCE212	GATE
13	SIMRAN CHUDHARY	22MCE213	Self-Sponsored
14	ANSHUL KUMARI	22MCE214	Self-Sponsored
15	SAHIL KAUNDAL	22MCE215	Self-Sponsored
16	PRATIK BHARDWAJ	22MCE216	Self-Sponsored
17	NISHANT	22MCE217	Self-Sponsored
18	SHUBHAM RANA	22MCE218	Self-Sponsored
19	RITIKA THAKUR	22MCE219	Self-Sponsored
20	DIVYANSHI	22MCE220	Self-Sponsored
21	ARPIT SHARMA	22MCE222	Self-Sponsored
22	NEERAJ THAKUR	22MCE223	Self-Sponsored
23	MANOJ KUMAR	22MCE224	Self-Sponsored
<b>WATER RESOURCES ENGINEERING</b>			
1.	ADITYA CHAUDHARY	22MCE301	GATE

2.	AYUSH BHARATI	22MCE302	GATE
3.	ABHISHEK ATTRI	22MCE303	GATE
4.	NIMISH VERMA	22MCE304	Self-Sponsored
5.	SAHIL KUMAR	22MCE305	Self-Sponsored
6.	ABHINAV MINHAS	22MCE306	Self-Sponsored
7.	MEGHA SONI	22MCE307	Self-Sponsored
8.	ANKITA DEVI	22MCE308	Self-Sponsored
9.	AJAY KUMAR	22MCE309	Self-Sponsored
10.	VINEET SHARMA	22MCE310	Self-Sponsored
11.	SAKSHAM RANA	22MCE311	Self-Sponsored
12.	PANKAJ VERMA	22MCE312	Self-Sponsored
13.	ABHINAV THAKUR	22MCE313	Self-Sponsored
14.	MRINAL GHEZTA	22MCE314	Self-Sponsored
15.	PRAGATI SINGH	22MCE315	Self-Sponsored
16.	SAKSHI	22MCE316	Self-Sponsored
17.	SUMIT SHARMA	22MCE317	Self-Sponsored
<b>ENVIRONMENTAL ENGINEERING</b>			
1	CHANDRAJ CHANDEL	22MCE401	GATE
2	RAJAT SUMAN	22MCE402	GATE
3	RISHAV KAUNDAL	22MCE403	GATE
4	KOKA MOHAMMAD UMER BIN FAROOQ	22MCE404	GATE
5	VIRENDER SHIVAY	22MCE405	GATE
6	AJAY DEEP MEENA	22MCE406	GATE
7	ABHISHEK MEENA	22MCE407	GATE
8	MUSKAN	22MCE408	Self-Sponsored
9	AKANKSHA THAKUR	22MCE409	Self-Sponsored
10	LEENA KUMARI	22MCE410	Self-Sponsored
11	SHABNAM BHATIA	22MCE411	Self-Sponsored
12	PRIYANKA KUMARI	22MCE412	Self-Sponsored
13	MRIDUL BHARDWAJ	22MCE413	Self-Sponsored
14	KUSUM	22MCE414	Self-Sponsored
15	AKSHAY PATHANIA	22MCE415	Self-Sponsored

16	NITIN KUMAR	22MCE416	Self-Sponsored
17	SAFI ULLAH	22MCE417	Self-Sponsored
18	PAWAS PATEL	22MCE418	Self-Sponsored
19	MOHD. TAFSEER	22MCE419	Self-Sponsored
20	RISHABH BAHRI	22MCE420	Self-Sponsored
21	SHIWANI	22MCE421	Self-Sponsored

**M.TECH ADMISSIONS IN 2023-24:**

Sr. No.	Name of Student	Roll No./Regn.No.	Mode of Admission
<b>GEOTECHNICAL ENGINEERING</b>			
1	Zuha Kanji	23MCE002	GATE
2	Vivek Deepak	23MCE003	GATE
3	Ankush Choudhary	23MCE004	GATE
4	Bharti Kumari	23MCE005	Self-Sponsored
5	Yogitrika Thakur	23MCE006	Self-Sponsored
6	Sahil Thakur	23MCE007	Self-Sponsored
7	Abhinandan Thakur	23MCE008	Self-Sponsored
8	Hansa Devi	23MCE009	Self-Sponsored
9	Anuj Kumar	23MCE010	Self-Sponsored
10	Mayank Raj Singh Bisht	23MCE011	Self-Sponsored
11	Prabal Dhiman	23MCE012	Self-Sponsored
12	Jailalita	23MCE013	Self-Sponsored
13	Ankit Kumar	23MCE014	Self-Sponsored
14	Yashika	23MCE015	Self-Sponsored
15	Adarsh Thakur	23MCE016	Self-Sponsored
16	Rakesh Kumar	23MCE018	Self-Sponsored
<b>STRUCTURAL ENGINEERING</b>			
1	Sagar	23MCE101	GATE
2	Sahil Thakur	23MCE102	GATE
3	Survesh Sharma	23MCE103	GATE
4	Paras Krishna Kothari	23MCE104	GATE
5	Himanshu Bansal	23MCE105	GATE
6	Koj Jarbo	23MCE106	GATE



7	Akshit Kaundal	23MCE108	GATE
8	Saurav Patiyal	23MCE109	GATE
9	Sakshi Raghav	23MCE110	GATE
10	Jatin Sharma	23MCE111	GATE
11	Abhijeet Singh Yadav	23MCE112	GATE
12	Harish Kumar	23MCE113	Self-Sponsored
13	Shubhansu Sharma	23MCE114	Self-Sponsored
14	Vedant Jamwal	23MCE115	Self-Sponsored
15	Shivansh	23MCE116	Self-Sponsored
16	Abhishek	23MCE117	Self-Sponsored
17	Anurag Kapoor	23MCE118	Self-Sponsored
<b>TRANSPORTATION ENGINEERING</b>			
1	Komal	23MCE201	GATE
2	Satyendra Prakash Singh	23MCE202	GATE
3	Kush Kaushik	23MCE203	GATE
4	Firdous Ahmad Telli	23MCE204	GATE
5	Harsh Bareth	23MCE205	GATE
6	Sanchita	23MCE206	Self-Sponsored
7	Kismat Kumar Bhardwaj	23MCE207	Self-Sponsored
8	Rizul Walia	23MCE208	Self-Sponsored
9	Abhishek Singh Parihar	23MCE209	Self-Sponsored
10	Ayush Thakur	23MCE212	Self-Sponsored
11	Saksham Banyal	23MCE213	Self-Sponsored
12	Saijal	23MCE215	Self-Sponsored
13	Rohit Garla	23MCE216	Self-Sponsored
14	Shahwaz Khan	23MCE217	Self-Sponsored
15	Sakshya	23MCE218	Self-Sponsored
16	Akshay Chaudhary	23MCE219	Self-Sponsored
<b>WATER RESOURCES ENGINEERING</b>			
1	Surajbhai Vartha	23MCE301	GATE
2	Sourabh Prasher	23MCE302	Self-Sponsored
3	Anuj Chauhan	23MCE303	Self-Sponsored

4	Aakrit Bhatia	23MCE304	Self-Sponsored
5	Apurav Dhiman	23MCE305	Self-Sponsored
6	Arvind Kumar	23MCE306	Self-Sponsored
7	Sushant Kaundal	23MCE307	Self-Sponsored
8	Vaibhav Dhiman	23MCE308	Self-Sponsored
9	Ritika Dhiman	23MCE309	Self-Sponsored
10	Rajat Kumar	23MCE310	Self-Sponsored
11	Anuj	23MCE311	Self-Sponsored
<b>ENVIRONMENT ENGINEERING</b>			
1	Abhishek Guleria	23MCE401	GATE
2	Akshit Thakur	23MCE402	Self-Sponsored
3	Komal Rana	23MCE403	Self-Sponsored
4	Tushar Diwan	23MCE404	Self-Sponsored
5	Vishesh Choudhary	23MCE405	Self-Sponsored
6	Hanshika	23MCE406	Self-Sponsored
7	Nikhil Kumar	23MCE407	Self-Sponsored
8	Varun Vaidya	23MCE408	Self-Sponsored
9	Rishabh	23MCE409	Self-Sponsored
10	Priya Sharma	23MCE410	Self-Sponsored
11	Pranav Shukla	23MCE411	Self-Sponsored
12	Srikant Bhatia	23MCE412	Self-Sponsored
13	Aditi	23MCE413	Self-Sponsored
14	Diksha Kumari	23MCE414	Self-Sponsored
15	Gaurav Saharan	23MCE415	Self-Sponsored

**(IV) Ph.D. Admission in 2023-24:**

S. No.	Name of Student	Roll No.	Status	Name of Guide
1	23RCE001	Mr. Aditya Thakur	Ongoing	Dr. Vimal Kumar
2	23RCE002	Ms. Vansheika	Ongoing	Dr. Chander Prakash
3	23RCE003	Ms. Rajni {Part-Time}	Ongoing	Dr. Chander Prakash
4	23RCE005	Mr. Ravi Kumar	Ongoing	Dr. Raman Parti
5	23RCE006	Mr. Anuj Saini	Ongoing	Dr. Vijay Shankar

6	23RCE007	Mr. Gulshan Kumar	Ongoing	Dr. R.S Meena
7	23RCE008	Mr. Akash Kumar	Ongoing	Dr. K. Nallasivam
8	23RCE009	Mr. Krishna Kotiyal	Ongoing	Dr. Manendra Singh
9	23RCE010	Ms. Bharti	Ongoing	Dr. R.S Banshtu
10	23RCE011	Mr. Sudesh Kumar	Ongoing	Dr.Vimal Kumar
11	23RCE013	Miss Alisha Gomladu	Ongoing	Dr.U.K Pandey
12	24RCE001	Ms. Ayushi Gupta	Ongoing	Dr. Manendra Singh

**(V) Ph.D Awarded in 2023-24**

S. No.	Name of Student	Roll No.	Status	Name of Guide
1	Mr. Avinash Bhardwaj	2K18 Ph.D CE-380	Awarded	Dr.R.K Sharma
2	Mr. Surya Pratap Singh	2K18 Ph.D CE-381	Defense over	Dr.A.K Roy
3	Ms. Suman Kumari	2K18 Ph.D CE-382	Awarded	Dr.Vijay Shankar
	Mr. Abhishish Chandel	2k19-Ph.D-CE-421	Awarded	Dr. Vijay Shankar
4	Mr. Sonu Singh	2K19-Ph.D-CE-425	Awarded	Dr. Vijay Shankar
5	Mr. Vaibhav Chaudhary	2k20-Ph.D-CE-498	Thesis Submitted	Prof. R.K Dutta

**(VI) RESEARCH PROJECTS FOR THE YEAR 2023-24**

Sr. No.	Title of Project	Funding Agency & Amount Sanctioned	Allotment Year & Time	Present Status of the Project/PI	Name of PI/ Co-PI
1.	Mobile GIS application and web-GIS based Himachal Landslide information System (HIMLIS).	Himachal Pradesh Council for Science, Technology & Environment (HIMCOSTE), Shimla Rs. 3.00 lakh	12/07/21 to 11/07/23	Ongoing	Dr. Chander Prakash, PI & Dr. R.S. Banshtu (Co-PI)

**(VII) DETAIL OF LABORATORIES:**

Sr. No.	NAME OF LABORATORY
1	Geotechnical Laboratory
2	Structure Laboratory
3	Irrigation & Hydraulics Laboratory
4	Concrete Laboratory
5	Foundation Engineering Laboratory
6	Surveying Laboratory
7	Transportation Laboratory
8	Geology Laboratory
9	Remote Sensing & GIS Laboratory
10	Computation Laboratory
11	Environmental Engineering Laboratory

**(VIII) EQUIPMENT/ FURNITURE PURCHASED FOR THE YEAR 2023-24:**

Sr. No.	Name of Equipment	Name and addressed of the firm	Amount
1	ELECTRONIC LECTERN [Model: DP-C5 Serial No: ONF230123HAMDP002, ONF230125DPP0002 ACCESSORIES: 2 SET]	M/s ONFINITY TECHNOLOGIES, Plot 260, Phase-1, Industrial Estate, HSIIDC, Alipur, Barwala, Panchkula, Haryana-134118	389970
2	SOKKIA IP 56 with compensator Setting Accuracy 03 Second (08 Nos)	M/s M.S Survey Instruments, 448, Satti Street, Near Indra Park, Roorkee (Haridwar) U.K 247667	195912
3	Dinesh Scientific LCD Display R Type Silicon Carbide (SiC) rods Muffle Furnace	M/s Innovative Engineers, 1079 Bengali Mohalla Ambala Cantt, Haryana	484000
4	ERDAS Educational Kit Version 2022 or Latest (05 User License)	M/s IGIS Pvt. Ltd., 243/196 Rabindranath Tagore Marg, New Cantt. Road, Dehradun-248001	1416000
5	Repair of equipments [CCS Make Computerized Marshall Test apparatus with a cost of Rs. 1,263,00/-] [CCS Make Universal penetrometer with Electronic Readout with a cost of Rs. 33,600/- ]	M/s Components & Control System, 500, Solani Puram, Roorkee-247667 (Uttarakhand, India)	235056
6	ELITEONE 840 AIO COMPUTER [05 Nos.]	M/s Satluj Document Company, ,Satluj Bhawan, Plot No. 448, Near Dev School, New Shimla-171002	990000
7	Multifunctional Wideformat Printer Plotter Printers (01 Pc	M/s Luxmi Enterprises, SCO 13-14, Sector-19C, Chandigarh-160019	499875
8	Ultrapure and Pure Lab Water Purification Systems	AnaDiGi Solutions Pvt. Ltd., SCO 108, 2 <sup>nd</sup> Floor, Sector-47C, Chandigarh-1600047 (India)	285593
9	Jaw Crusher [01No.]	M/s Simran Scientific & Engineering Works, Vill. Bhangeri Mahawatpur, P.O Melapnagar, Roorkee, Near IIT Roorkee	160000
10	Supply & Installation of PTV Tutor License Software (one network license including maintenance for a period of 3 years) [01 User Licenses]	M/s Unitrans Mobility Solutions, 357, SFS Flats, Phase-IV, Ashok Vihar, Delhi-110052	409861
11	Trans CAD Software-Single user Academic License Standalone License Latest version [Single User Academic License]	M/s RamCAD Scientific Softmach Engineers, D-4, Frist Floor, Pocket 9A, Jasola, New Delhi-110025	1011429
12	MIKE+SOFTWARE	M/s DHI (India) Water & Environment Pvt. Ltd., Unit No.815, Eighth Floor, DLF Prime Tower, Plot No.F- 79-80, Okhla Phase-I, New Delhi	4371074
13	Supply and Installation of Plaxis 2D and 3D Suite Classroom	M/s Innovative Systel, H.No.39/2, Lane No.4, Nanak Nagar, Jammu, Jammu and Kashmir-180004	2476815
14	Ultrapure and Pure Lab Water Purification Systems	M/s AnaDiGi Solutions Pvt. Ltd., SCO 108, 2 <sup>nd</sup> Floor, Sector-47C, Chandigarh-1600047 (India)	337000
15	GEO 5 User Educational License- 5 years Subscription including 5 years Maintenance	M/s CIVILTECHY, D.No.35, Kommalapudi, Manubolu, Nellore (Dt), Andhra Pradesh, India-524405	305620
16	AMC for service & calibration of Trimble S6 Total Station	M/s Allterra Solutions LLP Ghaziabad, IIND, VC-2, Mahalaxmi Plaza, Sector-3, Vaishali (UP)-201010	165200
17	METRY LCD Display R Type Silicon carbide (SiC) rods Muffle Furnace	M/s METREX SCIENTIFIC INSTRUMENTS PRIVATE LIMITED, WH 20, Phase 1, Mayapuri Industrial Area, Phase-1, New Delhi-110064	496750

18	Oven [Industrial Oven Model: MOP-200]	M/s METREX SCIENTIFIC INSTRUMENTS PRIVATE LIMITED, WH 20, Phase 1, Mayapuri Industrial Area, Phase-1, New Delhi-110064	489800
19	Supply and Installation of Desk FOCUS-FRONT SEATER [100 desks consisting of two chairs each]	M/s RFH Solutions Pvt. Ltd., SCF 3&9, Shaheed Udham Singh Nagar, Jalandhar (Pb)	615000
20	MIDAS Civil Education Bundle [5 Users 3 years AM)	M/s Aileron, Hall No. 212, A-2, South Block, Bahu Plaza Jammu-180012	825500
21	Industrial Oven, Electronic Weighing Machine, Standard Penetration Test Apparatus and Digital CBR Testing Machine	M/S Weekay Industries, 117, D.B, Gupta Market, Karol Bagh, New Delhi-110005	213580
22	Digital Consolidation Apparatus, Three Gang with Amil DAQ and Amil Analysis Software	M/s Amil Ltd., Plot No. 652, 2nd Floor, Industrial Area, Phase 9, Mohali-160062	218064
23	Pneumatic Gas Gun SET-UP	M/s SV Engineering, Bhangedi, Village Bhagneri Mahabatpur, Roorkee, Bhangedi, Haridwar, Uttarakhand-247666	2000100
24	PH Meter [02 PCs]	M/s Tej Corporation, 2 <sup>nd</sup> Floor Vasant Vihar, Phase-III, Dhakoli behind Sabji Mandi, Dhakoli, Zirakpur-Pin-140603, Distt. SAS Nagar Mohali	29999.98
25	Supply and Installation of UV-Visible Spectrometer [1-PC-Model 2080TS)	M/s Infinite Multiple labs LLP D-154, Sant Vihar, Society, Behind Raneshwar Temple, Vasna Road, Vadodara, Gujarat-390015	406000
26	Protection Chamber Ballistic Testing	M/s SV Engineering, Bhangedi, Village Bhagneri Mahabatpur, Roorkee, Bhangedi, Haridwar, Uttarakhand-247666	82600
27	Needle Vibrator 35 MM	M/s Chandan Industrial Products, Dev Pal Chowk, Hamirpur (HP)	9500
28	Cube Moulds, Cylindrical Mould and Beam Mould	M/s Hiteshi Technical Store, NIT & Anu Hamirpur (HP)	235500

#### (IX) CONSULTANCY SERVICES FOR THE PERIOD 01/04/2023 TO 31/03/2024

S. N.	Name of The Test	Sponsored Agency	Amount
1.	Routine Testing of Cement , Aggregate Samples	HPPWD, IPH, SJVNL, Power Grid Corporation of India, Unipro Techno, Oil Corporation, Govt. Contractors	<b>3,68,74,884</b>
2.	Field Testing of Soil Bearing Capacity and Testing of Various soil Samples	HPPWD, HP IPH, HPPCL, SJVNL, Power Grid Corporation of India, Unipro Techno, HP Cricket Association India, Oil Corporation, Govt. Contractors	
3.	Design of Multistoried building	HPPWD, IPH, SJVNL, Power Grid Corporation of India, Unipro Techno, Food Corporation of India	
4.	Routine testing of CBR, Bitumen , Coarse Aggregate	HPPWD, HP IPH, SJVNL, Power Grid Corporation of India, Unipro Techno, Oil Corporation, Govt. Contractors	
5.	STA for PMGSY	Ministry of Rural Roads Government of India	
6.	STA- for HP IPH	Himachal Pradesh Irrigation and Public Health Department, Shimla	

### 3.3 DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



#### 1. ACADEMIC STAFF:

**Head of Department:** Dr. Naveen Chauhan

#### FACULTIES:

Professor	Associate Professor	Assistant Professor
Dr. Lalit Kumar Awasthi (Vice Chancellor Sardar Patel University Mandi) (on Lien)	1. Dr. (Mrs.) Kamlesh Dutta 2. Dr. T.P. Sharma 3. Dr. Siddhartha Chauhan 4. Dr. Naveen Chauhan 5. Dr. Divakar Yadav (on lien) 6. Dr. Pardeep Singh	1. Dr. Rajeev Kumar 2. Dr. Nitin Gupta 3. Dr. Dharmendra Prasad Mahato 4. Dr. Arun Kumar Yadav 5. Dr. Priyanka 6. Dr. Jyoti Srivastava 7. Dr. Sangeeta Sharma 8. Dr. Mohit Kumar 9. Dr. Mohammad Khalid Pandit 10. Dr. Preeti Soni 11. Dr. Ajay Prakash Mallick 12. Dr. Ram Prakash Sharma 13. Dr. Robin Singh Bhadoria

## 2. DISTINCTION ACHIEVED:

### a) By students:

- a. Work of Moulik Bhardwaj, 185506, Dual Degree published in International Journal of Sensor Networks (SCI)
- b. Work of Danish Sheikh, 185517, Dual Degree published in Springer Journal of Multimedia Tools and Applications (SCI)
- c. Uttkarsh Chaurasia and Rishabh Dhenkawat featured in Prime Insight Magazine for one of the startup to look out in 2024
- d. Reetika Regotra M.Tech student was selected as one of the top 100 PG scholars nationwide by the Reliance Foundation.
- e. Spriha Gautam B.Tech student received admission offer from World top business schools like Columbia Business School New York , USA, Kellogg school of Management USA and Darden School of Business for MBA
- f. Alumni of DoCSE Amit Gupta -2017 batch got 246<sup>th</sup> rank in UPSC
- g. Akshun Kutiala 21BCS020 selected for prestigious Google Summer of Code this year.

### b) By Department:

- a. DoCSE received a grant of ₹2.23 crore under DST-FIST Scheme.
- b. DoT selected DoCSE and DoECE among 100 institutes in India to establish a 5G use case lab.

### Journals Publications: -

1. Kumain, S. C., Singh, M., & Awasthi, L. K. (2024). A dual-stream encoder-decoder network with attention mechanism for saliency detection in video (s). Signal, Image and Video Processing, 18(3), 2037-2046.
2. Prajapati, V. K., Sharma, T. P., & Awasthi, L. K. (2024). Data Dissemination Framework for Optimizing Overhead in IoT-Enabled Systems Using Tabu-RPL. SN Computer Science, 5(4), 343.
3. Kumain, S. C., Singh, M., & Awasthi, L. K. (2024). A voting-based novel spatio-temporal fusion framework for video saliency using transfer learning mechanism. International Journal of Multimedia Information Retrieval, 13(1), 1-17.
4. Bansal, N., Sachdeva, S., & Awasthi, L. K. (2024). Schema generation for document stores using workload-driven approach. The Journal of Supercomputing, 80(3), 4000-4048.

5. Attri, I., Awasthi, L. K., & Sharma, T. P. (2024). Machine learning in agriculture: a review of crop management applications. *Multimedia Tools and Applications*, 83(5), 12875-12915.
6. Bansal, U., Sikka, G., Awasthi, L. K., & Bhargava, B. (2024). Quantitative Evaluation of Extensive Vulnerability Set Using Cost Benefit Analysis. *IEEE Transactions on Dependable and Secure Computing*, 21(01), 298-308.
7. Bansal, N., Sachdeva, S., & Awasthi, L. K. (2024). Query-based denormalization using hypergraph (QBDNH): a schema transformation model for migrating relational to NoSQL databases. *Knowledge and Information Systems*, 66(1), 681-722.
8. Kumar, P., Chauhan, S., & Awasthi, L. K. (2024). Human Activity Recognition (HAR) Using Deep Learning: Review, Methodologies, Progress and Future Research Directions. *Archives of Computational Methods in Engineering*, 31(1), 179-219.
9. Agarwal, N., Sikka, G., & Awasthi, L. K. (2023). Integrating semantic similarity with Dirichlet multinomial mixture model for enhanced web service clustering. *Knowledge and Information Systems*, 1-27.
10. Goyal, S., & Awasthi, L. K. (2023). An energy-efficient black widow-based adaptive VM placement approach for cloud computing. *Cluster Computing*, 1-14.
11. SINGH, R., AWASTHI, L. K., & SHARMA, K. (2023). EEDF: Enhanced Encryption Decryption Framework for Device Authentication in IoT. *Adhoc& Sensor Wireless Networks*, 56.
12. Verma, H., Chauhan, N., & Awasthi, L. K. (2023). A Comprehensive review of 'Internet of Healthcare Things': Networking aspects, technologies, services, applications, challenges, and security concerns. *Computer Science Review*, 50, 100591.
13. Agarwal, N., Sikka, G., & Awasthi, L. K. (2023). WGSDMM+ GA: A genetic algorithm-based service clustering methodology assimilating dirichlet multinomial mixture model with word embedding. *Future Generation Computer Systems*, 145, 254-266.
14. Bansal, N., Sachdeva, S., & Awasthi, L. K. (2023). Are NoSQL databases affected by schema?. *IETE Journal of Research*, 1-22.



15. Attri, I., Awasthi, L. K., Sharma, T. P., & Rathee, P. (2023). A review of deep learning techniques used in agriculture. *Ecological Informatics*, 102217.
16. Sharma, P., & Awasthi, L. K. (2023). Next-generation Digital Forensics Challenges and Evidence Preservation Framework for IoT Devices. *International Journal of Next-Generation Computing*, 14(3).
17. Kumar, P., Chauhan, N., Kumar, M., & Awasthi, L. K. (2023). Clustering based opportunistic traffic offloading technique for device-to-device communication. *International Journal of System Assurance Engineering and Management*, 14(Suppl 3), 827-839.
18. Rani, P., Dutta, K., & Kumar, V. (2024). Performance evaluation of drug synergy datasets using computational intelligence approaches. *Multimedia Tools and Applications*, 83(3), 8971-8997.
19. Rani, P., Dutta, K., & Kumar, V. Enhancement of Drug Synergy Model for Malignant Diseases Using Parameter Optimization. Available at SSRN 4813485.
20. Sharma, S., Kumar, V., & Dutta, K. Multi-objective prairie dog optimization algorithm for IoT-based intrusion detection. *Internet Technology Letters*, e516.
21. Sharma, S., Kumar, V., & Dutta, K. (2024). Multi-objective optimization algorithms for intrusion detection in IoT networks: A systematic review. *Internet of Things and Cyber-Physical Systems*.
22. Vermani, K., Noliya, A., Kumar, S., & Dutta, K. (2023). Ensemble Learning Based Malicious Node Detection in SDN-Based VANETs. *Journal of Information Systems Engineering & Business Intelligence*, 9(2).
23. Lata, K., Singh, P., & Dutta, K. (2023). Semi-automatic Annotation for Mentions in Hindi Text. *SN Computer Science*, 4(5), 515.
24. Bhat, P., Behal, S., & Dutta, K. (2023). A system call-based android malware detection approach with homogeneous & heterogeneous ensemble machine learning. *Computers & Security*, 130, 103277.
25. Kumar, P., & Chauhan, S. (2024). Towards improvement of baseline performance for regression based human pose estimation. *Evolving Systems*, 15(2), 659-667.

26. Chauhan, N., & Agrawal, R. (2024). A Probabilistic Deadline-aware Application Offloading in a Multi-Queueing Fog System: A Max Entropy Framework. *Journal of Grid Computing*, 22(1), 1-22.
27. Rani, D., Kumar, R., & Chauhan, N. (2024). A secure framework for IoT-based healthcare using blockchain and IPFS. *Security and Privacy*, 7(2), e348.
28. Sheikh, D., Verma, H., & Chauhan, N. (2024). Reduced lead ECG multi-label classification with higher generalization using 2D SEResnets with self attention. *Multimedia Tools and Applications*, 1-25.
29. Subeesh, A., & Chauhan, N. (2024). Biotic Stress Management in Soil-Less Agriculture Systems: A Deep Learning Approach for Identification of Leaf Miner Pest Infestation. *Procedia Computer Science*, 233, 371-380.
30. Verma, H., Chauhan, N., & Awasthi, L. K. (2023). A Comprehensive review of 'Internet of Healthcare Things': Networking aspects, technologies, services, applications, challenges, and security concerns. *Computer Science Review*, 50, 100591.
31. Kumar, P., Pooja, Chauhan, N., & Chaurasia, N. (2023). A Vision-Based Pothole Detection Using CNN Model. *SN Computer Science*, 4(6), 716.
32. Wala, T., Kumar, R., Chauhan, N., & Sharma, A. K. (2023). DDC-OMDC: Deadline-based data collection using optimal mobile data collectors in Internet of Things. *International Journal of Communication Systems*, 36(10), e5486.
33. Kumar, P., Chauhan, N., Kumar, M., & Awasthi, L. K. (2023). Clustering based opportunistic traffic offloading technique for device-to-device communication. *International Journal of System Assurance Engineering and Management*, 14(Suppl 3), 827-839.
34. Kumari, N., & Singh, P. (2023). Hindi Text Summarization Using Sequence to Sequence Neural Network. *ACM Transactions on Asian and Low-Resource Language Information Processing*, 22(10), 1-18.
35. Rani, D., Kumar, R., & Chauhan, N. (2024). A secure framework for IoT-based healthcare using blockchain and IPFS. *Security and Privacy*, 7(2), e348.
36. Wala, T., Kumar, R., Chauhan, N., & Sharma, A. K. (2023). DDC-OMDC: Deadline-based data collection using optimal mobile data collectors in

- Internet of Things. International Journal of Communication Systems, 36(10), e5486.
37. Rani, D., Wala, T., Kumar, R., & Chauhan, N. (2023). Fuzzy logic-based delay efficient data collection technique for IoT environment. International Journal of Communication Networks and Distributed Systems, 29(6), 653-678.
38. Moulik Bhardwaj, Jagdeep Singh, Nitin Gupta, Kuldeep Jadon, Sanjay Dhurandher. A Novel Federated Learning Approach for Routing Optimization in Opportunistic IoT Networks. International Journal of Sensor Networks, Inderscience.
39. Sreenu, M., Gupta, N., Jatoth, C., & Gupta, D. (2024). Reinforcement learning and blockchain-based intelligent and secure vaccine recommender system. Expert Systems, 41(1), e13478.
40. Yadav, D., Kapoor, K., Yadav, A. K., Kumar, M., Jain, A., & Morato, J. (2024). Satellite image classification using deep learning approach. Earth Science Informatics, 1-14.
41. Sanjeewani, Yadav, A. K., Akbar, M., Kumar, M., & Yadav, D. (2024). Retinal blood vessel segmentation using a deep learning method based on modified U-NET model. Multimedia Tools and Applications, 1-20.
42. Verma, A., Yadav, A. K., Kumar, M., & Yadav, D. (2024). Automatic image caption generation using deep learning. Multimedia Tools and Applications, 83(2), 5309-5325.
43. Khartheesvar, G., Kumar, M., Yadav, A. K., & Yadav, D. (2023). Automatic Indian sign language recognition using MediaPipe holistic and LSTM network. Multimedia Tools and Applications, 1-20.
44. Gupta, S., Verma, B., Gupta, P., Goel, L., Yadav, A. K., & Yadav, D. (2023). Identification of Fake News Using Deep Neural Network-Based Hybrid Model. SN Computer Science, 4(5), 679.
45. Yadav, D., Kapoor, K., Yadav, A. K., Kumar, M., Jain, A., & Morato, J. (2024). Satellite image classification using deep learning approach. Earth Science Informatics, 1-14.
46. Sanjeewani, Yadav, A. K., Akbar, M., Kumar, M., & Yadav, D. (2024). Retinal blood vessel segmentation using a deep learning method based on modified U-NET model. Multimedia Tools and Applications, 1-20.

47. Verma, A., Yadav, A. K., Kumar, M., & Yadav, D. (2024). Automatic image caption generation using deep learning. *Multimedia Tools and Applications*, 83(2), 5309-5325.
48. Khartheesvar, G., Kumar, M., Yadav, A. K., & Yadav, D. (2023). Automatic Indian sign language recognition using MediaPipe holistic and LSTM network. *Multimedia Tools and Applications*, 1-20.
49. Yadav, A. K., Kumar, M., Kumar, A., Shivani, Kusum, & Yadav, D. (2023). Hate speech recognition in multilingual text: hinglish documents. *International Journal of Information Technology*, 15(3), 1319-1331.
50. Kaushal, V., Hada, N. S., & Sharma, S. (2023). Eye Disease Detection Through Image Classification Using Federated Learning. *SN Computer Science*, 4(6), 836.
51. Shafi, O., Pandit, M. K., Saini, A., Ananthanarayanan, G., & Sen, R. (2024). Repercussions of Using DNN Compilers on Edge GPUs for Real Time and Safety Critical Systems: A Quantitative Audit. *ACM Journal on Emerging Technologies in Computing Systems*, 20(1), 1-25.
52. Soni, P., Islam, S. H., Pal, A. K., Mishra, N., & Samanta, D. (2024). Blockchain-based User Authentication and Data-sharing Framework for Healthcare Industries. *IEEE Transactions on Network Science and Engineering*.
53. Rai, A., Anshul, A., Jha, A., Jain, P., Sharma, R. P., & Dey, S. (2024). An open patch generator based fingerprint presentation attack detection using generative adversarial network. *Multimedia Tools and Applications*, 83(9), 27723-27746.
54. Bhadoria, R. S., Bhoj, N., Srivastav, M. K., Kumar, R., & Raman, B. (2023). A machine learning framework for security and privacy issues in building trust for social networking. *Cluster Computing*, 26(6), 3907-3930.
55. Philip, J. A., & Srivastava, J. (2023). Exploring the Effectiveness of Combined Cosine Similarity and Convolutional Neural Networks for Text Similarity Analysis. Available at SSRN 4624815.

**Publications in Conferences:**

1. Kumain, S. C., Singh, M., & Awasthi, L. K. (2024, January). Investigating U-Net's Reliability in Saliency Detection with Salt and Pepper Noise. In *2024 Third International Conference on Power, Control and Computing Technologies (ICPC2T)* (pp. 553-558). IEEE.

2. Sahu, K., Awasthi, L. K., & Kumar, A. (2023, July). Key Generation using Pseudorandom Number Generator. In 2023 14th International Conference on Computing Communication and Networking Technologies (ICCCNT) (pp. 1-6). IEEE.
3. Bhavesh Kapil, Kamlesh Dutta. Fabric Defects Detection using YOLOv8. Fourth International Conference on Innovations in Computational Intelligence and Computer Vision, ICICV-2024.
4. Ujjval Saini, Kamlesh Dutta, Subramanyam Sahoo. Punjabi Poetry Genre Classification using Graph Neural Networks. 1st International Conference on Trends in Engineering and Technologies (ICTEST) 2024.
5. Aarya Pandya, Kamlesh Dutta. Deep Learning based Models for Hand Tremor Detection using Internet of Things. International Conference on Wearable Technology, Industrial Electronics and Electrical Engineering (ICWTIEEE-2024), 5th January 2024.
6. Gupta, R. K., & Dutta, K. (2023, February). Resampling Strategies for Mitigating Class Imbalance of ASD Dataset on the Performance of Machine Learning Classifiers. In International Conference on Advanced Computational and Communication Paradigms (pp. 225-235). Singapore: Springer Nature Singapore.
7. Bhat, P., Behal, S., & Dutta, K. (2023). Machine learning and deep learning techniques for detecting malicious android applications: An empirical analysis. Proceedings of the Indian National Science Academy, 89(3), 429-444.
8. Ataullah, M., & Chauhan, N. (2024, February). Privacy and Data Usefulness Trade-off for Autonomic IoT Applications: A Framework. In 2024 2nd International Conference on Computer, Communication and Control (IC4) (pp. 1-6). IEEE.
9. Vansh, A. R., Verma, H., & Chauhan, N. (2023, November). Realtime Atrial Fibrillation Detection System For IoMT Using Hybrid Machine Learning Classification. In 2023 International Conference on Communication, Security and Artificial Intelligence (ICCSAI) (pp. 70-75). IEEE.
10. Maurya, R., & Chauhan, N. (2023, July). Performance Analysis for Internet of Health-Care Things in Multiqueueing Fog System. In 2023 2nd

- International Conference on Edge Computing and Applications (ICECAA) (pp. 1396-1402). IEEE.
11. Guleri, A., Singh, N. P., Singh, P., & Lata, K. (2024, February). Siddu: Decentralized Authorization with Zero Trust. In International Conference on Communications and Cyber Physical Engineering 2018 (pp. 213-221). Singapore: Springer Nature Singapore.
  12. Thakur, A., Kumar, R., & Bhadoria, R. S. (2024, March). YOLO-NAS Based Deep Learning Approach for Breast Lesion Identification. In 2024 IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI) (Vol. 2, pp. 1-4). IEEE.
  13. Thakur, A., & Kumar, R. (2024, February). Object Detection approach for Crop and Weed Identification based on Deep Learning. In 2024 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS) (pp. 1-6). IEEE.
  14. Doad, A., Gupta, N., Obaidat, M. S., Jadon, K. S., Rawat, P., & Hsiao, K. F. (2023, July). Profit aware Resource Allocation in Fog Computing: A Stackelberg Game Approach. In 2023 International Conference on Computer, Information and Telecommunication Systems (CITS) (pp. 01-08). IEEE.
  15. Sharma, S., & Mahato, D. P. (2024, April). Advancing Multi-writer Snapshots Algorithm. In International Conference on Advanced Information Networking and Applications (pp. 310-318). Cham: Springer Nature Switzerland.
  16. Verma, A., Thakur, S., Kumar, A., & Mahato, D. P. (2024, April). Honey Bee Inspired Routing Algorithm for Sparse Unstructured P2P Networks. In International Conference on Advanced Information Networking and Applications (pp. 175-186). Cham: Springer Nature Switzerland.
  17. Mehak, & Mahato, D. P. (2024, April). Hop-Constrained Oblivious Routing Using Prim's-Sollin's Algorithm. In International Conference on Advanced Information Networking and Applications (pp. 444-452). Cham: Springer Nature Switzerland.
  18. Mandyal, K., & Mahato, D. P. (2024, April). Adaptive Consensus: Enhancing Robustness in Dynamic Environments. In International Conference on Advanced Information Networking and Applications (pp. 74-84). Cham: Springer Nature Switzerland.

19. Kumar, R., Singh, K., & Mahato, D. P. (2023, December). Prediction of Age and Gender from Masked Face Images using Convolution Neural Network. In 2023 OITS International Conference on Information Technology (OCIT) (pp. 29-34). IEEE.
20. Bhandari, A., Gupta, S., Pratap, B., Mahato, D. P., & Singh, K. (2023, July). Evolutionary technique for high utility sequential pattern mining. In 8th International Conference on Computing in Engineering and Technology (ICCET 2023) (Vol. 2023, pp. 62-66). IET.
21. Shukla, B., Gupta, S., Yadav, A. K., & Yadav, D. (2023, September). Challenges and issues in legal documents classification. In AIP Conference Proceedings (Vol. 2754, No. 1). AIP Publishing.
22. Tiwari, P., & Sharma, S. (2023, July). Automation of FaaS Serverless Frameworks OpenFaaS and OpenWhisk in Private Cloud. In 2023 World Conference on Communication & Computing (WCONF) (pp. 1-11). IEEE.
23. Thakur, A., Kumar, R., & Bhadoria, R. S. (2024, March). YOLO-NAS Based Deep Learning Approach for Breast Lesion Identification. In 2024 IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI) (Vol. 2, pp. 1-4). IEEE.
24. Kumar, A., Bhadoria, R. S., & Vyas, A. (2023, December). Performance Evaluation of Energy Consumption for Optimal Relay Node Placement in WBANs Using Ant Colony Optimization with Game Theory. In 2023 IEEE 15th International Conference on Computational Intelligence and Communication Networks (CICN) (pp. 503-506). IEEE.
25. Kumar, K., & Bhadoria, R. S. (2023, December). Feature-Based Linguistic Text Sentiment Analysis Using Stacked Meta-Ensemble Learning. In 2023 IEEE 15th International Conference on Computational Intelligence and Communication Networks (CICN) (pp. 818-821). IEEE.
26. Puri, R., & Sharma, T. P. (2023, December). In-network storage management in large scale wireless sensor networks-A survey. In AIP Conference Proceedings (Vol. 2916, No. 1). AIP Publishing.

#### **Preprint/arXiv**

1. Mishra, A., Kumar, P., & Awasthi, L. K. (2024). Hybrid Metaheuristic Algorithm based energy efficient Authentication method for IoT enable edge computing.

2. Rai, A., Tiwari, P. K., Baishya, J., Sharma, R. P., & Dey, S. (2023). DyFFPAD: Dynamic Fusion of Convolutional and Handcrafted Features for Fingerprint Presentation Attack Detection. arXiv preprint arXiv:2308.10015.
3. Kumar, S., Kumar, D., Kumar, L., Kumar, K., Maurya, S. K., Kumar, M., & Yadav, D. (2023). Fake news detection using hybrid deep learning method. Authorea Preprints.

**Books/Book Chapters Publications: -**

1. Maurya, P., Hazra, A., & Awasthi, L. K. (2023). Exploring IoT Communication Technologies and Data-Driven Solutions. In Learning Techniques for the Internet of Things (pp. 79-103). Cham: Springer Nature Switzerland.
2. Bansal, D., Bhatia, M., Atrey, A., & Yadav, A. K. (2024). Perspective of Cybersecurity and Ethical Hacking with Vulnerability Assessment and Exploitation Tools. In Big Data Analytics Framework for Smart Grids (pp. 98-111). CRC Press.
3. Vardhan, H., & Kumar, V. (2024). Comparative Analysis of Machine Learning-Based Diabetes Prediction Approaches. In Future of AI in Medical Imaging (pp. 65-75). IGI Global.

**3. SEMINAR, SYMPOSIA, SUMMER SCHOOL, WINTER SCHOOL, SHOR TERM COURSE:**

1. Organized e-short term course on “Recent Trends in Networks & Communication: Theory & Challenges (RTNC-2023)” during 25-29 September 2023 at Department of CSE, NIT Hamirpur (H.P).
2. Organized 5<sup>th</sup> International Conference on Machine Learning, Image Processing, Network Security and Data Sciences (MIND) during 21-22 December 2023 at Department of CSE, NIT Hamirpur (H.P).
3. Organized Short term training program on “Advancing Pedagogical Practices and Teaching Excellence” during 12-16Feb 2024 at Department of CSE, NIT Hamirpur (H.P).
4. Organized e-workshop on “Recent Advancements in Artificial Intelligence and Internet of Things (RAAI-2024)” during 08-12 April 2024 at Department of CSE, NIT Hamirpur (H.P).



**(a) Conducted in the DoCSE:**

<b>Sponsoring Agency</b>	<b>Name of the Coordinator</b>	<b>Title of the Seminar/symposia</b>	<b>Duration</b>
NIT Hamirpur	Dr. T.P. Sharma (Convener) Dr. Priyanka (Coordinator) Dr. Nitin Gupta (Coordinator)	Recent Trends in Networks & Communication: Theory & Challenges(RTNC)	25/09/2023 to 29/05/2023
SERB SBI NIT Hamirpur NIT Hamirpur	Dr. Naveen Chauhan (Conference Chair) Dr. Rajeev Kumar (Organizing Secretary) Dr. Arun Kumar Yadav (Organizing Secretary) Dr. Mohit Kumar (Organizing Secretary)	5th International Conference on Machine Learning, Image Processing, Network Security and Data Sciences (MIND)	21/12/2023 to 22/12/2023
ITI Joginder Nagar	Dr. Naveen Chauhan (Convener) Dr. Rajeev Kumar (Coordinator) Dr. Arun Kumar Yadav (Coordinator) Dr. Mohit Kumar (Coordinator)	Advancing Pedagogical Practices and Teaching Excellence	12/02/2024 to 16/02/2024
NIT Hamirpur	Dr. Sangeeta Sharma (Convener) Dr. Ram Prakash Sharma (Coordinator) Dr. Robin Singh Bhadoria (Coordinator)	Recent Advancements in Artificial Intelligence and Internet of Things (RAAI)	08/04/2024 to 12/04/2024

**(b) Participated by Faculty Members: NIL****1. RESEARCH Projects:**

<b>Title of the Scheme</b>	<b>Sponsored by</b>	<b>Assistance Received (Rs) in lakh</b>	<b>Investigator</b>
Information Security Education & Awareness (ISEA) Phase-III	Ministry of Electronics & Information Technology, Govt. of India	INR 2,01,60,000	Dr. T.P. Sharma Dr. Naveen Chauhan

**(c) Expert Talks:**

1. Dr. Kamlesh Dutta delivered an expert talk on “Artificial Intelligence powered Cyber Threat: Challenges, Opportunities and Cyber Landscape” in online summer school on Two Week Online Summer School on Cyber Threat Intelligence and Forensics during 03-15 July 2023 at Jaypee Institute of Information Technology, Noida.
2. Dr. Kamlesh Dutta delivered an expert talk on “Computer Vision for Fabric Defect Detection Employing Deep Learning Models” in Short Term Course on Computer Vision and Intelligent Applications (CVIA)during 11-16 August 2023 at NIT Kurukshetra
3. Dr. Kamlesh Dutta delivered an expert talk on “Android Security” in Recent Trends in Networks & Communication: Theory & Challenges during 25-29 September 2023 at Department of CSE, NIT Hamirpur (H.P).
4. Dr. Naveen Chauhan delivered an expert talk on “Research Challenges in IoHT” in Recent Trends in Networks & Communication: Theory & Challenges during 25-29 September 2023 at Department of CSE, NIT Hamirpur (H.P).
5. Dr. T.P. Sharma delivered an expert talk on “Synchronization and Global State Recording in Large Scale Distributed Systems” in Recent Trends in Networks & Communication: Theory & Challenges during 25-29 September 2023 at Department of CSE, NIT Hamirpur (H.P).

6. Dr. Kamlesh Dutta delivered an expert talk on “Multilingual Approach to imparting Education recommended by NEP-2020: Issues and Challenges” in two-week online refresher course in Information Technology during 26 October-08 November 2023 at Kurukshetra University
7. Dr. Kamlesh Dutta delivered an expert talk on “Fabric Defect Detection using Deep Learning” in short-term course (STC) on Industry 4.0 challenges and interdependencies during 19-23February 2024 at NIT Jalandhar
8. Dr. Rajeev Kumar delivered an expert talk on “Essential values and ethics in technical education” in STTP Advancing Pedagogical Practices and Teaching Excellence during 12-16 February 2024 at NIT Hamirpur (H.P).
9. Dr. Pardeep Singh delivered an expert talk on “Understanding word processing” in STTP Advancing Pedagogical Practices and Teaching Excellence during 12-16 February 2024 at NIT Hamirpur (H.P).
10. Dr. Mohammad Khalid Pandit delivered an expert talk on “Bettering lesson planning, delivery and assessment techniques” in STTP Advancing Pedagogical Practices and Teaching Excellence during 12-16 February 2024 at NIT Hamirpur (H.P).
11. Dr. Kamlesh Dutta delivered an expert talk on “Work-life balance” in STTP Advancing Pedagogical Practices and Teaching Excellence during 12-16 February 2024 at NIT Hamirpur (H.P).
12. Dr. Ram Prakash Sharma delivered an expert talk on “Understanding excel and google sheets” in STTP Advancing Pedagogical Practices and Teaching Excellence during 12-16 February 2024 NIT Hamirpur (H.P).
13. Dr. Robin Singh Bhadoria delivered an expert talk on “Effective presentation using PowerPoint/latex” in STTP Advancing Pedagogical Practices and Teaching Excellence during 12-16 February 2024 at NIT Hamirpur (H.P).
14. Dr. T. P. Sharma delivered an expert talk on “Effective time management strategies” in STTP Advancing Pedagogical Practices and Teaching Excellence during 12-16 February 2024 at NIT Hamirpur (H.P).
15. Dr. Naveen Chauhan delivered an expert talk on “Continuous learning and professional development” in STTP Advancing Pedagogical Practices and Teaching Excellence during 12-16 February 2024 at NIT Hamirpur (H.P).

16. Dr. Kamlesh Dutta delivered an expert talk on “Artificial Intelligence and Data Analytics: From Dawn till Dusk & Beyond” in e-workshop Recent Advancements in Artificial Intelligence and Internet of Things (RAAI-2024) during 18-23 March 2024 at Guru Jambheshwar University of Science and Technology, Haryana.
17. Dr. T. P. Sharma delivered an expert talk on “Application of AI in Distributed System (WSN and IoT)” in e-workshop Recent Advancements in Artificial Intelligence and Internet of Things (RAAI-2024) during 08-12 April 2024 at NIT Hamirpur (H.P).
18. Dr. Kamlesh Dutta delivered an expert talk on “Application of Deep Learning in IoT” in e-workshop Recent Advancements in Artificial Intelligence and Internet of Things (RAAI-2024) during 08-12 April 2024 at NIT Hamirpur (H.P).
19. Dr. Pardeep Singh delivered an expert talk on “Advancement in AI and NLP” in e-workshop Recent Advancements in Artificial Intelligence and Internet of Things (RAAI-2024) during 08-12 April 2024 at NIT Hamirpur (H.P).
20. Dr. Ram Prakash Sharma delivered an expert talk on “Looking inside the black box- an explainable AI approach” in Recent Advancements in Artificial Intelligence and Internet of Things (RAAI-2024) during 08-12 April 2024 at NIT Hamirpur (H.P).
21. Dr. Mohammad Khalid Pandit delivered an expert talk on “Application of machine in chemical engineering” in e-STC Future Prospect in Chemical Engineering: AI/ML, Micro fluidics, Bioprocess Engineering and Green Technologies (FPCE) during 01-05 April 2024 at NIT Hamirpur (H.P).

## 2. Research Supervision

### Master Thesis completed:

Sr. No	Title	Guide	Name of the students	Brief Report
1.	A Git Hub Actions Workflow for Continuous Delivery of Software on Arduino Based IoT Devices.	Dr. Naveen Chauhan	Suthinan Mustmani	Completed
2.	Class Imbalanced Landslide Identification	Dr. Naveen Chauhan	Aseem Narwal	Completed

3.	Real Time Atrial Fibrillation Detection System through IoMT using Hybrid Machine Learning Classification.	Dr. Naveen Chauhan	Akshat Raj Vansh	Completed
4.	Reduced Lead ECG Multi-label classification with Higher generalization using 2D SEResnets with Self Attention	Dr. Naveen Chauhan	Danish Sheikh	Completed
5.	Disease Detection using Texture Based Local Binary Pattern feature and Modified Local Binary Pattern using feature selection and Machine Learning.	Dr. Naveen Chauhan	Vishal Guleria	Completed
6.	Multiple Drone Routing Model for On-Demand Hyperlocal Market using Neighbor Search Heuristic Algorithm	Dr. Naveen Chauhan	Dishant	Completed
7.	Rhyme Detection of Hindi and Rajasthani Poems using Statistical-Based Feature Extraction and Supervised Learning Techniques	Dr. Kamlesh Dutta	Ishant Kumar	Completed
8.	Identification of Characteristics of Mewari Poems	Dr. Kamlesh Dutta	Shubham Jain	Completed
9.	Analysis of Performance Metrics for Classification of Punjabi Poetry using Topic Modeling and Machine Learning Techniques.	Dr. Kamlesh Dutta	Ayush Kaushal	Completed
10.	Analysis of Email Spam Classifiers Against Adversarial Attacks	Dr. Kamlesh Dutta	Aanchal Kushwaha	Completed
11.	Analysis of Adversarial Attack for Textual Data	Dr. Kamlesh Dutta	Varsha Bhawanishanker	Completed

			Maheshwari	
12.	Resampling Strategies for Mitigating Class Imbalance of Autism Spectrum Disorder Dataset	Dr. Kamlesh Dutta	Rahul Kumar Gupta	Completed
13.	Sentiment Analysis Of Twitter Text	Dr. Siddhartha Chauhan	Abhinav	Completed
14.	Design And Evaluation For Sensor Based Recommendation For Improvised Taggn	Dr. Siddhartha Chauhan	Mukul Jain	Completed
15.	Performance Analysis Of SQL VS Nosql Database For Microservice	Dr. Siddhartha Chauhan	Ritesh Kumar	Completed
16.	Hate Speech Detection in English Memes	Dr. Siddhartha Chauhan	Kashish Kumar	Completed
17.	Content Based Image Retrieval for Retinal Images using SURF Algorithm	Dr. Siddhartha Chauhan	Aman Parteek	Completed
18.	Secure Health Monitoring and Communication System for IOT	Dr. Siddhartha Chauhan	Swayam Kaul	Completed
19.	Multidimensional Community Correlation Based Routing for Data Transmission in VANETs	Dr. Nitin Gupta	Akshay Thakur	Completed
20.	Design and Implementation of a Refreshable Braille Display Watch for Enhancing Multilingual Communication Between Deaf-Blind Individuals and the General Population	Dr. Nitin Gupta	Himanshi	Completed
21.	Privacy Aware Routing in Opportunistic Networks with Federated Learning	Dr. Nitin Gupta	Moulik	Completed
22.	Contactless Biometric Verification using Recognition and Detection of Bracelet Lines	Dr. Nitin Gupta	Ritwik Duggal	Completed
23.	Bayesian Optimization and Neural Network Based Opportunistic Routing in WSN	Dr. Nitin Gupta	Gollamandala Sanjay	Completed

24.	Sentimental Classification in Hindi Text using Hybrid Deep Learning Mode	Dr. Arun Kumar Yadav	Ashish Dhiman	Completed
25.	Multi Document Extractive Text Summarization using Statistical Approach	Dr. Arun Kumar Yadav	Kartikey Tiwari	Completed
26.	Skin Cancer Classification using Deep Learning	Dr. Arun Kumar Yadav	Mohammed Usman Syed	Completed
27.	Fingerprint Detection and Matching using Deep Learning and Gabor Features	Dr. Arun Kumar Yadav	Krishan Kumar	Completed
28.	Bird Species Classification and Detection using Deep Learning	Dr. Arun Kumar Yadav	Manoj Kumar	Completed
29.	Automation of FaaS Serverless Frameworks OpenFaaS and OpenWhisk in Private Cloud	Dr. Sangeeta Sharma	Pankaj Tiwari	Completed
30.	A Hybrid Approach For Efficient Loadbalancing And Dynamic Vm Allocation Incloud Computing	Dr. Sangeeta Sharma	Ankush Kumar	Completed
31.	Brain Tumor Detection Using Deep Learning Model	Dr. Sangeeta Sharma	Avadh Naresh Kushwaha	Completed
32.	Credit Card Fraud Detection using Continual Learning	Dr. Sangeeta Sharma	Dikshit Kaushal	Completed
33.	Network Intrusion Detection System Using ANN and CNN-based Ensemble Deep Learning Techniques	Dr. Sangeeta Sharma	Kamal Kant Mahour	Completed
34.	Lung and Colon Cancer Classification and Detection using Extreme Learning	Dr. Sangeeta Sharma	Mohit Kumar Verma	Completed
35.	Workflow Scheduling by optimizing Pareto Front with multi-objective Genetic Algorithm	Dr. Sangeeta Sharma	Utkarsh Vashisht	Completed

36.	Cassava Leaf Disease Detection Using Deep Learning	Dr. Jyoti Srivastava	Manick	Completed
37.	Early-Stage Dementia Detection by Optimize Feature Weights with Ensemble Learning	Dr. Jyoti Srivastava	Tanvi Mahajan	Completed
38.	Hate Speech Detection Using Twitter Dataset	Dr. Jyoti Srivastava	Amit Kumar	Completed
39.	An Explainable NLP Framework for Sentiment Analysis using Interpretable ML and XAI	Dr. Jyoti Srivastava	Harsha Vardhan Sahoo	Completed
40.	Early stage detection of Parkinson's Disease (PD) using Machine Learning	Dr Mohit Kumar	Vinaya Kumar	Completed
41.	POTHOLE DETECTION FROM IMAGES	Dr Mohit Kumar	Archit Dhiman	Completed
42.	Analyzing GTZAN and Introducing PAM(dataset)and Baselines for Music Genre Classification using Deep Learning	Dr Mohit Kumar	Sarthak Sharma	Completed
43.	Automatic Sign Language Recognition for ISL using Deep Learning	Dr Mohit Kumar	G Khartheesvar	Completed
44.	FERNET: An Integrated Hybrid DCNN Model for Driver Stress Monitoring via Facial Expression	Dr Mohit Kumar	Chinmay Gupta	Completed
45.	Intelligent Traffic Management for High-Priority Vehicles	Dr Priyanka	Prashant Kumar	Completed
46.	A Novel Deep Neural Network based Classification of Arrhythmia	Prof Lalit Awasthi/Dr Priyanka	Mahesh Rajendra Shirsath	Completed
47.	Real-Time Decision Making Preemptive Service Based CS Recommendation and Reservation System For Electric Vehicles	Dr. Priyanka	Vineet Sharma	Completed



48.	Efficient Workflow Scheduling in Cloud Computing using Hybrid Algorithm	Prof Lalit Awasthi/Dr Priyanka	Aakanksha	Completed
49.	Workflow Scheduling by Multi Objective Genetic Approach with Ranking of Task in Cloud Environment	Prof Lalit Awasthi/Dr. Priyanka	Namisha	Completed
50.	Automated classification of Fatal Ultrasound Images with Hybrid Capsule Network	Dr. Priyanka	Sourav Kumar Tanwar	Completed
51.	Exploring the efficacy of NLP and Deep learning Technique for depression detection	Dr. Priyanka	Yogesh Nimalkar	Completed
52.	Efficient WBAN Routing by MultiObjective Optimization Genetic Algorithm	Dr. Priyanka	Gudala Laya	Completed
53.	Content Based Image retrieval for Retinal images using SIFT	Dr. Priyanka	Nakshatra Goyal	Completed
54.	Skin cancer detection using deep learning approach	Dr. Priyanka	Ankush	Completed
55.	Augmentation of Medical Image dataset using GAN	Dr. Priyanka	Harsh Seth	Completed
56.	Routing scheduling for Drone Delivery System using Deep Reinforcement learning	Dr. Priyanka	Karan Bharadwaj	Completed
57.	Bell-pepper leaf bacterial spot detection using Deep Learning approach	Dr. Priyanka	Kritarth Kapoor	Completed

58.	Novel view Synthesis with Relightable Scene from Image Collection	Dr. Rajeev Kumar	Barish Barla	Completed
59.	Image Generations for Low-Count Monkeypox Dataset using Auxiliary Conditional Generative Adversarial Networks	Dr. Rajeev Kumar	Uttkarsh Chaurasia	Completed
60.	Digitizing ECG Reports: A Cost-Efficient Device for Paper to Digital Conversion and Arrhythmia Analysis	Dr. Rajeev Kumar	Yarra Sai Prashant	Completed
61.	A Survey on Potential Security Threats in the 6G ERA	Dr. Rajeev Kumar	Amishi Bansal	Completed
62.	Depression Detection using Conversational Agent and Facial Expression	Dr. Rajeev Kumar	Mayanak Kumar Mongia	Completed
63.	Telemedicine via WBANs for Emergency Care	Dr. Rajeev Kumar	Ashotosh Kumar Roy	Completed
64.	Link Prediction in Social Networks using vertex Entropy	Dr. Rajeev Kumar	Shubham	Completed

## 5. DOCTORAL PROGRAMME:

Sr. No	Name of the student	Guide	Title	Brief Report
1.	Kuldeep Singh Jadon	Dr. Nitin Gupta	Towards IoT for Sustainable Computing	Ongoing

2.	Aschalew Tirulo Abiko	Dr. Siddhartha Chauhan	Machine Learning and Deep Learning methods for detecting stealthy cyber-attacks on Internet-of-Things (IoT) systems	Ongoing
3.	Deepa Rani	Dr. Rajeev Kumar	Energy Efficient and Secure Framework for IoT Environment	Ongoing
4.	Ishana Attri	Dr. T. P. Sharma	Plant disease detection using deep learning	Ongoing
5.	Sourav Mondal	Dr. Priyanka/ Dr. Prakash Chaudhary	Brain Stroke Prediction using Machine Learning	Ongoing
6.	Azmera Chandu Naik	Prof. Lalit Kumar Awasthi Dr. Priyanka	Design Of An Efficient Trust Aware Secure Routing Strategy For The Internet Of Things (IoT) Network	Ongoing
7.	Pooja Rani	Dr. Kamlesh Dutta, Dr. Vijay Kumar	Drug Synergy for Malignant Disease Using Deep Learning	Thesis Submitted
8.	Rakhi	Dr. T. P. Sharma	Improving Data availability in Large Scale wireless sensor networks	Ongoing
9.	Vikas Kashtriya	Dr. Pardeep Singh	Knowledge Extraction from Medical Summary	Ongoing
10.	Vishal Kaushal	Dr. Sangeeta Sharma	Privacy Preserving Efficient Federated Learning Model for Spam email detection	Ongoing
11.	Shobhit Tyagi	Dr. Divakar Yadav	Deep Learning Based Approaches for Fake Image Detection	Degree Awarded
12.	Tarun Agrawal	Dr. Prakash Choudhary	Classification and Segmentation of Chest Radiography Images Using Deep Convolutional Neural Network	Degree Awarded
13.	Shubhkirti Sharma	Dr. Vijay Kumar	Development of Dominance based Multi-Objective Algorithms for Engineering	Ongoing

			Problems	
14.	Himanshu Verma	Dr. Naveen Chauhan	Resource-Constraint-6LoWPAN based 'Internet of Healthcare Things'	Degree Awarded
15.	Radha Rani	Dr. Dharmendra Prasad Mahato	Distributed Computing	Degree Awarded
16.	Poonam Kashtriya	Dr. Pardeep Singh	Knowledge Extraction	Ongoing
17.	Yogendra Kumar	Dr. Basant Subba	Intrusion Detection System frameworks using Machine Learning approaches	Degree Awarded
18.	K Susheel Kumar	Dr. Nagendra Pratap Singh	Medical image processing	Degree Awarded
19.	Vishnu Kumar Prajapati	Dr. T. P. Sharma	An Efficient and Fault Tolerant Data Dissemination in IoT Enabled Systems	Ongoing
20.	M Sreenu	Dr. Nitin Gupta	A Novel resilient and responsive Pharmaceutical supply chain through Blockchain and Artificial Intelligence	Thesis Submitted
21.	Namrata Kumari	Dr. Pardeep Singh	Text Summarization	Ongoing
22.	Chetan Agarwal	Dr. Kamlesh Dutta	Anaphora Resolution in English to Hindi Machine Translation	Ongoing
23.	Piyush Rawat	Dr. Siddhartha Chauhan	Energy efficient protocols in Wireless Sensor Networks	Degree Awarded
24.	Tanuj Wala	Dr Rajeev Kumar and Dr. Ajay Kumar Sharma	Efficient Handling of Big Data in Internet of Things	Degree Awarded

25.	Kusum Lata	Dr. Pardeep Singh	Coreference Resolution for Hindi language Text Using Deep Learning	Degree Awarded
26.	Nishant Sharma	Dr. Naveen Chauhan	Improving data availability in internet of vehicle environment	Degree Awarded
27.	Sourav Mondal	Dr. Priyanka/Dr. Prakash Choudhary	Brain Stroke Prediction using Machine Learning	Ongoing
28.	Himanshu Kumar	Dr. Kamlesh Dutta	Deep Learning for IoT in Healthcare	Ongoing
29.	Rangu Manjula	Dr. Naveen Chauhan	Developing Smart and Secure Agricultural Supply Chain System Based on Block Chain Technology.	Ongoing
30.	Md. Ataullah	Dr. Naveen Chauhan	IoT Security	Ongoing
31.	Pranjal	Dr. Siddhartha Chauhan	Human Activity Recognition (HAR) using Deep Learning Models	Thesis Submitted
32.	Ritika Verma	Dr. Dharmendra Prasad Mahato	Maximal Independent sets in Distributed System	Ongoing
33.	Ranjeet Chaudhary	Dr. Mohit Kumar	Object tracking using deep learning	Ongoing
34.	Ramakrishna Miryala	Dr. (Mrs.) Kamlesh Dutta	Fabric Defect Detection using DL	Ongoing
35.	Vandana	Dr. Arun Kumar Yadav	Application of Machine Learning and Natural Language Processing in Low Resource Language	Ongoing
36.	Smriti Guleria	Dr. Nitin Gupta	Issues in Edge Computing	Ongoing

37.	Pankaj Singh Jamwal	Dr. Jyoti Srivastava	Natural Language Processing	Ongoing
38.	Mohammad Azeem	Dr. Dharmendra Prasad Mahato	Snapshot Algorithm in Distributed System	Ongoing
39.	Akanksha Yadav	Dr. Sangeeta Sharma	Human Disease Detection	Ongoing
40.	Garima Thakur	Dr. Jyoti Srivastava	Natural Language Processing	Ongoing
41.	Dipti Sharma	Dr. Naveen Chauhan	Security and Privacy in IoT	Ongoing
42.	Subeesh A	Dr. Naveen Chauhan	Machine Learning and IoT in Agriculture	Ongoing
43.	Praveen Prakash	Dr. Priyanka	Security of sensitive data in IoT environment	Ongoing
44.	Satish Chander Sharma	Dr. Dharmendra Prasad Mahato	Oblivious Routing in distributed System	Ongoing
45.	Ankit Verma	Dr. T.P. Sharma	Early Detection of Heart Diseases Using Efficient ML Techniques	Ongoing
46.	Vikas Kashtariya	Dr. Pardeep Singh	SDOH Extraction in Medical Text	Ongoing
47.	Akash Verma	Dr. Arun Kumar Yadav	Deep learning based Brain tumor Segmentation and Classification from MRI images	Ongoing
48.	Samridhi Singh	Dr. Rajeev Kumar and Dr.	Detection and Identification of Ovarian Cancer using AI	Ongoing

		Nagendra Pratap Singh		
49.	Divya Jyoti	Dr. Jyoti Srivastava and Dr. Dharmendra Prasad Mahato	Text Summarization	Ongoing
50.	Geetanjali	Dr. Mohit Kumar	Hate Speech detection in Hindi Text on social media	Ongoing
51.	Devender Singh Daila	Dr. Rajeev Kumar and Dr. Prakash Chaudhary	Use of AI in Ultrasound images	Ongoing

#### 6. Visit of Renowned Speakers:

- a) Prof. Manoj Singh Gaur, Director IIT Jammu
- b) Prof. Mahesh Chander Govil, Director NIT Sikkim

#### c) CONSULTANCY SERVICES:

Sr. No	Name of the Scheme	Sponsored Agency	Amount Earned
1.	Dharamshala Smart City, HP	DSCL Dharamshala Smart City Limited	5,49,210 /-
2.	Shimla Smart City	SSCL	10 Lakh

#### d) EQUIPMENTS ACQUIRED:

Sr. No	Name of equipment	Name of manufacturer	Cost (Rs. In lakh)
1.	Desktop Computer	M/S Satluj Document Company	10,35,525/- (Approx.)

**e) TECHNICAL ASSOCIATION / SOCIETIES:**

- a) Google Developer Student Club (GDSC)
- b) CSEC: Computer Science Engineers' Community
- c) GLUG: GNU/Linux Users Group

**f) DETAIL OF THE LABORATORIES:****Name of the Laboratory**

- Artificial Intelligence and Robotics Lab
- Computer Organization and Architecture Lab
- Compiler Design Lab
- Computer Graphics Lab
- Computer Network Lab
- Data Structure Lab
- Data Base Management Lab
- Digital Image Processing Lab
- Microprocessor and Interfacing Lab
- Object Oriented Paradigm Lab
- Operating System Lab



### 3.4 DEPARTMENT OF ELECTRICAL ENGINEERING



#### 1 Academic Staff:

Head: **Dr. B. B. Sharma**, Associate Professor, Electrical Engineering Department (w.e.f 27/4/2023 AN to till date) vide letter No. NIT/HMR/Admn. /F-16(Vol-37)/2023/4510-4536 Dated 25/04/2023)

#### FACULTIES:

Professor	Associate Professor	Assistant Professor (Grade-I)	Assistant Professor (Grade-II)
04	06	07	05

Sr. No	Name	Designation	Qualification	Specialization
1.	Prof. (Dr.) Yog Raj Sood	Professor (HAG)	Ph.D.	Power system & AI Applications to Deregulation of Power Systems
2.	Prof. (Dr.) Sushil Chauhan	Professor	Ph.D.	Power Systems
3.	Prof. (Dr.) Ram Naresh Sharma	Professor	Ph.D.	Power Systems
4.	Prof. (Dr.) Ashwani Kumar Chandel	Professor	Ph.D.	Electric Power Quality & Harmonics
5.	Dr. Ravinder Nath	Associate Professor	Ph.D.	Signal processing & Control Engineering
6.	Dr. Veena Sharma	Associate Professor	Ph.D.	Instrumentation & Control Engineering
7.	Dr. R. K. Jarial	Associate Professor	Ph.D.	Power Electronic & Drives, High Voltage Engineering
8.	Dr. B. B. Sharma	Associate Professor	Ph.D.	Control Engineering

9.	Dr. O. P. Rahi	Associate Professor	Ph.D.	Power Systems
10.	Dr. Amit Kaul	Associate Professor	Ph.D.	Signal Processing & Control Engineering
11.	Dr. Himesh Handa	Assistant Professor (Grade-I)	Ph.D.	Instrumentation & Control Engineering
12.	Dr. Rajesh Kumar	Assistant Professor (Grade-I)	Ph.D.	Power Systems
13.	Dr. Bharti Koul	Assistant Professor (Grade-I)	Ph.D.	Power Systems
14.	Dr. Ram Niwash Mahia	Assistant Professor (Grade-I)	Ph.D.	Networked Control Systems
15.	Dr. Chandrasekaran S	Assistant Professor (Grade-I)	Ph.D.	Cyber Security of Power Electronic and Power Systems
16.	Dr. Vivek Sharma	Assistant Professor (Grade-I)	Ph.D.	Instrumentation and Control Engineering
17.	Dr. Jiwanjot Singh	Assistant Professor (Grade-I)	Ph.D.	Power Electronics, Power Quality and Renewable Energy Systems
18.	Dr. Supriya Jaiswal	Assistant Professor (Grade-II)	Ph.D.	Power Systems
19.	Dr. Pankaj Kumar Mishra	Assistant Professor (Grade-II)	Ph.D.	Control Systems, Nonlinear Control, Machine Learning
20.	Dr. Sreeram T S	Assistant Professor (Grade-II)	Ph.D.	Power Systems
21.	Dr. Katam Nishanth	Assistant Professor (Grade-II)	Ph.D.	Non-Thermal Plasma, AI and ML applications
22.	Dr. Upasana Sarma	Assistant Professor (Grade-II)	Ph.D.	Power System and Power Electronics

## 2. Patents (Total Filed-03 & Total Granted-01 and Total No. 04)

S. No.	Inventor Name(s), Designation, Department, Institute	Title of Patent	Registration / Reference No.	Date of Award / Filing (Day, Month, Year)	Awarding Agencies	Status
1.	Dr. Yog Raj Sood (Prof. HAG), Ankur Maheshwari (Ph.D. Research Student), Amit Kumar (M. Tech. Student), Department of Electrical Engineering, NIT Hamirpur (H.P.)	Power System Resilience Index	202311066402	20-10-2023	I.P. India	Filed
2.	Dr. Sumit Sharma, Dr. Y. R. Sood (Prof. HAG), Department of Electrical Engineering, NIT Hamirpur (H.P.), Dr. Vivek Kumar, Dr. Jitendra Gaur, Dr. Vineet Kumar, Dr. Md Fahim Ansari, Pawan Kumar Pandey, Dr. Neha Khurana, Dr. Pankaj Kumar, Dr. Sanjay Kumar	Solar Photovoltaic Based Device For Telecom Tower	390097-001	12-07-2023	I.P. India	Filed

3.	Rajat Anant, Mohit Anant, Dr. R K Jarial (Associate Professor), Department of Electrical Engineering, NIT Hamirpur (H.P.), R. K. Sharma & P. K. Sood (Associate Professor),	Motorized Trolley for Carrying Oxygen Cylinders in Hospitals/ Covid Centres	202111034843	07-02-2024	I.P. India	Granted
4.	Singh, Arush, Patil, Atul J., Sharma, Dr. R K Jarial (Associate Professor), Department of Electrical Engineering, NIT Hamirpur (H.P.), Ram Naresh, Hasmat Malik	Multichannel Electronic Device with Dynamic Sampling and Integrated Auxiliary System	202211050584	22-07-2023	I.P. India	Filed

### 3. Research Publications:

Publications	2023-24
National Journal	-
International Journals	26
National Conference	-
International Conference	42
No. of Books Published	-
Book Chapters	11

### Annexure - P

#### 1. Seminar, Symposia, Summer school, Winter school, Short term course:

##### a) Conducted in the Department: 03

Sponsoring Agency	Name of the Coordinators and Convener	Title of the Seminar/Symposia	Duration	Venue
NIT Hamirpur	Dr. Ram Niwash Mahia and Dr. Supriya Jaiswal (Coordinators) and Prof. Y. R. Sood (Convener)	Opportunities and Challenges in Application of Renewable Energy Systems	October 23-27, 2023	NIT Hamirpur
NIT Hamirpur	Dr. Amit Kaul (Convener), Dr. Veena Sharma (Co-Convener), Dr. Rajesh Kumar and Dr. Bharti Koul (Coordinators)	e-STC on Software Tools for Academicians and Researchers (STAR-23)	December 11-16, 2023	NIT Hamirpur
NIT Hamirpur	Dr. Rajesh Kumar and Dr. Bharti Koul (Coordinators)	One-week short term course on "Home Appliances Their Repair And Maintenance"	November 20-25, 2023	NIT Hamirpur

**b) Participated by faculty members: 03**

Name of the Faculty / staff Member	Course/Seminar	Organization	Duration	Venue
Dr. Yog Raj Sood	Workshop on “Revision of UG Course Curriculum Development”	Electrical Engineering Department, PEC Chandigarh	24 <sup>th</sup> November, 2023	Online Mode
Dr. Bharti Koul	Attended faculty development program on “Recent Advances in Cyber Physical Power System and Smart Grids”	Anurag University, Hyderabad	May 08-13 , 2023	Online Mode
Dr. Bharti Koul	Attended International Conference on Future Power Network and Smart Energy Systems: Issues and Challenges (FPNSES-2024) in Hybrid Mode	NIT Kurukshetra	March 08-10, 2024	Online Mode

**2. Research Component:****(a) (Research Scheme: 05 (Sponsored R & D Projects) Details**

S. No.	Title of the Scheme	Sponsored by	Assistance Received (Rs. In Lacs)	Investigator	Year (Duration)	Brief Report	Status
1.	Artificial Intelligence Based Automated Home-Waste Segregator and Composter	Himachal Pradesh State Council for Science Technology & Environment (HIMCOSTE)	Rs 5,50,000/-	PI- Dr. Himesh Handa, and Co PI(s)- Dr. Rakesh Sharma, and Dr. Ashok Kumar	20/12/2023 to 20/12/2025	An Artificial Intelligence (AI) based automated home-waste segregator and composter is an innovative solution that can significantly contribute to waste management and environmental sustainability at the household level	Ongoing
2.	Solid State Transformer Technology for Emerging Trends in Electric Mobility and DC Micro-Grid	INAE-DST Under Abdul Kalam Technology Innovation National Fellowship	57.0 Lacs	Prof. H. M. Suryawanshi (PI) & Director, NITH with Faculty involved from EED Dr. R. K. Jarial (Associate Professor EED)	April 2022 to Till Date	R & D Project is in progress after being transferred to NIT Hamirpur. Procurement of project components and appointment of project staff is in progress.	Ongoing

3.	Solution Technique to Unit Commitment Problems in Power System Integrated with Renewable Energy Sources	Council of Scientific and Industrial Research (CSIR)	10.0 Lacs	PI: Dr. Ram Naresh Sharma and Co-PI: Dr. Veena Sharma	February 2024	A detailed literature survey has been done on unit commitment problems on power systems in cost-based unit commitment (UC) problem, profit-based UC problem as well as UC on considering renewable energy sources. The literature review was done using various sources like reputed journals and books from the institution's library and website. Study of UC problems on 10-unit test system 20-unit test system, up to 100-unit test systems using recent metaheuristic approaches like, binary fish swarm algorithm (BFSA), binary particle swarm algorithm (BPSO) and many more.	Completed
4.	Portable Physiological Data Acquisition and Disease Diagnosis System	Himachal Pradesh State Council for Science Technology & Environment (HIMCOSTE)	5.7 lacs	Dr. Amit Kaul (Principal Investigator) Co-PI(s): Dr. Ravindra Nath, Dr. Rajiv Marwah (IGMC) and Dr. Sunil Sharma (IGMC)	January 2024	A portable physiological data acquisition system has been developed.	Completed

5.	Model Predictive Controller based Automatic Generation Control of Interconnected Power System Integrated with Renewable Energy Sources	HIMCOSTE, HP Shimla	5.00 lacs	Dr. Veena Sharma	September 2023	Here in this project, an interconnected power system incorporating renewable sources of power will be thoroughly investigated with control modules of conventional and latest model predictive controller/Sliding mode controller and in the presence of different nonlinearities present in the power system using MATLAB software.	Completed
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**(b) Research Publications: 68 (Numbers)**

**International Journals: 26**

1. Ankur Maheshwari, Yog Raj Sood and Supriya Jaiswal, "A Comprehensive Review on Stochastic Optimal Power Flow Problems and Solution Methodologies", IETE Technical Review, Taylor & Francis, Vol. 41, pp. 147-174, March 03, 2024.
2. Raturi A. S., Jarial R. K., Sood Y. R., Maheshwari A., and Jaiswal S., "Social Welfare Maximization in Deregulated Power Market Incorporating Wind Power Plants Using Metaheuristic Algorithm", Wind Engineering, Vol. 48, Issue 2, pp. 257-274, November 2023.
3. Sharma S., Sood Y. R., Kumar S., Kumar V., and Kumar V., "Renewable based techno-economic analysis for telecommunication system: A case study of western Himalaya", Wind Engineering, Vol. 47, Issue 5, pp. 897-912, April 2023.
4. Mughal S. N., Sood Y. R., and Jarial, R. K., "Techno-economic Assessment of Photovoltaics by Predicting Daily Global Solar Radiations Using Hybrid ANN-PSO Model", Energy Systems, February 2024, doi.org/10.1007/s12667-023-00646-4.
5. Vineet Kumar, Veena Sharma, and R. Naresh, "Leader Harris Hawks algorithm based optimal controller for automatic generation control in PV-hydro-wind integrated power network," Electric Power Systems Research, vol. 214, 2023. <https://doi.org/10.1016/j.epsr.2022.108924>.
6. Amita Singh, Veena Sharma, Vineet Kumar, R. Naresh, O. P. Rahi, and V. Kumar, "Investigation of PBUC Problem with RES and EV in Restructured Environment", Wind Engineering, Vol. 47 issue:6, pp.1096-1109, July 2023.
7. Ankit Aharwar, Ram Naresh, Veena Sharma, and Vineet Kumar "Unit Commitment Problem for Transmission System, Models and Approaches: A Review", Electric Power Systems Research, Vol. 223, 2023, <https://doi.org/10.1016/j.epsr.2023.109671>.
8. Vineet Kumar, Veena Sharma, Ram Naresh, Yogendra Arya, "A Novel Predictive Optimal Control Strategy for Renewable Penetrated Deregulated Power System", Optimal Control, Applications and Methods, Wiley, 2024, DOI:10.1002/oca.3144.

9. Atul Jaysing Patil, Ram Naresh, R. K. Jarial, Hasmat Malik, "Novel Four-gas Fault Interpretation Graphical Technique for Mineral Oil Transformer", IEEE Transactions on Dielectrics and Electrical Insulation, March 2024.
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  40. Nikhil, V. Sharma, Tarunveer, S. Sonkhla and A. Ayush, "Maximum Power Point Tracking (MPPT) Techniques for solar PV system under variable ambient conditions: A Review", IEEE Renewable Energy and Sustainable E-Mobility Conference (RESEM), Bhopal, India, pp. 1-6, 2023.
  41. Arun, Vivek Sharma, and Dilbag Singh, "Centralized Secondary Control Strategy on Droop Controlled Inverter-Based Microgrid", International Conference on Future Power Network and Smart Energy Systems: Issues and Challenges, March 2024.
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**(c) Ph.D. Degree Awarded: 05**

Sr. No.	Name of the Candidate with Registration No.	Name of Supervisor(s)	Title of the Thesis	Brief Report
1.	Ankur Maheshwari (2k19-PhD-EE-432)	Dr.Yog Raj Sood (Supervisor) and Dr. Supriya Jaiswal (Co-Supervisor)	Multi-objective Optimal Operation of Deregulated Power Sector incorporating Renewable Energy Sources	Different Optimization techniques implemented to operate the deregulated power sector with intermittent sources of energy using probabilistic modelling.
2.	Vineet Kumar 2K19-Ph.D.-EE-434	Dr. Veena Sharma	Combined Voltage and Frequency Control in Interconnected Multi-Area Power System	This thesis proposes a novel solution to address the issue of frequency and voltage regulation in hybrid interconnected power systems. The proposed approach utilizes a centralized Model Predictive Controller (MPC) technique for combined voltage and frequency regulation and applies the Harris Hawks Optimization (HHO)

				technique to fine-tune the MPC cost function weights, optimizing the transient response from the controller and also the optimized tuning of MPC parameters enhances the robustness of the controlled system. To further enhance the convergence characteristics of the HHO algorithm, a leader-based mutation selection has been incorporated. Besides, the thesis explores the application of different auxiliary control loops in various configurations to achieve more improvement in the frequency stability of the power system in the presence of renewable energy resources.
3.	Manish Kumar 2K18-Ph.D.-EE- 384	Dr. R. K. Jarial (Supervisor) and Dr. R. Nath Sharma (Co-Supervisor)	Estimation of Grid Voltage Parameters for Grid Integration of Distributed Generation (DG) Systems	Develop a fast and accurate grid synchronization algorithm applicable for single-phase systems and validate it experimentally. Develop a fast and robust grid synchronization technique for three-phase systems. 3. Test the feasibility of the proposed PLL-less grid synchronization algorithm by controlling the grid-tied inverter for improving the power factor of the utility grid.
4.	Akhil Walia 2K17-Ph.D.-EE-330	Dr. Amit Kaul	Combining Traditional & Esoteric Biometrics for Robust Human Authentication	In this work medical biometrics have been combined with hand-based modalities for person authentication
5.	Maloth Ramesh 2K19-Phd.-EE-439	Dr. Anil Kumar Yadav	Control of Renewable Energy System	This thesis work proposed and tested several control strategies and controllers for hybrid renewable based power system.

**(d) Doctoral Programme (Ongoing): 22**

Sr. No.	Name of the Candidate with Registration No.	Name of Supervisor(s)	Tentative Title of the Thesis	Brief Report
1.	Pallav Sahay 2K19-Phd.-EE-430	Dr. Himesh Handa	Control & Synchronization Schemes for a Class of Dynamical System	Chaos has been a topic of significant interest in the field of nonlinear systems for a long time. Various synchronization schemes have been developed, each holding significance for different applications. This work explores the feedback control technique for the synchronization of chaotic systems. Furthermore, circuit implementation using analog components has been carried out in NI Multisim.
2.	Bhumaiah Jula 2K19-Ph.D.-EE-437	Dr. R. K. Jarial	Control of Grid Converters for Electric Aircraft	Developing robust control algorithms and effective filtering methods to enhance power quality and accurately track grid parameters in electric aircraft power systems is paramount. Controlling power electronic converters in a variable frequency system spanning from 350 to 900 Hz poses a significant challenge due to sudden changes in grid frequency and the presence of disturbances like DC offset and harmonics. This instability can profoundly impact converter operation, necessitating tailored filtering and grid synchronization approaches for both single-phase and three-phase aircraft grids. As the electric aircraft grid, like an isolated microgrid, expands, contributions to include battery-connected multilevel grid converter control and synchronization of renewable sources for entertainment load integration further enrich our work.
3.	Amita Singh 2K17-Ph.D.-EE-354	Dr. Veena Sharma	Model Predictive Controller Based Frequency Regulation of Renewable Energy Sources Integrated Power System	The candidate is in the process of thesis writing. This research has proposed frequency regulation techniques for interconnected power system.
	Mukesh Singh 2K19-Ph.D.-EE-431	Dr. Sushil Chauhan	Power System Security Assessment using Machine Learning Techniques	It is proposed to investigate static and dynamic aspects of power system security assessment using Machine Learning techniques. Out of four objectives of the research proposal candidate has achieved three objectives and working towards the fourth one.
5.	Vivek Kumar 2K19-Ph.D.-EE-435	Dr. R. K. Jarial and Dr. Rajan Kumar	Design and Development of Improved Power Quality Multi-Functional Grid-Connected Solar Photovoltaic System	Mathematical modelling and simulation of single-phase and three-phase grid connected SPV systems with power quality improvement using MATLAB/ Simulink. Design and development of control strategies (including AI techniques) for power quality improvement in single-phase and three-phase grid connected PV systems. Stability analysis of developed control techniques under the variations in atmospheric

				conditions and other operating conditions. Mitigation of power quality problems in single-phase and three-phase grid connected PV systems using developed control techniques. Comparative analysis of developed control techniques with the existing techniques in terms of performance, efficiency, simplicity, cost, and reliability
6.	Abhishek Saini 2K19-Ph.D.-EE-433	Dr. O. P. Rahi	Power System Optimization Using Metaheuristics Techniques	Conventional and renewable power systems will be integrated using new optimization techniques. Thus bringing efficiency and cost minimization in power system operation and control.
7.	Ravi Kumar Ranjan 2K19-Ph.D.-EE-438	Dr. Bharat Bhushan Sharma	Output Feedback Schemes for Stabilization and Synchronization of Chaotic Systems for Stabilization and Systems	In many real world applications, it is not practical to measure all of the states directly. Usually, one can measure only a small number of outputs (corresponding to the sensors that are available). So designing control and synchronization schemes based on output feedback is desirable but a challenging task. The focus in current work is to study various output feedback and state feedback schemes and to design output feedback based control and synchronization strategies for a class of non-linear systems with and without parametric uncertainty. The results will be extended to address secure communication and message transmission and recovery schemes.
8.	Piyush Mahajan 2K19-Ph.D.-EE-429	Dr. Amit Kaul	Non Invasive Disease Diagnosis using Biomedical Signals	Work is being carried out to develop an IOT based home health monitoring systems.
9.	Manish Kumar Pandey 2K20-Ph.D.-EE-502	Dr. Ram Niwash Mahia	Design and Analysis of Robust Load Frequency Control Schemes for Power Networked Systems	The candidate is developing and testing of load frequency controllers and observers for a multi-area power system that incorporates renewable energies like wind and solar energy. To achieve this, the candidate is using Sliding mode and H-infinity Controllers and experimenting with established and new metaheuristic techniques to fine-tune the H-infinity and sliding mode controllers for optimal results.
10.	Romil Chauhan 2020-REE-001	Dr. Ram Naresh Sharma	Available Transfer Capability Enhancement of Transmission Systems in a Deregulated Environment	Available Transfer Capability (ATC) refers to the unused capacity available in the transmission system, not allocated to other purposes like current agreements or operational requirements.
11.	Yashasvi Chauhan 2020-REE-002	Dr. Bharat Bhushan Sharma	Stability and Synchronization of Complex Networked Systems	The main focus of this research work is to study synchronization phenomena in networks of coupled dynamical systems where the coupling topology can be expressed as a complex network. To analyze the synchronization of strict-feedback like class of linear and non-linear systems, mainly contraction principle based approach will be utilized. Further, synchronization problem of inter-connection of linear/non-linear systems in a complex network

				with linear and non-linear coupling will also be analyzed.
12.	Ankit Aharwar 2021-REE-001	Dr. Ram Naresh Sharma (Supervisor) and Dr. Veena Sharma (Co-Supervisor)	Stochastic Security Constrained Unit Commitment Problem	The problem of unit commitment is to determine the on-off status of generating units to supply required load at minimum cost including start-up costs of units.
13.	Ajay Swaroop Raturi 2021-REE-002	Dr. R. K. Jarial and Dr. Y. R. Sood	Optimal utilisation of Renewable Energy Systems in wake of Restructuring in Power System	The candidate was registered in 2021 and is pursuing Ph.D. under P/T Program. He has completed his Comprehensive and State of Art Exam. He is working on a research project related with Optimal utilisation of Renewable Energy Systems in wake of Restructuring in Power System.
14.	Mathewos Lolamo 22REE003	Dr. Rajan Kumar and Dr. Veena Sharma (Co-Supervisor)	Power Quality Improvement in Grid Connected Renewable Energy Systems	The work is focussed on addressing the power quality issues in renewable based power system.
15.	Himanshu Raj 22REE002	Dr. Supriya Jaiswal	Energy Scheduling in Multi Microgrid Scenario	Modelling of sources and loads in multi-microgrid scenario. Devising the algorithm for energy management and forecasting in microgrid operation.
16.	Atul Jay Sing Patil 22REE001	Dr. R. N. Sharma and Dr. R. K. Jarial	A Graphical and Synthetic Data-Driven Methodology to Enhance Transformer Fault Diagnostics	Develop a new graphical algorithm for detecting incipient faults in transformers. Development a new algorithm for generating synthetic dissolved gas data to represent different incipient faults in transformers.
17.	Atul Chadda 23REE001	Dr. Amit Kaul (Supervisor) and Dr. Rajesh Kumar (Co-Supervisor)	Techniques for fault diagnosis and life assessment of electrical facilities	Work is being planned to be carried out on Fault diagnosis and Life assessment of Electric al equipment.
18.	Vikas Kumar 24REE005	Dr. Ram Naresh Sharma	Power Quality Improvement	In this problem methods are developed to enhance the power quality of grid integrated solar PV systems.
19.	Nishant Negi 24REE004	Dr. Veena Sharma	Investigation and performance analysis of Electric Vehicle and Hybrid Electric Vehicle	The work shall be carried out in the area of performance analysis of electric vehicle and hybrid electric vehicle.
20.	Manisha Verma 24REE002	Dr. Himesh Handa	Control strategies for the stabilization & synchronization of Nonlinear Dynamical Systems	This work explores the control and synchronization techniques of nonlinear dynamical systems.
21.	Tej Singh 24REE003	Dr. Rajesh Kumar and Dr. Bharti Koul	Renewable Energy Integrated Power System	Work is being carried out to simulate computational model for integration of renewable energy systems with the main grid, Incorporating Energy Storage Systems (ESS)

				with RES to enhance overall system efficiency and reliability.
22.	Vijeta Verma	Dr. Bharti Koul	Demand Side Managements of Smart Grids	Work is being carried out to simulation and experimental work for Minimization of Electricity cost with user comfort including uncertainties by normalizing the load curve.

**(e) M. Tech. Dissertation Completed: 19 ( Passed Out in June 2023)**

Sr. No.	Name of the Student(s) with Roll No.	Name of Supervisor(s)	Title of Dissertation	Brief Report
1.	Moirangthem Kenedy Singh 21MEE005	Dr. R. N. Sharma	An Efficient Repeated Power Flow Approach to Evaluate ATC Considering Power Systems Security	To compute ATC, it utilizes a RACPF with predictor approach and compares its accuracy with the existing techniques, the DC PTDF and standard RACPF methods.
2.	Akshay Kumar Jaiswal 21MEE101	Dr. Bharat Bhushan Sharma	Cluster-Based Synchronizati on of Complex Networks of Nonlinear Systems	A general methodology for establishing explicit conditions or criterion for synchronisation of non-linear coupled dynamical system based on Lyapunov stability has been explored. The proposed method can be applicable to arbitrarily size of various structures (wherein coupling can be linear or nonlinear, links can be bidirectional or unidirectional and low or high dimensional systems). The proposed methodology for cluster synchronization has enormous application in the area biology, physics, robotics, computer networks etc.
3.	Komal Sharma 21MEE004	Dr. Anil Kumar Yadav and Dr. Bharat Bhushan Sharma	Hybrid Cyber-Attack Compensation of Sustainable Microgrid	The work carried out was focussed towards load frequency control (LFC) of sustainable microgrids subjected to cyber-attacks. The inclusion of the cyber-physical aspect in the power system is resulting in the increased complexity of the system. This complexity is giving adversaries a platform to jeopardize the stability, security, and, reliability of the system. The presented work performed analysis of the frequency response of the two different sustainable microgrids using robust control techniques namely active disturbance rejection control (ADRC), and Kharitonov Theorem-based proportional-integral (KT-PI) control in case of Denial of Service(DoS) attacks.
4.	Gautham Chakrawarthy A K 21MEE105	Dr. Veena Sharma	Intelligent Wind Turbine Maintenance: Predicting Gearbox Faults through Machine Learning and SCADA Data Analysis	This study demonstrates the potential use of KNN regression and K-Means clustering for detecting faults in wind turbine gearbox by analysing rotor bearing temperature data.
5.	Tej Singh 21MEE203	Dr. Supriya Jaiswal	Fault Detection in PMSM with Magnetic Domain	Study of PMSM electrical fault detection method.

			Model	
6.	Mukul Sharma 21MEE006	Dr. Bharti Koul	Frequency Optimization in Solar PV Systems Using VI-based Synchronous Inverters with ADP Controller	Work has been done to synchronize the frequency of the inverter's output with the grid frequency having integration with the electrical grid and minimization of power quality issues associated with frequency deviations due to sudden load changes.
7.	Narendra Kumar Mourya 21MEE012	Dr. Bharti Koul	Fuzzy Logic Based PV-Battery System for a Standalone Microgrid	The work has been done to construct and evaluate a fuzzy logic based PV-battery system for a standalone microgrid
8.	Abhishek Gautam 21MEE001	Dr. Ashwani Kumar Chandel	Voltage Profile Improvement using DSTATCOM in Three Phase Unbalanced Radial Distribution Systems	The distribution system (DS) is a multi-phase system that functions in a radially or weakly meshed topology. It also has a high R/X ratio. Real-time activities, such as network optimization, VAR planning, voltage profile enhancement, and state estimation, need a load flow algorithm that is dependable and efficient in order to be carried out. Therefore, for complicated system like DS, the existing load flow algorithms should be improved in order to keep track of system state variables.
9.	Manu Kumari 21MEE207	Dr. Ashwani Kumar Chandel	Validating Health Status of Transformer: Grey Relational Analysis and Fuzzy Logic	In this dissertation work, a novel approach grey relational analysis and Fuzzy Logic (FL) model is proposed to assess the overall health index of transformers. The health of the transformer directly affects by its insulation. Hence, accurate monitoring of insulation condition in return indicates the present health state of transformer insulation.
10.	Akshay Dhiman 21MEE201	Dr. O. P. Rahi	Intelligent condition Assessment of Power Transformer using DGA	Condition monitoring Assessment of Power Transformer has been carried out using using DGA whereby evolution of various gases from transformers and their volumes and ratios helps in predicting the likely fault in power transformers and hence remedial measures are taken in advance, thus averting failure of power transformer.
11.	Nishant Sharma 21MEE208	Dr. O. P. Rahi	Electric Mobility Impact on Power Grid	With popularization of electric mobility, power grids are facing new challenging to meet power demanding by charging the battery, this will result in power quality issues. The dissertation has dwelled on such issues.
12.	Patil Shubham Dadaso 21 MEE204	Dr. R. K. Jarial	Machine Learning Approach For Condition Assessment of Power Transformer	Leverage Dissolved Gas Analysis data for fault detection in transformer oil to reduce maintenance costs and minimize downtime. Evaluate machine learning algorithms (KNN, Naive Bayes, Logistic Regression, Decision Tree) for real-time condition monitoring effectiveness. Develop methods to overcome overfitting and underfitting, tuning hyperparameters for improved model accuracy.
13.	Shivani Arora 21 MEE009	Dr. R. K. Jarial	Speed Control of Permanent magnet BLDC Motor Using Intelligent Controller	The candidate has worked on key issues concerning the implementation of simulation tools on Speed Control of a Permanent magnet BLDC Motor Using Intelligent Controller and has investigated several aspects affecting drive performance under steady and transient conditions.



14.	Dharme Megharani Balaso 21 MEE205	Dr. R. K. Jarial	Investigation of oil-filled power transformer considering chemical degradation using artificial intelligent system	Analysis of the Chemical Degradation (CD) of transformer insulation. Fuzzy and Artificial Intelligence Systems for CD. dUtilize machine learning algorithms to identify patterns and predict future issues with the transformer, allowing for proactive maintenance and repair. Propose an intelligent monitoring system for the transformer that can detect early signs of chemical degradation and alert operators to take appropriate action.
15.	Akshita Dhiman 21MEE206	Dr. Rajesh Kumar	Fault Diagnosis of a transformer using Fuzzy model and nature based metaheuristic algorithm	Power transformer fault diagnosis system (PTFDS) based on evolutionary algorithm and machine learning techniques was carried out.
16.	Megha Ahirwar 21MEE103	Dr. Ram Niwash Mahia	An Evaluation of Control Techniques for Controlling and Monitoring of Greenhouse	The candidate has worked on key issues in greenhouse such as temperature and humidity control with the help of Fuzzy Logic Controller and Neural Network techniques. This work illustrated the use of thermal image classification for disease diagnosis in rice plants, followed by temperature optimization employing a control system.
17.	Jayaprakash Katual 21MEE102	Dr. Amit Kaul	Thermal Image Analysis using Fusion of Machine Learning and Deep Neural Networks	Work was carried on extracting and using information from thermal images in different domains. The strength of CNNs was used for anomaly detection.
18.	Shubham 21MEE104	Dr. Ravinder Nath	Performance Comparison of GKF with adaptive algorithms for acoustic echo cancellation	This dissertation addressed the problem of acoustic echo cancellation and compared the proposed GKF technique with adaptive algorithms.
19.	Gaurav Rawat 21MEE003	Dr. Shushil Chauhan	Transient Stability Analysis of Wind Farm Integrated Power Systems using PSAT	Transient stability enhancement is done for wind integrated systems using PSAT real time simulator. Dissertation completed along with one research publication in International Conference Student pursuing PhD from EED, IIT Roorkee.

**(f) Ongoing M. Tech. Dissertations (4<sup>th</sup> Semester Ongoing Registered PG Students) – 36**  
**(To be pass out in June 2024)**

Sr. No.	Name of the Student(s) with Roll No.	Name of Supervisor(s)	Tentative Title of Dissertation	Brief Report
1.	Tushar, 22MEE001	Dr. Sushil Chauhan	Reconfiguration of Distribution System with Distributed Generation	The work is focussed on reconfiguration of distribution system with distributed generation.

2.	Vivek Kumar Saini, 22MEE002	Dr. Ram Naresh Sharma	Optimal location of facts device for available transfer capability using firefly algorithm	In this research, optimal location facts device is found to enhance the available transfer capability using firefly algorithm.
3.	Amit Kumar 22MEE003	Dr. Ashwani Kumar Chandel	Transient Stability Improvement of Multi-machine System by using STATCOM with Power System Stabilizer	This research explores the synergistic impact of combining PSS and STATCOM in multi-machine systems under different transient conditions through extensive simulation studies. The efficacy of the suggested methodology is assessed using system stability metrics, including critical clearing time, transient stability margin, and rotor angle deviation.
4.	Samyak Jain, 22MEE004	Dr. Sushil Chauhan	Electrical Energy Theft Detection Using Machine Learning Techniques	The work is focussed towards addressing issues of electrical energy thefts and their detection.
5.	Nishant Thakur 22MEE205	Dr. O. P. Rahi (Supervisor) and Dr. Chardrasekaran S (Co-Supervisor)	Incremental Conductance Based MPPT for Photovoltaic Systems Utilizing PI Controller	This dissertation highlights the use of the Incremental Conductance (INC) method to track the MPP in PV systems under varying environmental conditions.
6.	Sachin Sharma 22MEE006	Dr. O. P. Rahi (Supervisor) and Dr. Sita Ram (Co-Supervisor)	Induction Motor Performance Improvement Through SPRS Using Multilevel Inverter	The work addresses issues of performance improvement of induction motor using multilevel inverter approach.
7.	Aniket Kumar 22MEE007	Dr. Rajesh Kumar	Optimizing Genetic Algorithms for Distributed Generation Sizing and Location to Minimize Power Loss	Genetic Algorithms (GAs) is used for optimal placement and sizing of Distributed Generation (DG) within the IEEE 33-Bus-Radial Distribution System.
8.	Rohit Prashar 22MEE008	Dr. Rajesh Kumar	Hybrid Renewable Energy Systems: An Impact Assessment and Analysis Based on Simulation for Sustainable Power	A simulation-based analysis and impact assessment of hybrid renewable energy sources focusing on long-term power generation and sustainability on grid system is carried out.
9.	Amit Kumar 22MEE009	Dr. Yog Raj Sood	Study of power system resilience enhancement	The work explores the resilience enhancement in the power systems.
10.	Aadarsh Kapil 22MEE010	Dr. Ram Naresh Sharma	Available Transfer Capability Calculation Using Continuation Power Flow Method	In this research, ATC is evaluated using the methodology of CPF approach on the standard IEEE 14 bus system.
11.	Rohit Verma 22MEE011	Dr. Yog Raj Sood	Optimal location of distributed generation by application of machine learning	The work is focussed towards identifying optimum location of DGS which using machine learning concepts.
12.	Shivam Thakur 22MEE012	Dr. Ashwani Kumar Chandel (Supervisor) and Dr. Chardrasekaran S (Co-Supervisor)	Optimal Power Flow by Using Hybrid Chaotic PSO Technique	Optimal Power Flow (OPF) is a fundamental problem in power system optimization, indispensable for ensuring efficient and reliable operation of modern power grids. This dissertation introduces a novel approach to tackle the OPF problem,

				leveraging the capabilities of a Hybrid Chaotic Particle Swarm Optimization (PSO) technique.
13.	Shivani 22MEE013	Dr. Ashwani Kumar Chandel	Economic Load Dispatch Problem using Hybrid Meta-Heuristic Method MOA-PSO	This dissertation proposes a novel proposed hybrid meta-heuristic method, Magnetic Optimization Algorithm Particle Swarm Optimization (MOA-PSO), which synergizes the strengths of Particle Swarm Optimization (PSO) and the Magnetic Optimization Algorithm (MOA). PSO is proficient in local search but is prone to premature convergence, whereas MOA, inspired by magnetic dipole interactions, excels in global exploration. By integrating these methods, MOA-PSO achieves a balanced exploration-exploitation trade-off, resulting in faster convergence and higher-quality solutions.
14.	Shikha Thakur 22MEE014	Dr. Yog Raj Sood	Simulation based analysis of microgrid using green energy resources	The work is focussed towards simulation based analysis of microgrid using green energy resources.
15.	Rishav Kumar 22MEE016	Dr. O. P. Rahi (Supervisor) and Dr. Supriya Jaiswal (Co-Supervisor)	Power Quality Event Detection Using DWT and Fuzzy Logic	The proposed approach gives the characterization of power quality events by extracting the features from wavelet transform and classification is done using rule based fuzzy logic approach.
16.	Atul Kumar 22MEE017	Dr. Yog Raj Sood (Supervisor) and Dr. Ram Niwash Mahia (Co-Supervisor)	Modeling and Simulation of Solar and Wind Based Hybrid Energy System	The work is focussed towards modeling and simulation of solar and wind based hybrid energy system.
17.	Kunal B. Arwal 22MEE018	Dr. Rajesh Kumar	Examining the Feasibility of Floating PV at Bhakra Nangal Dam	The study focuses on the design and potential of an FPV system for the Bhakra Nangal Dam.
18.	Raouf Ahmed 22MEE019	Dr. Bharti Koul	Efficiency Augmentation using Solar tracking system under Varying Climatic Conditions	Work is being carried out to study substantial disparities between the outputs, obtained through the two approaches. This compellingly underscores the advantages of employing solar tracking systems in enhancing energy generation.
19.	Chirag Thakur 22MEE020	Dr. Ram Naresh Sharma	Optimal capacitor location in radial distribution network to improve voltage profile	Voltage profile improved using PSO approach in IEEE 15, 33, 69 radial distribution network.
20.	Ajay Kumar 22MEE021	Dr. O. P. Rahi (Supervisor) and Dr. Ram Niwash Mahia (Co-Supervisor)	Analysis of Power Quality in Integrated Smart Grid for EV's Charging Station	The work is related to the designing of charging station with active power filter for mitigation of total harmonic distortion.

21.	Abhinav Sharma 22MEE022	Dr. Yog Raj Sood (Supervisor) and Dr. Supriya Jaiswal (Co-Supervisor)	Simulation of green electric vehicle charging station and optimal placement of distributed generation and electrical vehicle charging station	The study focuses on the Simulation of green electric vehicle charging station and optimal placement of distributed generation and electrical vehicle charging station.
22.	Akash 22MEE101	Dr. Himesh Handa	Synchronization of Chaotic System using Contraction Theory	Chaos in nonlinear systems has indeed been a significant area of study due to its complex behavior and potential applications across various fields, from secure communications to biological systems and beyond. The synchronization of chaotic systems are crucial for harnessing their behavior for practical applications. This work explores synchronization of chaotic system using Contraction theory and its realization using MATLAB Simulink.
23.	Kriti Verma 22MEE102	Dr. Amit Kaul	Enhanced Biometric Security: Integrating ECG and PPG for Multimodal Authentication	This research investigates the integration of biometric technologies within the eHealth domain, with a specific focus on employing a multimodal system that merges Electrocardiogram (ECG) and Photoplethysmogram (PPG) signals as the biometric modality. The objective is to enhance privacy and security measures in eHealth systems. By combining these signals, eHealth systems can effectively address challenges related to user authentication, data integrity, and patient privacy. Biometric technologies play a crucial role in ensuring that only authorized personnel can access health data, thus minimizing security risks and safeguarding patient information. This integration represents a significant advancement towards a more secure and efficient eHealth ecosystem, benefiting both healthcare providers and patients alike.
24.	Rakesh Kumar 22MEE103	Dr. R. Nath	Multi Target Tracking Using Finite Set Statistics for Applications in Autonomous Navigation and Surveillance	Tracking multiple dynamic targets is complex due to uncertain measurement origins, complex motion models, sensor limitations, and real-time processing needs. This thesis explores the use of Multiple Hypothesis Tracking (MHT) and Random Finite Set filters in autonomous vehicle navigation and space debris monitoring, employing sensor management approaches to enhance performance and trajectory tracking over broader fields of view.

25.	Aman Thakur 22MEE104	Dr. Bharat Bhushan Sharma (Supervisor) and Dr. Vivek Sharma (Co-Supervisor)	Control and Synchronization of Non-Linear systems with Model Predictive Control	<p>The proposed work addresses the synchronization of non-linear systems using Model Predictive Control (MPC). Further, implement of M.P.C. based control shall be done for coupled systems and strategies for improving performance of M.P.C. for non-linear systems shall be explored.</p> <p>The proposed control methods shall be utilized to control and synchronize non-linear systems in presence of disturbances and uncertainties.</p>
26.	Akshay Kumar 22MEE105	Dr. Himesh Handa	Control & Synchronization of Chaotic System	<p>Since long time chaos has been a topic of interest in the field of nonlinear systems. There are different types of stabilization and synchronization schemes available which holds significance for different applications. This work explores sliding mode control technique for stabilization and synchronization for chaotic systems. Further, circuit implementation using analog components has also been done in NI Multisim.</p>
27.	Tushar Dhiman 22MEE106	Dr. Bharat Bhushan Sharma	Application of Sensor Fusion Techniques For Control & Synchronization of Non-Linear Systems	<p>Sensor fusion is a widely used technique to obtain additional or complementary information or to eliminate measurement noise or non-existent appropriate sensor or in excessively expensive sensor. The proposed work explores basics of Kalman filter, Extended Kalman Filter, Unscented Kalman Filter and Particle filter techniques and to utilize these filters for sensor fusion methods.</p> <p>Further, sensor fusion techniques shall be utilized to produce an improved model or estimate of a system from a set of independent data sources(sensors). Finally, applications shall be explored in the domain of control and synchronization of the underactuated system.</p>
28.	Ravi Kumar 22MEE107	Dr. Veena Sharma	Designing Optimal PID for Disturbance Rejection	<p>This study explains the performance analysis of PID controllers tuned using PSO, autotuning, and conventional Ziegler-Nichols for a Simulink model of a DC motor.</p>
29.	Prashant Dilip Yelpale 22MEE201	Dr. Raj Kumar Jarial	Enhancing Fault Characterization in Motor Current Signature Analysis Through the Integration of FFT and WT, along thermal analysis as side channel to MCSA	<p>To optimize Motor Current Signature Analysis (MCSA) for robust fault detection in rotating machinery, with a focus on minimizing downtime in electrical utilities and operations.</p>

30.	Tamanna Sharma 22MEE202	Dr. O. P. Rahi	Design and Analysis of Substation Earthing	This dissertation addresses the design and analysis of substation earthing systems, which are critical for the safety and reliability of electrical substations.
31.	Aradhana 22MEE203	Dr. Ashwani Kumar Chandel	Health Monitoring of Power Transformer using FuranicCompound Analysis	Transformer oil in service oxidizes and eventually reaches a point beyond which it is not fit for the intended purpose. In such cases maintenance guide recommends replacing the oil. Further, the Insulating paper used in transformers is subjected to heat and is also damaged by the oil oxidation products. Therefore, same maintenance regime of the oil is not applicable to the paper insulation. Further, paper degradation is not reversible. It is detailed in the literature that the life of transformers depends upon the paper insulation life.
32.	Md Hanzala Hassan 22MEE204	Dr. Raj Kumar Jarial	Investigation of Implicating the Role of DC Link Voltage Controller in the Proposed 2.04 MW Peak at NIT Hamirpur Rooftop Solar PV Power System	The study evaluates NIT Hamirpur's capability to meet its energy requirements using PV generation, suggesting that integrating tin-shed and rooftop solar PV systems could reduce dependency on traditional energy sources, resulting in substantial savings and lower carbon emissions.
33.	Obaid Ashraf 22MEE205	Dr. Bharti Koul	Optimizing Residential Energy Consumption through Intelligent Demand-Side Management: A Data-Driven Approach	work is being carried out to Develop and implement load shifting strategies to minimize the overall cost of residential energy consumption Develop a predictive model for energy consumption.
34.	Sayed Mohammad Zeeshan 22MEE206	Dr. Bharti Koul	Demand Side Management to Optimize the Cost in Commercial and Industrial Loads	work is being carried out to reduce the overall electricity costs for industrial and commercial entities by strategically shifting electricity consumption to periods with lower prices, and maintain a comfortable working environment for employees and customers while satisfying the user comfort.
35.	Biplab Roy 21 MEE002	Dr. R. K. Jarial (Supervisor) and Dr. Himesh Handa (Co-Supervisor)	Investigation on Performance Wireless Electricity System	The candidate has been focussing on the design and development of an experimental setup in High Voltage lab. and investigating emerging issues and parameters affecting Performance of Wireless Electricity System
36.	Sharad P S Tomar 21 MEE008	Dr. R. K. Jarial	Impact of EV infrastructure on already existing Power System networks	The candidate has converted his full-time M tech Program to part-time and currently working on a topic related to EV infrastructure operational impact on already existing Power System networks

**3. Consultancy services: 01**

Sr. No.	Name of the Scheme	Sponsoring Agency	Amount Earned	Year (Day, Month, Year)
1.	Carried Out Field Tests/ Oil Insulation Investigations for HPPTCL, HPSEBL and IIPs located within Himachal	HPPTCL, HPSEBL and IIPs located with in Himachal	Rs. 4.8 Lacs	April, 2023- March 31, 2024

**4. Technical Association / Societies:**

Sr. No.	Name of Faculty	Technical association / societies:
1.	Prof. Y. R. Sood	Senior Member IEEE, USA Fellow of Institution of Engineers (India) Life Member, Indian Society for Technical Education (ISTE) Member IEEE Sensors Council Member IEEE Council of Superconductivity Member IEEE Nanotechnology Council
2.	Dr. Ram Naresh Sharma	Member, IEEE, Member, ISTE, Fellow Institution of Engineers (India)
3.	Dr. Ashwani Kumar Chandel	Fellow (IE) India Kolkata LM ISTE Delhi Fellow IETE New Delhi
4.	Dr. Ravinder Nath	Life member of ISTE (LM-13062) Fellow IEI (F-117078-5)
5.	Dr Veena Sharma	Member IEEE (99906230) Life Member ISTE (LM-20570) Life Member Instrument Society of India (LM-728) Fellow of Institution of Engineers (F-116687)
6.	Dr. R. K. Jarial	Member IEEE, Associate Member Institution of Engineers (India), Life Member, Indian Society for Technical Education (ISTE) Delhi, Member, IEEE Dielectrics and Electrical Insulation Society Member IEEE Power Electronics Society Member, USA till 31 <sup>st</sup> Dec 2021.
7.	Dr. B. B. Sharma	Member IEEE USA Member, Robotic Society of India (RSI), Life Membership of ISTE (LM38011) Member IEEE Automatic Control Society (Membership No. 90499500) Fellow Institution of Engineers (India) (Membership No: F-1266469)
8.	Dr. O. P. Rahi	Member, IEEE (USA) Fellow, The Institution of Engineers (India) Life Member, Indian Society for Technical Education. Life Member, Instrumentation Society of India
9.	Dr. Amit Kaul	Senior Member, IEEE, Life Member ISTE, BMI, Associate Member IE(I), Life Member BSI
10.	Dr. Rajesh	Member Instrument society of India (LM-1958) Member The Institution of Engineers (India) (AM-0998683)
11.	Dr. Bharti Koul	Member, IEEE Member, Instrument Society of India (LM-1958) Member Institution of Engineers (India) (AM-0998683)
12.	Dr. Ram Niwash Mahia	Senior Member, IEEE Fellow, IETE (F-504303) Member, IE (India)
13.	Dr. Vivek Sharma	Life Member of Indian Society for Technical Education
14.	Dr. Supriya Jaiswal	Senior Member, IEEE AMIE, IEI

## **5. Expert Lectures Delivered by EED Faculty :06**

1. Dr. Yog Raj Sood delivered an Expert Lecture on “Promotion of Renewable Sources in Deregulated Power Market” at Centre for Energy, MNIT Jaipur, Jaipur, Rajasthan on August 17, 2023.
2. Dr. Yog Raj Sood delivered an Expert Lecture on “Sustainable Energy Promotion in Deregulated Power Industry” at Electrical Engineering Department, SVNIT Surat, Gujrat on September 27, 2023.
3. Dr. Yog Raj Sood delivered an Expert Lecture on “Challenges and Solutions for Promotion of Renewable Energy System in Deregulated Power Sector” in Five Days Online Faculty Development Program on “Opportunities and Challenges in Applications of Renewable Energy Systems” at Electrical Engineering Department, NIT Hamirpur, Himachal Pradesh, October 23-27, 2023 on October 23, 2023.
4. Dr. Yog Raj Sood delivered an Expert Lecture on “Renewable Energy Promotion in Deregulated Power Industry” in International Conference on Machine Learning, Advances in Computing, Renewable Energy, and Communication (MARC-2023) at Global University, Saharanpur (U.P.) on November 29, 2023.
5. Dr. Yog Raj Sood delivered an Expert Lecture on “Evolutionary Programming Application to Optimal Power Flow” in e-Short Term Course on Software Tools for Academicians and Researchers (STAR-2023) at Electrical Engineering Department, NIT Hamirpur, Himachal Pradesh on December 12, 2023.
6. Dr. Vivek Sharma delivered an Expert Lecture on “Fundamentals of Electric Vehicle” in 38<sup>th</sup> National Convention of Electrical Engineers at The Institution of Engineers India's, Himachal Pradesh State Centre in Shimla during December 15-16, 2023

## **6. Book Chapters:11**

1. Veena Sharma, Vineet Kumar, R. Naresh, V. Kumar, Ankit Aharwar, R. Chauhan, “Solution of Unit Commitment problems in GAMS Computational Environment” Lecture Notes in EE Book Series (LNEE), Springer, Volume 1026, pp. 151-165, 2023.
2. Pallav and Himesh Handa, “Synchronization of MLS Chaotic System Using Sliding Mode Control Technique”, Soft Computing: Theories and Applications: Proceedings of SoCTA 2022, LNNS, Springer volume 627, April 2023.
3. Pallav and Himesh Handa, “Stabilization of Uncertain Nonlinear Chaotic System Using PI SMC”, S Lecture Notes in Electrical Engineering, LNNS, Springer, Volume 1026, June 2023.
4. S. Koul, B. Koul and B. Bakshi, “Influence of AI, Machine learning to empower healthcare sector”, Machine Learning, Deep Learning, Big Data and Internet of things for Healthcare, International CRC Taylor Francis group, 2023.
5. Ram Niwash Mahia, R. Yadav, N. K. Swarnkar, and O. P. Mahela, “Optimal Reconfiguration of Transmission Network to Meet Load Growth for Ten Year Projected Scenario of Practical Transmission Grid”, Renewable Energy Integration in Utility Grids: Advances in Power Quality, Protection, Stability and Flexibility, Academic Press, Elsevier, 2024.
6. Ram Niwash Mahia, O. P. Mahela, S. Chugh, and A. R. Garg, “Novel System Protection Scheme for Power Transformers in Utility Grid to Mitigate Renewable Power Evacuation Constraints and Improve Grid Stability”, Renewable Energy Integration in Utility Grids: Advances in Power Quality, Protection, Stability and Flexibility, Academic Press, Elsevier, 2024.
7. M. P. Sharma, O. P. Mahela, and Ram Niwash Mahia, “Transmission Loss Minimization in Utility Grid Using Reactive Power Management Considering Operations of Capacitor Banks and Transformer on Load Tap Changers: A Case Study”, Renewable Energy Integration in Utility Grids: Advances in Power Quality, Protection, Stability and Flexibility, Academic Press, Elsevier, 2024.
8. G. S. Sharma, R. K. Ranjan, O. P. Mahela, and Ram Niwash Mahia, “Variability of Renewable Energy Generation and Flexibility Initiatives: Indian Scenario”, Renewable Energy Integration in Utility Grids: Advances in Power Quality, Protection, Stability and Flexibility, Academic Press, Elsevier, 2024.
9. Ram Niwash Mahia, R. Mishra, S. Gupta, and O. P. Mahela, “Integrated Control of Microgrid with Vehicle to Grid Technology to Regulate Frequency in Smart City Power Network”, Emerging Electrical and Computer Technologies for Smart Cities: Modelling, Solution Techniques and Applications, Taylor and Francis Group, CRC Press, USA, 2024.



10. Ram Niwash Mahia, H. Kaushik, R. Mishra, and O. P. Mahela, “Review of Renewable Energy Technologies in Smart Cities”, Emerging Electrical and Computer Technologies for Smart Cities: Modelling, Solution Techniques and Applications, Taylor and Francis Group, CRC Press, USA, 2024.
11. Supriya Jaiswal, Gopal Rawat, Chetan Khadse and Sohit Sharma, “smart hydroponics system for sustainable agriculture”, Data Science for Agricultural Innovation and Productivity, Bentham Science, February 2024.

### 3.5 DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



#### 1 Academic Staff:

**HEAD: Dr. Ashwani Kumar Rana, Associate Professor**

#### FACULTIES:

Professor	Associate Professor	Assistant Professor
Dr. Rajeevan Chandel	Dr. K.S. Pandey	Er. Vinod Kumar
	Dr. Surender Kumar Soni	Dr. Rakesh Sharma
	Dr. Ashok Kumar	Er. Gagnesh Kumar
	Dr. Gargi Khanna	Dr. Aman Kumar
	Dr. Ashwani Kumar Rana	Dr. Amit Bage
	Dr. Krishan Kumar	Dr. Chandra Shekhar Prasad
	Dr. P. Daniel	Dr. Saurabh Kumar
	Dr. Manoranjan Rai Bharti	Dr. Sankalita Biswas
	Dr. Rohit Dhiman	Dr. Abhijit Bhattacharya
	Dr. Mahesh Angira	Dr. Sandeep Kumar
		Dr. Pushpendra Singh (On lien)

## 2. DISTINCTION ACHIEVED

### (a) By student:

- i) Mr. Paksham Mahajan along with Prof. Rajeevan Chandel received Best paper Award for “Design and Analysis of High Performance Current Starved Voltage Controlled Oscillator,” presented in 3rd International Conference on Computational Electronics for Wireless Communications (ICCWC-2023) at Dr. B.R.Ambedkar NIT Jalandhar Pb, India, 23rd December 2023.
- ii) Er. Himanshu Chaurasia (21MEC003) working as Sr. Solutions Engineer, Cadence, Noida
- iii) Ms. Bushara Fatima (21MEC013), pursuing Ph.D, IIT Roorkee
- iv) Ms. Vandana Boora (184535), Sagacious IP, Gurugram
- v) Ms. Yachana Arora (184533), C-Dot, Delhi
- vi) Ms. Aastha Soni (21MEC015), pursuing Ph.D. from IIT Mandi
- vii) Dr. A. Bage, Mr. P. Negi and Dr. C. S. Prasad received Best paper Award for "Planar Insert Loaded Triple Band Waveguide Band-Pass Filter," 2023 8th International Conference on Computers and Devices for Communication (CODEC), Kolkata, India, 2023, pp. 1-2, doi: 10.1109/CODEC60112.2023.10465929.
- vii) Mr. S. K. Gupta and Dr. A. Bage, received Best paper Award for "A Low-Profile, Dual-Band Frequency Reconfigurable Antenna for 5G/WLAN/Wi-MAX Applications," 2023 8th International Conference on Computers and Devices for Communication (CODEC), Kolkata, India, 2023, pp. 1-2, doi: 10.1109/CODEC60112.2023.10466150. [2nd Best Poster Presentation]

### (b) By faculty Member:

- 1) Indian Patent granted to Dr. Rohit Dhiman, M.C. Chowdary, V.R. Teja, T. Anirudh, and Prof. Rajeevan Chandel, Internet of Things (IoT) Enabled Energy Management System, Patent Grant No.: 461930, Date of Grant: 25th October 2023.
- 2) Prof. Rajeevan Chandel received IETE Prof. SK Mitra Memorial Award-2023 for the Best Research Oriented Paper, along with her student Er. Animesh Srivastava, for the research paper entitled, “A Novel Co-planar Five Input Majority Gate Design in Quantum-Dot Cellular Automata,” on 16th Sep, 2023, in 66th Annual I ETE Convention, held at Pune, Maharashtra, India.
- 3) Prof. Rajeevan Chandel received third prize for Hindi Sulekh, Abhiuday-2023, NIT Hamirpur HP.

## 3. SEMINAR, SYMPOSIA, SUMMER SCHOOL, WINTER SCHOOL, SHORT TERM COURSE.

### a) Conducted in the Department.

- 1) Prof. Rajeevan Chandel conducted a Seminar on “Research Paper Writing and Role of Citations” in annual Tech Fest NIMBUS-2023 on 8th April 2023 in the new e-Lecture Hall Complex, NIT Hamirpur HP.

**b) Expert Lectures Delivered in Other Institutes:**

**c) Participated by Faculty Members:**

- i) Prof. Rajeevan Chandel attended online Webinar Series by Leading IEEE Electron Device Luminaries, jointly organized by IEEE EDS Delhi Chapter (New Delhi, India), DBT Star College Status Program, Deen Dayal Upadhyaya College, University of Delhi and INAS– Delhi Chapter, 27-April, 2023, and 8-May, 2023.
- ii) On week National e-Workshop on Innovation&Intellectual Property Rights , organized by Innovative Technology Enabling Centre (InTEC), CSIR-IMMT, Bhubaneswar during June 12-17, 2023.

#### **4. RESEARCH**

**(a) Research Scheme:**

Title of the Scheme	Sponsored by	Assistance Received (Rs) in lakh	Investigator	Brief Report
ASIC and Package Design for Ultra Small Atomic Clock	Ministry of Electronics & Information Technology, GoI	8.19	Dr. Gargi Khanna (Co-PI)	Ongoing
Design and development of Circularly Polarized Leaky-Wave Antenna in Substrate Integrated Image Guide/Dielectric Image Line environment for 5G mm-Wave Application	SERB	3.14	Dr. Chandra Shekhar Prasad (PI)	Ongoing

**(b) Research Publication:**

**Journal Publications:**

- Deepanshu Kaushal and Rajeevan Chandel, “Towards Expediting the Customized Multiband Antenna Design,” Arabian Journal for Science and Engineering, Online, 2023. [SCI].
- Dilip Singh and Rajeevan Chandel, “FPGA-Based Hardware-Accelerated Design of Linear Prediction Analysis for Real-Time Speech Signal,” Arabian Journal for Science and Engineering, Online, 2023. [SCI]

3. Deepanshu Kaushal and Rajeevan Chandel, "A Proposal, Design, and Analysis of Planar Feed Gasket Antennas with Modified Substrate for Multiband Vehicular Applications," IETE Technical Review, Taylor & Francis Publication, vol. 40, no. 2, pp. 268-283, 2023, DOI: 10.1080/02564602.2022.2088630 [SCIE].
4. Dilip Singh and Rajeevan Chandel, "An Efficient FPGA-Based Accelerator for Perceptual Weighting Filter in Speech Coding," IETE Technical Review, Taylor & Francis Publication, Online, 28 Dec 2023, DOI: <https://doi.org/10.1080/02564602.2023.2297355>. [SCIE].
5. Bushra Fatima, Rajeevan Chandel and Rohit Dhiman, "Design and Analysis of a High-Performance N-Bit Digital Comparator Using a Novel EX-OR-NOR Gate," Journal of Active and Passive Electronic Devices (JAPED), vol.17, no.4, pp. 287-305, 2023. [Scopus].
6. Vandana Boora, Ajay Kumar, Madhukiran K., Rajeevan Chandel, and Rohit Dhiman, "Electrical characterization and performance analysis of coaxial through-glass vias," Sādhanā, Springer Nature, Indian Academy of Sciences, vol. 49, no. 44, pp. 1-5, 2024 [SCIE].
7. Priya Kaushal and Gargi Khanna, "High Performance Sub-10nm MoS<sub>2</sub> Based Step Structure Engineered DG-TFET," in Journal of Physica E: Low-dimensional Systems and Nanostructures (Elsevier), vol. 158, pp. 115888, 2023 (SCI IF=3.6) <https://doi.org/10.1016/j.physe.2023.115888>
8. Priya Kaushal and Gargi Khanna, "Comparative Analysis of Silicon based TFET and MoS<sub>2</sub> based TFET", International Journal of Microsystems and IoT, vol. 1, no. 5, pp. 320-325, 2023 <https://doi.org/10.5281/zenodo.10213127>
9. Sachindra Bharti, Rohit Dhiman and Gargi Khanna, "Temperature Performance Analysis of Hybrid Junctionless Double Gate Transistor," Journal of Active and Passive Electronic Devices, pp. 1–18, March 2024
10. Sachindra Bharti, Rohit Dhiman and Gargi Khanna, "Performance Investigations of Novel Hybrid Junctionless Double Gate Transistor with Gate Engineering," Journal of Active and Passive Electronic Devices, pp. 1–17, Dec. 2023
11. Bage, A. (2023). E-Plane dual band bandstop waveguide filter for possible X-band applications. International Journal of Electronics Letters, 1–9. <https://doi.org/10.1080/21681724.2023.2291809>
12. L Singh, P Pareek, R Kumar, V Agarwal, NK Maurya, A Bage, "Investigation of SPR sensor for immunoglobulin detection by using Ag–Si<sub>3</sub>N<sub>4</sub>-BP on the sensing layer," Opt Quant Electron 56, 771 (2024). <https://doi.org/10.1007/s11082-024-06665-4>
13. Rajni Kant, Chandra Shekhar Prasad, Sunil Kumar Sahoo, Animesh Biswas, M.J. Akhtar, Half-mode substrate integrated waveguide based filtering leaky-wave antenna, AEU - International Journal of Electronics and Communications, Volume 171, 2023.
14. A. Bhattacharyya, A. Verma, R. Ranta and R. B. Pachori, "Ocular Artifacts Elimination From Multivariate EEG Signal Using Frequency-Spatial Filtering," in IEEE Transactions on Cognitive and Developmental Systems, vol. 15, no. 3, pp. 1547-1559, Sept. 2023, doi: 10.1109/TCDS.2022.3226775.

## Conference Publications

1. Himanshu Chaurasia and Rajeevan Chandel, "Design and Analysis of a Novel High-Performance Adder Circuit for VLSI Applications," Int. Conference on Systems, Control and Automation (ICSCA-2023), NIT Kurukshetra, India, 12-13 May, 2023.
2. Aastha Soni, Rajeevan Chandel, Rohit Dhiman, "Design and Performance Analysis of Voltage-Controlled Oscillator," 3rd IEEE International Conference on Intelligent Technologies (CONIT 2023), Bangalore, Karnataka, India. DOI: 979-8-3503-3860-7/23/\$31.00 ©2023 IEEE, 23-25, June 2023.
3. Bushra Fatima and Rajeevan Chandel, "Analysis of IR Drop for Robust Power Grid of Semiconductor Chip Design: A Review," 2nd Int. Conference on Advances in Computing, Communication and Security (I3CS-2023), NIT Kurukshetra, India, 1 - 3 June, 2023, and in ITM Web of Conferences, published by EDP Sciences, vol. 54, 04001, 2023. <https://doi.org/10.1051/itmconf/20235404001>.
4. Dilip Singh and Rajeevan Chandel, "An FPGA Implementation of the Levinson-Durbin Algorithm for Speech Coding," 3rd International Conference on Computational Electronics for Wireless Communications (ICWC-2023), Dr. B.R.A. NIT Jalandhar Pb, India, 22-23 December 2023.
5. Paksham Mahajan and Rajeevan Chandel, "Design and Analysis of High Performance Current Starved Voltage Controlled Oscillator," 3rd International Conference on Computational Electronics for Wireless Communications (ICWC-2023), Dr. B.R.A. NIT Jalandhar Pb, India, 22-23 December 2023.
6. Suyash Sachdeva, Madhu Kiran Kommukuri, Rajeevan Chandel and Rohit Dhiman, "Recurrent Neural Network (RNN) Based Signal Integrity Assessment for Coaxial- Through Glass Vias in Three-Dimensional Integration," 8th IEEE Electron Devices Technology and Manufacturing (EDTM 2024) Conference, 3-6 March, 2024.
7. Kashish Agarwal, Gargi Khanna, Priya Kaushal "p-GaN HEMT-on-SiC Structural Optimization for High Drain Current and High Threshold Voltage" 2nd International conference on Advances in Power, Signal and Information Technology APSIT 2023, at Siksha 'O' Anusandhan, Bhubaneswar, Odisha, India during 9th – 11th June, 2023.
8. Arihant Raj Siddharth, Urvashi and Gargi Khanna, "Low Power Architecture of 4-bit Odd Parity Generator/Checker Scheme", 5th International Conference on Power, Control & Embedded Systems (ICPES-2023) at MNNIT Allahabad, India, January 2023
9. Amit Bage, Priyanka Negi, and Chandra Shekhar Prasad, A Low-Profile, Dual-Band Frequency Reconfigurable Antenna for 5G/WLAN/Wi-MAX Applications, CODEC 2023, Kolkata
10. S. K. Gupta and A. Bage, "A Low-Profile, Dual-Band Frequency Reconfigurable Antenna for 5G/WLAN/Wi-MAX Applications," 2023 8th International Conference on Computers and Devices for Communication (CODEC), Kolkata, India, 2023, pp. 1-2, doi: 10.1109/CODEC60112.2023.10466150
11. A. Bage and S. K. Gupta, " THz Metamaterial Sensor for Possible Influenza A Virus Detection," Joint Workshop of Thailand-Japan MicroWave Workshop and Asian Wireless Power Transfer Workshop 2023 (TJMW&AWPT 2023), Bangkok Thailand
12. S. K. Gupta and A. Bage, "A Compact Dual-Band Frequency Reconfigurable MIMO Antenna for 5G/WLAN/Wi- MAX Applications," Joint Workshop of Thailand-Japan MicroWave Workshop and Asian Wireless Power Transfer Workshop 2023 (TJMW&AWPT 2023), Bangkok Thailand

**13. Book Chapters Published**

Sr. No.	Title of the Chapter	Name (s) of author(s) of chapter	Title of Book	Name(s) of Editor(s)	Year of Publication	Publisher
1.	3D Integration-A Mini Review	Yachana Arora, Vandana Boora, Rohit Dhiman and Rajeevan Chandel	Interconnect Technologies for Integrated Circuit and Flexible Electronics	Dr. Y. Agarwal (DA-IICT Gandhinagar), Dr. Kavicharan M. (NIT Silchar) and Dr. Uma. P (VIT Vellore)	2024	Springer Nature
2.	Explicit Power-Delay Models for On-chip Copper and SWCNT Bundle Interconnects	Yash Agrawal, Vinay Palaparthi, Mekala Girish Kumar, Kavicharan Mummaneni, Rajeevan Chandel	Interconnect Technologies for Integrated Circuit and Flexible Electronics	Dr. Y. Agarwal (DA-IICT Gandhinagar), Dr. Kavicharan M. (NIT Silchar) and Dr. Uma. P (VIT Vellore)	2024	Springer Nature

**Doctoral Programme:****(d) Ph.D Degree awarded:**

1. Dr. Deepanshu Kaushal, Registration No. 2K17-Ph.D.-E&CE-357

**(e) Thesis submitted:**

1. Mr. Surendra Kumar Gupta, Registration No. 2K19-Ph.D.-ECE-456

**(f) Name of Doctoral students presently Supervising (Ongoing)**

Sr. No.	Name of Guide	Name of students
1.	Prof. Rajeevan Chandel	Mr. Dilip Singh
2.	Dr. Surender Soni	Ms. Nikita Shandil
3.	Dr. Ashok Kumar	Mr. Pawan Gupta
4.	Dr. Gargi Khanna	Ms. Priya Kaushal
		Mr. Sachindra Bharti
5.	Dr. Ashwani Rana	Mr. Vinod Kumar
		Ms. Priyanka
		Mr. Saurabh Kumar
6.	Dr. Rohit Dhiman	Mr. Ajay Kumar
		Mr. Madhu Kiran
7.	Dr. M. R. Bharti	Ms. Parmila Devi
		Ms. Tanuja Dogra
8.	Dr. Krishan Kumar	Ms. Nidhi Sharma
		Mr. Monish Bhatia
9.	Dr. Rakesh Sharma	Mr. G. Devendhar

		Ms. Sakshi Anand
		Mr. Aditya Kumar Verma
10.	Dr. Chandra Shekhar Prasad	Ms. Ashima Kaplesh
11.	Dr. Saurabh Kumar	Mr. Sunil Kumar
12.	Dr. Sandep Kumar Singh	Mr. Akash
13.	Dr. Abhijit Bhattacharyya	Mr. Amit Kumar
		Mr. Shailesh Kumar

**(g) POPULAR LECTURES BY OUTSIDE EXPERTS:**

Sr. No.	Date	Speaker	Topic
-	-	-	-

**(h) CONSULTANCY SERVICES:**

Sr. No	Name of the Scheme	Sponsored Agency	Amount Earned
-	-	-	-

**(i) EQUIPMENT ACQUIRED:**

Sr. No.	Name of Equipment	Quantity in No.'s	Cost (Rs. In Lakh) in
1.	Computer (Project Grant)	01	Rs. 2,93,617/-
2.	Keysight 100 KHz to 9 GHz Spectrum Analyser	01	Rs. 17,47,170/-
3.	D-link LAN Network in VLSI Lab	-	Rs. 17,380/-
4.	Rigol Analog and Digital 100 MHz Non-window	05	Rs. 4,47,500/-
5.	i) DC Power Supply 30V, 3A	10	Rs. 1,00,000/-
	ii) Bread Board	10	Rs. 1,03,191/-
6.	Desktop Computer	20	Rs. 13,80,700/-
7.	Microwave Test Bench 2 Klystron + 1 Gun Based X-Band	-	Rs. 15,50,425/-
8.	Printer (Multi-functional Machine)	01	Rs. 24,305.58/-

**5. TECHNICAL ASSOCIATION / SOCIETIES:-NIL –**

- i) Prof. Rajeevan Chandel is Fellow of IETE (I), Member IEEE, Life Member ISTE
- ii) Dr. Amit Bage, IETE, Associate Member
- iii) Dr. Abhijit Bhattacharyya, IEEE Member



**6. DETAIL OF THE LABORATORIES:**

<b>Sr. No.</b>	<b>Name of the Laboratory</b>
1.	Basic Electronics Lab
2.	Computer Lab
3.	Electronics Workshop
4.	Analog Electronics Lab
5.	Digital Signal Processing Lab
6.	VLSI Design Lab
7.	Communication Lab
8.	MEMS Design Lab
9.	Embedded System Lab
10.	Digital Electronics Lab
11.	Industrial Electronics Lab
12.	Microwave Lab
13.	Fibre Optical Lab
14.	Microprocessor Lab

### 3.6 DEPARTMENT OF MECHANICAL ENGINEERING



#### (a) ACADEMIC STAFF

**HEAD: - Dr. Prashant Kumar (Ph. D)**

#### **FACULTIES: -**

Professor	Associate Professor	Assistant Professor SG – I	Assistant Professor SG – II
Dr. Rakesh Sehgal	Dr. Rajesh Kumar Sharma	Dr. Deepak Sharma	Dr. Mahavir Singh
	Dr. Rajiv Kumar Sharma	Dr. Param Singh	
	Dr. Somesh Kumar Sharma	Dr. Akhilesh Ku. Choudhary	
Dr. Sunand Kumar	Dr. Sant Ram Chauhan	Dr. Ajoy Debbarma	Dr. Niharika Gupta
	Dr. Prashant Kumar	Dr. Dilshad Ahmad Khan	
Dr. Anoop Kumar	Dr. P.K. Sood	Dr. Laxmikant Yadav	
	Dr. Siddhartha Sharma	Dr. Anshul Sharma	
	Dr. Varun		
	Dr. Debasish Das		
	Dr. Mohit Pant		

**(b) ADMISTARATIVE & TECHNICAL STAFF**

Asstt. SG-II	Technical Assistant (SG-II)	Sr. Technician (SG-II)	Sr. Technician	Technician	Technician (Outsource)
Mr. Raman Thakur	Mr. Partap Chand Dhiman	Mr. Surinder Gautam	Mr. Aditya Mukherjee	Mr. Dhananjay	Mr. Mandeep Sen
	Mr. Dev Raj Thakur		Mr. Sumeet Raman		Mr. Dinesh Pathania
					Mr. Ravi Kant

**2. DISTICTION ACHIEVED:**

(a) **By Student:** Students participated in various Technical Festivals within the Country and Qualified for National Level Exams such as GATE etc.

**3. SEMINAR, SYMPOSIA, SUMMER SCHOOL, WINTER SCHOOL, SHORT TERM COURSE**

(a) Conducted in the Department of **Mechanical Engineering**.

Sponsoring Agency	Name of the Co-ordinator	Title of the Seminar/Symposia/STC etc.	Duration	Venue
NITH	DoME, Dr. Ajoy Debbarma and Dr. Akhilesh Kr. Chaudhary	e-STC on Green and Sustainable Energy Technologies.	27 – 31 Dec, 2023	DoME, NIT Hamirpur, Online
NITH	DoME, Dr. Dilshad Ahmad Khan, Dr. Mahavir Singh	e-STC on Advanced Manufacturing and Industrial Automation (AM & IA-2024)	27- 31 Jan, 2024	DoME, NIT Hamirpur, Online

**4. RESEARCH:****(a) Research Scheme:**

Title of the Scheme	Sponsored by	Assistance Received ₹ (in lakh)	Investigator	Present Status of Project	Brief Report
NIDHI-INCLUSIVE TECHNOLOGY BUSINESS INCUBATOR iTBI	DST	497 Lakh	Dr. Rajesh Kumar Sharma	ONGOING	
Development of Novel WC-Cr <sub>3</sub> C <sub>2</sub> -Ni functionally graded composite coatings	Science and Engineering Research Board	28.83 Lacs	Dr. Rakesh Sehgal	ONGOING	

on Nickel-based C-263 superalloy for Nuclear application	of India (SERB), DST, New Delhi				
Design, Development, Theoretical and Experimental Study of Smart Tribological Coatings for Space Applications	DST, Govt. of India, New Delhi	95 Lacs	Dr. Rakesh Sehgal	ONGOING	
Experimental and numerical investigation of Pool Boiling and Flow Boiling Enhancement by Surface Modification.	Science and Engineering Research Board of India (SERB)	14,67,400	Dr. Deepak Sharma	ONGOING	
Experimental and Numerical Study on a Battery Thermal Management System by Mist Jet Impingement Integrated Forced-Air Convection "	Science and Engineering Research Board of India (SERB)	22,68,332	Dr. Ajoy Debbarma	ONGOING	
Understanding Flow Boiling Behaviour and Heat Transfer Enhancement with Ferrofluids under Externally Magnetic Field"	Science and Engineering Research Board of India (SERB)	30 Lakhs	Dr. Ajoy Debbarma	ONGOING	
Performance analysis of Double Basin Solar Desalination System with Application of Coating and Storage Materials.	DTE – Research promotion under Technical Education – STEM, Education Department, Govt of Gujarat, India.	5 Lakhs	Dr. Akhilesh Kumar Chaudhary	ONGOING	
Design, Fabrication and Experimental investigation into Extrusion Pressure based Magnetorheological Finishing Tool.	Science and Engineering Research Board of India (SERB), Under core research grant (CRG)	28.27 Lakhs	Dr. Dilshad Ahmad Khan	ONGOING	

	scheme				
Investigation of Meta-Material-Based Piezoelectric Energy harvesting devices.	Science and Engineering Research Board of India (SERB)	10 Lakhs	Dr. Anshul Sharma	ONGOING	
A nonlinear constructive model for Graded Auxetic structures with Tunable Mechanical Properties for Aerospace Applications.	Science and Engineering Research Board of India (SERB)	6.6 Lakhs	Dr. Anshul Sharma	ONGOING	

**(b) Research Publication:****i) PAPER PUBLISHED BY FACULTY:**

S. No.	Name of Faculty	Name of Refereed Journal	Title of the Paper	Year of Publication
1.	Dr. Rakesh Sehgal	Tribology International	Insights into Nanomechanical and Nanotribological Characterisation of Cross-linked Polymer Nanocomposites via Molecular Dynamics Simulation	2023
2.	Dr. Rakesh Sehgal	Carbon	Next-generation ecofriendly MR fluid: Hybrid GO/Fe <sub>2</sub> O <sub>3</sub> encapsulated carbonyl iron microparticles with improved magnetorheological, tribological, and corrosion resistance properties	2023
3.	Dr. Rakesh Sehgal	Journal of Magnetism and Magnetic Materials	Magnetorheological study of core– shell structured carbonyl iron/2-D graphene oxide microparticles suspensions with improved sedimentation stability	2023
4.	Dr. Rakesh Sehgal	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	Investigating the Effect of GNP, ZnO, and CuO Nanoparticles on the Tribological, Rheological, and Corrosion Behaviour of Bio-based Mahua Oil	2023
5.	Dr. Rakesh Sehgal	Wear	Fabrication and self-lubricating tribological characterisation of Cu-Ni/TiC/CaF <sub>2</sub> composite for railway switch slide baseplate	2023
6.	Dr. Rajesh Kumar	Tribology International	An experimental investigation on nanomechanical and	2024

	Sharma		nanotribological behavior of tantalum nitride coating deposited on Ti6Al7Nb alloy.	
7.	Dr. Somesh Sharma	Journal of Quality in Maintenance Engineering	Analyzing the role of Multi-Agent Technology in minimizing breakdown probabilities in Manufacturing Industries	2023
8.	Dr. Somesh Sharma	International Journal of Industrial and system Engineering	Impact of Multi-agent Technology on the Manufacturing organizations: A Multi-Criteria Decision-Making Analysis	2023
9.	Dr. Somesh Sharma	International Journal of Industrial and system Engineering	Analyzing the Role of Multi-Agent Technology on High-tech Manufacturing using AHP, DEMATEL, and TOPSIS	2023
10.	Dr. Sant Ram Chauhan	Materials Today: Proceedings	Investigating the machinability behavior of Al7075/SiC5CS5 hybrid composite with the variation of tool geometry.	2023
11.	Dr. Sant Ram Chauhan	Tribology International	Application of machine learning techniques in environmentally benign surface grinding of Inconel 625	2023
12.	Dr. Sant Ram Chauhan	Journal of Manufacturing Processes	Development of a Critical Edge-Based Adaptive Toolpath Strategy to Improve Geometrical Accuracy of Incrementally Formed Titanium Implants	2023
13.	Dr. Parshant Kumar	Renewable Energy	Modeling and optimization of photovoltaic thermal system under recyclic operation by response surface methodology	2023
14.	Dr. Parshant Kumar	Expert Systems with Applications	Effect of jet-impingement and surface roughness on performance of solar air heater: Experimental study and its optimization	2023
15.	Dr. Parshant Kumar	Journal of Ambient Energy	Investigation of heat transfer augmentation and friction factor in twisted tape-based earth-to-air heat exchanger: a CFD-based analysis	2023
16.	Dr. Parshant Kumar	Energy Sources, Part A: Recovery, Utilization, and	A Comparative Study of Double-Pass Recycle Type Hybrid Photovoltaic Thermal Designs	2023

		Environmental Effects		
17.	Dr. Siddhartha Sharma	Tribology International	Prediction of erosive wear - A novel mathematical model	2023
18.	Dr. Varun	Renewable Energy	Solar cooking technology in India: Identification and prioritization of potential challenges	2023
19.	Dr. Varun	Solar Energy	Solar drying systems for Domestic/Industrial Purposes: A State-of-Art review on topical progress and feasibility assessments	2024
20.	Dr. Varun	International Journal of Thermal Sciences	Evaluating the heat transfer and pressure drop in the transitional flow regime for a horizontal circular tube fitted with wavy-tape inserts	2024
21.	Dr. Varun	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	A comprehensive review on the applicability of hydrogen and natural gas as gaseous fuel for dual fuel engine operation	2024
22.	Dr. Debasish Das	Experimental Heat Transfer	Application of Taguchi method and Response Surface Methodology (RSM) for parametric optimisation of natural convection heat transfer inside a triangular porous enclosure with in-line rectangular finned array	2023
23.	Dr. Debasish Das	International Journal of Ambient Energy	Investigation of tribological performance of non-edible biodiesel under different load and temperature	2023
24.	Dr. Mohit Pant	International Journal of Mathematical, Engineering and Management Sciences	Numerical Investigation of Thermoelastic Crack Interactions in Various Materials using a Novel Enrichment Approach	2023
25.	Dr. Deepak Sharma	Solar Energy, Elsevier.	Experimental investigation and analysis of cooling performance of solar thermoelectric	2023

			refrigerator, Vol. 263, Pages 1-10.	
26.	Dr. Deepak Sharma	International Journal of Thermophysics, Springer	Experimental Investigation on Pool Boiling Heat Transfer Performance of Superhydrophilic, Hydrophilic and Hydrophobic Surface	2024
27.	Dr. Deepak Sharma	Journal of Engineering Physics & Thermophysics, Springer	Performance Analysis of HVAC System with Heat Recovery Wheel in Hospital Building	2024
28.	Dr. Param Singh	Journal of Micromanufacturing	A Comparative Experimental Study of Different Magnetic Field Intensities on Electrical Discharge Turning of EN24 Steel Alloy	2024
29.	Dr. Param Singh	Journal of Materials Engineering and Performance	Performance Evaluation with Metallurgical Aspects on Groove Formation During Magnetic Field-Assisted Electrical Discharge Turning of EN24 Steel alloy	2024
30.	Dr. Param Singh	Journal of Advanced Manufacturing Systems	PARAMETRIC STUDY OF ELECTRICAL DISCHARGE TURNING PROCESS OF AL7075/ZRO2-MMC	2024
31.	Dr. Param Singh	Journal of The Institution of Engineers (India): Series D	The Effect of Different Magnet Intensities on EDM Turning of Al7075/Zro2 MMCs: A Comprehensive Investigation	2024
32.	Dr. Ajoy Debbarma	Journal of Thermal Engineering	Surface modification techniques for cooling by impinging jets-a review	2023
33.	Dr. Ajoy Debbarma	Arabian Journal for Science and Engineering	Experimental Assessment of Thermal Performance and Fluid Flow Characteristics of Perforated Hollow Elliptical Insert in a Tube Heat Exchanger	2023
34.	Dr. Ajoy Debbarma	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	Performance analysis of solar air heater using triangular corrugated absorber under jet impingement	2023
35.	Dr. Ajoy	Solar Energy	Impact of hybrid roughness	2023



	Debbarma		geometry on heat transfer augmentation in solar air heater: A review	
36.	Dr. Ajoy Debbarma	Archives of Thermodynamics	Exergetic performance analysis of solar air heater with inverted L-shape ribs as roughness element	2023
37.	Dr. Ajoy Debbarma	Journal of Heat and Mass Transfer Research	Numerical Analysis of Solar Air Heater Roughened with B-Shape and D-Shape Roughness Geometry	2023
38.	Dr. Ajoy Debbarma	Journal of Heat and Mass Transfer Research	Experimental study of quenching progression on a heated flat dimpled surface with water jet impingement	2023
39.	Dr. Ajoy Debbarma	Journal of Thermal Engineering	Thermal Management Systems of E-Vehicle Li-Ion Battery Modules: A Comprehensive Review	2023
40.	Dr. Ajoy Debbarma	Journal of Solar Energy Engineering	Numerical Investigation of Reversed Flow Solar Air Heater Roughened With Circular-and Triangular-Shaped Tubes	2023
41.	Dr. Ajoy Debbarma	Energy Technology	Experimental Study of Reverse Flow Solar Air Heater Having Perforation and Delta Wing on Absorber Plate	2024
42.	Dr. Akhilesh Kumar Chaudhary	Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy	Parametric Optimization of Hybrid Artificial Roughness Used in Solar Air Heaters Using Multiple Criteria Decision Making (MCDM) Techniques	2023
43.	Dr. Akhilesh Kumar Chaudhary	Journal of Energy Resources Technology (ASME)	An Investigation of Performance and Emissions of Diesel Engine Using Heterogeneous Catalyst Jatropa Biodiesel: A Sustainable Model Using Taguchi and Response Surface Methodology	2023
44.	Dr. Akhilesh Kumar Chaudhary	Energy & Environment	Analysis of vibrations in a diesel engine produced by Jatropa biodiesel using heterogeneous catalyst	2023
45.	Dr. Akhilesh	Journal of	Performance and Emission	2023

	Kumar Chaudhary	Renewable and Sustainable Energy	Characteristics of CI Engine using Hydrogen Enrichment in Biodiesel Blend with Additives - A Review	
46.	Dr. Akhilesh Kumar Chaudhary	AIP Conference Proceedings	A review of performance and emission parameters of diesel engines using bio-diesel fuel blended with hydrogen	2023
47.	Dr. Akhilesh Kumar Chaudhary	Journal of Energy Resources Technology	A Hybrid Response Surface Methodology and Multi-Criteria Decision Making model to investigate the Performance and Emission Characteristics of a diesel engine fueled with Phenolic antioxidant additive and Biodiesel Blends	2023
48.	Dr. Akhilesh Kumar Chaudhary	AIP Conference Proceedings	A review on hydrogen and microalgae biodiesel fuel in IC engine	2023
49.	Dr. Akhilesh Kumar Chaudhary	Environmental Science and Pollution Research	Assessment and usability of Jatropha biodiesel blend with phenolic antioxidant to control NOx emissions of an unmodified diesel engine	2023
50.	Dr. Akhilesh Kumar Chaudhary	Energy Conversion and Management: X	Investigation on 1-Propanol Electronic mode of fumigation on diesel engine performance and emission Fueled with diesel and lemongrass biodiesel blend using AHP-COPRAS	2023
51.	Dr. Akhilesh Kumar Chaudhary	Thermal Science and Engineering Progress	A comparative review on evaluation of performance, combustion, and emission characteristics of biodiesel blends enriched with hydrogen, additives and their combined effect	2023
52.	Dr. Akhilesh Kumar Chaudhary	Journal of Renewable and Sustainable Energy	A sustainable model using RSM and MCDM techniques to evaluate performance and emission characteristics of a diesel engine fueled with diphenylamine antioxidant and CeO2 nanoparticle additive biodiesel blends	2023

53.	Dr. Akhilesh Kumar Chaudhary	Sustainable Energy Technologies and Assessments	Thermal and environmental assessment of Botryococcus braunii green biodiesel with nanoparticles using energy-exergy-emission-sustainability (3ES) analysis in a diesel engine	2023
54.	Dr. Akhilesh Kumar Chaudhary	Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science.	Influence of phenolic antioxidant additives on performance and emission characteristics of diesel engine fuelled with Jatropa biodiesel: A sustainable hybrid model using RSM and ANFIS	2024
55.	Dr. Laxmikant Yadav	Transdisciplinary Research and Education Center for Green Technologies	Performance Comparison of Different Desiccant Material Based Wheels for Air Conditioning Application.	2023
56.	Dr. Laxmikant Yadav	Journal of Engineering for Gas Turbines and Power, ASME	Thermo-Economic Analysis of Solar-Powered Trigenation System with Integrated Ejector-Absorption Recompression and Modified Organic Rankine Cycle.	2024
57.	Dr. Anshul Sharma	Biomass Conversion and Biorefinery	Experimental study on the mechanical and hygroscopic properties of alkaline treated Grewia optiva / Basalt fiber reinforced polymer composites,	2023
58.	Dr. Anshul Sharma	Journal of Applied Polymer Science	Taguchi optimized sliding wear behavior and hardness of novel Grewia optiva/Basalt fiber reinforced hybrid polyester composites	2023
59.	Dr. Anshul Sharma	International Journal of Thermophysics	Heat Transfer and Flow Analysis in a Circular Tube Equipped with Triangular Helical Strip Inserts Under Turbulent Flow Conditions for the Application of Boiler	2023
60.	Dr. Anshul Sharma	Journal of Applied Polymer Science	Analysis of mechanical properties and free vibrational characteristics of novel Grewia optiva/basalt fiber reinforced hybrid polymer composite	2024

61.	Dr. Mahavir Singh	Materials Letters	Near-Circular EDM Hole Drilling for Deterministic Cellular Lattice Structures of LPBF IN718, 350, 134886	2023
62.	Dr. Mahavir Singh	Proc IMechE Part B: Journal of Engineering Manufacture	Numerical Simulation and Experimentation to Investigate the Performance of Powder Mixed Dielectric in Electric Discharge Micromachining, 238 (1-2), 286-301	2023
63.	Dr. Mahavir Singh	Journal of Materials Engineering and Performance	Influence of Soaking Time on Microstructural, Machinability, and Mechanical Properties of Al-10Si-0.3Mg Alloy Fabricated by Direct Powder Forging	2024
64.	Dr. Mahavir Singh	International Journal of Precision Engineering and Manufacturing-Green Technology	Comprehensive Analysis of Heavy Metal Aerosol Emissions and Health Risk from the Electrical Discharge Machining Process: A control and Mitigation Approach for Green Manufacturing	2024
65.	Dr. Mahavir Singh	CIRP Journal Manufacturing Science and Technology	Numerical Simulation and Experimental Validation on the Mechanism of Crater Evolution in Electrical Discharge Micromachining, 351,126-144.	2024

Type	Title	Publisher	Authors	ISBN/ISSN No.	Year
Book	Post Processing Techniques for Additive Manufacturing	CRC Press, Taylor & Francis Group (England)	Zafar Alam, Faiz Iqbal, Dilshad Ahmad Khan	978-100-32-8861-9	2024
Book	Advances in Heat Transfer Augmentation Techniques in Single-Phase Flows	CRC Press	Varun Goel, W Wang and B Sunden	978-103-21-3561-8	2024
Book Chapter	Vibration Suppression of Hand Tremor Using Active Vibration Strategy: A	Springer	Anshul Sharma, Rajnish Mallick	978-981-99-0235-4	2023

	Numerical Study				
Book Chapter	Laser-based Post-processing Technologies for Additive Manufactured Parts	CRC Press, Taylor & Francis Group (England)	Maheshwari S., Siddharth A., Alam Z., Iqbal F. and Khan D.A.	10.1201	2023
Book Chapter	Additive Manufacturing and Post Processing-An Introduction.	CRC Press, Taylor & Francis Group (England)	Alam Z., Iqbal F. and Khan D.A.	10.1201	2023
Book Chapter	Effects of Surface Textures on Tribological and Dynamic Characteristic Variables of Lubricated Line Contacts	Springer, Singapore	Niharika Gupta, MR Pattnayak, RK Pandey, N Tandon	978-981-99-4270-1	2024
Book Chapter	Smart Manufacturing and Industry 4.0: State-of-the-Art Review.	Taylor and Francis	Love Kumar, Rajiv Sharma	eBook 978-100-33-3376-0	2023
Book Chapter	Experimental Investigation of Cooling Photovoltaic Panel Using Turbo-Ventilator	Springer Nature Singapore	Anurag Dixit, Ajoy Debbarma	978-981-99-2278-9	2023
Book	Performance Exploration of Impinging Jet solar Air Heater	Springer	Amitesh Kumar, Sushant Thakur, Prashant Dhiman, Rakesh Kumar	978-981-99-7046-9	2023

**(ii) PAPER****PRESENTED IN CONCERNECE/SEMINAR/SYMPOSI:**

Sr. No.	Name of Faculty	Details of Conference Proceeding	National / International	Title of the Paper
1.	Dr. Rakesh Sehgal	E3S Web of Conferences 401, CONMECHYDRO-2023	International	Fabrication and characterization of RF magnetron sputtered composite MoS <sub>2</sub> and ZrN coatings on Ti <sub>3</sub> SiC <sub>2</sub> max phase for space applications. paper no. 05083 (2023). <a href="http://doi.org/10.1051/e3conf">http://doi.org/10.1051/e3conf</a>

				/202340105083
2.	Dr. Rakesh Sehgal	E3S Web of Conferences 401, CONMECHYDRO-2023	International	Design, fabrication and characterization of MoS <sub>2</sub> Coatings for space applications using PVD magnetron sputtering. paper no. 05084 (2023). <a href="http://doi.org/10.1051/e3conf/202340105084">http://doi.org/10.1051/e3conf/202340105084</a>
3.	Dr. Rakesh Sehgal	E3S Web of Conferences 401, CONMECHYDRO-2023	International	Fabrication and characterization of RF magnetron sputtered composite MoS <sub>2</sub> and ZrN coatings on Ti <sub>3</sub> SiC <sub>2</sub> max phase for space applications. paper no. 05083 (2023). <a href="http://doi.org/10.1051/e3conf/202340105083">http://doi.org/10.1051/e3conf/202340105083</a>
4.	Dr. Rajesh Kumar Sharma	TriboIndia-2023 organized at National Institute of Technology Srinagar, Hazratbal, Srinagar (J&K) w.e.f. 5-7 Oct 2023, India under the aegis of Tribology Society of India.		Nanomechanical and Nanotribological Behaviour of Biocompatible Tantalum Nitride (TaN) Coating for Biomedical Applications.
5.	Dr. P K Sood	38th National Convention of Production Engineers and National Conference on Green and Bio-inspired Manufacturing at M.J.P. Rohilkhand University, Bareilly		Investigation of Machining Behaviour of (AI7075-Flyash) Composite using Taguchi Approach
6.	Dr. Deepak Sharma	2nd International Conference on Futuristic Advancements in Materials, Manufacturing and Thermal Sciences, Jan 19-21, 2024, organized by Department of Mechanical and Aerospace Engineering, IITRAM and SAC ISRO Ahmedabad, India	International	Pool Boiling Experiments in Graphene, Graphene-Oxide and Reduced Graphene-Oxide Nanofluid
7.	Dr. Deepak Sharma	2nd International Conference on Futuristic Advancements in Materials, Manufacturing and Thermal Sciences, Jan 19-21, 2024, organized by Department of Mechanical and Aerospace	International	Productivity Enhancement of Solar Still Using Shallow Solar Pond

		Engineering, IITRAM and SAC ISRO Ahmedabad, India		
8.	Dr. Ajoy Debbarma	ISHMT-ASTFE	International	SOLAR AIR HEATER
9.	Dr. Laxmikanth Yadav	2nd International Conference on Mechanical Engineering Jadavpur University Kolkata	International	Organic Rankine Cycle Based Biomass Energy Production Using Agricultural Residue in Rural Communities
10.	Dr. Mahavir Singh	FEMS EUROMAT 2023, Frankfurt am Main (Germany)	International	Observations on the machining of additively manufactured deterministic cellular structure through electrical discharge machining process

- (c) Doctoral Programme: 28 Nos. ongoing (During Session 2023-2024)
- (d) Ph. D. Degree awarded: .....Nos. (During Session July, 23-24)
- (e) Master Thesis completed: 28 Nos. (M.Tech in Thermal/Design/Manufacturing (Admitted in 2022 and Passed in 2024))

Sr. No.	Name of the Student	Name of Guide	Name of Co-Guide	Year of Regn.	Nature of Ph.D	Specialization/ Topic	Status
1.	Mr. Vishal Kumar	Dr. Debasish Das	-	2018	Full Time	Experimental Investigation of Bio Diesel in Modified Diesel Engine	In Progress (19-07-2018)
2.	Mr. Amitesh Sharma (QIP)	Dr. Prashant Dhiman	-	2018	Full Time	Performance of Jet Impingement Type Solar Air Heat	In Progress (01-08-2018)
3.	Mr. Roopak Varshney	Dr. Param Singh	-	2019	Full Time	Assisted Electrical Discharging Machine	In Progress (22-07-2019)
4.	Mr. Kamal Kishore	Dr. Manoj Kumar Sinha	-	2019	Full Time	Sustainable Machining of Difficult-to-Machine Materials	Thesis submitted
5.	Mr. Sudhir Kumar Singh	Dr. Deepak Sharma	-	2019	Full Time	Boiling Heat Transfer Enhancement	Thesis submitted
6.	Mr. Ayush Awasthi	Dr. Mohit Pant	-	2019	Full Time	Computational Fracture Mechanics	Thesis submitted
7.	Mr. Yogesh Kumar Yadav	Dr. Siddharatha	-	2019	Full Time	Erosion Wear Modelling	In Progress (22-07-2019)
8.	Mr. Vivek Singh	Dr. Rajesh Kumar Sharma	-	2019	Full Time	Experimental Investigation on Tribological Behaviour of Material	In Progress (22-07-2019)
9.	Ms. Akanksha Maurya	Dr. Anoop Kumar	Dr. Deepak	2019	Full Time	Investigations on the Performance	In Progress



			Sharma			Improvement of Solar Cavity Receives	(22-07-2019)
10.	Mr. Vijay Kumar	Dr. Akhilesh Kumar Choudhary	-	2019	Full Time	Condition Monitoring of Mechanical System	In Progress (22-07-2019)
11.	Mr. Rajat Kumar	Dr. Varun	-	2019	Full Time	Thermal Management System using Heat Pipes	In Progress (22-07-2019)
12.	Mr. Jasveer Singh	Dr. Rajesh Kumar Sharma	-	2020	Full Time	Atomistic Modelling of Nano Materials for Mechanical Characterization	In Progress (08-01-2020)
13.	Mr. Saurabh Thakur	Dr. Sant Ram Chauhan	-	2020	Full Time	Incremental Sheet Forming of Polymer Material	In Progress (08-01-2020)
14.	Mr. Sohan Lal Sharma	Dr. Ajoy Debbarma	-	2020	Full Time	Thermal Storage System for Power Generation using TEG Models	In Progress (08-01-2020)
15.	Mr. Prince Oliver Horo	Dr. Dilshad Ahmad Khan	-	2020	Full Time	Magnetorheological Finishing (MRF)	In Progress (08-01-2020)
16.	Mr. Ankur Dwivedi	Dr. Anoop Kumar	-	2020	Full Time	Battery Thermal Management System	In Progress (08-01-2020)
17.	Mr. Ashutosh Kumar Verma	Dr. Laxmikant Yadav	-	2020	Full Time	Solar Assisted Deficient Cooling Tower	In Progress (08-01-2020)
18.	Mr. Love Kumar	Dr. Rajiv Kumar Sharma	-	2020	Full Time	Industrial Engineering	In Progress (08-01-2020)
19.	Mr. Biswajit Sahoo	Dr. Debasish Das	-	2020	Full Time	Robotics	In Progress

							(08-01-2020)
20.	Mr. Vikram Singh (QIP)	Dr. Somesh Sharma	-	2020	Full Time	Multi – Agent Technology	In Progress (24-09-2020)
21.	Mr. Nitin Kumar Dengre (QIP)	Dr. Anoop Kumar	Dr. Laxmikant Yadav	2021	Full Time	Solar driven combined heating cooling and dehumidification system	In Progress (10-08-2021)
22.	Mr. Yajush Walia	Dr. Param Singh	-	2023	Full Time	-	In Progress (19-01-2023)
23.	Mr. Amit Sanyal	Dr. Akhilesh Kumar Choudhary	-	2023	Full Time	-	In Progress (19-01-2023)
24.	Mr. Rahul Jamwal	Dr. Rajiv Kumar Sharma	-	2023	Full Time	Industry 5.0	In Progress (05-07-2023)
25.	Mr. Abhishek Thakur	Dr. Dilshad Ahmad Khan	-	2023	Full Time	Extrusion Pressure Based Magnetorheological Finishing	In Progress (05-07-2023)
26.	Mr. Pankaj Kumar	Dr. Rajesh Kumar Sharma	-	2023	Full Time	Journal Bearing	In Progress (05-07-2023)
27.	Mr. Prateek Bhardwaj	Dr. Prashant Kumar	-	2024	Full Time	-	In Progress (08-03-2024)
28.	Mr. Ravinder Kumar	Dr. Somesh Sharma	-	2024	Full Time	-	In Progress (08-03-2024)

**(iv) PATENT:**

Sr. No.	Title of Patent (CBR No.)	Application Number	Application filing Agency/office	Application Filing date	Present Status
1	Method to Improve the Performance of a Multipoint Clamped Inverter Fed Induction Motor by using a Closed Loop Controller	506627	The Patent Office, Govt. of India	02/02/2024	Filed

**(f) DOCTORAL PROGRAMME:**

S. No.	Title of Thesis	University / Institute & Year of Ph. D. Award	Name of the Scholar	Name of the supervisors
1.				
2.				

**5. DISTICTION ACHIEVED:**

- (a) By Student: -
- (b) By Faculty Member: -

**6. DETAILS OF LABORATORIES:**

<b>Sr. No.</b>	<b>Name of Laboratory</b>	<b>Capacity</b>	<b>Year of Establishment</b>
1	Metrology & Measurement Laboratory	156 Sq.m	2020
2	Industrial Engineering Laboratory	78 Sq.m	1996
3	Computer Aided Manufacturing Laboratory	78 Sq.m	2005
4	Manufacturing Laboratory	78 Sq.m	2020
5	Mechatronics & Robotics Laboratory	78 Sq.m	2005
6	Material Testing Laboratory	117 Sq.m	1986
7	Theory of Machine	78 Sq.m	1996/1997
8	Computer Aided Design Laboratory	156 Sq.m	1992
9	Tribology Laboratory	78 Sq.m	1997
10	Rapid Design & Development Lab.	78 Sq.m	2020
11	Product Design & Development Laboratory	78 Sq.m	2020
12	Fluid Mechanics & Machinery Laboratory	243 Sq.m	1996
13	Heat & Mass Transfer Laboratory	78 Sq.m	1996
14	Steam Power Engineering Laboratory	120 Sq.m	2000
15	I.C.Engine Laboratory	117 Sq.m	1995
16	Refrigeration and Air Conditioning Lab.	78 Sq.m	1997
17	Student Research Laboratory	78 Sq.m	2021
18	PG Research Laboratory	78 Sq. m	2021

### 3.7 DEPARTMENT OF CHEMISTRY



#### 1. ACADEMIC STAFF

**HEAD:** Dr. K. S. Ghosh

#### FACULTIES:-

Professor	Associate Professor	Assistant Professor
---	1. Dr. K. S. Ghosh	1. Dr. Raj Kaushal Gr.-I
	2. Dr. Pamita Awathi	2. Dr. Jai Prakash Gr.-I
	3. Dr. Bharti Gaur	3. Dr. Jagannath Kuchlyan Gr.-II

#### 2) SEMINAR, SYMPOSIA, SUMMER SCHOOL, WINTER SCHOOL, SHORT TERM COURSES:

Sponsoring Agency	Name of the Coordinator	Title of the seminar/symposia etc.	Duration	Venue
NIT Hamirpur	Dr. K.S.Ghosh & Dr. Richa Joshi	e-FDP on “Fundamentals of Intellectual Property Rights and Its Applications and Importance in Academia (FIPR-2023)”	12 <sup>th</sup> – 16 <sup>th</sup> October, 2023	NIT Hamirpur
NIT Hamirpur	Dr. K.S.Ghosh & Dr. Jai Prakash	e-STC on “Recent Trends in Applied Spectroscopy and Microscopy in Materials Research (ASM2R-2023)”	01 <sup>st</sup> – 05 <sup>th</sup> December, 2023	NIT Hamirpur

**3. Research Publications: (w.e.f. 1<sup>st</sup> April 2023-31<sup>st</sup> March 2024)****1. Research related: Publication****Dr. K.S. Ghosh:**

1. Sharma, S., Chayawan, A., Debnath, J., **Ghosh, K.S.** (2023) Method for highly selective, ultrasensitive fluorimetric detection of Cu<sup>2+</sup> and Al<sup>3+</sup> by Schiff bases containing *o*-phenylenediamine and *o*-aminophenol, *Methods* **217**, 27–35.
2. Sharma, A., **Ghosh, K.S.** (2023) Inhibition of amyloid fibrillation of bovine serum albumin by zinc oxide nanoparticles, *Bionanoscience* **13**, 1243-1249.
3. Sharma, S., Chayawan, Jayaraman, A., Debnath, J., **Ghosh, K.S.** (2023) A highly selective 2-hydroxybenzhydrazone based dual sensor for Cu<sup>2+</sup> and Fe<sup>2+</sup> ions: Spectroscopic, computational, cell imaging studies and logic gate construction, *J. Mol. Struct.* **1287**, 135683.

**International Conference Attended:**

13<sup>th</sup> International Chemistry Congress held in Nov. 20-21, 2023 at Dubai, UAE

**Dr. Pamita Awasthi****Research related: Publication**

1. Neetika Kumari, Vandna Devi, Priyanka Sharma, and **Pamita Awasthi**. "Density Functional Theory, Spectroscopic and Receptor Binding Analysis of Pyriproxyfen–A Commercial Insect Growth Regulator." *ChemistrySelect* **8**, no. 41 (2023): e202301002.

**Conferences:**

1. Neetika Kumari, **Pamita Awasthi**. "Spectroscopic evaluation for assessing the cytotoxicity of pesticides by modes of DNA – pesticide interactions" 1st International conference Science and technology for sustainable future, 25-26 November 2023, Sardar Patel University, Mandi (H.P.).
2. Priyanka, Neetika Kumari, **Pamita Awasthi**. "Nano encapsulation of Juvenile Hormone mimics: A novel approach towards Ecofriendly Pesticide." 1st International conference Science and technology for sustainable future, 25-26 November 2023, Sardar Patel University, Mandi (H.P.).
3. Manu Vatsal, Arti Sharma, Kuldeep, Meghna, Archana, Kaustubh, Pragya, Ravinder Sharma, **Pamita Awasthi**. "In-vitro and In-silico receptor binding study of 1-substituted 9,10-anthraquinone (BG1AQ)." 1st International conference Science and technology for sustainable future, 25-26 November 2023, Sardar Patel University, Mandi (H.P.).

**Dr. Bharti Gaur****Research related: Publication**

1. Chand A, Gaur B, Kapoor S. Synthesis, characterization and evaluation of pegylated-citric acid based dendrimers as drug delivery agents. *Journal of Polymer Research*. 2024 Feb;31(2):61.
2. Chand A, Kumar S, Kapoor S, Singh D, Gaur B. Lysine and citric acid based pegylated polymeric dendritic nano drug delivery carrier and their bioactivity evaluation. *Journal of Biomaterial Science, Polymer Edition*. 2024 Mar 31.

**Dr. Raj Kaushal:****Research related: Publication**

1. Nitesh Kumar, **Raj Kaushal**, Ashun Chaudhary, Saroj Arora and Pamita Awasthi, Titanium Complexes: Cytotoxic and Antiproliferative Effects on HeLa, C6, and CHO Cell Lines, Current Chinese Chemistry, 3 (2023), page6, ID: e150823219704, DOI: 10.2174/2666001603666230815105107
2. **Raj Kaushal**, Mandeep Kaur, Sheetal, Jyoti Sharma, Kiran Nehra, Antibacterial and ct-DNA binding studies of new synthesized ruthenium (III) hydroxamate complexes: Design, synthesis, DFT calculations and in-vitro study, Journal of Molecular Structure 1295 (2024) 136788, <https://doi.org/10.1016/j.molstruc.2023.136788>
3. Nitesh Kumar, **Raj Kaushal**, Pamita Awasthi, Non-covalent binding studies of transition metal complexes with DNA: A review, Journal of Molecular Structure, 1288(2023), 135751. <https://doi.org/10.1016/j.molstruc.2023.135751>
4. **Raj Kaushal**, Mandeep Kaur, Jatin Kumar, Pratiksha Gupta, Ravikant, Jyoti Sharma, Antidiabetic and antioxidant studies of novel synthesized titanium (IV) complex: Design, synthesis, in-silico docking and in-vitro studies, , Appl Organomet Chem vol 38 issue 5, 2024, e7443, Page1-15. <https://doi.org/10.1002/aoc.7443>.

**Book Chapter Published:**

Pratibha Sharma, Raj Kaushal, Jai Prakash, SiO<sub>2</sub> Based Multifunctional Hybrid Semiconductor Nanomaterials and Their Applications in Energy, Advances in Material Research and Technology - Environment and Health, Multifunctional Hybrid Semiconductor Photocatalyst Nanomaterials Application on Health, Energy and Environment, pg 127-152, 2023, springer, ISBN 978-3-031-39481-2 (eBook) <https://doi.org/10.1007/978-3-031-39481-2>

**Dr. Jai Prakash:****Research related: Publication**

1. Samriti, P Kumar, A Kuznetsov, H. C. Swart, **Jai Prakash**, Sensitive, Stable, and Recyclable ZnO:Ag Nanohybrid Substrates for Surface-Enhanced Raman Scattering Metrology, **ACS Materials Au (2024) Accepted**
2. SBN Krishna, J Jakmune, YK Mishra, **Jai Prakash**, ZnO based 0-3D diverse nano-architectures, films and coatings for biomedical applications, **Journal of Materials Chemistry B 12 (2024) 2950**  
<https://doi.org/10.1039/D4TB00184B>
3. **Jai Prakash**, Ultrasensitive detection of emerging water contaminants using surface enhanced Raman scattering technique: Recent advancement, challenges and future prospects, Current Opinion in Environmental Science & Health, (2024) 10055
4. **Jai Prakash**, Z Chen, S Saini, G Zhang, S Sun, Advancements on metal oxide semiconductor photocatalysts in photo-electrochemical conversion of carbon dioxide into fuels and other useful products, Frontiers in Energy, (2024) 1-19

5. **Jai Prakash**, S Sun, MN Rumyantseva, Special Issue: Emerging nanomaterials and advanced techniques for sensing and removal of toxic gases for environmental and health applications, **Current Opinion in Environmental Science & Health**, **38** (2024) 100544  
<https://doi.org/10.1016/j.coesh.2024.100544>
6. P Sharma, **J Prakash**, R Kaushal, Eco-Friendly Synthesis of Amino and Carboxyl-Functionalized Silica Nanoparticles for Enhanced Adsorption of Water Pollutants, **Hybrid Advances**, (2024) 100209
7. KSS Devi, **Jai Prakash**, S Tsujimura, Graphene oxide-based nanomaterials for electrochemical bio/immune sensing and its advancements in health care applications: A review, **Hybrid Advances**, **5** (2024) 100123  
<https://doi.org/10.1016/j.hybadv.2023.100123>
8. S Thakur, A Bi, S Mahmood, J Cho, **Jai Prakash**, Graphene oxide as an emerging sole adsorbent and photocatalyst: Chemistry of synthesis and tailoring properties for removal of emerging contaminants, **Chemosphere**, **352** (2024) 141483  
<https://doi.org/10.1016/j.chemosphere.2024.141483>
9. A Badoni, **Jai Prakash**, Noble metal nanoparticles and graphene oxide based hybrid nanostructures for antibacterial applications: Recent advances, synergistic antibacterial activities, and mechanistic, **Micro and Nano Engineering**, **22** (2024) 100239  
<https://doi.org/10.1016/j.mne.2024.100239>
10. F. Mushtaq, **Jai Prakash**, S.S.Katoch, Microplastics in complex soil matrix: Recovery, identification and removal using micro nano techniques, **Micro Nano Engineering** **22** (2024) 10237.  
<https://doi.org/10.1016/j.mne.2023.100237>
11. **Jai Prakash et al.** Advancements of metal oxide semiconductor photocatalysts in photo-electrochemical conversion of carbon dioxide into fuels and other useful products, **Frontiers in Energy** (2024) Accepted
12. Badis Kahoudji, **Jai Prakash**, H. C. Swart, Flexible and luminescent polymer nanocomposite films (YPO<sub>4</sub>:Pr<sup>3+</sup>/polystyrene): Investigation of structural, morphological and photoluminescence properties for solid-state, **Optical Materials** **143** (2023) 114251,  
<https://doi.org/10.1016/j.optmat.2023.114251>
13. Samriti, M Rumyantseva, S Sun, A Kuznetsov, **J Prakash**, Emerging Nanomaterials in the Detection and Degradation of Air Pollutants, **Current Opinion in Environmental Science & Health**, **35** (2023) 100497, <https://doi.org/10.1016/j.coesh.2023.100497>
14. **Jai Prakash, H. C. Swart**, Plasmonic photocatalysts as emerging multifunctional nanomaterials for energy and environmental applications **Physica B: Condensed Matter** **669** (2023) 415297,  
<https://doi.org/10.1016/j.physb.2023.415297>



15. A Ojha, S Thakur, **J Prakash**, Graphene family nanomaterials as emerging sole layered nanomaterials for wastewater treatment: Recent developments, potential hazards, prevention and future prospects, **Environmental Advances** **13**, (2023) 100402, <https://doi.org/10.1016/j.envadv.2023.100402>
16. **Jai Prakash et al.** CdS based 3D Nano/Micro-Architectures: Formation Mechanism, Tailoring of Visible Light Activities and Emerging Applications in Photocatalytic H<sub>2</sub> Production, CO<sub>2</sub> Reduction and organic pollutant degradation, **Journal of Materials Chemistry A** **11** (2023) 10015 (Q1) <https://doi.org/10.1039/D3TA00396E>
17. Samriti, R. Pal, Jai Prakash, Fabrication Methods and Mechanisms for Designing Highly-Efficient Photocatalysts for Energy and Environmental Applications, **Materials Chemistry and Physics**, **307** (2023) 128108 (Q1), <https://doi.org/10.1016/j.matchemphys.2023.128108>
18. O Ruzimuradov, R Xasanov, I Gonzalo-Juan, D Fang, **Jai Prakash**, R Riedel, Facile Tailoring of Photoluminescence Properties of Surface-Modified TiO<sub>2</sub> Nanocrystals, **Materials Today Communications**, **35** (2023) 106233 (Q2) (SCI) <https://doi.org/10.1016/j.mtcomm.2023.106233>
19. V Kumar, **J Prakash**, D Pathak, DP Sharma, LP Purohit, HC Swart, Ion beam engineering of implanted ZnO thin films for solar cell and lighting applications, **Chemical Engineering Journal Advances**, **15** (2023) 100501, <https://doi.org/10.1016/j.cej.2023.100501>
20. B Huang, X Tong, X Zhang, Q Feng, MN Rummyantseva, **Jai Prakash**, X. Li, MXene/NiO Composites for Chemiresistive-Type Room Temperature Formaldehyde Sensor, **Chemosensors** **11** (2023) 2258. (Impact factor : 4.2) (Q2) (SCI) <https://doi.org/10.3390/chemosensors11040258>
21. LRG Silva, JHS Carvalho, JS Stefano, GG Oliveira, **Jai Prakash**, Bruno C. Janegitz, Electrochemical sensors and biosensors based on nanodiamonds: A review, **Materials Today Communications**, **35** (2023) 106142 (Q2) (SCI) <https://doi.org/10.1016/j.mtcomm.2023.106142>
22. Samriti, A Ojha, **Jai Prakash**, Water challenges in South Asian countries: A focused review on emerging nanomaterials and technological processes in wastewater treatment, **ACS ES&T Water** **3** (2023) 1463. (Q1) (SCI), <https://doi.org/10.1021/acsestwater.2c00402>

#### International conferences Attended:

- International Conference on Radiation and Emission in Materials (ICREM) Dec 2023, Chiang Mai, Thailand. (Invited)
- 9<sup>th</sup> International South African Conference on photonic materials-2023, Kruger National Park, South Africa. 8-12 May 2023. (Invited)

**Book edited**

1. **Jai Prakash, S. Sun, J. Cho, J. C. Bruno, (Editors) (Springer) Multifunctional Hybrid Semiconductor Photocatalyst Nanomaterials (2023)**

**Dr. Jagannath Kuchlyan:****Research related: Publication**

1. HN Le, **J Kuchlyan**, T Baladi, B Albinsson, A Dahlén, LM Wilhelmsson. Synthesis and Photophysical Characterization of a pH-Sensitive Quadracyclic Uridine (qU) Analogue. **Chemistry–A European Journal**, 30, (18), e202303539.

2.

**Conferences Attended:**

1. e-FDP on “Fundamentals of Intellectual Property Rights and Its Applications and Importance in Academia (FIPR-2023)” held during 12<sup>th</sup> – 16<sup>th</sup> October, 2023

2. e-STC on “Recent Trends in Applied Spectroscopy and Microscopy in Materials Research (ASM2R-2023)” held during 01<sup>st</sup> – 05<sup>th</sup> December, 2023

4. **Doctoral Programme:** - 13 Nos. on going.

Ph. D Degree Awarded: - 03

Doctoral Programme :

Sr. No	Title	Supervisor and Co-Supervisor	Name of the student	Brief Report
1	“Schiff base Molecules as Chemosensor Applications in Metal Ion Sensing “	Dr. K.S. Ghosh	Ms. Shivani Sharma	completed
2	Fabrication and Development of Metallic Nanoparticles as Metal ion Sensors	Dr.K.S Ghosh	Ms Sushma	In Progress
3	Development of colorimetric chemosensors for metal ions	Dr.K.S Ghosh	Ms Ankita Sharma	In Progress
4	“Synthesis Computational and Biological Screening of Phenoxy Acetamide and Sulfonamide Derivatives””	Dr. Pamita Awasthi	Ms. Neetika Kumari	In progress
5	“ Synthetic, Structural & Biological study of Phenothiazine and Anthraquinone analogs as anticancer agents”.	Dr.Pamita Awasthi	Ms Arti Sharma	In Progress

6	Natural Product Mimics	Dr.Pamita Awasthi	Ms. Renu Dogra	In Progress
7	Drug DNA Interaction	Dr.Pamita Awasthi Dr. Jagganath Kuchlyan	Ms. Ritu	In Progress
8	“Bio Based Self Healing Coatings Based on Thermo Reversible Diel’s Alder Reactions”	Dr. Bharti Gaur	Ms. Shalini	Completed
9	“Synthesis and Characterization of Multifunctional Dendritic Polymers in Drug Delivery Applications”	Dr. Bharti Gaur	Mr. Avtar Chand	In Progress
10	Bio-based Vitrimers	Dr.Bharti Gaur	Mr. Ankit Sharma	In Progress
11	Synthesis and Functionalization of Silica Nanoparticles for Removal of Water Pollutants”	Dr. Raj Kaushal Dr.Jai Prakash	Ms. Pratibha Sharma	Completed
12	Synthesis of Vanadium Complexes derived from Pyrazole Ring Chalcone and their Biological Potential	Dr. Raj Kaushal	Ms. Jyoti Sharma	In progress
13	Synthesis of Mesoporous Hybrid metal complexes & their Pharmacological Potential	Dr. Raj Kaushal	Ms. Reeta	In Progress
14	“Synthesis and modification of photocatalyst nanomaterials for water treatment”	Dr.Jai Prakash	Ms.Samriti	In Progress
15	Functional Nanomaterials	Dr. Jai Prakash	Mr. Sahil Thakur	In Progress
16	Functional Nanomaterials	Dr. Jai Prakash	Mr. Rupam	In Progress

### 5. Popular Lectures by outside experts

Sr. No.	Date	Speaker	Topic

**6. Equipment procured under equipment Grant OH-35 : (during 01.04.2023 to 31.03.2024)****a)**

Sr.No	Name of equipment	Qty	Cost(Rs)
1	UV Visible Spectrophotometer	01 No.	7,16,850-00
2	Rotary Vacuum Evaporator	01 No.	1,77,580-00
3	Bio Safety Cabinet	01 No.	2,10,000-00
4	HLS-200-Maganetic Hot Plate	06 Nos	92,352-00
5	Duty Stirrer	01 No.	18,600-00
6	Conductivity Meter	06 Nos.	45,548-00
7	Water Purification System	01 No.	3,83,000-00
8	Water Geyser	04 Nos	23,720-00
9	Vacuum Pump	02 Nos.	29,383-00
10	Electronic Weighing Machine	02 Nos.	1,47,700-00
11	Hot Air Oven	04 Nos	2,70,648-00
12	BB150 Thermo Scientific Co2 Incubator	01 No.	4,99,495-00
13	Vacuum Pump Rockyvac 801	01 No.	58,486-00
14	2KVA Online UPS	02 No.	65,925-00
15	Spartan 20 Parallel Suite Software	01No.	2,38,313-00
16	Cresset Academic Teaching/Research Lab licenses	01 No.	4,51,940-00
17	i. Fluorescence Microscope With Camera ii.Desktop Computer	01 No. 01 No.	10,25,000-00
18	Co2 Cylinder with regulator	01 No.	22,000-00
19	Water Bath	03 Nos.	28,131-00

**7. DETAIL OF THE LABORATORIES:**

Sr.No.	Name of the Laboratory
1.	Engg. Chemistry (UG) Laboratory-I
2.	Engg. Chemistry (UG) Laboratory-II
3.	PG Organic Chemistry Lab
4.	PG Inorganic Chemistry Lab
5.	PG Physical Chemistry lab-I
6.	PG Physical Chemistry lab-II
7.	Bio Physical Chemistry Research Lab
8.	Inorganic Chemistry Research lab

9.	Advanced Synthetic Chemistry Lab
10	Polymer Synthesis Research lab
11	Organic Synthesis Research Lab
12	Nanomaterials Research Lab
13	Computational Chemistry Lab
14.	Photochemistry Research Lab
15	Instrumentation Lab -I
16	Instrumentation Lab -II

### 3.8 DEPARTMENT OF MATHEMATICS & SCIENTIFIC COMPUTING



#### 1. Academic Staff

**Head:** Dr. Ramesh Kumar Vats, Associate Professor.

#### Faculty Names:

Professor	Associate Professor	Assistant Professor
1. Dr. Yogeshwar Dutt Sharma, Ph.D. 2. Dr. Sunil, Ph.D.	1. Dr. Ramesh Kumar Vats Ph.D. 2. Dr. Pawan kumar Sharma, Ph.D.	1. Dr. Suket Kumar, Ph.D. 2. Dr. Subit Kumar Jain, Ph.D. 3. Dr. Om Prakash Yadav, Ph.D. 4. Dr. Rifaqat Ali, Ph.D. 5. Dr. Ganesh Talari, Ph. D. 6. Dr. Soniya Chaudhary, Ph. D. 7. Dr. Jeetendrasingh Maan, Ph. D. 8. Dr. Pankaj Kumar, Ph. D.

#### 3. Research (2023-24)

##### i. Research Scheme (2023-24):

S. No	Name of the Staff	Title of the Scheme	Sponsored by	Assistance Received (Rs.) in lakh	Investigator	Brief Report
1	Dr. Ankit Kumar Nain	Analysis of Controllability and Stability for Fractional Differential Equation using Fixed Point Theory.	CSIR	1,83,813.00	Dr. Ramesh Kumar Vats	On Going

**ii. Research Publications: Paper published in National and International Journals/Conferences/Seminars**

1. Shad, M., Sharma, Y.D. and Narula, P., 2024. Wind speed prediction using non-gaussian model based on Kumaraswamy distribution. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, 46(1), pp.719-735.(SCI)
2. Kushwaha, A.K., Sharma, Y.D. and Saini, S., 2024. Instability analysis of vibrated thermo-convection in Casson nanofluid suspension. *Modern Physics Letters B*, 38(02), p.2350219.(SCI)
3. Kushwaha, A.K., Sharma, Y.D. and Sharma, A., 2023. Stability Analysis of Bioconvective Heat Transfer in a Suspension of Gyrotactic Microorganisms under Vertical Vibration. *Special Topics & Reviews in Porous Media: An International Journal*, 14(3). (SCIE)
4. Kushwaha, A.K. and Sharma, Y.D., 2023. Investigation of Overstability Analysis of Oscillatory Thermo-bioconvection with Arbitrary Directions of Vibration. *Journal of Porous Media*, 26(10). (SCIE)
5. Thakur, A., Kumar, S. and Devi, R., 2024. A nonlinear stability analysis for magnetized ferrofluid heated from below in the presence of couple stresses for combination of different bounding surfaces. *Numerical Heat Transfer Part B: Fundamentals*, pp. 1-17. (SCIE)
6. Thakur, A., Kumar, S. and Devi, R., 2024. The effect of rotation on ferroconvection in the presence of couple stress forces in porous medium : A nonlinear analysis. *The European Physical Journal Plus*, 139(3), pp. 1-16. (SCIE)
7. Kumar, B., Yadav, N. and Sunil, 2024. A novel hybrid algorithm based on Empirical Fourier decomposition and deep learning for wind speed forecasting. *Energy Conversion and Management*, 300, pp. 1-13. (SCIE)
8. Kumar, B., Yadav, N. and Sunil, 2024. A Bagging Ensemble Algorithm for Seasonal Time Series Forecasting. *SN Computer Science*, 5(3), p. 322. (Scopus)

9. Choudhary, S., Mahajan, A. and Sunil, 2024. Impact of inconsistent viscosity on the stability of a rotating layer of couple stress fluid. *Chinese Journal of Physics*, 89, pp. 481-492. (SCIE)
10. Choudhary, S., Devi, R., Mahajan, A. and Sunil, 2024. Stability analysis of a couple-stress fluid with variable gravity in a porous medium for different conducting boundaries. *Special Topics & Reviews in Porous Media - An International Journal*, 15(6), pp. 47-59. (SCIE)
11. Sharma, S., Kumar, S. and Sharma, P., 2024. Stability analysis of thermosolutal convection in a rotating Navier-Stokes-Voigt fluid. *Zeitschrift für Naturforschung A*, 79(7). (SCIE)
12. Chandel, V., Sunil and Sharma, P., 2024. Study of global stability of rotating partially-ionized plasma saturating a porous medium. *Special Topics & Reviews in Porous Media - An International Journal*, 15(6), 27-46. (SCIE)
13. Thakur, A., Kumar, S. and Devi, R., 2023. The effect of couple stresses on stability analysis of magnetized ferrofluid saturating a porous medium heated from below. *Journal of Porous Media*, 27(5), pp. 85-106. (SCIE)
14. Srivastava, H.M., Dhawan, K., Vats, R.K. and Nain, A.K., 2024. Well-posedness of a nonlinear Hilfer fractional derivative model for the Antarctic circumpolar current. *Zeitschrift für angewandte Mathematik und Physik*, 75(2), p.45.(SCIE)
15. Kumar Sharma, O.P., Vats, R.K. and Kumar, A., 2024. New exploration on approximate controllability of fractional neutral-type delay stochastic differential inclusions with non-instantaneous impulse. *Mathematical Methods in the Applied Sciences*, 47(6), pp.5161-5190. (SCIE)
16. Yadav, S., Vats, R.K. and Rao, A., 2024. Constructing the fractional series solutions for time-fractional K-dV equation using Laplace residual power series technique. *Optical and Quantum Electronics*, 56(5), p.721. (SCIE)
17. Dhawan, K., Vats, R.K., Nain, A.K. and Shukla, A., 2024. Well-posedness and Ulam-Hyers stability of Hilfer Fractional Differential Equations of order  $(1, 2]$  with Nonlocal Boundary Conditions. *Bulletin des Sciences Mathématiques*, p.103401. (SCIE)
18. Rao, A., Vats, R.K. and Yadav, S., 2024. Analytical Solution for Time-fractional Cold Plasma Equations via Novel Computational Method. *International Journal of Applied and Computational Mathematics*, 10(1), p.2. (Scopus)
19. Sharma, O.P.K., Vats, R.K. and Kumar, A., 2024. Existence and exact controllability results of nonlocal integro-differential neutral stochastic system with finite delay. *The Journal of Analysis*, 32(1), pp.573-595. (Scopus)
20. Sharma, O.P.K., Vats, R.K. and Kumar, A., 2024. New exploration on approximate controllability of fractional neutral-type delay stochastic differential inclusions with non-instantaneous impulse. *Mathematical Methods In The Applied Sciences*. (SCIE)
21. Sharma, O.P.K., Vats, R.K. and Kumar, A., 2024. A note on existence and exact controllability of fractional stochastic system with finite delay. *International Journal of Dynamics and Control*, 12(1), pp.180-189. (Scopus)
22. Dhawan, K., Vats, R.K. and Karapinar, E., 2023. Qualitative Analysis of Nonlinear Hilfer Fractional Implicit Differential Equations in a Banach space. *Advances in the Theory of Nonlinear Analysis and its Application*, 7(5), pp.141-154.



23. Yadav, V., Vats, R.K., Kumar, A. and Jeet, K., 2023. Results on the existence and approximate controllability of neutral-type delay integro-differential system with noninstantaneous impulse. *Mathematical Methods in the Applied Sciences*, 46(16), pp.16992-17009. (SCIE)
24. Verma, S.K., Vats, R.K., Nashine, H.K. and Srivastava, H.M., 2023. Existence results for a fractional differential inclusion of arbitrary order with three-point boundary conditions. *Kragujevac J. Math*, 47, pp.935-945. (ESCI)
25. Srivastava, H.M., Nain, A.K., Vats, R.K. and Das, P., 2023. A theoretical study of the fractional-order p-Laplacian nonlinear Hadamard type turbulent flow models having the Ulam–Hyers stability. *Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales. Serie A. Matemáticas*, 117(4), p.160. (SCIE)
26. Dhawan, K., Vats, R.K. and Vijayakumar, V., 2023. Analysis of neutral fractional differential equation via the method of upper and lower solution. *Qualitative Theory of Dynamical Systems*, 22(3), p.93. (SCIE)
27. Kumar, P., Vats, R.K. and Kumar, A., 2023. Result on Controllability of Hilfer fractional integro-differential equations of Sobolev-type with Non-instantaneous Impulses. *Filomat*, 37(29), pp.10033-10053. (SCI)
28. Bajpai, A., Kumar, R. and Sharma, P.K., 2023. Axisymmetric half-space problem in thermoelastic diffusion under phase lags and hyperbolic two temperature. *Journal of Thermal Stresses*, 46(7), pp.535-551. (SCI)
29. Garg, A., Sharma, Y.D. and Jain, S.K., 2023. Instability investigation of Thermo-bioconvection of oxytactic microorganism in Jeffrey nanoliquid with effects of internal heat source. *Journal of Porous Media*, 26(10). (SCIE)
30. Kumar, A., Majee, S. and Jain, S.K., 2023. CDM: A coupled deformable model for image segmentation with speckle noise and severe intensity inhomogeneity. *Chaos, Solitons & Fractals*, 172, p.113551.(SCIE)
31. Garg, A., Sharma, Y.D. and Jain, S.K., 2023. Onset of triply diffusive thermo-bio-convection in the presence of gyrotactic microorganisms and internal heating into an anisotropic porous medium: oscillatory convection. *Chinese Journal of Physics*, 84, pp.173-188.(SCIE)
32. Jain, S.K., Majee, S. and Ray, R.K., 2024. On the existence and uniqueness of weak solutions of a coupled diffusion system related to image restoration. *Inverse Problems and Imaging*, 18(1), pp.165-182. (SCIE)
33. Garga, A., Sharma, Y.D., Jaina, S.K. and Sainia, S., Impact of an Anisotropic Porous media on Thermo-bio-convection instability in presence of Gyrotactic microorganisms and heating from below.
34. Garg, Arpan, Y. D. Sharma, Subit K. Jain, and Sanjalee Maheshwari. "Numerical Study Of The Influence Of Magnetic Field And Throughflow On The Onset Of Thermo-Bioconvection In A Forchheimer Extended Darcy-Brinkman Porous Nanofluid Layer Containing Gyrotactic Microorganisms." *Journal of Porous Media* 27, no. 8 (2024). (SCIE)

35. Kumar, A. and Jain, S.K., 2024. ECDM: Enhanced edge based coupled deformable model for image segmentation in the presence of speckle noise and severe intensity inhomogeneity. *Applied Mathematical Modelling*, 128, pp.659-684. (SCIE)
36. Anisha Devi, OP Yadav, 2024. Higher order galerkin finite element method for  $(1 + 2)$ -dimensional generalized benjamin-bona-mahony-burgers equation: a numerical investigation. *Wave Motion* 128, pp. 103321. (SCI).
37. Anisha Devi, OP Yadav, 2024. Higher-order galerkin finite element method for nonlinear coupled reaction-diffusion models. *Numerical Heat Transfer, Part B: Fundamentals*, pp. 1-25. (SCI).
38. Sanjalee, YD Sharma, OP Yadav, 2023. Study of heat transfer in anisotropic porous enclosures saturated with casson fluid based carbon nanotube suspension. *Journal of Porous Media* 26 (10), pp. 85-107. (SCI).
39. Sanjalee, YD Sharma, OP Yadav, 2023. The linear and non-linear study of effect of rotation and internal heat source/sink on bènard convection. *Fluid Dynamics Research*, Volume 55, Number 4. (SCI).
40. Sanjalee, YD Sharma, OP Yadav, 2023. Study of thermal convection in chemically reactive carbon nanotube suspension saturated in anisotropic porous enclosure. *International Journal of Modern Physics B*, Vol. 37, No. 25. (SCI).
41. Sanjalee, YD Sharma, OP Yadav, 2023. Convective instability of blood-based au–fe<sub>3</sub>o<sub>4</sub> hybrid nanoliquid under the presence of magnetic field with internal heat source: application to cancer treatment. *Zeitschrift für Angewandte Mathematik und Mechanik*. (SCI).
42. Kumar, V., Ali, R. and Sharma, P.K., 2024. A secure blockchain-assisted authentication framework for electronic health records. *International Journal of Information Technology*, pp.1-13. (Scopus)
43. Kumar, V., Ali, R. and Sharma, P.K., 2024. IoV-6G+: A secure blockchain-based data collection and sharing framework for Internet of vehicles in 6G-assisted environment. *Vehicular Communications*, 47, p.100783. (SCIE)
44. Kumar, N. and Ali, R., 2024. A smart contract-based robotic surgery authentication system for healthcare using 6G-Tactile Internet. *Computer Networks*, 238, p.110133. (SCIE)
45. Kumar, N. and Ali, R., 2024. Blockchain-enabled authentication framework for Maritime Transportation System empowered by 6G-IoT. *Computer Networks*, 244, p.110353. (SCIE)
46. Maan, J., Negrín, E.R. 2024. Parseval–Goldstein Type Theorems for the Index  $2F1$ -Transform. *Int. J. Appl. Comput. Math* 10, 69 (Scopus)
47. Maan, J. and Negrín, E.R., 2024. Exchange formulae for the generalized Stieltjes transform over weighted Lebesgue spaces. *Rendiconti del Circolo Matematico di Palermo Series 2*, 73(3), pp.959-968.(ESCI)
48. Maan, J., Negrín, E.R. and Gonzalez, B.J., 2023. On the generalized Lambert transform over Lebesgue and Boehmian spaces. *International Journal of Applied and Computational Mathematics*, 9(5), p.103. (Scopus)

49. Sahu, B.R.B., Bhurjee, A.K. and Kumar, P., 2024. Efficient solutions for vector optimization problem on an extended interval vector space and its application to portfolio optimization. *Expert Systems with Applications*, 249, p.123653.(SCIE)
50. Sahu, B.R.B. and Kumar, P., 2024. Portfolio Rebalancing Model Utilizing Support Vector Machine for Optimal Asset Allocation. *Arabian Journal for Science and Engineering*, pp.1-27.(SCIE)

**Conference Publication:**

51. Vats, R.K., Nain, A.K. and Kumar, M., 2021, December. On unique positive solution of hadamard fractional differential equation involving p-Laplacian. In *International Conference on Nonlinear Applied Analysis and Optimization* (pp. 171-181). Singapore: Spri

**Book Chapters:**

52. Anjali, Vats R K, Sanjeev,. 2023. A NOVEL TECHNIQUE SUMUDU RESIDUAL POWER SERIES FOR SOLVING NONLINEAR MODEL OF BACTERIA GROWTH. *Recent Advances in Mathematical Sciences, vol 1, Ideal International E-publication Pvt. Ltd., India*, 71–78.
53. Sanjeev, Vats R K, Anjali,. 2023. AN EFFICIENT APPROACH TO FIND THE APPROXIMATE SERIES SOLUTION OF TIME FRACTIONAL BURGERS' EQUATION. *Recent Advances in Mathematical Sciences, vol 1, Ideal International E-publication Pvt. Ltd., India*, 87–94.
54. Bhurjee, A.K., Kumar, P., Singh, R. and Yadav, V., 2024. Overview of nonlinear interval optimization problems. *Advances in Computers*, Elsevier, Volume 135. (SCIE)

**iii. Editorial Work: NIL****3. National/International Conference Organized: NIL****4. Summer/Winter/FDP Organized:**

1. e-Workshop on "Cryptography and Blockchain Technology" (CBT-2024) during 22-26 February 2024 at NIT Hamirpur.

**9. National/International Conferences Attended:**

1. Attended 15th Conference on Dynamical Systems Applied to Biology and Natural Sciences, (DSABNS 2024) held during February 5-9, 2024 in NOVA School of Science And Technology, NOVA FCT, Universidade NOVA de Lisboa, Portugal.
2. 3rd International Conference on Nonlinear Applied Analysis and Optimization ( ICNAAO-2023) organized by the Department of Mathematics at National Institute of Technology Durgapur.
3. "Pseudo-Differential Operators and Related Topics" held at Ghent University, Belgium, from January 29 to February 2, 2024. (Research Work Presented).
4. Attained in the International Conference on Pure and Applied Mathematics (ICPAM 2023) October 26 – 28, 2023 (Online-Mode) organized by NIT Jalandhar.

**5. Workshop Attended:**

1. International e-workshop on Nonlinear Analysis and its Application (5th edition of IWNAA2023) organized by the Department of Mathematics at Pt. L. M. S. Campus, Rishikesh Uttarakhand.
2. 5-days residential training 'Nurturing Future Leadership Program' under the aegis of Malaviya Mission Teacher Training Program (MMTP) during March 18-22, 2024.

#### 7. Invited Lecture/Speaker/Expert:

1. Delivered an invited talk in NATIONAL SEMINAR ON APPLICATIONS OF MATHEMATICS IN TEACHING AND LEARNING PROCESS organized by DEPARTMENT OF MATHEMATICS in collaboration with THE INDIAN SCIENCE CONGRESS ASSOCIATION (ICSC) SHIMLA CHAPTER at SIDHARTH GOVERNMENT "UTKRISHT" COLLEGE NADAUN H.P.
2. Delivered an invited talk in 3rd INTERNATIONAL CONFERENCE ON NONLINEAR APPLIED ANALYSIS AND OPTIMIZATION (ICNAO-2023) organized by the DEPARTMENT OF MATHEMATICS at NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR W.B.
3. Delivered an invited talk in INTERNATIONAL E-WORKSHOP ON NONLINEAR ANALYSIS AND ITS APPLICATION (5TH EDITION OF IWNAA2023) organized by THE DEPARTMENT OF MATHEMATICS at Pt. L. M. S. CAMPUS, RISHIKESH UTTARAKHAND.
4. Expert lecture on The basics of MATLAB and its applications in data analysis in e-STC on Applications of Multiple Analytical Techniques in Research conducted by Department of Management, NIT Hamirpur during 15-19 January 2024.
5. Expert lecture on Research and Publication Ethics in e-STC on Statistical Analysis in Research: Basics to Advanced conducted by Department of Management, NIT Hamirpur during 24-28 July 2023.
6. e-STC on "Applications of multiple analytical techniques in Research" to be scheduled from 15th – 19th January 2024. (Invited Lecture).
7. Session Chair in International Conference on Pure and Applied Mathematics (ICPAM 2023) October 26 – 28, 2023 (Online-Mode) organized by NIT Jalandhar.

#### 8. Doctoral Programme: On Going or Completed: (2023-24)

Sr. No.	Name of Registered Student	Registration No.	Topic of his/her Research	Name of his/her Supervisor/ Co- Supervisor	Brief Report
1.	Ms. Kanika	2K18-PhD-Math-411	Existence & Stability of fractional differential equation	Dr. Ramesh Kumar Vats	Completed
2.	Geetangali	2K18-Ph.D-MATH-412	Free & forced vibration analysis of thermoelastic continua with variable material properties	Dr. Pawan Kumar Sharma	On Going
3.	Mohammad	2K18-Ph.D-	Time series modeling	Prof. Y. D. Sharma	Completed

	Shad	MATH-413	and forecasting		
4.	Atul Kuamr Kushwaha	2K18-Ph.D-MATH-414	Thermo-bioconvection problems	Prof. Y. D. Sharma	Completed
5.	Sanjalee	2K19-PhD-MATH-493	Problems on onset of convection and heat transfer in the suspension of nanofluid	Prof. Y. D. Sharma, Dr. O. P. Yadav	Completed
6.	Arpan Garg	2K19-Ph.D-Math-494	Fluid Dynamics	Prof. Y.D. Sharma Dr. Subit Kumar Jain	Open Seminar Delivered
7.	Bhupendra Kumar	2k19-PHD-MATH-495	Time series modelling and forecasting based on stochastic and deep learning algorithms	Prof. Sunil Dr. Neha Yadav	Work is in progress.
8.	Harender Kumar	2k19-PHD-MATH-496	Deep Learning Methods for solving Boundary Value Problems arising in Science and Engineering Applications	Prof. Sunil Dr. Neha Yadav	Thesis submitted.
9.	Mr. Parveen Kumar	2K19-PhD-Math-497	Study on Controllability of Functional Differential equations	Dr. Ramesh Kumar Vats	On Going
10.	Ankit Kumar	2k20-Ph.D.-Math.-518	Development and Analysis of a Class of Coupled Deformable Models: Applications to Image Segmentation	Dr. Subit Kumar Jain	4 <sup>th</sup> year completed
11.	Anisha Devi	2K20-Phd-Math-519	Finite element analysis and appoximations of reaction diffusion equations	Dr. Om Prakash Yadav	The student has published 03 papers and is about to deliver the open seminar.
12.	Pavinder	20RMA002	Object Detection using Deep Neural Network	Dr. Pawan Kumar Sharma	On Going
13.	Vipin Kumar	20RMA003	Authentication Systems using	Dr. Rifaqat Ali	On Going

			Blockchain		
14.	Neeraj Kumar	21RMA002	Cryptography and Network Security (tentative)	Dr. Rifaqat Ali	On Going
15.	Om Prakash Kumar Sharma	21RMA003	Study on Controllability of Differential Systems	Dr. Ramesh Kumar Vats	On Going
16.	Vandana Yadav	21RMA004	Analysis of Fractional Differential Equations	Dr. Ramesh Kumar Vat	On Going
17.	Akanksha Thakur	22RMA001	Effect of couple stresses on Linear and Nonlinear stability of Ferrofluids	Prof. Sunil Dr. Reeta Devi	On Going
18.	Sourav	22RMA002	Cryptography and Network Security (tentative)	Dr. Rifaqat Ali	On Going
19.	Sweta Sharma	22RMA003	Linear and nonlinear stability analysis of Navier-Stokes-Voigt fluid	Prof. Sunil Dr. Poonam Sharma	On Going
20.	Rohit Sharma	22RMA004	Numerical PDEs (tentative)	Dr. O. P. Yadav	On Going
21.	Anjali	22RMA005	Differential & Integral Equations with fractional calculus	Dr. Ramesh Kumar Vats	On Going
22.	Sanjeev	22RMA006	Differential Equation and Fractional Calculus	Dr. Ramesh Kumar Vats	On Going
23.	Hem Raj	23RMA001	Piezo Thermoelasticity	Dr. Pawan Kumar Sharma	On Going
24.	Rohit Chauhan	23RMA003	Functional Analysis	Dr. Suket Kumar	On Going
25.	Rozy Sharma	23RMA004	Moore-Gibson-Thompson Thermoelasticity	Dr. Pawan Kumar Sharma	On Going
26.	Vishal Chandel	23RMA005	Linear and nonlinear stability analysis of partially-ionized plasma	Prof. Sunil	On Going
27.	Yatin Kumar	23RMA006	Artificial Neural Networks	Dr. Ramesh Kumar Vats	On Going
28.	Jyoti	23RMA007	Controllability	Dr. Ramesh Kumar Vats / Dr. Ankit Kumar	On Going

29.	Pratibha Sharma	23RMA009	Image Analysis	Dr. Subit Kumar Jain	Course Work
30.	Ankit Kumar	24RMA001	Decision Making under uncertainty	Dr. Ganesh Talari	On Going
31.	Deepak Kumar	24RMA002	Effect of couple stresses on linear and nonlinear stability analysis of Navier-Stokes-Voigt fluid	Prof. Sunil/ Dr. Reeta Devi	Work is in progress.
32.	Diksha	24RMA003	Solid mechanics	Supervisor- Dr. Pawan kumar Sharma Co-sup - Dr. Soniya Chaudhary	On Going
33.	Keshav Singh	24RMA004	Optimization	Prof. Y.D. Sharma	On Going
34.	Nancy Kapoor	24RMA006	Stochastic Programming	Dr. Ganesh Talari	On Going
35.	Mr. Praveen	24RMA007	Kontorovich–Lebedev transform and associated operators.	Dr. R. K. Vats (Supervisor) Dr. Jeetendrasingh Maan (Co-Supervisor)	Ongoing
36.	Samridh Sood	24RMA008	Numerical methods for Image Processing	Dr. Subit Kumar Jain	Course Work
37.	Yashika	24RMA009	Linear- Non Linear Thermobio convection	Prof. Y.D. Sharma	On Going
38.	Jeevan Lal	24RMA0010	Statistical Process and Product Control	Dr. Ganesh Talari	On Going

#### 8. Detail of the Laboratories:

Sr. No.	Name of Laboratory
1.	Basic Computational Lab

### 3.9 DEPARTMENT OF PHYSICS & PHOTONIC SCIENCE



#### 1. ACADEMIC STAFF

**HEAD :** Dr. Rajesh Kumar

#### **FACULTIES:**

Professor	Associate Professor	Assistant Professor
-	Dr. Rajesh Kumar	Dr. Sandeep Sharma (Gr-I)
-	Dr. Subhash Chand	Dr. Neetika
-	Dr. Kuldeep Kumar	Dr. Biswaranjan Das
-	Dr. Arvind Kumar	Dr. Abhishek Singh
-	-	Dr. Nisha
-	-	Dr. Avijit Dewsai

#### 2. DISTINCTION ACHIEVED

1. Deepak Bhardwaj of the Department of Physics and Photonics Science has been awarded a Quantum Engineering CDT international studentship to pursue a Ph.D. in Quantum Engineering at the University of Bristol beginning in the academic year 23-24 under the supervision of Professor Jorge Barreto.
2. Mr. Yash Saraswat, M.Sc. (Physics) got offer to study towards the Ph.D degree at Indiana University Bloomington.
3. Mr. Karan Roy M.Sc. (Physics) student got a PhD Fellowship – Micropower Devices Development - in the Micro Nano Systems Centre of the Tyndall National Institute under the supervision of Research Professor Saibal Roy.



4. Ms. Anjali Yadav M.Sc. (Physics) has received an offer to learn about research work on ultrafast dynamics at surfaces and interfaces at the Department of Physics, University of Duisburg-Essen.
5. Ms. Mansi Talwar, a M.Sc. (Physics) student, has been selected into the Doctor of Philosophy programme in the Department of High Energy Physics at the Tata Institute of Fundamental Research in Mumbai.
6. Mr. Bisaj Sujith Kumar, M.Sc. (Physics) has been admitted to the English-language Master Advanced Functional Materials course at Technische Universität Chemnitz (University of Technology), 09107, Chemnitz, GERMANY
7. M.Sc. (Physics) student, Mr. Sri Ram G., has been appointed as a Scientific Officer (C), at the Bhabha Atomic Research Centre in Mumbai.
8. B.Tech. (Engineering Physics) 4 th Year students Mr. Ashutosh Prajapati, Mr. Prashant Dhiman, Mr. Aryan Verma, and Mr. Amarendra Kumar has got selected by M/s Hiremi.
9. B.Tech. 4th year (Engineering Physics) student Mr. UTTAM KUMAR has been selected by M/s C-DAC Hyderabad through Training and Placement Cell NIT Hamirpur.
10. B.Tech. 4th year (Engineering Physics) students Parinay Rana and Praveen Yadav have selected by M/s @Decision Point through Training and Placement Cell NIT Hamirpur.
11. Ms. Kajal Kumari B.Tech. (Engineering Physics) t and Mr. Nayan Kumar Agarwal M.Sc (Physics ) Students have selected by M/s Sri Chaitanya Educational.
12. B.Tech. 4th year (Engineering Physics) student Mr. Md Taushif Ali and Mr. Vitthul Chandrakant Mute M.Sc. (Physics) students have selected by M/s Avanti Fellows.
13. B.Tech. (Engineering Physics) student Mr. Uttam Kumar and M.Sc. Physics student Ms. Kashish Verma has qualified the Joint CSIR-UGC NET Dec. 2023 examination.
14. Mr. Uttam Kumar, Mr..Shivansh Sharma of B. Tech. (Engineering Physics) and M.Sc. Physics students RUPAM ROY , Ms. Kiran have qualified Joint Entrance Screening Test-2024(JEST-2024).
15. Mr. Girish Gaurav Sharma of B.Tech. (Engineering Physics) 3rd year student participated in the National Level &quot;35th DAE All India Essay Contest&quot; on the theme of Nuclear Science and Technology which was organized by Department of Atomic Energy. He won the first prize along with cash prize of Rs. 25,000.00/ in the subject category head: Nuclear Power-a viable option against global warming.
16. Mr. Yash Upadhyay 4th year student of B.Tech. (Engineering Physics) has participated in the 2024 New York University Abu Dhabi (NYUAD) Hackathon for Social Good focusing on Quantum Computing and the UN Sustainable Development Goals and got fourth position in this event.
17. M.Sc. (Physics) student, Amardeep Singh Jhala, scored second place in the preliminary round of the National Anveshika Experimental Skill Test (NAEST), an annual competition in India that aims to evaluate and develop students&#39; experimental, analytic, and observational skills in physics. Students must create and build their own tools, read, analyse errors, and present a comprehensive report.
18. Mr. Amardeep, Mr. Ashutosh, Mr. Denesh, Mr. Amit, Mr. Mahendra, M.Sc. Students establish their presence among the many departments within the institute by finishing second in an Inter-Branch Table Tennis (TT) Tournament.
19. M.Sc. (Physics) student Mr. Harshpreet and B.Tech. (Engineering Physics) Students Mr. Shivansh Sharma, Mr. Rajat Bihst, Mr. Bheesam, Mr, Udit Chouhan, and Saumya Ranjan Mahana have alsom achieved good ranks in GATE-2024.

### 3. SEMINAR, SYMPOSIA, SUMMER SCHOOL, WINTER SCHOOL, SHORT TERM COURSE

a) Conducted in the department.

Sponsoring agency	Name of the Coordinator	Title of the Seminar/symposia/Workshop	Duration	Venue
-	-	-	-	-

### 4. RESEARCH

(a) Research Scheme:

Title of the scheme	Sponsored by	Assistance received (Rs.) in lakh	Investigator	Brief Report
--	--	--	--	--

(b) Research Publication

#### PAPER PUBLISHED BY FACULTIES:

1. Hydrothermally obtained MoSe<sub>2</sub>/Reduced graphene oxide-based composite with superior electrocatalytic performance. Nitesh Dogra and Sandeep Sharma. International Journal of Hydrogen Energy Volume 55, 78-87 (2024).

2. High responsive UV photodetector on epitaxial non-polar GaN nanostructures grown on sapphire (10-10) using laser-MBE. Vishnu Aggarwal, Rahul Kumar, Urvashi Varshney, Sudhanshu Gautam, Bipul Kumar Pradhan, Brajesh S. Yadav, Sandeep Sharma, Ramakrishnan Ganesan, Govind Gupta, Muthusamy Senthil Kumar, Sunil Singh Kushvaha. Sensors and Actuators A: Physical Volume 368, 115103 (2024).

3. Structural and magnetic property modification of strontium hexaferrite system using Asite Ca doping. Swati Verma, Anupinder Singh, Sachin Kumar Godara, Surinder Singh, Paramjit Kaur, Sandeep Sharma, Jahangeer Ahmed, Saad M. Alshehri, Sajjad Hussain, and Mandeep Singh. J Mater Sci: Mater Electron 35, 516 (2024).

4. TiO<sub>2</sub> decorated MXene nanosheets for high-performance ammonia gas sensing at room-temperature. Nitesh Dogra, Sahil Gasso, Ankush Sharma, K. K. Sharma, Sandeep Sharma. Surfaces and Interfaces Volume 48, 104290 (2024).

**1. Exclusive diffractive  $J/\psi$  and  $\psi(2S)$  production in dipole model using a holographic AdS/QCD light-front wavefunction with longitudinal confinement**, Neetika Sharma, **Phys. Rev. D** **109** (2024) **1**, 014019

1. Nikita Malhotra, Narinder Kaur, Abhishek Ghosh, Manan Mehta and Nisha Kodan, Enhanced Photoelectrochemical Response of the ZnO/V<sub>2</sub>O<sub>5</sub> Heterojunction Via Improved Visible-Light Absorption and Charge Carrier Separation, ACS Appl. Energy Mater. 2023, 6, 13, 6926–6933.

2. Nisha Kodan & B. R. Mehta, DFT study of electronic and optical properties of Cu<sub>2</sub>ZnSiS<sub>4</sub> chalcogenide compound and experimental investigation of improved PEC response of  $\alpha$ -MoO<sub>3</sub>/Cu<sub>2</sub>ZnGeS<sub>4</sub> nanocomposite, Journal of Alloys and Compounds 2024, 970, 172496.

1. Synthesis and characterization of doped ZnO thin films over wide temperature range for applications as a transparent conducting material. Seema Azad and Subhash Chand Applied Physics A Vol.129 (2023) p 686.

2. Synthesis and investigation of pure and doped-ZnO nanoparticles as efficient material for

photocatalytic degradation of methylene blue under solar radiations. Seema Azad and Subhash Chand Indian J Phys 98 Vol.98 (2024) p2285.

i. CASTOR SEED-DERIVED LUMINESCENT CARBON NANOPARTICLES FOR METAL ION DETECTION AND TEMPERATURE SENSING APPLICATIONS, Avinash Kumar, Ishant Kumar, Sandeep Kumar, Ankita Sharma, and Arvind K. Gathania, Physica Scripta, Phys. Scr., Vol. 99, 035405, Feb. 8, 2024 DOI 10.1088/1402-4896/ad23b9.

ii. IMPACT OF VARYING  $\text{Li}^+$  CONCENTRATION ON THE UPCONVERSION EMISSION AND TEMPERATURE SENSING CHARACTERISTICS OF  $\text{YVO}_4 : \text{Tm}^{3+}/\text{Yb}^{3+}$  PHOSPHOR, Himani Thakur, S. Singh, Arvind K. Gathania, S. K. Singh, Ishant Kumar, R. K. Singh, Inorganic Chemistry Communications, Volume 158, Part 1, December 2023, 111495, 2023., <https://doi.org/10.1016/j.inoche.2023.111495>

iii. SIMULTANEOUS REALIZATION OF FIR-BASED MULTIMODE OPTICAL THERMOMETRY AND PHOTONIC MOLECULAR LOGIC GATES IN  $\text{Er}^{3+}$  AND  $\text{Yb}^{3+}$  CO-DOPED  $\text{SrTiO}_3$  PHOSPHORS, Ishant Kumar, Avinash Kumar, Sandeep Kumar, Gobind B. Nair, H.C. Swartz and Arvind K. Gathania, Physica Scripta, Phys. Scr. 98 (10) (2023) 1055322023. <https://doi.org/10.1088/1402-4896/acfa2b>

iv. n-UV TRIGGERED GREEN EMITTING  $\text{Er}^{3+}$  DOPED ZIRCONIA: A BIFUNCTIONAL MATERIAL FOR SOLID-STATE LIGHTING AND OPTICAL THERMOMETRY, Ishant Kumar, Avinash Kumar, Sandeep Kumar, Himani Thakur, Naresh Dhiman, and Arvind K. Gathania, Ceramics International, Volume 49, Issue 22, Part B, 15 November 2023, Pages 36979-36987, 2023.

v. ECO-FRIENDLY CARBON DOTS INDUCED THERMALLY STABLE VERTICAL ALIGNMENT IN PLANAR ANCHORED NEMATIC LIQUID CRYSTAL, Priscilla P, Deepanshu

Varshney, Jai Prakash, Sandeep Kumar, Ashwani Singh, Praveen Malik, Supreet, Arvind K. Gathania, Riccardo Castagna, Daniele Eugenio Lucchetta, and Gautam Singh, Journal of Molecular Liquids, 385, 122318, 1 September 2023.

<https://doi.org/10.1016/j.molliq.2023.122318> vi. TUNABLE WHITE LIGHT PHOTOLUMINESCENCE OF A SINGLE PHASE  $\text{Tm}^{3+}/\text{Tb}^{3+}/\text{Eu}^{3+}$  CODOPED  $\text{GdPO}_4$  PHOSPHOR, Himani Thakur, Arvind K. Gathania, Ishant Kumar, Rajesh Kumar Singh, Materials Today Communications, 36, 106458, August 2023.

vii. EFFECT OF  $\text{Li}^+/\text{K}^+/\text{Zn}^{2+}$  DOPING ON THE OPTICAL AND TEMPERATURE SENSING PROPERTIES OF  $\text{Tm}^{3+}$  AND  $\text{Yb}^{3+}$  DOPED  $\text{YVO}_4$  PHOSPHOR, Himani Thakur, Sachin Singh, Arvind K. Gathania, Sunil Kumar Singh, Rajesh Kumar Singh, Ceramics International, Volume 49, Issue 15, 1 August 2023, Pages 25935-25944, 2023.

1. R. Kant, K K Sharma, Hybrid material of  $\alpha\text{-Fe}_2\text{O}_3$  nanostructure with reduced graphene oxide: Enhanced dielectric and optical properties in relation to their composition and morphology, Journal of Molecular Structure Vol. 1282, 135216 (2023).

2. Danish Kumar, Ravi Kant, Abhishek Bhardwaj, Vimal Sharma, K K Sharma; Cu doped  $\text{ZrO}_2$  nanoparticles: an optically tuned material with superior structural, electrical and dielectric characteristics, Optical and Quantum Electronics, Vol 56, 418(2024)

3. N. Dogra, S. Gasso, Ankush Sharma, K.K. Sharma, Sandeep Sharma, TiO<sub>2</sub> decorated MXene nanosheets for high-performance ammonia gas sensing at room-temperature, Surfaces and Interfaces Volume 48, May 2024, 104290 (2024).

### Conference participation:

1. Abhishek Bhardwaj, Danish Kumar, and K. K. Sharma, Tailoring Photonic Band Gaps in 1D CdGeP<sub>2</sub> Photonic Crystals: A Theoretical Investigation, 67th DAE Solid State Physics Symposium Proc., (2023), Organised by Bhabha Atomic Research Centre, Mumbai, India at Gandhi Institute of Technology and Management (GITAM) Visakhapatnam, Andhra Pradesh, India during December 20 - 24, 2023.

2. Danish Kumar, Ravi Kant, Abhishek Bhardwaj, Vimal Sharma and K. K. Sharma, Influence of Cu Dopant on Structural and Photoluminescence Properties of ZrO<sub>2</sub> Nanoparticles, 67th DAE Solid State Physics Symposium Proc., (2023), Organised by Bhabha Atomic Research Centre, Mumbai, India at Gandhi Institute of Technology and Management (GITAM) Visakhapatnam, Andhra Pradesh, India during December 20 - 24, 2023.

1. Exclusive J/psi and psi (2s) photoproduction in ultraperipheral p-p collisions at CERN Large Hadron Collider Dr. Neetika, Presented research work in "16th International Workshop on Heavy Quarkonium (QWG 2024)" at IISER Mohali from February 26, 2024 to March 1, 2024

### Expert Talk

1. Expert talk delivered by Dr. Kuldeep Kumar Sharma, Associate Professor, Department of Physics & Photonics Science, NIT Hamirpur on "Nuclear Energy for Sustainable Growth" in the Twodays National Conference on "Recent Advancement in Science & Technology for Futuristic Applications RASTFA-2023" organised by Himachal Pradesh Technical University Hamirpur (H.P.) held during 7th-8th November 2023.

#### i) PATENT: Published

NIL

#### (c) Doctoral Programme:

Sr. No	Title	Supervisor	Name of the student	Brief Report
1	Synthesis & Characterization of High K dilation Materials and their Heterojunctions	Dr. Subhash Chand	Mr. Naveen Kumar	Ph.D Awarded
2	Properties of transmission metal doped C&D	Dr. Rajesh Kumar	Ms. Leelavati	Ph.D completed
3	Condensed Matter Physics	Dr. Arvind Kumar	Avinash Kumar	In progress
4	Condensed Matter Physics	Dr. Vimal Sharma	Ms. Manisha Sharma	In progress
5	Synthesis & Characterization Phosphor material	Dr. Arvind Kumar	Mr. Ishant Kumar	In progress
6	Condensed Matter Physics	Dr. Subhash Chand	Ms. Seema	In progress
7	Properties of Transtion Metal Oxides	Dr. Rajesh Kumar	Mr. Shivank Kalia	In progress
8	Study of Nano Ferrites	Dr. Vimal Sharma	Ms. Jyoti	In progress
9	Condenced Matter Physics	Dr. Subhash Chand	Mr. Adesh Kumar	In progress
10	Study of Metaloxide and rho/metaloxide NCs applications	Dr. Kuldeep Kumar	Mr. Danish Kumar	In progress

	in Energy storage devices			
11	Composite Materials	Dr. Vimal Sharma	Mr. Rahul	In progress
12	Luninescent Materilas	Dr. Arvind Kumar	Mr. Sandeep Kumar	In progress
13	Condenced Matter Physics	Dr. Rajesh Kumar	Mr. Anshul Sharma	In progress
14	Condenced Matter Physics	Dr. Kuldeep Kumar	Mr. Abhishek Bhardwaj	In progress
15	2 D Material	Dr. Kuldeep Kumar	Rakshit Singh Patwal	In progress
16	Material Science	Dr. Rajesh Kumar	Poonam	In progress
17	Material	Dr. Arvind Kumar	Anjali Bala	In progress
18	Functional Materials	Dr. Rajesh Kumar	Abhirakshit	In progress
19	Condensed Matter Physics	Dr. Kuldeep Kumar	Ashish Kumar	In progress
20	Optical Materials	Dr. Arvind Kumar	Anchal Sharma	In progress
21	Condensed Matter Physics	Dr. Subhash Chand	Mahesh Pathania	In progress

(d) Ph.D Degree awarded : 01

(e) Master thesis completed : 17

(f) **POPULAR LECTURES BY OUTSIDE EXPERTS:**

Sr. No.	Date	Speaker	Topic
-	-	-	-

(g) **CONSULTANCY SERVICES:**

Sr. No	Name of the Scheme	Sponsored Agency	Amount Earned
-	-	-	-

(i) **EQUIPMENT ACQUIRED:**

Sr. No.	Name of equipment	Cost (Rs. In lakh)
1.	Meganitic Stirrers	17061.00
2.	PH Meter	14750.00
3.	Fluorescence Life Time	2473708.00
4.	Digital Storage Oscilloscope	315000.00
5.	Function Generator Duel Channel	110000.00

## 5. TECHNICAL ASSOCIATION / SOCIETIES:

NIL

**6. DETAIL OF THE LABORATORIES:**

Sr. No.	Name of the Laboratory
1.	Engineering Physics Lab
2.	Solid State Physics Lab
3.	Electricity & Magnetism Lab
4.	Spectroscopy Lab
5.	Thermal Physics Lab
6.	Numerical methods & Computational Physics Lab
7.	Optics Lab
8.	Modern Physics Lab
9.	Digital Electronics Lab
10.	Laser & Photonics Lab
11.	Measurement & Instrumentation Lab
12.	Fabrication & Assembly Lab
13.	Computational Lab
14.	R&D Lab-I
15.	R&D Lab-II
16.	R&D Lab-III

### 3.10 DEPARTMENT OF MATERIAL SCIENCE & ENGINEERING



#### 1. ACADEMIC STAFF:

HEAD: **Dr. Vishal Singh**

FACULTIES:

Professor	Associate Professor	Assistant Professors		
Prof. Ravi Kumar	Dr. Vishal Singh	Dr. Rita Maurya	Dr. Raj Bahadur Singh	Dr. Vikram Verma
		Dr. Sumeet Kumar Sharma	Dr. Abhijeet Ojha	Dr. Abhishek Kumar Gupta

#### 2. DISTINCTION ACHIEVED

- (a) By student: -
- (b) By faculty Member: -

#### 3. SEMINAR, SYMPOSIA, SUMMER SCHOOL, WINTER SCHOOL, SHORT TERM COURSE-Conducted in the Department.

Sponsoring agency	Name of the Coordinator	Title of the Seminar/symposia	Duration	Venue
-	-	-	-	-

b) Participated by Faculty Members:

Name of the Staff	Course/Seminar	Organization	Duration	Venue
-	-	-	-	-

4. RESEARCH:

## (a) Research Scheme:

Title of the Scheme	Sponsored by	Assistance Received (Rs) in lakh	Investigator	Brief Report
-	-	-	-	-

(b) Research Publications:-

1. **"Observation of room temperature ferromagnetism in transition metal ions substituted p-type transparent conducting oxide Cr<sub>2</sub>O<sub>3</sub> thin films."** Pankaj Bhardwaj, J. Singh, A.P. Singh, R.J. Choudhary, V. Verma, **R. Kumar**, Materials Science and Engineering: B, 299 (2024), 116990.
- 2) **"Effect of lightly substituted samarium ions on the structural, optical , magnetic and dielectric properties of sonochemically synthesized M-type Sr-hexaferrite nanoparticles."** M. Hashim, Shamaran J. Sahil, Mukhlis M. Ismail, Ateeq Ahmed, Sher Singh Meena, Asha A Gaikwad, Rajshree B. Jotania, Shalender Kumar, D. Ravinder, **Ravi Kumar**, Ahamad Imran, Kalid Majasma Batoo, Sagar E. Shirsath, Physica B **681** (2024) 415840
- 3) **"Thickness dependent structural, morphological, and magnetic properties of PLD grown CoFe thin film."** Prashant Kumar, Ravi Kumar, Vipul Sharma, Manoj Kumar Khanna, Bijoy Kumar Kuanr, AIP Advances, 14, 025320 (2024).
- 4) **A comparative study on the structural, optical, and magnetic behavior of transition metal (Co and Mn) ions substituted Cr<sub>2</sub>O<sub>3</sub> nanoparticles. "** Pankaj Bhardwaj, Rajesh Kumar, Jarnail Singh, Vikram Verma, **Ravi Kumar**, Journal of Magnetism and Magnetic Materials, 565 (2023), 170247.
- 5) **"Structural, dielectric, electric and magnetic properties of magnesium substituted lithium nanoferrites. "** Mohd Hashim, D Ravvinder Nayak, Ateeq Ahmed, Shalendra Kumar, Sagar E Shirsath, Mukhlis M Ismail, SK Sharma, Muntasir Ali Alayasreh, **Ravi Kumar**, D Ravinder, RB Jotania, Sher Singh Meena, Khalid Mujasam Batoo, Ceramics International, 49 (2023), 31114-31123.



- 6) "Structural and dielectric properties of  $\text{Sr}^{2+}$  ions substituted  $\text{NdCrO}_3$  orthochromate perovskite." Ravinder Kumar, **Ravi Kumar**, Applied Physics A, 129 (2023), 832.
- 7) "Optimization of Process Parameters for Better Surface Morphology of Electrical Discharge Machining-Processed Inconel 825 Using Hybrid Response Surface Methodology-Desirability Function and Multi-objective Genetic Algorithm Approaches" P. Sharma, K. Kishore, V. Singh and M. K. Sinha, Journal of Materials Engineering and Performance
- 8) "Surface Morphology Investigations during Multi-walled Carbon Nanotubes and Nanographene Mixed Electrical Discharge Machining of Inconel 825" P. Sharma, V. Singh and M. K. Sinha, Journal of Materials Engineering and Performance
- 9) "Mechanical and Tribological Properties of Nano Clay/PMMA Composites Extruded with a Twin-Screw Extruder" A. Paul, V. Singh et al, Proceedings of the Institution of Mechanical Engineers: Part E Journal of Process Mechanical Engineering
10. S Ariharan, M. Parchovianský, P. Singh, P. Rani, **R. Maurya**, A. Sekar, A. K. Keshri, A. Pakseresht "Hot Corrosion Behavior of  $\text{La}_2\text{Ce}_2\text{O}_7$ -Based Plasma-Sprayed Coating", *High Temperature Corrosion of Materials*, 2024, 1-10.
11. **Raj Bahadur Singh**, S Kumar, K Sahu (2023/11/21) Development of Graphitic 2024 Al Alloy by Mechanical Alloying, Key Engineering Materials, vol 962, pp 3-10.
12. Sunil Kumar, Vinay Kumar, Mamta Bulla, Raman Devi, Rita Dahiya, Avnish Kumar Sisodiya, **Raj Bahadur Singh**, Ajay Kumar Mishra (2024/6/1) Hydrothermally reduced graphene oxide based electrodes for high-performance symmetric supercapacitor, Materials Letters 364, 136364.
13. **Title**"Observation of room temperature ferromagnetism in transition metal ions substituted p-type transparent conducting oxide  $\text{Cr}_2\text{O}_3$  thin films" Pankaj Bhardwaj, Jarnail Singh , A.P. Singh , R.J. Choudhary, **Vikram Verma**, **Ravi Kumar** Vol. 299 Jan. 2024. Name of Journal "Materials Science and Engineering: B"

(c) **PAPER PUBLISHED IN JOURNALS/CONFERENCES BY FACULTIES:**

**Books/Reports/Chapters/General articles etc.**

- i) PAPER ACCEPTED FOR PUBLICATION: -Nil-
- ii) PATENT: -Nil-
- iii) CONFERENCE PUBLICATIONS: -

(c) **Doctoral Programme:** 01 Student, Thesis submitted and 03 Students are Ongoing.

Sr. No.	Title	Guide	Name of the student(s)	Brief Report
1	DMO in TM Ions Substituted $\text{Cr}_2\text{O}_3$ NPs and TFs	Dr. Ravi Kumar	Sh. Pankaj Bhardwaj	Thesis submitted
2	Swift Heavy Ion Irradiation Induced Modification in	Dr. Ravi Kumar	Sh. Ravinder Kumar	Ongoing

	Structural , Electrical and Optical Properties in Substituted RCrO <sub>3</sub> Thin Film			
3	Performance Improvemnt of Inconel 718 in EDM Process	Dr. Vishal Singh	Sh. Pankaj Sharma	Ongoing
4	Devolepment of Low Density Steel Nanocomposites	Dr. Raj Bahadur Singh	Sh. Anil Kumar	Ongoing

(d) **Ph.D Degree awarded:** 14 Nos.

(e) **Master thesis completed:** -

S.No	Title	Name of Student	Guide allotted
-	-	-	-

(f) **DOCTORAL PROGRAMME:** 04 Nos. Thesis submitted /Ongoing.

(g) **POPULAR LECTURES BY OUTSIDE EXPERTS:**

Sr. No.	Date	Speaker	Topic
-	-	-	-

(h) **CONSULTANCY SERVICES:**

Sr. No	Name of the Scheme	Sponsored Agency	Amount Earned
-	-	-	-

(i) **EQUIPMENT ACQUIRED:**

Sr. No.	Name of equipment	Name of manufacturer	Cost (in INR)
1.	Spare Part of Raman Microscope 1. P-LSAC-0011 objective N-Plan 50X, A-9836-4883 Steerable Arm-LEICA DM UV/VI	M/S Renishaw Metrology Systems Ltd., G.K. Arcade, 3 <sup>rd</sup> Floor No.125/1-18, T.Mariyappa Road, First Block Jayanagar, Bangalore-560011 Dated: 27/04/2023	10,20,462/-
2.	Laboratory Wire Drawing Machine	M/S VIGOUR INDUSTRIES, Kangra (HP)	4,95,060/-
3.	Bottom Pouring Stir Casting	M/S Metrex Scientific	4,93,138/-

	Machine	Instruments Pvt. Ltd., New Delhi Dated 04/08/2023	
4.	Impedance Analyzer	M/S Anand Electronics, SCO No.91, First Floor, Sector-24-C, Chandigarh Dated 11/09/2023	20,53,179/-
5.	Pin On Disc wear Testing machine	M/S Magnum Engineers, M-6(A) 7 <sup>th</sup> Cross, 1 <sup>st</sup> Stage, PIE, Bengaluru-560058 Dated: 12/09/2023	6,50,000/-
6.	Desktop	M/S Satluj Document Company, Shimla (HP) Dated: 13/09/2023	10,35,525/-
7	Flat Para Cell- Corrosive Cell	M/S PSP Instruments Flat No.6, 2 <sup>nd</sup> Floor Vinayak Ashish Co-op. Society, Pushpak Nagar, Mhasral Nashik Dated: 16/10/2023	24,780/-
8	Ultra Sonic Cleaner	M/S reliable Lab Equipment Co., Ambala Cantt. Dated: 10/10/2023	23,432/-
9	Hot Air Oven	M/S Scientific Instrument, Kanpur (UP) Dated: 08/11/2023	24,995/-

4. TECHNICAL ASSOCIATION / SOCIETIES:

-Nil-

5. DETAIL OF THE LABORATORIES:

Sr. No.	Name of the Laboratory
1.	Field Emission Scanning Electro Microscope Lab (FESEM) / Nano Indentor Lab
2.	Pulse Laser Deposition Lab (PLD)
3.	PL/Miara-Raman Lab
4.	Nano Materials Lab
5.	Materials Science Research Lab
6.	Polymer Composites Lab
7.	Spectroscopy Lab
8.	Transport Phenomena Lab
9.	X-Ray Diffractormeter (XRD) Lab
10.	Physical Metallurgy Lab
11.	Non-Destructive Testing Lab

12.	Optical Microscopy Lab
13.	Micro Hardness Tester Lab
14.	Electrical Transport Lab
15.	Computational Lab.
16.	Heat treatment lab.
17.	Tribology lab.

### 3.11 DEPARTMENT OF ARCHITECTURE



#### 1. ACADEMIC STAFF

**HEAD:** Dr. Bhanu M Marwaha

#### FACULTIES:

Professor	Associate Professor	Assistant Professor
Dr. Minakshi Jain	Dr. Inderpal Singh	Dr. Amanjeet Kaur
Dr. Bhanu M Marwaha	Dr. Ashwani Kumar	Dr. Venu Shree
	Dr. Vandna Sharma	Dr. Sandeep Sharma
	Dr. Puneet Sharma	Dr. Neetu Kapoor
	Dr. Aniket Sharma	Dr. Rashmi Kumari
		Dr. Swechcha Roy
		Dr. Sourojee Dutta

**2. DISTINCTION ACHIEVED:****Institute Ranking**

<b>Sr. No.</b>	<b>Ranking organization</b>	<b>All India rank</b>	<b>Session year</b>
1	Indian Institutional Ranking Framework (IIRF)	09	2023
2	National Institutional Ranking Framework (NIRF)	28	2023
3	India Today Institutional Ranking	11	2023

**a) By Student:****b) By Faculty Member:**

Nomination of Dr. Puneet Sharma as advisor for Architecture. (UPSC New Delhi and UKPSC, Haridwar)

Nomination of Dr. Sandeep Sharma as advisor for Architecture. (UKPSC, Haridwar)

**3. RESEARCH:****a) Research Publication by faculties:****(i) International journal:**

1. Soni, Akansha & Sharma, Puneet, 2023. "Analysis of urban intervention processes carried out in core areas of Indian cities," Journal of Urban Regeneration and Renewal, Henry Stewart Publications, vol. 16(4), pages 445-455, June.

2. Soni, Akansha & Sharma, Puneet, 2024. "A review of influential factors for core city area development processes," *Journal of Urban Regeneration and Renewal*, Henry Stewart Publications, vol. 17(3), pages 350-365, March.
3. Kumar, S., Gupta, A., Gupta, N., Sharma, A. & Dutta, S. (2023) "Multi-hazard Vulnerability of the Vernacular Houses of Supaul, Bihar, India", *Journal of the International Society for the Study of Vernacular Settlements*, vol. 10(4), pp. 144-155, April.
4. Nainwal, Rajat, and Aniket Sharma. "Energy efficiency initiatives and regulations for commercial buildings in India: a review." *Environment, Development and Sustainability* (2023): 1-52.
5. Nainwal, Rajat, and Aniket Sharma. "Development of an energy prediction model for residential buildings using Artificial Neural Network." *IOP Conference Series: Earth and Environmental Science*. Vol. 1279. No. 1. IOP Publishing, 2023.
6. Asmita Yadav and Rashmi Kumari. Towards gender-inclusive cities: Prioritizing safety parameters for sustainable urban development through multi-criteria decision analysis. *IJSBTUD*. 30 September 2023. pp. 361-374.
7. Saumya Srivastava and Rashmi Kumari. Analysis of land cover change and urban heat islands of Lucknow, India. *IJSBTUD*. 30 June 2023. pp. 215-228.
8. Asmita Yadav and Rashmi Kumari. Gender safety perspective in urban planning: The case of pedestrian mobility in Kanpur city. *Cities*. Volume 147, April 2024, 104845
9. Sharma Vandna. (2023). Enhancing thermal comfort of modern houses using traditional architectural elements for composite climate - A Case of Lucknow. *International Journal of Sustainable Building Technology and Urban Development*, 14(2), 135-152. doi:10.22712/susb.20230012

- 10 Sharma, Ridima, Sharma, Vandna Land use management in the context of traditional vernacular settlements for hill areas of Himachal Pradesh. GeoJournal 88, 4741-4751 (2023). <https://doi.org/10.1007/s10708-023-1089>
- 11 Bharmoria, Rahul, Sharma, Vandna Sustainable interventions to improve the degrading visual quality of place and street spaces in urban hill town of Shimla region, Himachal Pradesh. GeoJournal 88, 5609-5626 (2023). <https://doi.org/10.1007/s10708-023-10940-4>
- 12 Bharmoria, Rahul, & Sharma, Vandna (2023). Urban sustainable intervention to address the physical factor for degradation of visual place quality in the hilly urban region: A case of Manali town, Himachal Pradesh. IOP Conference Series: Earth and Environmental Science, 1279(1). <https://doi.org/10.1088/1755-1315/1279/1/012015>
13. Sharma, Ridima, & Sharma, Vandna (2023). Thermal Performance Evaluation of Vernacular Houses: A Case of Himachal Pradesh. IOP Conference Series: Earth and Environmental Science, 1279(1). <https://doi.org/10.1088/1755-1315/1279/1/012012>
14. Sharma, Ridima, Sharma, Vandna (2024) Thermal performance study of traditional slate-roofed mud houses in the sub-tropical sub-montane and low hills of Himachal Pradesh. Visions for Sustainability, 21,8940,1-29. <http://dx.doi.org/10.13135/2384-8677/8940>
15. Bharmoria, Rahul, Sharma, Vandna, Analyzing the urban sustainable development impact of degraded visual quality on streetscape causing visual variation: a case of Dharamshala, Himachal Pradesh. Environ Dev Sustain (2024). <https://doi.org/10.1007/s10668-024-04606-5>
16. Kapoor Neetu and Bansal Vijay Kumar, Planning at site-level in hill regions using geodesign- based approach, IRSPSD, (2023), 11(4):1-18, [10.14246/irspsd.11.4\\_1](https://doi.org/10.14246/irspsd.11.4_1)
17. Kumari Anshul, Bansal Vijay Kumar, and Kapoor Neetu, Planning efficient transportation through Network analysis: A case of Faridabad



- city. International Research journal on Advanced science, 06(03), 2024.
18. Kumari Anshul, Bansal Vijay Kumar, and Kapoor Neetu, Impact of Public Road Transportation: A case of Faridabad city. International Journal of management and Applied Science (2024)
  19. Nazir Shanza, Thakur N.S. and Kapoor Neetu , Optimizing Energy Efficiency in Commercial Buildings through Advanced Building Strategies. International Journal of management and Applied Science (2024) <https://doi.org/10.47392/IRJAEM.2024.0135>
  20. Swasti Sharma, Ashutosh Saini, Bhavna Shrivastava, Ashwani Kumar, 2024, Existing Practices for Land Use Planning in Hill Cities of India: A Review, International Review for Spatial Planning and Sustainable Development, vol. 12 Issue 1
  21. Vivek Kumar Ahirwar, Rhitwik Gupta, Ashwani Kumar, 2023, Impacts Of Tourism On Development Of Urban Areas In Indian Cities: A Systematic Literature Review, Journal of Environmental Management and Tourism, Volume XIV, Issue 8(72), Winter 2023 pp 2993-3005
  22. Rushikesh Kolte, Shipra Goswami, Ashwani Kumar, Satish Pipralia, 2023, Challenges In Practical Implementation Of The Concept Of Urban Resilience In Cities, International Journal of Disaster Risk Reduction, Volume 99, 104142
  23. Akanksha Sangwan, Sudesh Choudhary, Vijay Ananad, Nand Kumar, Ashwani Kumar, Mahesh Jat, Rayees Ahmed, 2023, "A Mathematical Model for Temperature-Reducing Potential of Urban Greenspaces" Earth Science Informatics

**(ii) International Conferences:**

1. Puneet Sharma, Rejuvenation of Yamuna River Precinct- Case Of Delhi Region, Urban Planning and Architectural Design for Sustainable Development (UPADSD), Florence, Italy, 24 to 26 October,2023.

2. Green infrastructure Development by connecting green open spaces  
Case of Bengaluru, India, 5th Neo-International Conference on Habitable Environments & International Professional Meet (NICHE IPM 2023), 12-13 October 2023
3. Rejuvenation of Urban Streetscapes: Case of McLeod Ganj, Dharmshala, India, International Conference on Sustainable Cities Summit, 27,28, Feb. 2024
4. Dutta, S. & Gupta, V., Scientific Investigation of Hindu Temples as Cradle of Ancient Indian Knowledge: A Synthesis of Vastushastra, Sacred Geometry and Mathematical Proportion, in International Youth Conference on Indian Knowledge Systems (NYCIKS 2023), IIT Roorkee, 25-27 August, 2023.
5. Dutta, S., Kumar, N. & Dash, D., Land Use Land Cover (LULC) Mapping and Spatial Growth Analysis using GIS Techniques for Rurban Clusters of Jammu & Kashmir Region, India, in international conference "Urban Innovations Conference" (UIC 2024), SPA Bhopal, 1-3 March, 2024.
6. Ruchi Joshi, Kriti Vashishtha, Shraddha Tripathi, Swechcha Roy, Charu Dhankar, Application of theory of planned behavior to assess the impact of intention of architects, designers, and engineers regarding usage of sustainable construction materials in India in International Conference on Advances in Concrete and Construction Engineering for Sustainability, April 26-27 2024.
7. Nazir Shanza, Thakur N.S. and Kapoor Neetu, Optimizing Energy Efficiency in Commercial Buildings through Advanced Building Strategies in International conference on futuristic trends in science , engineering and Management (ICFTSEM) 2024 at St. Xaviers College of Management and Technology (SXCMT) on 23rd- 24 th February 2024.
8. Kumari Anshul, Bansal Vijay Kumar, and Kapoor Neetu, Impact of Urban Sprawl on Public Road Transport: A Case Study of Faridabad City" at the National Conferenc on Advanced research on Science,

Engineering and Technology (NCARSET) held in Jabalpur, India on 02 January, 2024.

9. Kumari Anshul, Bansal Vijay Kumar, and Kapoor Neetu, Planning efficient transportation through Network analysis: A case of Faridabad city" International conference on futuristic trends in science , engineering and Management (ICFTSEM) 2024 at St. Xaviers College of Management and Technology (SXCMT) on 23rd- 24 th February 2024.
10. Shivani Soni, Neetu Kapoor and Abhinam Bhardwaj, Geodesign based approach for flood resilient town: A case study of Kullu, Himachal Pradesh" for the International Conference on Rethinking Built Environment (INCORBE) 2024, Mizoram University on 6th to 8th March, 2024.
11. Rubika Singh and Neetu Kapoor, Assessing the Influence of Urban Development on the Urban Heat Island through Remote Sensing and Geospatial Techniques in Jhansi, India in 3rd International Conference SoAPD 2024 Opportunities and Challenges for Resilient Future on 18th to 20th April 2024.

**b) Conferences Organized:**

**c) Workshop/ Training/ FDP:**

**(i) Organized**

- Five days e-STC on 'Sustainable Infrastructure In Hills (SIH-2023)' from 8th - 12th Dec. 2023
- Five days FDP on 'Developmental Regulations and Built Environment" from February 22 - 26, 2024.
- Five days e STC "Opportunities in Architecture Profession OAP-2024" Feb 7- feb 11 2024
- Workshop in collaboration with INTACH "Understanding Heritage Assessment: Tools and Techniques" from Feb 29-4 march 2024
- Five days Online Short Term Course on Emerging Research Tools & Techniques in Architecture and Planning from 22nd to 26th April 2024

- Five Days Workshop on Innovation with Paper Engineering from 10th to 14th April 2024.

(ii) **Attended**

d) **Outreach Activities:**

Sr. no.	Activity	Duration/ dates	Resource person	Event Venue
1	Subject Expert meet as Board of studies, Bachelor of Architecture, at HPTU, Hamirpur	15.03.2024	Dr.Puneet Sharma	HPTU, Hamirpur, HP
2	Reviewer in the double-blind peer review process for the International Symposium on 'Architecture for All: Call of the Future' organized by School of Architecture, Anant National University (AnantU), Ahmedabad	23rd -25th February, 2024	Dr. Swechcha Roy	Anant National University (AnantU), Ahmedabad
3	Reviewer in the double-blind peer review process for the International Conference <b>"Climate Change, Cultural Heritage and Sustainable Habitat"</b> .	17-18 Feb,2024	Dr Amanjeet Kaur	NIT Patna
4	Reviewer in the double-blind peer review process for the 3rd International Conference	22-24 April, 2024	Dr Amanjeet Kaur	DIT, Dehradun

	OPPORTUNITIES AND CHALLENGES FOR RESILIENT FUTURE organized by SoAPD			
5	Reviewer for the Journal "ShodhKosh: Journal of Visual and Performing Arts" (an UGC refereed journal)		Dr. Sourogee Dutta	Online
6.	External Examiner, M.Arch Thesis Evaluation, Chandigarh College of Architecture.	17-18 May, 2023	Dr. Sourogee Dutta	Chandigarh College of Architecture
7.	Member, Editorial Board, Edwin Group of Journals.		Dr. Sourogee Dutta	
8.	Peer Reviewer, Grant application for the Endangered Wooden Architecture Program (EWAP), Oxford Brookes University, UK.	Feb., 2024	Dr. Sourogee Dutta	Online
9.	Reviewer in the double-blind peer review process for the "Architecture Education in the Changing World - Reviewing and Rethinking the way forward", International Conference organized by COA.	Jan - Feb. 2024	Dr. Sourogee Dutta	Online

10	Expert Speaker at 5 days workshop on 'Current Practices and Challenges of Urban Design in India, organized by NIT Patna.	30 Oct. - 3 Nov. 2023	Dr. Souroovee Dutta	Online
11	Expert Speaker at WICCI-Punjab chapter organized Webinar series.	17 Nov. 2023	Dr. Souroovee Dutta	Online

**e) Research project**

**1. EXTERNAL SPONSORED R&D PROJECTS**

Sr. No.	Title of R&D Project/Patent	Name of [PI / Co-PI]	Present Status of Project [Completed / Ongoing]	Patent Granted [Yes / No]	Rs.
1	Carrying capacity assessment of eco sensitive zone, Col. Sher Jung National park, Simbalbara, DEST H.P.	Inderpal Singh,. And Puneet Sharma	On going	NO	07 L

**f) Book published**

**Text / Reference Books published on relevant subjects from reputed International Publishers:**

Sr. No.	Title	Publisher	Author	ISBN/ISSN No.
1	Impact of Urbanization on Mental Health With Reference to Bio-Psycho-Social Theory: Directions for the Future in The Climate Change Crisis and Its Impact on Mental Health	IGI Global	Ruchi Joshi, Kriti Vashistha, Shraddha Tripathi, Swechacha Roy, Charu Dhankar	9798369332726
2	Courtyard: A Social Shared Space	Eliva Press, Europe	Sourovee Dutta, Itasha Bhattacharya	9789999313261

**g) Doctoral Programme: 21 nos. ongoing**

Sr. No.	Title	Guide	Name of the Student	Brief report
1.	Eco frame work for Religious tourism of Trikota Hills: Study of Shri Mata Vaishno Devi Katra	Dr. Minakshi Jain	Ar. Vikas Bhola	Submission stage
2.	Developing Sustainable Residential Model by	Dr. Minakshi Jain &	Ar. Priyank	SOA completed

	Integrating Landscape Elements: study area Nainital	Dr. I. P.Singh	Jain	
3	Developmental Model for Urban Revitalization of Core area in India: case of Sagar, MP, India	Dr. Puneet Sharma	Ar. Akansha Soni	Submitted
4	Role of Fenestration for daylight performance in government offices of Hamirpur	Dr. Aniket Sharma	Ar. Rohit Thakur	SOA completed
5	Visual Place Quality framework for the Hill Towns of Himachal Pradesh	Dr. Vandna Sharma	Ar. Rahul Bharmoria	Submitted
6	Enhancing the thermal performance of slate roof systems of vernacular Houses - a case of Himachal Pradesh	Dr. Vandna Sharma	Ar. Ridima Sharma	SOA completed
7	To Develop an Energy Prediction Framework from the energy consumption pattern of residential buildings of Himachal Pradesh”	Dr. Aniket Sharma	Ar. Rajat Nainwal	SOA completed
8	Sustainable Housing for Industrial Workers. Case Study-Noida (U.P.)	Dr. Bhanu M Marwaha	Ar. Manisha	SOA completed



9	Community resilience framework for hill town- A case of Shimla, Himachal Pradesh	Dr. Puneet Sharma	Ar. Geetika Kaundal	SOA completed
10	Urban mobility in hill towns	Dr. Inderpal Singh	Ar. Gouri	SOA completed
11	Attainment of social sustainability through gender sensitive strategies in urban planning -a case of Kanpur city	Dr. Rashmi Kumari	Ar. Asmita Yadav	SOA completed
12	Sustainable Tourism Development in Himachal Pradesh: A paradigm toward Green Economy	Dr. Inderpal Singh	Ar. Kirti	SOA completed
13	Planning for water resilient cities	Dr. Puneet Sharma & Dr. Inderpal Singh	Ar. Kalpna Thakur	SOA completed
14	Assessment of a construction waste quantification model suitable for residential buildings in the Indian context- a case of Agra	Dr. Puneet Sharma & Dr. Rashmi Kumari	Ar. Shivani	SOA completed
15	Socio-ecological resilience in the coastal ecosystems of Kerala	Dr. Aniket Sharma	Ar. Atul	SOA completed

16	Quantification of BIPV towards the net zero building	Dr. Venu Shree	Ar. Jay Prakash	SOA completed
17.	Application of vernacular building construction technique to achieve sustainability in modern construction in the Lahaul region	Dr. Venu Shree	Ar. Shiv Dayal	SOA completed
18	Study of Urban Sprawl	Dr. Venu Shree	Ar. Mehul Chaudhary	Course Work (1st Year)
19.	Development of urban design benchmarks and guidelines along railway station precincts for the enhanced image of the city	Dr. Sandeep Sharma	Ar. Aakanksha Bhardwaj	Course Work (1st Year)
20	Research Area- Land Use Planning	Dr. Neetu Kapoor	Ar. Abhinam Bhardwaj	Course Work (1st Year)
21	Framework for industrial towns and informal sector	Dr Amanjeet kaur	Ar Bhupender Panwar	State of Art (2nd year)

#### 4. POPULAR LECTURES BY OUTSIDE EXPERTS:

Sr. No	Date	Speaker	Topic
1.	14.05.2021	Prof Pushplata	Understanding change in built form with focus on built areas

**5. CONSULTANCY SERVICES:**

<b>Sr. No.</b>	<b>Name of the Scheme</b>	<b>Sponsored Agency</b>	<b>Amount earned</b>
1.			

**6. TECHNICAL ASSOCIATIONS/SOCIETIES:**

<b>Sr. No.</b>	<b>Name of Professional Societies/ Institutions</b>	<b>Name of the Faculty</b>	<b>Status</b>	<b>National/ International</b>
1	Council of Architecture	Dr. Minakshi Jain	CA/90/13 558	National
2	Indian Society of Landscape Architects		J- 10/A2007	National
3	Council of Architecture	Dr. Bhanu M Marwaha	CA/92/15 454	National
4	Associate Member of The Indian Institute of Architects Mumbai		A-14291	National
5	Fellow Member ITPI - New Delhi	Dr. I P Singh	2006/52	National
6	Fellow Member of The Indian Institute of Architects Mumbai		A-16465	National

<b>7</b>	Council of Architecture		CA/89/12 443	National
<b>8</b>	Member of The Indian Institute of Architects Mumbai	Dr. Aniket Sharma	Lifetime	National
<b>9</b>	Council of Architecture		CA/2006/ 38390	National
<b>10.</b>	Associate Member of Institute of Town Planners, India		Lifetime (2011- 119)	National
<b>11.</b>	Member, Indian Society of Heating, Refrigeration & Air Conditioning Engineers (ISHRAE)		2017- 2020	National
<b>12.</b>	Life Member, Indian Building Congress (IBC)		Lifetime (ML6231)	National
<b>13.</b>	Life Member, Indian Concrete Institute		Lifetime (10542)	National
<b>14.</b>	Member, Autodesk User Group International Organization (AUGI)		Lifetime	International
<b>15.</b>	General Member, International Network for Traditional Building, Architecture and Urbanism (INTBAU)		Lifetime	International

16.	Member of The Indian Institute of Architects Mumbai	Dr. Puneet Sharma	Lifetime	National
17.	Council of Architecture		CA/2004/33626	National
18.	Institute of Urban Design India		Lifetime	National
19.	Council of Architecture	Dr. Vandna Sharma	CA/2005/36353	National
20.	Member, Indian Society of Heating, Refrigeration & Air Conditioning Engineers (ISHRAE)		2017-2020	National
21.	Life Member, Indian Building Congress (IBC)		Lifetime (ML6232)	National
22.	Associate Member of Institute of Town Planners, India		Lifetime (2011-118)	National
23.	General Member, International Network for Traditional Building, Architecture and Urbanism (INTBAU)		Lifetime	International
24.	Council of Architecture	Dr. Amanjeet Kaur	CA/2001/28647	National
25.	Member of The Indian Institute of Architects Mumbai		Lifetime (A15110)	National

<b>26.</b>	ICOMOS		Annual (2021-23)	International
<b>27.</b>	INTACH		Lifetime	National
<b>28.</b>	General Member, International Network for Traditional Building, Architecture and Urbanism (INTBAU)		Lifetime	International
<b>29.</b>	Member of The Indian Institute of Architects Mumbai	Ar. Neetu Kapoor	Lifetime	National
<b>30.</b>	Council of Architecture		CA/2006/ 37880	National
<b>31.</b>	General Member, International Network for Traditional Building, Architecture and Urbanism (INTBAU)		Lifetime	International
<b>32.</b>	Member of The Indian Institute of Architects Mumbai	Ar. Sandeep Sharma	Lifetime	National
<b>33.</b>	Council of Architecture		CA/2006/ 37836	National
<b>34.</b>	Council of Architecture	Dr. Venu Shree	CA/2006/ 38789	National
<b>35.</b>	Member of The Indian Institute of Architects Mumbai		Lifetime	National

36.	Institute of Indian Interior Designer		Lifetime	National
37.	The Indian Society for technical Education		Lifetime	National
38	Council of Architecture	Dr. Rashmi Kumari	CA/2009/45688	National
	Associate Member of Institute of Town Planners, India		2016-242, AITP	National
	Associate Member of IIA		A-27385	National
38	Council of Architecture	Dr. Swechcha Roy	CA/2013/62273	National
39	Council of Architecture	Dr. Souroovee Dutta	CA/2010/50268	National

**7. EQUIPMENT ACQUIRED:**

Sr. No.	Name of Equipment	Grant/ Lab	Cost (Rs./)
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**8. DETAILS OF LABORATORIES:**

1. Research & Documentation Lab
2. Computer Lab
3. Climatology & Energy Lab
4. Survey Lab
5. Audio Visual lab (SH-I to SH-IV)
6. Visual Arts Lab

7. Building Material & Construction lab
8. Carpentry lab
9. Built Environment and Model Making lab
10. BReUCom Research Lab
11. Urban design Lab

## 9. STUDENT ACTIVITIES:

### i) Competitions at national and international level

Area	Competition Name	Name of the Individual	Duration	Position
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### ii) Workshops/ Training/ Courses

Organization Name	Individual Name	Subject Area and Location	Date/ Duration
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### iii) External Internships

Individual Name	Subject and Area of Internship	Date/ Duration
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### iv) Students in Position at various College Clubs and Teams

Teams/ Clubs/ Committees	Name	Year	Position
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### 3.12 DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES



#### 1. ACADEMIC STAFF

- **Head of the Department** & Dr. Manoj Sharma, Associate Professor
- Dr. Yogesh Gupta, Associate Professor
- I-Yadav, Assistant Professor Gr Dr. Manoj Kumar
- I-Dr. Sunder Kala Negi, Assistant Professor Gr
- DI-r. Preeti Puri, Assistant Professor Gr
- II-Dr. Zareena J.M., Assistant Professor Gr
- II-Dr. Rinshu, Assistant Professor Gr

**School, Short Term Course Seminar, WORKSHOP, Symposia, Summer School, Winter :Conference**

1. Conference funding awarded by ICCSSR entitled as “The Global Business Behavioral Strategies for to Dr Sunder Kala Negi (2024 -Sustainable Management Practices: ESG To SDGs (GLOSMAN

**:aFDP/STC/Workshop/STP/Seminar/Symposi**

1. –FDP on Wellness and Life Skills 10 to <sup>th</sup>15 ,July <sup>th</sup>2023 by Dr. Sunder Kala Negi and Dr. Manoj Kumar Yadav.
2. -Virtue Vista2023 event/ one day Workshop (A Small initiative towards Ethical Empowerment) on 12 ,December <sup>th</sup>2023.coordinated by Dr. Sunder Kala Negi
3. Term Course on “The Art of Writing Research Articles and Scholarly Publications in English -Short February, 2024 by Dr. Preeti Puri and Dr Zareena <sup>nd</sup>2 -January <sup>th</sup>Language and Literature” from 29 .JM

4. (I-I (MMRSP-Research for Social Sciences and Public policy -dSTP on Mixed Metho5 to <sup>th</sup>9 ,Feb <sup>th</sup> 2024.coordinated by Dr. Rinshu and Dr. Sunder Kala Negi
5. Interaction with Vidya Bharti School students during their visit to the Communication Skill Lab of DoHSS-month of May, 2023 the Department in the
6. by Prof. O Kranthi 2023-9-Lecture on “Introduction to ELT and research possibilities” dated 14 DoHSS-Priya, KL University organized by Researchers’ club “Researchers Quill”
7. Mr. Shrikanth B R, Research 2023-10-n 13Lecture on “Institutional history as a field of research o DoHSS-scholar IIT Bombay organized by Researchers’ club “Researchers Quill”
8. Prof. 2023-10-Lecture on research possibilities in literary and cultural disability studies on 19 DoHSS-earchers’ club “Researchers Quill”Boopathi P, CU Tamilnadu organized by Res

### **:RESEARCH/Publication**

#### **:Research Funding**

1. Project titled “ Documentation of Traditional Deity Rituals and Alcoholic Customary Cultural I alongwith -Gr. Practices in Western Himalayan Kinnaura Tribe of HP” to Dr. Sunderkala Negi, AP Project Director awarded by ICSSR amounting Rs 10 lakh-Dr. Yogesh gupta as Co
2. Project titled “Eminence of Local Deity Traditions and their Influence on the Sociocultural Values -RP-of Himachal Pradesh (ICSSR of Contemporary Society: A Study of Kullu and Shimla Districts .hkaL 54 .sR gnitnuoma RSSCI yb dedrawa ,amrahS jonaM rD ot ”(530-2024

#### **:Research Publications**

No.	Journal Name	Title of Paper	Published year	Author	Journal Pages
1.	FIIB Business Review (Sage Journal)	Virtual Teams, Academic Resilience and Mental Wellbeing: A Study of International Students in Virtual Teams in India	10 <sup>th</sup> Sep, 2023	Minakshi Rana , Piar Chand Ryhal and Sunder Kala Negi	1-11
2.	Journal of Namibian Studies ) (Special Issue on Business and Management)	A Microscopic Look Into The Occupational Stress and Quality of Life: Insightful Study Between Blue- and White-Collar Shoe Employees of Agra	August 2023	Dr. Sunder Kala Negi	29-47
3.	Life Writing	Traversing the (In)Visible Territory of Schizophrenia	2024	Ms. Shefali and Dr. Preeti Puri	NA

		in HOAX Psychosis Blues: An Intersection of Life Writing and Graphic Medicine in Comics			
4.	Cureus	Impact of COVID-19 on the Mental Health of Healthcare Workers and Job Loss From a Gender Perspective in India: A Systematic Review and Meta-Analysis	Nov., 2023	R Athe, R Dwivedi et al.	15 (11)
5.	Qeios	Impact of medical, surgical and expectant management on spontaneous miscarriage/abortion on first trimester: A systematic review and meta-analysis of randomized, controlled trials	2023	S Negi, K Sharma, A Acharya, A Prabhu, R Dwivedi, R Athe	NA
6.	Menopause Review	Spontaneous miscarriage/abortion in the first trimester and expectant management – a meta- analysis approach	September, 2023	A Acharya, A Prabhu, S Negi, K Sharma, R Dwivedi, R Athe	NA
7.	Book Chapter	Women's Empowerment : A Review" , Exploring emerging trends in the role of women in National Education Policy 2020	2023 ISBN:978-93- 92504-31-0.	Dr. Yogesh Gupta and Dr. Ruchi Sharma	144-152
8.	Millennial Asia	Does twin deficit hypothesis exist in India? A structural break Co- integration analysis	2023	Shah Husain, Imran Ali Baig, Mohammad Asif and Yogesh Gupta,	1-18

9.	Environment, Development and Sustainability	Examining the impacts of climatological factors and technological advancement on wheat production: Aroad framework for sustainable grain production in India	2023	Imran Ali Baig, Shan Mohammad, Vasim akram , Abbas Ali Chandio and Yogesh Gupta	1-25
10.	World Review of entrepreneurship, Management and Sustainable Development	A systematic review of environmental sustainability and economic growth	2023	Sukhwinder Singh, Manoj Sharma and Yogesh Gupta	DOI 10.1504/ WREMSD.2 023.1005 3822

**:conference/ seminar/ SYMPOSIA PAPER PRESENTED in**

:Paper Accepted for Publication in conference proceeding

- 1 **Dr. Preeti Puri:** Caught in the (Inter) Net: Cyberchondria, Graphic Medicine and William Roy's In Vitro at the Graphic Medicine Conference "Encounters and Invitations" at the University of Toronto, 15th July, 2023.
- 2 **Dr. Preeti Puri:** Poe and the Picturesque: A Deleuzo-Guattarian Study of “The Island of the Fay” at the III International Conference of the Edgar Allan Poe Spanish Association” "Through the Veil of the Soul: Poe and the Pleasures of Art" on 4rth October in Spain by Literature and Art Studies Group of the University of Castilla La Mancha.
- 3 **Dr. Preeti Puri:** Mapping the Nature to the Human: Re thinking Becoming Molecular through the Self-Narratives of the Deviant in Shubhangi Swarup's novel Latitudes of Longing at the 15th International Deleuze and Guattari Studies Conference 2023: 'Space Control and Resistance' from 10th to 12th July, in Belgrade, Serbia at the Faculty of Media and Communications.
- 4 **Dr Sunder Kala Negi:** presented the Exploring the Impact of Virtual Reality and Augmented Reality Technologies in Sustainability Education on Green Energy and Sustainability Behavioral Change: A Qualitative Analysis at Casablanca, Morocoo, International Symposium on Green Technologies and Applications (ISGTA'2023)29th Dec, 2023 in Hybrid Mode which is accepted for publication in Elsevier Procedia-Computer Science.
- 5 **Dr. Sunder Kala Negi,** participated and presented a paper (Oral) entitled Social Media Dynamics in Sustainable Development: Unveiling Eco-Social Narratives and Behavioral Shifts at the International Conference on frontiers of Sustainable Research in Health Care, Food, Agriculture and Environmental Management (1CSURE - 2024) Organized by Guru

Nanak Centre for Research in association with G.S. Gill Research Institute, Guru Nanak College (Autonomous), Chennai- held from 22.02.2024 to 23.02.2024.

- 6 **Dr. Sundar Kala Negi** participated and presented the paper titled Unmasking Eco-Social Narratives and Driving Behavioral Shifts: The Dynamic Impact of Social Media on Sustainable Development in the 17th GJ-IntConMITE held on December 22, 2023.
- 7 **Dr Rinshu** and Scholar presented a research paper titled as “Sustainable Energy for Universal Health Coverage – A pilot study on the North Karnataka District in the “44th Annual Conference of IASP 2023 on 1.4 Billion Aspirations, One Sustainable Future: Unfolding India’s Path to Development” in collaboration with IASP during 8-10 November 2023.
- 8 presented a paper titled Evaluating the knowledge, attitude, practice and probable **Dr Rinshu** ematic review in a syst -health impact of doping and dietary supplements in India **Gender, Health & Sustainable Development: Global and “Conference on Annual<sup>th</sup>19 .February 2024 02-4202 naJ ,13 no ”National Perspectives**

Dr Pushpdant Jain Aditya -(001-Period Pain relief device for Thigh (402465 - **:Patent** Ashok Pise  
.Adelin Parinita Dr Rinshu Dwivedi

- (Doctoral Programme: 17 Research Scholars (presently ongoing
- -Nil-Ph.D. Degree awarded:

#### **:Interaction with Experts /Popular lectures by experts**

1. Chaired the session at National Seminar on “Inclusive Economics Growth **Dr. Yogesh Gupta** Strategy in India: Challenges and Future Prospects” sponsored by ICSSR, Delhi at HP .University Shimla
2. **Dr. Zareena JM** Skills in As a resource person, I conducted a session on "Role of Thinking : Academic Writing: Implications for Instructional and Assessment Tasks" for the faculty of government ITI Jogindernagar, Mandi, Himachal Pradesh on 13 February 2024, organized by .the Department of Computer Science and Engineering at NIT Hamirpur
3. **Dr. Zareena JM** :Participated in the national symposium on 'Routing and Rolling of Higher February, 2024 at 16-Education System: A National Perspective of NEP 2020’ during 15 hil Madhya Pradesh Bhawan, Chanakyapuri, New Delhi. The symposium was organized by AK Bhartiya Rashtriya Shaikshik Mahasangh , National Institute of Technology Teachers' Forum in organized jointly with VNIT Nagpur, NIT -association of AICTE, as program partner and co .Patna, NIT Jalandhar, NIT Raipur, NIT Nagalandm, SLIET Longowal
4. As a resource person, I conducted a session on "Qualitative Research in : **reena JMDr. Za** Language" organized by the department of English, School of Sciences and Humanities, SR .University, Warangal, Telangana on 20 March 2024

5. person in the 2nd International Conference on Women in As a resource :**Dr. Sunder Kala Negi**  
Organized by Gopal Narayan Singh University, Jamuhar , (2024-Multifaeted Research (ICWMR  
.th March, 202412-Rohtas, Bihar, India. Held on 10th
6. has chaired a session and delivered an expert talk in Conference funding awarded by **Dr Rinshu**  
ICC SSR entitled as “The Global Business Behavioral Strategies for Sustainable Management  
on 20.02.2024 (2024 -Practices: ESG To SDGs (GLOSMAN
7. a session and delivered an expert talk in Conference funding has chaired **Dr Yogesh Gupta**  
awarded by ICC SSR entitled as “The Global Business Behavioral Strategies for Sustainable  
.on 20.02.2024 (2024 -Management Practices: ESG To SDGs (GLOSMAN
8. on, I conduced a session on " Emotional Intelligence: As a resource pers :**Dr. Sunder Kala Negi**  
Essential Life Skills for Personal and Professional Success" for the faculty of government ITI  
Jogindernagar, Mandi, Himachal Pradesh on 12 February 2024, organized by the Department of  
.and Engineering at NIT Hamirpur Computer Science
9. As a resource person, I conduced a session on " Counselling in the :**Dr. Sunder Kala Negi**  
Classroom: Techniques for Teachers to Support Student Mental Health" for the faculty of  
Pradesh on 15 February 2024, organized by government ITI Jogindernagar, Mandi, Himachal  
.the Department of Computer Science and Engineering at NIT Hamirpur
10. has chaired the session at the “44th Annual Conference of IASP 2023 on 1.4 **Dr Rinshu**  
ia's Path to Development” in Billion Aspirations, One Sustainable Future: Unfolding Ind  
Public -November 2023 organised by ‘Center of Excellence 10-collaboration with IASP during 8  
Health Nutrition’ under the Department of Humanities and Social Sciences, National Institute of  
.Technology (NIT), Rourkela
11. has chaired two session and delivered an expert talk in Conference **ala NegiDr Sunder K**  
funding awarded by ICC SSR entitled as “The Global Business Behavioral Strategies for  
February, 20-on 19 (2024 -Sustainable Management Practices: ESG To SDGs (GLOSMAN  
.2024

#### :purchased -Equipment Acquired

No.	Equipment/Software	Manufacturer	Cost (Rs.)
1	Software purchased Eviews 13: Academic—perpetual Lincense (3 users)	M/s. Trinetrix Technologies Pvt. Ltd., New Delhi	Rs. 2,19,232/-
2.	Software purchased NVivo 14: Academic—Stand-alone/Desktop Perpetual Lincence (4 users)	M/s. Trinetrix Technologies Pvt. Ltd., New Delhi	Rs. 4,45,792/-

**:Name of Laboratories**

<b>.No</b>	<b>Laboratory</b>
1	Communication Skills Lab
2	Research Lab

### 3.13 DEPARTMENT OF MANAGEMENT STUDIES



#### 1. 1. ACADEMIC STAFF:

**Head: Dr. Mohd. Adil.**

**Faculty:**

Professor	Associate Professor	Assistant Professor Grade-1	Assistant Professor Grade- 11
NIL	Dr. Mohd Adil	Dr. Sachin Kumar	NIL
	Dr. Vivek Tiwari	Dr. Neeraj Dhiman	
		Dr. Shampy Kamboj	
		Dr. Richa Joshi	

#### 1. Student Admitted:

2023-2024	MBA
1 <sup>st</sup> Year	32
2 <sup>nd</sup> year	27

#### 2. VISIT TO ABROAD

To foster international collaborations and establish strong networking, Dr. Mohd. Adil was invited as a visiting professor to visit UNSW (Australia).

#### 3. SEMINAR, SHORT TERM COURSE / WORKSHOP/CONFERENCE ORGANIZED

**A. National Conferences organized :**

**Two (02)**



**B. National Workshop organized:****Three (03)****4. RESEARCH:****(a) Research Project Granted: One (01) from UNSW Global (Australia)****(b) Research Publications in International Journals:**

S.No	Journal Name	Title of paper	Year in which publish	Author	Journal Pages
1.	Journal of Retailing and Consumer Services, Elsevier	Why do consumers consume masstige products? A self-determination theory perspective	2024	Shadma, S.; Adil, M., Sadiq, M. & Dash, G.	76, pp.10360-7
2.	Journal of Vacation Marketing	Should we or should we not? Examining travelers perceived privacy, perceived security, and actual behavior in online travel purchase	2024	Dogra, N. & Adil, M.	30(1), pp. 123-142
3.	International Journal of Tourism Cities	Impact of memorable tourism experiences on tourists' storytelling intentions: an empirical investigation	2024	Guleria, A., Joshi, R., & Adil, M.	10(1), pp.280-301
4.	Sustainability	From thinking green to riding green: A study on influencing factors in electric vehicle adoption	2024	Rafiq, F., Parthiban, E.S., Rajkumari, Y., Adil, M., Nasir, M. & Dogra, N.	16(1):194-210
5.	Sustainability	Consumers' Reaction to Greenwashing in the Saudi Arabian Skincare Market: A Moderated Mediation Approach	2024	Adil, M.; Parthiban, E.S.; Mahmoud, H.A.; Wu, J.-Z.; Sadiq, M. & Suhail, F.	16, 1652

6.	Current Issues in Tourism	Factors influencing travellers' decision-making and purchase behaviour towards online travel purchases: A fuzzy-DEMATEL approach	2023	Dogra, N. & Adil, M.	--
7.	International Journal of Retail & Distribution Management	Does shopping values influence consumers' well-being? Empirical evidence from e-retail	2023	Dogra, N.; Nasir, M. & Adil, M.	51(12), pp. 1698-1718
8.	Current Issues in Tourism	Demystifying tourists' intention to purchase travel online: The moderating role of technical anxiety and attitude	2023	Dogra, N.; Adil, M.; Sadiq, M.; Rafiq, F. & Paul, J.	26(13), 2146-2165.
9.	Business Strategy and The Environment	Organic food consumption and contextual factors: An attitude-behavior-context perspective	2023	Sadiq, M., Adil, M., & Paul, J.	32(6), pp. 3383-3397.
10.	International Journal of Consumer Studies	Ecotourism experience: A systematic review and future research agenda	2023	Sana; Chakraborty, S.; Adil, M. and Sadiq, M.	47(6), pp. 2131-2156.
11.	International Journal of Productivity & Quality Management	Customer acceptance of smart grid technology: A bibliometric literature review	2023	Archana, Ravi Shankar & Adil, M.	40(4): pp. 429-452
12.	International Journal of Productivity & Quality Management	Using sustainability as a way to shape insurance industry: Development of conceptual framework	2023	Dogra, N.; Adil, M.; Ullah, A.	40(4): pp. 550-571.
13.	Journal of Hospitality and Tourism Insights	The Impact of Memorable Tourism Experiences on Customer-Based Destination Brand Equity: The Mediating role of Destination Attachment and Overall Satisfaction	2023	Guleria, A; Joshi, R & Adil, M.	Vol. ahead-of-print No. ahead-of-print
14.	Asia Pacific Journal of Information Systems	Examining the Adoption of AI based Banking Chatbots: A	2023	Parthiban, E.S. & Adil,	33(3), pp. 652-676

		Task Technology Fit and Network Externalities Perspective		M.	
15.	Asia Pacific Journal of Information Systems	Trends in the AI-based Banking Conversational Agents Literature: A Bibliometric Review	2023	Parthiban, E.S. & Adil, M.	33(3), pp. 702-736
16.	<i>Technological Forecasting and Social Change</i>	A study on big data analytics and innovation: From technological and business cycle perspectives.	2024	Sivarajah, U., Kumar, S., Kumar, V., Chatterjee, S., & Li, J.	202
17.	<i>British Food Journal</i>	Taking flight with food: Investigating the determinants of user acceptance towards drone-based food delivery services in India	2024	Kumar S., Singh B., Kumar, V., Chaudhuri, R., Chatterjee, S. Vrontis, D.	126(3), 1217-1237
18.	<i>Foresight</i>	What resists millennial to adopt hotel booking apps? An empirical analysis based on extended innovation resistance theory	2023	Kumar, S., Dhiman, N., Kanojia, H. & Joshi, R.	26(1), 98-113
19.	<i>Vision: The Journal of Business Perspectives</i>	Employee's intentions to use HR analytics: Technology acceptance model with job relevance and self-efficacy.	2023	Dhiman, N., Kumar S., Nagpal, T.	--
20.	International Journal of Food System Dynamics	Investigating the Impact of Online Service Convenience on Customer Engagement, Attitude and Intention to Use Food Delivery Apps.	2023	Vandana, Kumar, S., Kumar, V., & Goyal, P	14(3), 331-344
21.	global business and organizational excellence	Emotional intelligence and career success: Does resilience matter?	2023	S Sharma, Tiwari V	--
22.	Journal of Asia	Review of work-life interface:	2023	I Sharma, V	17 (3),

	Business Studies	a systematic literature analysis		Tiwari	559-575
23.	Vision	A bibliometric analysis of turnover intention in the field of business and management:(2002–2022)	2023	I Sharma, V Tiwari	--
24.	Journal of Research Administration	Career advancement of women in it–the influence of self-efficacy and the Intervening role of career aspiration	2024	M Bhattacharjee, V Tiwari	--
25.	Global Business and Organizational Excellence	Does emotional intelligence contribute to career success? Evidence from a systematic literature review	2024	S Sharma, V Tiwari	--

(ii) **PAPER PRESENTED IN CONFERENCE/SEMINAR/SYMPOSIUM: Nil**

(iii) **CONFERENCE/SEMINAR/WORKSHOP ORGANISED:**

**National Conferences organized : Two (02)**

**National Workshop organized: One (01)**

**(c) Doctoral Programme:**

**(d) Ph.D Degree awarded: One (01)**

Sr. No.	Title	Guide	Name of Student	Brief Report
1.	Modelling the Factors Influencing Traveler Behavior Towards Online Travel Purchase	Dr. Mohd. Adil	Nikhil Dogra	-
2.	“Investing the Role of Techno-stress and Work-Life Balance on Employees’ Turnover intention”	Dr. Vivek Tiwari	Shubham Sharma	-
3.	“Investigating the Role of Emotional intelligence and Career success on Employees’ turnover Intention”.	Dr. Vivek Tiwari	Indu Sharma	-

**(f). DOCTORAL PROGRAMME: POPULAR LECTURES BY OUTSIDE EXPERTS:****3. CONSULTANCY SERVICES: Nil****4. EQUIPMENT ACQUIRED:**

<b>Sr. No.</b>	<b>Name of Equipment</b>	<b>Name of Manufacturer</b>	<b>Cost (Rs. In INR)</b>
1.	Personal Computer for Lab	H.P.	19,50,000

**5. NAME OF LABORATORIES:**

<b>S.N.</b>	<b>Name of Laboratory</b>
-Nil-	-NIL-

### 3.14 Centre for Energy Studies



#### 1. ACADEMIC STAFF

**HEAD**            **Dr. N.S Thakur**  
**Professor**

#### (I) FACULTY :

Sr. No.	Name of Faculty	Designation
<b>PROFESSOR</b>		
1.	Dr. N.S. Thakur	Professor
<b>ASSISTANT PROFESSOR</b>		
1.	Dr. Mamta Awasthi	Associate Professor
<b>TEMPORARY FACULTY ON CONTRACT BASIS</b>		
1.	Dr. Adya Isha	Temporary faculty

#### BRIEF ACTIVITIES DURING 2023-2024 (ENDING MARCH 2024)

	Main Academic Activities	Brief information
	Admissions (UG/PG/Ph.D.) strength	PG - 07 Nos. Ph.D. – 02 Nos.
	New Course/ Programme started	Nil
	Convocation held Degree(s) Medal conferred/ award and Any other achievement	Nil

## 4.0 Staff Details

### 4.1 ADMINISTRATIVE STAFF

Sr. No.	Title	First Name	Last Name	Designation	Employee Code
1	Dr.	Archna	Santosh Nanoty	Registrar	
2	Sh.	Anil	Kumar	Sr. Scientific Officer	S0243
3	Sh.	Jagdish Chand	Verma	Sr. Scientific Officer	S0057
4	Sh.	Ashwani	Kumar	Sr. Scientific Officer	S0059
5	Dr.	Mani	Verma	Sr. Medical Officer	S0293
6	Sh.	Nitin	Paliwal	Assistant Librarian	S0343
7	Sh.	Anil Kumar	Sharma	Deputy Registrar	S0359
8	Sh.	Satish Chander	Sharma	Deputy Registrar	
9	Sh.	Sanjay	Jamwal	Assistant Registrar	S0151
10	Sh.	Gaurav	Sharma	Assistant Registrar	S0344
11	Sh.	Vipan	Kumar	Assistant Registrar	
12	Sh.	Kumar	Saurabh	Assistant Registrar	
13	Sh.	Gaurav	Yadav	Assistant Registrar	
14	Sh.	Nanak Chand	Negi	Assistant Registrar	S0126
15	Sh.	Amarjeet	Singh	Scientific/Technical Officer	S0270
16	Sh.	Rohit Kumar	Singh	Executive Engineer	
17	Sh.	Sanjeev Kumar	Vasishta	Executive Engineer	

### 4.2(a) Ministerial Staff (Higher/Lower):

Sr. No.	Title	First Name	Last Name	Designation	Employee Code
1	Sh.	Pritam Chand	Rangra	Superintendent Gr-I	S0129
2	Sh.	Desh Raj	Bansal	Private Secretary	S0099
3	Sh.	Parvesh	Kumar	Private Secretary	S0282
4	Sh.	Raman	Kumar	Superintendent Gr-II	S0272
5	Sh.	Kishore	Kumar	Senior Superintendent	S0138
6	Sh.	Pawan Kumar	Sharma	Superintendent	S0145
7	Sh.	Abhishek	--	Superintendent	
8	Sh.	Kanwar	Singh	Superintendent	
9	Sh.	Jitender	Kumar	Superintendent	S0548
10	Sh.	Gulab Singh	Thakur	Senior Personal Assistant	S0117
11	Smt.	Pushpa	Devi	Personal Assistant	S0164
12	Ms.	Priya	Kapur	Personal Assistant	
<b>Ministerial Staff (Lower)</b>					
1	Sh.	Vinod	Kumar	Stenographer SG-II	S0149
2	Smt.	Sangeeta	Kumari	Stenographer SG-II	S0150
3	Sh.	Sanjeev	Mehta	Asst. SG I	S0097
4	Sh.	Yashpal	Singh	Asst. SG I	S0142
5	Sh.	Jitender	Kumar	Asst. SG I	S0146
6	Sh.	Surinder	Singh	Asst. SG I	S0072

7	Sh.	Raman	Thakur	Asst. SG II	S0158
8	Sh.	Meera	Thakur	Asst. SG II	S0155
9	Smt.	Meena	Devi	Asst. SG II	S0162
10	Sh.	Madan	Lal	Asst. SG II	S0152
11	Sh.	Raj	Kumar	Asst. SG II	S0160
12	Sh.	Ajit	Kumar	Asst. SG II	S0157
13	Ms.	Nazima	--	Asst. SG II	S0159
14	Sh.	Vikas	Dogra	Asst. SG II	S0311
15	Sh.	Ashwani	Kumar	Sr. Assistant	S0314
16	Sh.	Vishal	Narota	Sr. Assistant	S0313
17	Sh.	Vipan	Kumar-I	Sr. Assistant	S0312
18	Sh.	Vipan	Kumar-II	Sr. Assistant	S0315
19	Sh.	Shashi Kant	Ratnakar	Sr. Assistant	S0320
20	Sh.	V.K.	Tippan	Sr. Assistant	S0321
21	Ms.	Neenu	Sharma	Sr. Assistant	S0325
22	Sh.	Maneshwar	Thakur	Sr. Assistant	
23	Sh.	Lav	Sharma	Sr. Assistant	
24	Sh.	Abhishek	Chauhan	Sr. Assistant	
25	Sh.	Vikram	Rana	Sr. Assistant	
26	Sh.	Suresh	Kumar	Jr. Assistant	S0192
27	Sh.	Ashok	Kumar-I	Jr. Assistant	S0195
28	Sh.	Ravi	Das	Jr. Assistant	S0190
29	Sh.	Sudhir	Sharma	Jr. Assistant	
30	Ms.	Sonia	Yadav	Jr. Assistant	
31	Ms.	Sunita	Yadav	Jr. Assistant	
32	Sh.	Vasu	Tyagi	Jr. Assistant	
33	Sh.	Avinash	Meena	Jr. Assistant	
34	Sh.	Tanuj	Chaudhary	Jr. Assistant	
35	Sh.	Vishal	--	Jr. Assistant	
36	Sh.	Gautam	--	Jr. Assistant	
37	Sh.	Atul	Negi	Jr. Assistant	
38	Sh.	Deepak	Garg	Jr. Assistant	
39	Sh.	Piyush	Pathania	Jr. Assistant	
40	Sh.	Manohar	Lal	Jr. Assistant	
41	Sh.	Tilak	Raj	Jr. Assistant	

#### 4.2(b) Retiree Ministerial Staff (Higher/Lower):

Sr. No.	Title	First Name	Last Name	Designation	Date of Retirement
1.	Sh.	Joginder	Singh	Assistant SG-I	30/06/2023
2.	Sh.	Sukhdev	Singh	Assistant SG-I	31/12/2023
3.	Sh.	Sanjeev Kumar	Vasishta	Executive Engineer	31/03/2024



**4.3(a) Technical Staff**

<b>Sr. No.</b>	<b>Title</b>	<b>First Name</b>	<b>Last Name</b>	<b>Designation</b>	<b>Employee Code</b>
1	Sh.	Rajesh	Sharma	Assistant Engineer SG-II	S0172
2	Sh.	Sandeep Kumar	Yogi	Assistant Engineer (on deputation)	---
3	Sh.	Rajesh	Pal	Library Information Assistant SG-II	S0167
4	Sh.	Joginder	Singh	Technical Assistant SG-II	S0169
5	Sh.	Sarvjeet	Singh	Technician SG-II	S0170
6	Sh.	Ravi	Singh	Technical Assistant SG-I	S0240
7	Sh.	Jaspal	Singh	Technical Assistant SG-I	S0106
8	Sh.	Balbir	Singh	Technical Assistant SG-I	S0077
9	Sh.	Rajpal	Minhas	Technical Assistant SG-I	S0092
10	Sh.	Joginder	Singh	Technician SG-I	
11	Sh.	Avinash	Aggarwal	Technical Assistant SG-II	S0269
12	Sh.	Santosh	Kumar	Technical Assistant SG-II	S0275
13	Sh.	Inder Singh	Guleria	Technical Assistant SG-II	S0104
14	Sh.	Partap	Chand	Technical Assistant SG-II	S0113
15	Sh.	Ravinder	Kumar	Technical Assistant SG-II	S0107
16	Sh.	Sanjeev Kumar	Thakur	Technical Assistant SG-II	S0058
17	Sh.	Dev	Raj	Technical Assistant SG-II	S0114
18	Sh.	Desh	Raj	Technician SG-I	
19	Sh.	Kalyan	Singh	Technical Assistant	
20	Sh.	Ashwani	Kumar	Technician SG-II	
21	Smt.	Reeta	Singh	Sr. Technician	S0268
22	Sh.	Ajay	Kumar	Technician SG-II	S0101
23	Sh.	Sukh Dev	Singh	Technician SG-II	S0102
24	Sh.	Parkash	Singh	Technician SG-II	S0079
25	Sh.	Suresh	Kumar	Technician SG-II	S0069
26	Sh.	Shiv	Dayal	Technician SG-II	S0070
27	Sh.	Jiwan	Kumar	Technician SG-II	S0061
28	Sh.	Gajinder	Singh	Technician SG-II	
29	Sh.	Surinder	Singh	Technician SG-II	S0086
30	Sh.	Sunil	Kumar	Technician SG-II	S0111
31	Sh.	Santosh Kumar	Yadava	Technician SG-II	S0266
32	Sh.	Chet	Ram	Technician SG-II	S0095
33	Sh.	Roop	Lal	Technician SG-II	S0087
34	Sh.	Surinder	Kumar	Technician SG-II	S0116
35	Sh.	Vijay	Kumar	Sr. Technician	S0267
36	Sh.	Kishore	Chand	Sr. Technician	S0265
37	Sh.	Naresh	Kumar	Sr. Technician	S0264
38	Sh.	Surender	Pal	Technician	S0316
39	Sh.	Sanjeev	Kumar	Technician	S0317
40	Sh.	Shameem	Ahmed	Technician	S0319
41	Sh.	Pawan	Kumar	Technician	S0326

42	Sh.	Ashok	Kumar	Sr. Technical Assistant	
43	Sh.	Rakesh	Kumar	Technician SG-II	
44	Sh.	Himanshu	Sharma	Sr. Technician	
45	Sh.	Aditya	Mukherjee	Sr. Technician	
46	Sh.	Jitender	Prasad	Sr. Technician	
47	Sh.	Rajesh	Sharma	Sr. Technician	
48	Sh.	Ashok		Sr. Technician	
49	Sh.	Saleem	Mohammad	Sr. Technician	
50	Sh.	Mukesh	Chawla	Sr. Technician	
51	Sh.	Sumeet	Raman	Sr. Technician	
52	Sh.	Chandradev	Raj Singh	Sr. Technician	
53	Sh.	Akash	Sharma	Sr. Technician	
54	Sh.	Rajesh		Technician	
55	Sh.	Shubham	Tomar	Technician	
56	Ms.	Smriti		Technician	
57	Sh.	Dhananjay		Technician	
58	Ms.	Priya	Thakur	Technician	
59	Sh.	Sanju	Kumar	Technician	
60	Sh.	Sahil	Thakur	Technician	
61	Sh.	Anand		Technician	
62	Sh.	Pritam	Kumar	Technician	
63	Sh.	Vishal	Singh-I	Technician	
64	Sh.	Vishal	Singh-II	Technician	
65	Sh.	Amit	Kumar	Technician	
66	Sh.	Anurag	Dhiman	Technician	
67	Sh.	Sagar		Technician	
68	Sh.	Prashant	Angirash	Technician	
69	Sh.	Gurjeet	Singh	Technician	
70	Sh.	Vikas	Agrahari	Technician	
71	Sh.	Vikas	Vashishat	Technician	
72	Sh.	Sahil	Bhardwaj	Technician	
73	Sh.	Hem	Raj	Technician	
74	Sh.	Debashis	Behera	Technician	

#### 4.3(b) Retiree Technical Staff:

Sr. No.	Name of Employee	Designation	Date of Retirement
1.	Sh. Mahesh Chand	Technician SG-I	30/04/2023
2.	Sh. Birender Singh Manhas	Library and Information Assistant SG-I	30/09/2023
3.	Sh. Joginder Singh	Technician SG-I	31/03/2024

**4.4(a) Supporting Staff:**

Sr. No.	Title	First Name	Last Name	Designation	Employee Code
1	Mr.	Suresh Chand	Rangra	Office Attendant SG-I	S0186
2	Mr.	Om	Prakash	Office Attendant SG-I	S0181
3	Mr.	Sunil	Kumar	Office Attendant SG-I	S0180
4	Mr.	Hari	Singh	Office Attendant SG-I	S0219
5	Mr.	Bhupinder	Singh	Office Attendant SG-I	S0210
6	Mr.	Suresh	Kumar	Office Attendant SG-I	
7	Mr.	Kehar	Singh	Office Attendant SG-I	S0194
8	Mr.	Basant	Singh	Office Attendant SG-I	
9	Mr.	Ravinder	Kumar	Office Attendant SG-II	S0207
10	Mr.	Balwant	Chand	Office Attendant SG-II	S0064
11	Mr.	Ashok	Kumar-I	Office Attendant SG-II	S0191
12	Mr.	Lekh	Raj	Office Attendant SG-II	
13	Mr.	Joginder	Singh	Office Attendant SG-II	S0119
14	Mr.	Devinder	Kumar	Office Attendant SG-II	S0214
15	Mr.	Ramesh	Chand-I	Office Attendant SG-II	S0205
16	Mr.	Manmohan	Lal	Office Attendant SG-II	S0089
17	Mr.	Jiwan	Parkash	Office Attendant SG-II	S0206
18	Mr.	Ramesh	Chand-II	Office Attendant SG-II	S0201
19	Mr.	Subhash	Chand	Office Attendant SG-II	S0222
20	Mr.	Jai	Chand	Office Attendant SG-II	S0208
21	Mr.	Vinod	Kumar	Office Attendant SG-II	S0221
22	Mr.	Roshan	Lal	Office Attendant SG-II	
23	Mr.	Subhash	Chand	Office Attendant SG-II	S0279
24	Mr.	Mukesh	Singh	Office Attendant SG-II	S0278
25	Mr.	Om	Parkash	Office Attendant SG-II	S0276
26	Mr.	Sunil	Kumar	Office Attendant SG-II	S0277
27	Sh.	Chain	Singh	Office Attendant SG-II	
28	Sh.	Banka	Ram	Office Attendant SG-II	
29	Sh.	Vidya	Sagar	Office Attendant SG-II	
30	Mr.	Anil	Kumar	Sr. Office Attendant	S0262
31	Smt.	Salochna	--	Sr. Office Attendant	S0263
32	Mr.	Jiya	Lal	Sr. Office Attendant	S0274
33	Mr.	Neeraj	Kumar	Sr. Office Attendant	S0271
34	Mr.	Parkash	Chand	Sr. Office Attendant	
35	Mr.	Rajinder	Singh	Sr. Office Attendant	
36	Mr.	Rakesh	Kumar	Sr. Office Attendant	
37	Mr.	Prem	Lal	Sr. Office Attendant	

**4.4(b) Retiree Supporting Staff:**

Sr. No.	Name of Employee	Designation	Date of Retirement
1.	Sh. Kashmir Singh	Office Attendant SG-I	30/04/2023
2.	Sh. Surinder Kumar	Office Attendant SG-I	30/04/2023
3.	Sh. Chain Singh	Office Attendant SG-II	31/08/2023
4.	Sh. Banka Ram	Office Attendant SG-II	31/03/2024
5.	Sh. Vidya Sagar	Office Attendant SG-II	31/03/2024

**4.5 Staff Strength****Ministerial Higher:**

Sr. No.	Name of the Post	Sanctioned Strength	In Position					Total
			SC	ST	OBC	PH	Gen	
1	Registrar, Deputy Registrar, Assistant Registrar, Sr. Scientific/Technical officer, Scientific Officer/Technical Officer, Assistant librarian, Executive Engineer, Sr. Medical Officer Medical officer	26	00	00	01	00	16	17
2	Superintendent SG-I, Superintendent SG-II, Private secretary, Sr. Superintendent, Sr. Personal Assistant, Superintendent, Personal Assistant.	21	00	00	00	00	12	12
3	Stenographer SG-I, Assistant SG-I, Stenographer SG-II Assistant SG-II, Sr. Stenographer, Sr. Assistant, Stenographer, Junior Assistant.	45	05	02	04	00	30	41
	<b>Total</b>	<b>92</b>	<b>05</b>	<b>02</b>	<b>05</b>	<b>00</b>	<b>58</b>	<b>70</b>

**Technical Higher:**

Designation	Total Sanctioned Strength	In- Position					
		GEN	SC	ST	OBC	EWS	Total
Technical Assistant	26	1	0	0	0	0	1
Senior Technical Assistant	15	1	0	0	0	0	1
Technical Assistant SG-II	10	6	2	0	0	0	8
Technical Assistant SG-I	5	3	0	1	0	0	4

Junior Engineer	2	0	0	0	0	0	0
SAS Assistant	2	0	0	0	0	0	0
Library and Information Assistant	2	0	0	0	0	0	0
Assistant Engineer	2	0	0	0	1	0	1
Senior SAS Assistant	2	0	0	0	0	0	0
Senior Library and Information Assistant	2	0	0	0	0	0	0
Assistant Engineer SG-II	2	1	0	0	0	0	1
SAS Assistant SG-II	2	0	0	0	0	0	0
Library and Information Assistant SG-II	2	1	0	0	0	0	1
Assistant Engineer SG-I	1	0	0	0	0	0	0
SAS Assistant SG-I	1	0	0	0	0	0	0
Library and Information Assistant SG-I	1	1	0	0	0	0	0
Pharmacist SG-II	1	0	0	0	0	0	0
<b>Total</b>	<b>78</b>	<b>14</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>17</b>

**Technical Lower:**

Designation	Total Sanctioned Strength	In- Position					
		GEN	SC	ST	OBC	EWS	Total
Technician	30	13	4	2	4	2	25
Senior Technician	23	9	3	0	1	1	14
Technician SG-II	16	12	2	2	0	0	16
Technician SG-I	8	3	0	0	0	0	2
Pharmacist	1	0	0	0	0	0	0
<b>Total</b>	<b>78</b>	<b>37</b>	<b>9</b>	<b>4</b>	<b>5</b>	<b>3</b>	<b>57</b>

**Supporting Staff:**

Designation	Total Sanctioned Strength	In- Position					
		GEN	SC	ST	OBC	EWS	Total
Office Attendant/ Lab Attendant	15	0	0	0	0	0	0
Sr. Office Attendant/ Sr. Lab Attendant	12	3	0	5	0	0	8
Office Attendant SG-II/ Lab Attendant SG-II	8	14	7	0	0	0	21
Office Attendant SG-I/ Lab Attendant SG-I	4	8	2	0	0	0	08
<b>Total</b>	<b>39</b>	<b>25</b>	<b>9</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>37</b>

## 5.0 Training & Placement Cell

The Training & Placement Cell was established in this Institute in the year 1995. Since then, lots of activities are being conducted within the ambit of this cell for the benefit of the students and faculty.

### Office of Training and Placement:

Office of Training & Placement has been actively performing and coordinating a number of professional activities for the students. Some of the major activities relating to the students are Practical Training for the students and Campus Placements in various organizations/industrial units within the country and outside.

### 5.1 Short Term Industrial Research Experience

Short Term Industrial Research Experience is an integral part of engineering education that aims to make students familiar with the culture and environment of industries and getting practical knowledge on working of equipment, plants and processes which cannot be accommodated or explained in a laboratory. Students are exposed to the concept of plant management and organization at first hand.

### 5.2 Placement Statistics for 2023 – 2024 (Up to March 31, 2024)

For UG								
Discipline	Eligible Students	Placed Students	Placement Percentage	Total Job Offered	% of Total Job Offered	Max. CTC (in LPA)	Min. CTC (in LPA)	Average CTC (in LPA)
Computer Science Engineering	110	82	74.54	76	66.09	58	8	17.02
Electronics and Communication Engineering	100	64	64.00	66	64.08	26.6	4.5	9.27
Electrical Engineering	98	82	83.67	93	93.94	18	4.50	7.78
Mechanical Engineering	103	101	98.06	115	111.65	28	4.2	7.14
Civil Engineering	71	54	76.06	49	62.03	18	3.8	6.77
Chemical Engineering	55	54	98.18	64	116.36	23.5	4	8.34
Material Science Engineering	17	11	64.71	11	64.71	10	5.8	9.05
Mathematics and Computing	44	30	62.50	36	75.00	27	6	12.22
Engineering Physics	22	14	63.64	11	50.00	10	5.5	7.5
Architecture	32	32	100.00	32	100.00	6	3.6	4.3
TOTAL	652	524	80.36	553	82.17			

For PG								
Discipline	Eligible Students	Placed Students	Placement Percentage	Total Job Offered	% of Total Job Offered	Max. CTC (in LPA)	Min. CTC (in LPA)	Average CTC (in LPA)
Computer Science Engineering	34	19	<b>55.88</b>	32	94.12	37.50	4.8	14.97
Computer Science Engineering (Dual Degree)	74	62	<b>83.78</b>	56	75.68	47	4.4	13.38
Electronics and Communication Engineering	37	24	<b>64.86</b>	26	70.27	24	4.5	13.94
Electronics and Communication Engineering (Dual Degree)	67	36	<b>53.73</b>	35	52.24	20	5.5	11.27
Electrical Engineering	33	7	<b>21.21</b>	7	21.21	12	7.5	8.68
Civil Engineering	87	23	<b>26.44</b>	24	27.59	9.5	5.00	6.62
Mechanical Engineering	27	12	<b>44.44</b>	12	44.44	12	4.2	7
Chemistry (MSc)	19	7	<b>36.84</b>	9	47.37	8	5.50	5.81
Mathematics(MSc)	21	14	<b>66.67</b>	16	76.19	10	4.8	6.39
Physics (MSc)	18	2	<b>11.11</b>	2	11.11	5.5	5.5	5.50
MBA	26	26	<b>100.00</b>	22	84.62	10	3	6
<b>Total</b>	<b>443</b>	<b>232</b>	<b>52.37</b>					

**The Name of Organizations in which students of B.Tech. and Dual Degree are Placed.**

Company Name	CSE	CSE (Dual Degree)	ECE	ECE (Dual Degree)	EE	Civil	ME	MSE	Chemical	Architecture	Total
ACME					1						<b>1</b>
ADANI GROUP						3	4		1		<b>8</b>
ADITYA BIRLA					5	3	4				<b>12</b>
ADOBE		2									<b>2</b>
AFCONS						2					<b>2</b>
AIROHA		1	2	1							<b>4</b>
AIRPRODUCTS						2	1		1		<b>4</b>
ALSTOM				1	7		4				<b>12</b>
AM TECH NETWORK				1							<b>1</b>
AMDOCS		1	1								<b>2</b>



ASPIRE									1		1
AVAADA ENERGY			2		4	2	1		1		10
AXTRIA		5									5
AYAN SEN ARCHITECTS										1	1
BAJAJ FINSERV	2				1						3
BAKER STREET									1		1
BAKERHUGHES									1		1
BAKLIWAL TUTORIALS						1					1
BEYONDIRR	2										2
BIRWELCO									1		1
BLACKWING SOFT-TECH				1							1
BLINKIT										1	1
BLOOMBERG	1										1
BNY MELLON	4	5	1								10
BOSCH GLOABAL		4		2							6
BOTSYNC									1		1
CARRIER	1	1		2							4
CDIL									1		1
CG GLOBAL					2						2
COER UNIVERSITY		2									2
COLLEGEDEKHO		2									2
COMOSRICH							1				1
COPPERPOD IP				1							1
CREATIVE GROUP-LLP										1	1
C-TELINFOSYSTEMS						2					2
CV ASSOCIATES						1					1
CVENT	1										1
DECISION POINT		1			1						2
DELOITTE			3		3	3	3				12
DENSO		1		2							3
DESIGNANALYTICS						4					4
DEVRA ARCHITECTS										1	1
EDIGLOBE			1				1		1		3
EDUSTATION		1									1
EFFM (MARS)					1						1
EPACK			14		6		13				33

DURABLES											
ESCORTS KUBOTA LTD.							4				4
<a href="#">EUGENIE.AI</a>	1		1								2
EXICOM					6		1				7
EXL			2			1	3				6
FUTURES FIRST				1							1
GALGOTIAS UNIVERSITY		7									7
GATEWAY DISTRICT PARKS					1						1
GE DIGITAL	1										1
GELIOSE MOBILITY PVT. LTD						1					1
GENPACT	5		2		3						10
GL BAJAJ		4									4
GODREJ							1				1
GOOGLE	1										1
GRAYB				1					1		2
GRAZZITTI	1	1									2
HAPPECT INNOVATIONS LLP				1							1
HCL TECH	1										1
HIREMI	2	2	5		1	4	2		6		22
HLS ASIA				1							1
HMEL			2		2				1		5
HONDA					1		5	1	3		10
ICUERIOUS			1	1							2
INCTURE	3		1	1							5
INDORAMA									4		4
INFOSYS		1		1	1						3
INTELLACT PARTNERS		2									2
INTERIOR COACH											0
IOL									5		5
ION EXCHANGE									4		4
ISGEC					2		4				6
ITTIAM		1									1
JBM					2						2
JSW					3		8	8	2		21
KEC						4					4
L&T					3	1	4			2	10

LALUNA DESIGN HOUSE										1	1
LAMBDA FUNCTION	1	1									2
LIVSPACE										1	1
LOYALTY JUGGERNAUT INDIA PVT. LTD						1					1
M MOSER ASSOCIATES PVT. LT.										4	4
MAHINDRA AND MAHINDRA							1				1
MAQ SOFTWARE	14	3									17
MARS											0
MARUTI					1						1
MECHARTES							1				1
<a href="#">MEDIA.NET</a>	1										1
MEDIATEK		5		1							6
MERCARI	2										2
MICROCHIP		2		5							7
MICROSOFT	1										1
MKC INFRASTRUCTURE						9					9
MORPHLE LABS		1									1
MU SIGMA			1								1
NATWEST	3										3
NATWEST	5										5
NBC								1			1
NEO SENSE VECTOR TECH.				1							1
NEOLITE							1				1
NEW GEN SOFTWARE	1										1
NPCL					6						6
NVIDIA	2	2		3							7
OCTRO	6										6
ONEXTEL	3	1									4
ORACLE FSS	2	2	3	1	3		6				17
ORIENT ELECTRIC							1		1		2
PHOENIX DESIGN STUDIO										1	1

PLANET SPARK		1	3		1		1			6
PRATHAM EDUCATION FOUNDATION		1	1							2
PROC DNA							1			1
PUBLICIS SAPIENT		1								1
QBIT				1	1					2
QICAPS MARKETS LLP	1									1
RELIANCE INDUSTRIES								1		1
RENATA							4			4
RENEW					3		1			4
RICHPANEL	1									1
ROADO								1		1
RTCAMP		1								1
SAGACIOUS		1		2	1		3			7
SALESFORCE	3									3
SAMSUNG	3	1	1							5
SANRACHANA CONSULTANTS									4	4
SCHNEIDER ELECTRIC					1					1
SCINTILLATION			1	1						2
SEOAK CONSULTANT								1		1
SIGNICENT LLP						1				1
SONA MACHINERY							1			1
SPEEDLABS							1			1
SRI CHAITANYA			6					1		7
SSS OILS	1							1		2
STRYKER	3									3
STUDIO BUILT ENVIRONMENT									1	1
TA DIGITAL	1	1								2
TATA 1 MG	5									5
TATA ADVANCE							1			1
TATA ELECTRONICS			4					1		5
TATA POWER					5					5
TCE						1	8	1		10
TECHNIP					3	4	9	5		21
TESCO	1	1								2
TETRAHEDRON		2								2

THE ARCHITECT'S OFFICE (TAO)										10	10
TREDENCE							1		1		2
TRIDENT			1		1	1	1		1		5
UBREATHE							1				1
UHP TECH.									1		1
UNACADEMY	1		1		1	1		1			5
V CONSTRUCT						1				3	4
VEDANTA		2					4				6
WELLS FARGO	1		1								2
XENONSTACK					1	1					2
YUGABYTE	1										1
ZETA	1										1
ZF GROUP				1							1
ZOOMCAR					1						1
ZS ASSOCIATE	1		5								6
ZSCALER	1	1	1								3
	92	74	67	34	86	54	111	11	52	31	612

**The Name of Organizations in which students of PG Programmes are placed.**

Company Name	EE	ECE	ME	CSE	Civil	Physics	Mathematics	Chemistry	MBA	Total
3RDITECH		1								1
ACADEMOR									7	7
ALSTOM	1		1	1						3
AMD				2						2
ANDGATE		4								4
ASPIRE							1			1
AVANTI FELLOWS						1				1
BOSCH		1	1							2
COER UNIVERSITY				2						2
CUMMINS	1	3	1							5
EPACK DURABLES		1							5	6
GALGOTIAS UNIVERSITY				1						1
HIREMI	1			1			1		2	5
INDIA MART									1	1
INTEL		7								7
JUNGLEWORKS							1			1
KEC INTERNATIONAL	1				4					5

AL										
L&T					10					10
LPU				2						2
MAHINDRA & MAHINDRA	1	1								2
MEDIATEK		1								1
MU SIGMA							1			1
NATWEST				1						1
PHILIPS		1		1						2
RALSON INDIA			1						2	3
RAMA STEEL FORGE									2	2
SAGACIOUS		1								1
SAMSUNG E&A		1			2					3
SCHNEIDER ELECTRIC	1									1
SIGNICIENT			1							1
SRI CHAITANYA						1	8	7		16
STELLANTIS	2									2
STESALIT			1							1
STRYKER			1	9						10
TCE					7					7
TCS									1	1
TETRAHEDRON			1							1
UNACADEMY								2		2
	8	22	8	20	23	2	12	9	20	124

### 5.3 Scholarship & Fellowship Details

The students of NIT Hamirpur on the basis of their parental income, caste and other eligibility conditions applied for various scholarship schemes offered either by various deptt. of Central Govt./State Governments or other organisation like ONGC, EIL, SJVNL, FFE, FAEA, Samsung Star, SDEF and SBA etc. during **FY 2023-24**. Most of the scholarship schemes works under DBT mode and exact value of any scholarship scheme may differ from what the Institute has approved and finally disbursed by the scholarship disbursing agency to student concerned.

Based on the information received from students, agencies and the records of this office, the detail of scholarship disbursed to the UG/PG & PhD Students of this Institute during the **FY 2023-24** is as under:-

S.No.	Name of the Scholarship	Name of source from where scholarship funds/grant received	Scholarship amount	No. of students got S/ship	Remarks
1	Central Sector Scholarship "Top Class Education" for SC- Category Students (Top-10)	GOI, Ministry of Social Justice & Empowerment, New Delhi	5595500	63	Fresh & Renewal
2	Central Sector Scholarship "Top Class Education" for ST -Category Students (now National Fellowship & Scholarship for Higher Education of ST students)	GOI, Ministry of Tribal Affairs, New Delhi	4898150	49	Fresh & Renewal
3	PM YASASVI CENTRAL SECTOR SCHEME OF TOP CLASS EDUCATION IN SCHOOLS FOR OBC, EBC AND DNT STUDENTS	GOI, Ministry of Social Justice & Empowerment, New Delhi	7263694	79	Fresh
4	To Class Education for Students with disability	GOI, Ministry of Social Justice & Empowerment, New Delhi	347000	6	Renewal
5	CSSS for College & University Students	Deptt. of Higher Education, GoI	436000	33	Fresh & Renewal
6	PMSS for Central Armed Police and Assam Rifles	MHA	220000	9	Fresh/Renewal
7	PMSS for J&K students	AICTE, New Delhi	27600	2	Renewal
8	PMSS for wards of Ex-Serviceman	Kendtiya Sainik Board (KSB)	534000	17	Renewal
9	CRPF (Employee's ward) S/ship	CRPF, MHA	35000	1	Renewal
10	INSPIRE Scholarship	DST, Govt. of India	60000	1	Renewal for MSC students

11	SPDC (Scholarship Programme for Diaspora Children)	Ministry of External Affair, Gol	122587	1	Renewal
12	PG Scholarship to SC/ST students for persuing professional courses	UGC	490000	12	Renewal
13	MMVY-Scholarship (Mukhyamantri Medhavi Vidyarthi Yojna)	MP Govt.	173462	4	Fresh & Renewal
14	PMS to SC (Himachal Pradesh)	HP Govt.	<b>96000</b>	<b>7</b>	Fresh & Renewal
15	HPBOSE (MHRD) merit S/ship	HP Govt.	113000	9	Renewal
16	Kalpana Chawla Chhatravritti Yojana, HP	HP Govt.	80000	7	Fresh & Renewal
17	PM YASASVI POST MATRIC SCHOLARSHIP FOR OBC,EBC AND DNT STUDENTS-HIMACHAL PRADESH	HP Govt.	200000	10	Renewal
18	Post-Matric Scholarship for OBC Students	Uttarakhand Govt	30000	1	Renewal
19	HP (BOCW) Assistance	Assistance to wards of HP Building & Other Construction Workers (BOCW) under MANREGA by Gvot of HP	195000	3	Fresh & Renewal
20	PMS to SC/ST (Rajasthan)	Rajasthan Govt.	84000	4	Fresh & Renewal
21	Rajasthan Police Scholarship (for Ward of Rajasthan Police Employee)	Rajasthan Govt.	25000	1	Renawal
22	UP Scholarship	UP Govt.	337450	7	Renewal
23	UP Police Scholarship (for ward of UP Police Employee)	UP Govt.	70000	2	Renewal
24	PMS Telangana State	Telangana Govt.	125000	3	Renewal
25	Indian Railway S/ship-for wards of Railway employee	Indian Rly.	64000	4	Renewal
26	OEC- Post Matric Scholarship	Kelara Govt.	100000	2	Renewal
27	PMS -Madhya Pradesh	MP Govt.	<b>30000</b>	<b>2</b>	Renewal
28	SJVN Silver Jubilee Merit Scholarship	SJVNL-H.O- Shimla (HP)	432000	18	Fresh & Renewal



29	ONGC- Scholarship	ONGC- New Delhi	280000	7	Renewal
30	EIL (Engineering India Limited)- Scholarship	EIL	36000	1	Renewal
31	VIL Scholarship	VIL	150000	3	Renewal
32	Sri Badrika Ashram-Scholarship (Distt. Sirmour-HP)	SBA	473251	14	Fresh and Renewal
33	Reliance Foundation Scholarship	Reliance	50000	1	Renewal
34	NCERT-Scholarship	NCERT-Sri Aurobindo Marg New Delhi	48000	2	Fresh and Renewal
35	FAEA- Scholarship	FAEA Scholarship, New Delhi -110016	24800	2	Fresh & Renewal
36	FFE (Foundation for Excellence) Scholarship	FFE (NGO) Bengaluru	2855000	62	Fresh & Renewal
37	SDEF-Scholarship	Swami Dayanand Charitable Education Foundation (SDEF), Noida	180000	9	Renewal
38	Wards of Non-Teaching Staff of NIT, Hamirpur- Scholarship	Family trust of Shri S. Gopalakrishnan (Kris) [former Chairman (BoG), NIT Hamirpur]	40000	4	Fresh & Renewal
39	M.Tech Stipend to Dual Degree (GATE qualified) students	Govt. of India MHRD, New Delhi	7886400	53	Rs.12,400/- each PM for 2023-24 batch dual degree students (as per actual Attendance)
40	M.Tech. Stipend (for GATE qualified students)	Govt. of India MHRD, New Delhi	14731200	99	Rs.12,400/- each PM for 2022-23 batch students (as per actual Attendance)
41	M.Tech. Stipend (for GATE qualified students)	Govt. of India MHRD, New Delhi	9672000	65	Rs.12,400/- each PM for 2022-23 batch students (as per actual presence)
42	Financial Assistance to Ph.D Scholars.	Govt. of India-MHRD, New Delhi	93129600	180	Rs.37,000/- each per month & Rs.42,000/- each per month + HRA @9% (as per actualAttendance)
43		Govt. of India- UGC Scheme	8619720	17	Rs.37,000/- each per month Rs.42,000/- each per month + HRA @9% (as per actual Attendance)
44		Govt. of India- CSIR Scheme	2001240	4	Rs.37,000/- each per month & Rs.42,000/- each per month + HRA @9% (as per actual Attendance)
Total			162361654	880	

List of activities by the various department under Dean (Research & Consultancy) office for the financial year 2023-24				
Workshop/ Conference/STC/Training Programs in the financial Year 2023-24				
S. N.	Name of Department	Name of faculty Coordinators	Name of activity	Chargeable head
1.	DoMS		Motivational lecture on “ Entrepreneurship & Self-Employment during 20/09/2023 to 21/09/2023	स्टाफ के टी ए से
2.	DoCHY & DoMS	Dr. K. S. Ghosh & Dr. Richa Joshi	Fundamentals of intellectual property Rights and its applications and importance in Academia (FIPR-2023) during 12 <sup>th</sup> -16 <sup>th</sup> October, 2023	Innovation and Startup fund 1% IRG
3.	DoArch.	Dr. Puneet Sharma	Painting competition of National Pollution Day on 02/12/2023	Innovation and Startup fund 1% IRG
4.	DoEE	Dr. Amit Kaul & Dr. Neetu Kapoor	Celebrate National Startup day on 16/01/2024	Innovation and Startup fund 1% IRG
5.	DoCHE	Dr. Tapas Palai & Dr. Jai Prakash	Entrepreneurship-cell (E-cell in collaboration with IIC on 31/01/2024	Innovation and Startup fund 1% IRG

➤ **Memorandum of Understanding (MoUs)**

Bureau of Indian Standards	07-02-2024
National Institute of Technology Delhi	11-08-2023
N.S.C.B.M Government College Hamirpur	14-06-2023
CSIR-Central Building Research Institute, Roorkee	29-05-2023
Shoolini University, Oachghat-Kumarhatti Highway, Bajhol, Solan	24-05-2023
Indian Council for Culture Relations (ICCR)	06-03-2023
Bureau of Indian Standards	07-02-2024

➤ **Testing & Consultancy Projects:-**

Sr. No.	Name of Department	No. of testing & consultancy Projects	Amount (In Rs)
1.	CED	393	3,68,74,894
2	EED	13	3,59,593
3	CSED	01	19,43,690
<b>Total</b>		<b>407</b>	<b>3,91,78,177/-</b>

➤ **Research Projects submitted to Funding Agencies:-**

Sr. No.	No. of Research Projects Proposal submitted	Funding Agencies
1.	Endorsement letter issued are 83	SERB,DST,HIMCOSTE,DEST, STEM Education Department Govt. of Gujarat, India , SDMF,ISRO, NADA, HPSDMA, BIS

➤ **Research Projects sanctioned by Funding Agencies:-**

Sr. No.	No. of Research Projects Proposal submitted	Sanctioned amount (In Rs.)	Funding Agencies
1	09	2,53,77,389.00	SERB, HIMCOSTE,ICSSR

➤ **Major Achievements:-**

1. 83 Nos. project proposals have submitted to various funding agencies till date.
2. 09 Nos., project sanctioned to various funding agencies till date.
3. 06 Nos. MOU was signed

**Activities Conducted (Cultural Activities)**

Sr. No.	Name details of event/conference/exhibition	Month-Year	Organizing Section	Cost incurred (Rs. In lacs)	No. of Participation
1.	Hill-Ffair-2023	Oct. 20-22, 2023	Cultural Activities & Clubs, NIT Hamirpur	19.50	4500
2.	Aagman-2023	September 11, 2023	Cultural Activities & Clubs, NIT Hamirpur	0.20	1200

**CULTURAL ACTIVITIES AND CLUBS**

Event Report : **Youth Parliament under Nasha Mukh Bharat Abhiyan**

Date : **17th and 18th February, 2024**

Venue : **New LH, National Institute of Technology, Hamirpur**

The Youth Parliament held at NITH was a resounding success, engaging students in meaningful discourse on contemporary issues and fostering a spirit of democratic participation among the youth. The event aimed to provide a platform for students to voice their opinions, deliberate on pressing matters, and hone their skills in parliamentary procedures. The speaker invited to preside over the session was **Mr. Dikshant Sharma**, Youth Activist, Nasha Mukh Bharat Abhiyan, Ministry of Social Justice and Empowerment, GOI.



The session on 1st day commenced with an opening ceremony, featuring an oath taking ceremony to stop the drug menace amongst the youngsters under the Nasha Mukta Bharat Abhiyan. Following the formalities of Parliamentary Oath taking, the session transitioned into a dynamic debate, with students assuming the roles of parliamentarians and engaging in spirited discussions on various topics.



The highlight of the event was the presence of a distinguished invited speaker, Mr. Dikshant Sharma, who brought invaluable insights and expertise to the deliberations. The agenda encompassed a wide array of issues, ranging from socio-economic challenges to environmental sustainability and technological innovation. Participants eloquently articulated their viewpoints, presenting well-researched arguments and proposing innovative solutions to address the challenges confronting society.

The participants under the press section observed the event carefully and crafted out articles critically analysing the entire session of the Youth Parliament. There were individuals representing the portfolios of substantial media houses like - The Tribune, The Hindu, Times of India etc.



There were 4 sessions held in total over the period of two days - 17th and 18th February, 2024. On the second day, Mr. Dikshant held an interactive session over curbing the drug menace amongst the youngsters of India preceding the Parliamentary session.

The agendas which were discussed over the two days included - Electoral Reforms in India, Addressing the Issue of Farmer Protests in India and Combating Cybersecurity Threats in India.

The interactive nature of the session facilitated robust engagement, with students enthusiastically expressing their opinions and engaging in parliamentary procedures such as debates, motions, and voting. The atmosphere was charged with intellectual energy as participants exchanged ideas and engaged in respectful dialogue.

The accolades presented for the event were as follows-



1. Best speaker - Shanpreet Singh
2. Best speaker(1st year) - Sonal Dogra
3. Special Mention 1 - Anubhav Ranta
4. Special Mention 2 - Mandava Lokesh
5. Best Journalist - Shrutkeerti

The Youth Parliament yielded several key outcomes, including enhanced awareness, skill development and providing networking opportunities. In conclusion, the Youth Parliament at NITH was a resounding success, epitomizing the college's commitment to nurturing informed and engaged citizens. The event not only provided a forum for students to voice their opinions but also empowered them to become agents of positive change in society. As the session concluded, participants departed with a renewed sense of purpose and determination to make a meaningful impact in their communities.



*English Club, NITH*



**Activities Conducted**

Sr. No.	Name details of event/conference/exhibition	Month-Year	Organizing Section	Cost incurred (Rs. In lacs)	No. of Participation
1.	NIMBUS-2023	April 14-16, 2023	Technical Activities, NIT Hamirpur	17.8872	3000
2.	Internal Hackathon-23	September 28-29, 2023	Technical Activities, NIT Hamirpur	0.27	192
3.	Orientation of Technical Activities	January 17, 2024	Technical Activities, NIT Hamirpur	0.24	500
4.	Innovision-2024	February 18, 2024	Technical Activities, NIT Hamirpur	0.775	1100
5.	Innovate & Elevate: Blockchain for startups	October 01, 2023	E-Cell, NIT Hamirpur	0.17	100
6.	Entrepreneurship Skill, Attitude and Behaviour Development	January 31, 2024	E-cell NIT Hamirpur	0.30	150

**Account and Participants Details**

Sr. No.	Name details of event	Duration	Cost incurred (Rs. in Lakhs)	No. of Participants	Remarks
1.	Youth Parliament under Nasha Mukh Bharti Abhiyan	17 <sup>th</sup> to 18 <sup>th</sup> February, 2024	<b>0.27,580/-</b> (Twenty-Seven Thousand Five Hundred Eighty Rupees Only)	<b>88</b> (News Agency=11; Youth Parliament Delegates=36; English Club Representatives=40; Guest Speaker=01)	--



## 6.0 THE BOG, FC & OTHER COMMITTEES

### 6.1 BOARD OF GOVERNORS:

The Board of Governors present incumbents are:

Sr. No.	Name & address	Designation
1	Prof. Hiralal Murlidhar Suryawanshi Director, NIT Hamirpur (HP) – 177005	<b>Chairperson (Acting)</b>
2	Prof. Hiralal Murlidhar Suryawanshi Director, NIT Hamirpur (HP) – 177005	<b>Ex-Officio Member</b>
3	Additional Secretary/Joint Secretary Incharge dealing with Technical Education, Department of Higher Education, Ministry of Education, Govt. of India, Shastri Bhawan, New Delhi-110001	<b>Ex-Officio Member</b>
4	Joint Secretary & Finance Advisor Incharge dealing with Technical Education, Department of Higher Education, Ministry of Education, Govt. of India, Shastri Bhawan, New Delhi-110001	<b>Ex-Officio Member</b>
5	Additional Chief Secretary/Principal Secretary (Technical Education) to the Govt. of Himachal Pradesh, Armsdale Building, HP Secretariat, Shimla-171002 (HP)	Member
6	Director (Technical Education) Industrial & Vocational Training, Govt. of HP Sundernagar, Mandi HP-175018	Member
7	Nominee of NIT Council (To be Nominated)	Member
8	Nominee of NIT Council (To be Nominated)	Member
9	Prof. Anoop Kumar, Professor, Department of Mechanical Engg. , NIT Hamirpur (HP)-177005	Member
10	Dr. Amrit Kumar Roy Associate Professor, Department of Civil Engineering, NIT Hamirpur (HP)-177005	Member
11	Director, Indian Institute of Technology Mandi (HP)-175005 or [ His nominee, not below the rank of Professor]	Member
12	Dr. Archana Santosh Nanoty Registrar, NIT Hamirpur (HP) – 177005	Ex-Officio Secretary

## 6.2 FINANCE COMMITTEE

The Finance Committee present incumbents are:

Sr. No.	Name & address	Designation
1	Prof. Hiralal Murlidhar Suryawanshi Director, NIT Hamirpur (HP) - 177005	<b>Chairman (Acting)</b>
2	Prof. Hiralal Murlidhar Suryawanshi Director, NIT Hamirpur (HP) - 177005	<b>Ex- officio Member</b>
3	Joint Secretary Incharge dealing with Technical Education, Ministry of Education, Govt. of India, Shastri Bhawan, New Delhi-110001	<b>Member</b>
4	Joint Secretary & Finance Advisor, Incharge dealing with Technical Education, Department of Higher Education, Ministry of Education, Govt. of India, Shastri Bhawan, New Delhi-110001	<b>Member</b>
5	Nominee of the Board (To be nominated)	<b>Member</b>
6	Prof. Anoop Kumar, Professor, Department of Mechanical Engg., NIT Hamirpur (HP)	<b>Member</b>
7	Dr. Archana Santosh Nanoty Registrar, NIT Hamirpur (HP) – 177005	<b>Member Secretary</b>

## 6.3 BUILDING & WORKS COMMITTEE

The Buildings & Works Committee present incumbents are:

Sr. No.	Name & address	Designation
1	Director, NIT Hamirpur (HP) - 177 005	Ex-officio Chairman
2	Director or Deputy Secretary or His nominee dealing with NITs, Department of Higher Education, Ministry of Human Resource Development, Government of India, Shastri Bhawan, New Delhi – 110 001	Ex-officio Member
3	Director or Deputy Secretary or His nominee dealing with Finance (NITs), Department of Higher Education, Ministry of Human Resource Development, Government of India, Shastri Bhawan, New Delhi – 110 001	Ex-officio Member
4	Nominee of Board of Governor (Dr. Amrit Kumar Roy, Assistant Professor, Grade-1, Department of Civil Engineering, NIT Hamirpur H.P.-177005)	Member
5	Dean (P&D) NIT Hamirpur (HP) - 177 005	Member
6	One Expert from Civil Wing of Central or State Government or Autonomous body of repute	Member
7	One Expert from Electrical Wing of Central or State Government or Autonomous body of repute	Member
8	Registrar, NIT Hamirpur (HP) - 177 005	Ex-officio Secretary

#### 6.4 THE SENATE

- a) The Director, ex-officio Chairman  
 b) The Dy. Director, ex-officio Member (vacant)  
 c) Professors appointed or recognized as such by the Institute for imparting instructions in the Institute.

1.	Prof. Hiralal Murlidhar Suryawanshi Director, NIT Hamirpur.	Chairman
2.	Prof. Audithan Sivaraman Professor, Computer Science & Engineering Netaji Subhas University of Technology, New Delhi	Member
3.	Prof. S. P. Singh Professor, Humanities & Social Sciences Department IIT Roorkee, Roorkee	Member
4.	Prof. Minati Baral Professor, Chemistry Department, NIT Kurukshetra	Member
5.	Prof. Anoop Kumar Professor, Mechanical Engineering Department	Member
6.	Prof. Ashwani Kumar Professor, Electrical Engineering Department	Member
7.	Prof. Bhanu Marwaha Professor, Architecture Department	Member
8.	Prof. Minakshi Jain Professor, Architecture Department	Member
9.	Prof. Narinder Singh Thakur Professor, Centre for Energy Studies	Member
10.	Prof. Rakesh Sehgal Professor, Mechanical Engineering Department	Member
11.	Prof. Rakesh Kumar Dutta Professor, Civil Engineering Department	Member
12.	Prof. (Ms.) Rajeevan Chandel Professor, Electronics & Communication Engineering Department,	Member
13.	Prof. Ram Naresh Sharma Professor, Electrical Engineering Department	Member
14.	Prof. Raman Parti Professor, Civil Engineering Department	Member
15.	Prof. Ravi Kumar Professor, Material Science & Engineering Department	Member
16.	Prof. Ravi Kumar Sharma Professor, Civil Engineering Department	Member
17.	Prof. Sunand Kumar Professor, Mechanical Engineering Department	Member
18.	Prof. Sunil Professor, Mathematics & Scientific Computing Department	Member
19.	Prof. Sushil Chauhan Professor, Electrical Engineering Department	Member

20.	Prof. Yogeshver Dutta Sharma Professor, Mathematics & Scientific Computing Department	Member
21.	Prof. Yog Raj Sood, Professor, Electrical Engineering Department	Member
22.	Dr. Archana Santosh Nanoty, Registrar	Secretary

## 7.1 CENTRAL FACILITIES

### COMPUTER CENTRE

Computer Centre at National Institute of Technology, Hamirpur (HP) has been setup with the objective of providing state-of-the-art computational and communication facilities for the students, faculty and staff to carry out academic and research activities. Computer Centre is a central facility, which caters to the needs of different academic departments, centers and various sections of the Institute. Additionally, it also provides design and implementation services for computer network and automation of Institute. The mission of Computer Centre is to design, implement, perceive and fine tune the future computing and communication requirement of the Institute. Computer Centre at NIT Hamirpur aspires to be a leading computational/communication facility in higher education. Apart from this, Computer Centre is actively involved in extending consultancy services to outside organizations to rollout their hardware, software and networking infrastructure in best possible manner.

#### **Objectives:**

Computer Centre at NIT Hamirpur has been established with following objectives:

- To provide a central computing/communication facility with network infrastructure for all the students, faculty members and staff of the Institute.
- To collect/230 analyse the computing requirements of the departments and design, procure, deploy and maintain the solutions.
- To assist students, faculty and research scholars of all departments in the Institute in computerizing their activities.
- To conduct short terms courses for the students and staff of the Institute.
- To design, maintain and administer campus-wide network including Internet and allied services.
- To design and implement office automation modules in-house as per the Institute requirement.
- To provide communication service throughout the campus.
- To provide consultancy in ICT related areas.

2) Computer Centre manages various computing and communication facilities throughout the campus. It provides Internet access, Web, Email, FTP and other computing services 24x7x365. The Institute has campus wide network of more than 3000 voice & Data nodes over the fibre backbone with above 100 active devices, Wi-Fi, Voice over IP (VoIP) and Video-Conferencing. A fleet of servers from SUN, IBM, HP, Dell, etc. have been deployed to provide the services like Web, Email, DNS, proxy, DHCP, etc in the campus. The Institute has got 1Gbps connectivity under National Knowledge Network (NKN), MHRD, Govt. of India. Students, Faculty and staff are provided with Internet facility in academic, administrative and residential area. We have high end facilities like cluster computing environment having 14 heterogeneous chassis based blades with different operating systems equipped with 6TB SAN and 24TB NAS storage capacity. Internet connectivity of 1 Gbps from NKN has been provided to the Institute by MHRD, Govt. of India under NKN (National Knowledge Network). An additional Internet connectivity of 500 Mbps has been leased from M/S. Airtel. For external telephone connectivity E1 PRI Link of 30 Channels has been subscribed from BSNL.

### 3). Technical Officers/Officials

Faculty Incharge	:	Dr. T.P.Sharma
Senior Scientific Officer	:	Sh. Anil Kumar
Senior Scientific Officer	:	Sh. Jagdish Verma
Senior Scientific Officer	:	Sh. Ashwani Kumar Sharma
Technical Assistant (SG-II)	:	Sh. Ravi Singh
Sr. Technician	:	Sh. Rakesh Sharma
Technician	:	Sh. Parshant Angirash

4). The detail of the assets/equipment purchased for the Computer Centre during the financial year 2023-2024 is as below:-

Sr. No.	Name of Asset/Equipment	Quantity
1	Mat lab Campus / Campus wise Licences	01 Nos
2.	Deployment of Wireless Network in Academic Area of the Institute (300Nos. WI FI Access point, 50 Network Switches)	01 Nos

3.	Fire Wall	01 Nos
4.	online software Google Workspace for Education plus	5000 Nos
5.	Interactive Panel	01 Nos
6.	Microsoft 365 A3	150 Nos
7.	New Computer Systems Purchased	300 Nos

#### 5). Detail of the Laboratories

Sr. No.	Name of the Laboratories
1.	Internet Laboratory
2.	Research Laboratory
3.	Programming Laboratory
4.	Language Laboratory

### 7.2 WORKSHOP

Workshop is the central facility for imparting training to the students of all branches of Ist year B. Tech. in various shops. Training is also imparted to Mechanical Engineering students, in the subject of Manufacturing Process central workshop comprises various shop namely CNC shop, Fitting Shop, Welding Shop, Sheet metal Shop, Carpentry Shop, Pattern making shop, Foundry Shop, Turning Shop, Machine Shop and Fabrication Shop. Students of all branches use workshop facilities for fabrication of their minor and major projects. These shops are well equipped with latest tools, equipment and machineries for carrying out research work at M. Tech. and Ph.D. level in the area of manufacturing engineering with specialization in Metal Cutting and casting.

- Academic Staff: 01  
FI (Incharge)

#### 2. Equipment's Acquired:

S. No.	Name of the Equipment	Date of Purchase	Cost (in Rupees)
1.	Nil	Nil	Nil

**Name of the Shops:**

Sr. No.	Name of the Shops
1.	CNC Shop
2.	Fitting Shops
3.	Welding Shop
4.	Sheet Metal Shop
5.	Pattern Shop
6.	Foundry Shop
7.	Smithy Shop
8.	Turning Shop
9.	Machine Shop
10.	Fabrication Shop
11.	Carpentry Shop

**7.3 LIBRARY:**

1. No. of print books available up to 31-03-2024 : 88316
2. No. of e-books available up to 31-03-2024 : 471
3. No. of print books added during the year : 524
4. Expenditure on procurement of Books : 8, 83,651.00

## 5. E-resources subscribed by Institute:

- ACM Digital Library
- Emerald e-Journals
- IEEE Xplore Digital Library
- Indiastat e-Database
- Sage (Urban Studies and Planning) e-Journals
- Science Direct e-Journals
- Taylor and Francis e-Journals
- Wiley (100 e- Journals)

## 6. e-resources subscribed through e-SodhSindhu :

- ASCE Library
- ASME Digital Collection
- ISID (Institute for Studies in Industrial Development)
- Oxford University Press
- Springer Link
- Web of Science

## 7. Other Facilities

- RFID based Library Management System for self-check-in, check-out, renewal etc.
- INFED to provide the facility of Off-Campus Access of e-Resources.
- Wi-Fi services to access e-resources



## 7.4 DISPENSARY:

**BACKGROUND:-** Medical facilities are available on working days from 09:00 AM to 08:00 PM daily for the faculty, students, staff & residents of the Institute. Ambulances are available on a telephone call. The following doctors are available on rotation basis in the Health Centre:-

- (i) Dr. Mani Verma, Medical Officer (Incharge)
- (ii) Dr. Pushpender Verma, Medical Officer part time basis
- (iii) Dr. Rohtash Rattan, Medical Officer part time basis
- (iv) Dr. Divya Gupta, Medical Officer part time basis (Eye specialist)
- (v) Dr. Akshita Keshav, Medical Officer part time basis (Dental) BDS

- 1) The working hours of the Health Centre is as follows:-  
Monday, Tuesday, Thursday & Friday: 09:00 AM to 08:00 PM  
Wednesday, Saturday & Sunday: 09:00 AM to 07:00 PM
- 2) Total patents treated annually = 23503
- 3) Number of outdoor attendance = 23353
- 4) Number of day care Patients= 150.
- 5) Number of referral cases=1500.
- 6) Ambulance Services are available 24X7 with basic facilities.
- 8) Immunizations Camps are being organized for vaccination once a month for infants in the campus.
- Dental OPD has been started by installing the dental chair X-ray in the Institute Health Centre.
- ECG facility has been started in the Health Centre

## 7.5 Sports Activities

National Institute of technology Hamirpur is one of the premier technical institutes in Northern India. The Institute presently provides sports facilities for both indoor and outdoor activity. A Standard size stadium with the provision of pavilion has been provided to the student where the games like Cricket, Football, Hockey, Basketball, Volleyball, lawn Tennis and Athletics are played. The facilities of separate Basketball and lawn Tennis court with the provision of flood lights also have been provided to our students. We have the provision of indoor hall for badminton and other indoor games and gymnasium facility with latest physical fitness machines for both boys and girls separately. The facilities of Billiards and pool table for the student and staff have also been provided. Along with this, the facility of students activity center (SAC) is also handed over to the sports section for the use of

students, faculty and staff with indoor facilities of Badminton, Basketball, Table Tennis, Martial Arts Karate, Gymnasium Hall Male & Female, squash court and hall for Drama, Dance & Music etc.

### **(Inter Branch and Inter year tournament)**

At Institute level sports department organized inter branch tournament in the odd semester and in the even semester there is inter year tournament for both boys and girls every year. All the student take part in these tournaments with great spirit. During the session EE Deptt. Got overall champion among Boys & Girls CSE Deptt. among Girls in Inter Branch tournament. Second year students among Boys & Girls got overall trophy in Inter year tournament.

During the session 2023-24 two day 34th Annual Athletic meet was organized from 15th – 16th March 2024. In this meet the following events were organized such as 100M, 200M, 400M, 800M, 1500M, 5000M, 4x400M and 4x100 relay, Long jump, High jump, triple Jump, shot Put, Discus and Javelin Throw for both boys and girls. Mr. Subhash Sihag (20BCE069) among Boys and Ms. Devanjali Sharma (21BCH023) among the Girl declared as best Athlete.

Participation of Institute teams outside the Institute

Beside this our Institute teams have also participate in the Tournament held at other Institute. During the session 2023-24 our Institute teams proved their talent in different games outside the Institute and performed very well. The detail of the participation game wise given below:-

#### **A:-Boys**

Game	Date & Year	Name of Tournament	Venue	Position
Cricket & T.T	13-15 Oct. 2023	Spardha-23 Tournament	IIT BHU Varanasi	----
Basketball & Badminton	14-16 Oct. 2023	All India Inter NIT	MNIT Jaipur	---
Kabaddi	27-29 Oct. 2023	All India Inter NIT	NITK Suratkal	---
Volleyball & Yoga	27-29 Oct. 2023	ITUSA	NIT Kurukshetra	3rd Volleyball
Football	03-05 Nov. 2023	All India Inter NIT	NIT Durgapur	---
Cricket Faculty & Staff	14-17 Dec, 2023	All India Inter NIT Faculty & Staff	NIT Tiruchirappalli	1st
Badminton, T.T & Chess Faculty & Staff	21-23 Dec. 2023	All India Inter NIT Faculty & Staff	NIT Bhopal	1st Badminton (Above 50) 1st & 3rd (Above 50 signal) 3rd (Below 50 signal)
Cricket	05-08 Jan, 2024	All India Inter NIT	NIT Tiruchirappalli	---

T.T, Yoga & Chess	02-04 Feb.2024	All India Inter NIT	NIT Jamshedpur	1st Chess board prize
Athletic	16-18 Feb.2024	All India Inter NIT	NIT Warangal	-----

**B:-Girls**

Game	Date & Year	Name of Tournament	Venue	Position
Table Tennis	13-15 Oct. 2023	Spardha-23 Tournament	IITBHU Varansi	----
Basketball & Badminton	14-16 Oct. 2023	All India Inter NIT	MNIT Jaipur	2nd Basketball
Volleyball & Yoga	27-29 Oct. 2023	ITUSA	NIT Kurukshetra	2nd Volleyball
T.T, Yoga & Chess	02-04 Feb.2024	All India Inter NIT	NIT Jamshedpur	-----
Athletic	16-18 Feb.2024	All India Inter NIT	NIT Warangal	Devanjali Sharma 800M 2 <sup>nd</sup> 5000M 3 <sup>rd</sup> Anjali High Jump 2nd

**Physical Facilities & Games and Sports Facilities**

The Institute maintains excellent fitness facility and play ground with the following provision

Athletic track & field	200,M track(grass)	01 no	There is one ground for all these 03 games
Football Ground	Without flood Light	01 no	
Cricket ground	Without flood Light	01 no	
Volleyball court	With flood light	02 no	
Basketball court	With flood light	02 no	01 No. Outdoor 01 No. Indoor
Lawn Tennis court	With flood light	03 no	Synthetic01 no cemented-02 No.
Students Activity Center (SAC)	Badminton Court, Basketball court, Table tennis, Billiards & pool, Squash Court, Karate & Yoga Hall, Gym Hall (Male & Female)		
Indoor Games facilities are available inside hostel compounds (Table tennis, Carrom. Chess, Outdoor, Indoor Badminton court, etc.) There are an attractive stadium with the provision of pavilion for 1500 spectators			

## 7.6 OTHER FACILITIES LIKE HOSTELS, MESSES, STAFF QUARTERS, ADMINISTRATION & TELEPHONE EXCHANGE etc.:

There are Eleven Boys Hostels and Three Girls Hostels available in the institute. The statics of boarders of each hostel are as under:-

Name of the Hostel	Type (Single/ Double/ 03 Seated/ 04 seated/ 06 seated)	Capacity
Kailash Boys Hostel	03 seated = 342 04 seated = 376	718
Vindhyachal Boys Hostel	Single seated	170
Satpura Hostel	Normal Room, Hall = 95 Furnished Guest House=20	115
Mani Mahesh	Single seated	162
Aravali Girls Hostel	Single seated	30
Dhauladhar Boys Hostel	Single seated- 91 03 seated- 24 Warden & MMCA office-01 Guest Room=02	163
Neelkanth Boys Hostel	03 seated=21 04Seated=128	575
Himadri Boys Hostel	Four let= 116 Triplet=82	710
Himgiri Boys Hostel	Single seated-469 Doublet=11	491
Udyagiri Boys Hostel	Triplet room 161	483
Parvati Girls Hostel	Single seated-54 03 seated-36	162
Ambika Girls Hostel	Seven seated=25 Five seated= 4 Four seated=26 Two seated=63 Guest room Doublet=3	431
Shivalik Boys Hostel	Six Seated= 90 Four seated=40	151
Aravali Girls Hostel	Rooms	30

### Hostel Management Policy:-

- National Institute of Technology, Hamirpur is a fully residential institute. All the students admitted in the institute should reside in hostels. However, with special permission of higher authority, students may be permitted to stay outside.

- Each hostel is having one Warden, at least one Asstt. Warden, Mess Manager and Hostel/ Mess Attendant who will look after the day to day affairs of the boarders.
- The top most hostel authority next to Director is Chief Warden (H) who coordinates these activities and is authorized for all financial transaction.
- There is a separate Bank Account of each hostel in the name of the Warden of concerned hostel and one is in the name of Chief Warden (H). Students will deposit their dues at concerned Hostel Warden Account and later on Hostel Establishment Fund, Ambulance Fund and Mess Security is transferred to the Chief Warden (H).
- The mess account bills contain only the mess advance to start with, which will be topped at the end of each semester.
- At the end of every semester there is complete reconciliation.
- Hostel Establishment Fund, Common Room Fund, Ambulance Fund is collected from the students once in a year and which will be transferred to the Chief Warden Office except Common Room Fund. The Common Room Fund is used by the Warden for the welfare of the concerned Hostel.
- The Head Cook, Cook and Mess Workers are employed by the Chief Warden (H) for all the hostels and their monthly salary is included in the monthly mess bill of the boarders of concerned hostel.
- The salary of Mess Staff is paid by the Warden of concerned hostel through their Bank Account opened in the SBI NIT Hamirpur branch.
- All expenses like electricity bill, water charges etc. are divided among all the boarders equally.
- For PG and Research Students mess bill is charged for all 12 months unless they are specially permitted by the authority to stay outside for a specific period.
- No mess rebate is allowed to any boarder unless specially permitted by the Warden for specific reason, as per Hostel Rules.
- No mess bill will be charged to the UG students during vacation unless they are specially permitted to stay during vacation, but salary charges of mess workers, electricity bill, water charges stationery charges will be payable for the 12 months.
- For UG, PG and Ph. D regular students including 1<sup>st</sup> year, the Establishment charges, ambulance charges and common room charges are collected from July 1<sup>st</sup> once in a year.

- Each hostel maintains its Bank Account and all the bills of grocery, ration, milk, gas, vegetables, Liveries disbursement of wages (including festival allowance) to mess workers as well as electricity/ water charges fully paid by the Warden of concerned hostel.
- The accounts of all the hostels are duly audited by an external agency at least twice in a year.

### **The Hostel of Residence:-**

The institute is essentially residential institute and provides hostel accommodation for students. Separate hostel accommodation is available for girl students. It is mandatory for all the students to stay in the hostel. However, a student may be permitted on application in prescribed form during beginning of each semester to live with his/ her parents or local guardian at Hamirpur (HP). Students permitted to stay outside hostel are exempted from payment of mess charges, electricity charges and water charges under Hostel Fee. The name, full address, office and residence and telephone number, designation and willingness of local guardian have to be furnished at the time of admission. The room allotment of the hostel is done on the basis of merit through software.

### **POST OFFICE, BANK, SHOPPING CENTRE & OTHER FACILITIES:**

To facilitate all financial transactions, a fully computerized branch of State Bank of India functions in the Institute premises. Similarly, for the convenience of the students, a Post Office is operating in the campus. It provides saving bank facility and has provision of money orders, postal orders and postage stamps etc.

## **7.7 PLINTH AREA OF THE NIT BUILDING**

<b>PLINTH AREA OF THE NIT BUILDING</b>		
<b>Sr. No.</b>	<b>Description</b>	<b>Plinth Area in Sqm</b>
<b>1</b>	Residential	12420.83
<b>2</b>	Hostels	24984.86
<b>3</b>	Academic	35361.87

4	Garage	2137.50
5	Roads	46900.00
6	Green	566236.54
	Total Land	688041.60
	<b>Gross Plinth area =688041.60 Sqm (Residential +Hostels +Academic +Garage + Roads +Green).</b>	
	<b>Total = 688041.60 Sqm</b>	

**7.8 Assets List of completed works during the year 2023-24, NIT, Hamirpur (HP).**

<b>Sr.No.</b>	<b>Name of work</b>	<b>Expenditure</b>	<b>Chargeable To Head</b>	<b>Date of Completion</b>
<b>1.</b>	Surfacing of roads	1,02,47,005.00	07(g) IRG	08-05-2023
<b>2.</b>	Providing ramp for differently abled students from road to Amul Cafe NIT Hamirpur	1,39,850.00	OH-35	30-05-2023
<b>3.</b>	Providing power connection to workstation in newly established Computer lab room No.203 top floor (Admin) Block NIT Hamirpur	1,28,530.00	OH-35	23-05-2023
<b>4.</b>	Providing protection and spares for HT Breakers at 02 Nos 11/0.4 KVA Sub Station	5,47,405.00	OH-35	25-09-2023
<b>5.</b>	Providing aluminium partition electrical work and networking in Hall No.303 & 304 at Central Block NIT Hamirpur for shifting of Academic Branch from Corporate Office	11,92,246.00	OH:35	03-07-2023
<b>6.</b>	Providing & Fixing stainless steel (304 Grade) staircase at Administrative Block Near lift upto 1 <sup>st</sup> Floor	3,95,266.00	OH:35	08-07-2023
<b>7.</b>	Surfacing of Road (Type-IV Special Qtrs and roads from Neelkanth Boys Hostel to Shivalik Boys Hostel)	25,06,169.00	07(g) IRG	28-11-2023
<b>8.</b>	Providing ramp for physically challenged persons connecting main road and shopping complex near SBI NIT	1,09,501.00	OH-35	18-09-2023
<b>9.</b>	Providing LED street light in the NIT campus (Phase-III)	7,98,300.00	OH:35	02-02-2024
<b>10.</b>	Providing railing for protection at open	3,19,542.00	OH-35	30-05-2023



	parking near Satpura Hostel			
11.	Providing fixing barbed wire on existing boundary wall in Mani Mahesh Girls Hostel	1,81,695.00	OH-35	30-05-2023
12.	Providing and laying GI Pipe line from existing bore well near Student Activity centre building	4,92,000.00	OH:35	15-07-2023
13.	Renovation of Shed Net House for protection from monkeys at Nursery site.	4,65,009.00	OH-35	01-04-2023
14.	Supplying, fixing of network passive items (Internet Lan wiring in Adminstrative area and residential area of Type-V) of NIT Hamirpur	5,20,898.00	OH-35	16-06-2023
15.	Providing power wiring at Hall No.202 & 203 including deducted earthling newly procured XRD machine in SAC	1,35,045.00	OH-35	09-05-2023
16.	C/o Footpath (Phase-II) from Health Centre Connecting Student Activity Centre Block side of lecture Hall and Dhauladhar Boys Hostel	24,53,492.00	OH-35	08-08-2023
17.	Providing aluminium partition in Hall No. 202 Department of Material Science lab, Central Block & Partition in stream lab Mechanical Egg. Deptt	3,61,772.00	OH-35	18-06-2023
18.	Renovation of Newly allotted canteen near SBI ATM Ground & First Floor at NIT Hamirpur	1,72,742.00	OH.35	
19.	Replacement of damaged wooden flooring at Director residence	45,566.00	OH:35	
20.	Providing Granite and Stainless steel railing for ramp in Auditorium at NIT Hamirpur	62,957.00	OH-35	07-11-2023
21.	Proofing treatment of CGI sheet and repair	2,42,490.00	OH-35	

	of J Bolts of CGI sheet in Auditorium building			
<b>22.</b>	Procurement of items required for installation of Two Nos bore wells with accessories (01 for IRC bore well) near Health centre & 01 for Khasgram)	1,06,353.00	OH:35	
<b>23.</b>	Graphic display of Riello make 60KVA online UPS	38,000.00	OH:35	
	<b>G:Total</b>	<b>2,16,61,833.00</b>		

**Separate Audit Report of the Comptroller & Auditor General of India on the Accounts of National Institute of Technology, Hamirpur for the year ended 31 March 2024**

We have audited the Balance Sheet of the National Institute of Technology, Hamirpur (Himachal Pradesh) as at 31 March 2024, Income & Expenditure Account and Receipts & Payments Account for the year ended on that date under Section 19(2) of the Comptroller & Auditor General's (Duties, Powers & Conditions of Service) Act, 1971 read with Section 22 (2) of the National Institutes of Technology, Science, Education and Research Act, 2007. 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 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 disclosures 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 and Income and Expenditure Account/Receipt and Payment Account dealt with by this Report have been drawn up in the format prescribed by the Ministry of Human Resource Development, Government of India vide order No. 29-4/2012-FD dated 17 April 2015.

iii) In our opinion, proper books of accounts and other relevant records have been maintained by the National Institute of Technology, Hamirpur (Himachal Pradesh) 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)**

**A.1.1 Scientific & Laboratory Equipment: ₹983.92 lakh**

**Additions: ₹457.11 lakh**

i. Above mentioned funds include an amount of ₹91.21 lakh on account of purchase of Interactive panels and projectors which should have been capitalized under head 'Audio Visual Equipment' instead of 'Scientific & Laboratory Equipment'. This has resulted in overstatement of Scientific & Laboratory Equipment by ₹83.91 lakh (₹91.21lakh *less* depreciation amounting to ₹7.30 lakh at the rate of eight per cent), understatement of Audio-Visual Equipment by ₹84.37 lakh (₹91.21 lakh *less* depreciation amounting to ₹6.84 lakh at the rate of 7.5 per cent) and overstatement of depreciation by ₹0.46 lakh.

ii. Above funds also include an amount of ₹88.87 lakh towards purchase of Software which should have been booked as "Computer Software" instead of "Scientific & Laboratory Equipment". This has resulted in the overstatement of "Scientific & Laboratory Equipment" by ₹81.76 lakh (₹88.87 lakh *less* depreciation amounting to ₹7.11 lakh at the rate of eight per cent), understatement of Computer software by ₹53.32 lakh (₹88.87 lakh *less* depreciation amounting to ₹35.55 lakh at the rate of 40 per cent) and understatement of depreciation by ₹28.44 lakh.

iii. Above funds also include an amount of ₹74.74 lakh towards purchase of desktops amounting to ₹74.51 lakh (73.87+ 0.64) and a printer amounting to ₹0.23 lakh which should have been booked under head "Computer & Peripherals" instead of "Scientific & Laboratory Equipment". This has resulted in the overstatement of "Scientific & Laboratory Equipment" by ₹68.76 lakh (₹74.74 lakh *less* depreciation amounting to ₹5.98 lakh at the rate of eight per cent), understatement of "Computer & Peripherals" by ₹59.79 lakh (₹74.74 lakh *less* depreciation amounting to ₹14.95 lakh at the rate of 20 per cent) and understatement of depreciation by ₹8.97 lakh.

**A.1.2 Office Equipment: ₹942.37 lakh**

Above includes Computers and Laptops amounting to ₹96.18 lakh purchased during the financial year 2021-22, which should have been booked under the head Computers & Peripherals instead of Office Equipment. This has resulted in the overstatement of 'Office Equipment' by ₹74.54 lakh (₹96.18 lakh *less* depreciation charges at the rate of 7.5 per cent for three years amounting to ₹21.64 lakh), understatement of 'Computer and Peripherals' by ₹38.47 lakh (₹96.18 lakh *less* depreciation charges at the rate of 20 per cent for three years amounting to ₹57.71 lakh) and overstatement of Capital fund by ₹36.07 lakh. Further, the depreciation for the current year is understated by ₹12.02 lakh.

The observation is being pointed out in the management letters to the Separate Audit report since 2021-22, but no compliance has been made. However, the Institute has disclosed at sl. no. 6 of Schedule 24 Contingent Liabilities and Notes to Accounts of the revised annual accounts that wrong classification of Computer & Peripherals as Office Equipment shall be taken into consideration in the accounts for the year 2024-25.

**A.2 Loans, Advances & Deposits (Schedule 8)****Income accrued on Investments-FDR: ₹27.96 crore**

The Institute had invested funds of ₹563.35 lakh in the FDRs with State Bank of India in respect of Pension Fund as on 31.03.2024. As per the interest certificate provided by the bank, interest amounting to ₹44.28 lakh accrued on these FDRs for the period 2023-24 which was not booked. Likewise, interest amounting to ₹7.05 lakh accrued for FY 2022-23 was also not booked in the accounts despite being pointed out at sl. No. B.2.2.1 of Separate Audit Report for the year 2022-23. This has resulted in understatement of Loans, Advances and Deposits by ₹51.33 (44.28+7.05) lakh and understatement of Designated/Earmarked Fund by ₹51.33 lakh.

**B. General****B.1 Net Impact of Audit Comments**

1. The Capital/Corpus fund is overstated by ₹73.02 lakh.
2. The Liabilities are understated by ₹51.33 lakh.
3. The Assets are overstated by ₹21.69 lakh.
4. Surplus for the year is overstated by ₹48.97 lakh.

**B.2** As per the format of accounts prescribed by the Ministry of Education, provision for retirement benefits is to be made on Actuarial Valuation Method.

However, the Institute has stated in Schedule 23 Significant Accounting Policies that the actual payments of Pension, Gratuity and Leave Encashment are debited in Accounts to the respective provisions and other retirement benefits are accounted on accrual basis. It further stated that in compliance to audit observation, the Institute has appointed Actuary on 08.01.2025 for computing the provisions to be made for retirement benefits as per AS 15, in the books of accounts for the FY 2024-25. The Institute has made provision in respect of Leave Encashment and Gratuity amounting to ₹36.56 lakh and ₹50.85 lakh respectively as on 31.03.2024. However, actuarial valuation of liability for retirement benefits was not done and provided for in contravention to prescribed guidelines.

The comment has been included in the Separate Audit Reports since 2015-16.

**B.3** Rule 230(8) of GFR 2017 provides that all interests or other earnings against Grants-in-Aid or advances (other than reimbursement) released to any grantee institution should be mandatorily remitted to the Consolidated Fund of India immediately after finalization of accounts. Clause 12 of the sanction order of grants pertaining to recurring/ non-recurring grants also clearly included the above condition.

The Institute has been receiving Grants in RBI Treasury Single Account (TSA) since October 2022 and no interest is being earned by the Institute. However, the Institute had earned interest on saving accounts as well as FDRs during 2019-2022 which included interest earned on Grants-in-Aid funds. The interest earned on such grants is not quantifiable, as separate bank account in respect of grants was not maintained by the Institute. The Institute should make efforts to work out the total interest earned on grants and remit it to the Consolidated Fund of India in accordance with the GFR.

The comment was pointed out in Separate Audit Reports for the year 2019-20 to 2022-23. But the Institute has not made compliance. However, the Institute has stated at sl. no. 5 of Schedule 24- Contingent Liability and Notes to Accounts of the revised annual accounts that the Institute is in the process of assessing/computing the interest earned on Grants during respective years and the same will be returned to Ministry of Education and the entry to this effect shall be carried out in the accounts for the year 2024-25.



**B.4** The Institute had invested funds of ₹122.95 crore in the FDRs with State Bank of India/Punjab National Bank/UCO bank from 'General Fund Account' (₹107.25 crore), 'Consultancy Fund Account' (₹3.60 crore), 'Hospitality Fund Account' (₹0.16 crore), 'Four Fund Account' (₹11.76 crore) and 'Institute Share Account' (₹0.18 crore) as on 31.03.2024. As per the bank/interest certificates, the accrued amount on such FDRs for the year 2023-24 was ₹9.25 crore. However, as per the ledger, the Institute has booked only ₹5.80 crore as accrued interest in the annual accounts for the FY 2023-24. The interest accrued has not been reconciled and booked in the annual accounts in the respective appropriate heads.

### C. Grant- In -Aid

The position of Grant-in-Aid received during the year 2023-24 is as under:

(Amount in ₹ crore)

Particulars	OH-31	OH-35	OH-36	Total
Opening balance as on 01-04-2023	0.00	8.85 <sup>1</sup>	0.00	8.85
Add: Grant received during the year	43.63	12.03	57.30	112.96
Total available funds	43.63	20.88	57.30	121.81
Less: Utilization as on 31.03.2024	42.45	16.72 <sup>2</sup>	57.30	116.47
Un-utilised balance as on 31.03.2024	1.18	4.16	0.00	5.34
Less: Lapsed by RBI on 31.03.2024	1.18	0.00	0.00	1.18
Un-utilised balance at the end of the year	0.00	4.16 <sup>3</sup>	0.00	4.16

<sup>1</sup>The opening balance has been shown as ₹8.85 crore (rounded off) on account of capital advances which should have been shown as unutilized grant as on 31.03.2023 as pointed out in comment no. A.1.1 in SAR 2022-23.

<sup>2</sup>₹16.72 crore = 12.03 crore utilised for assets additions + 4.69 crore shifted from capital advances to Capital work in progress during the year 2023-24.

<sup>3</sup>₹4.16 crore represents Capital Advances as on 31.03.2024.

### D. Revision of Accounts

The Institute revised its accounts based on the observations of audit and submitted revised annual accounts (on 12.01.2025). The net impact of revision is as follows:

1. The "Sources and Application of Funds" increased by ₹21,23,64,211/- from ₹7,66,89,54,496.19/- to ₹7,88,13,18,707.19/-
2. The Income increased by ₹21,00,02,170/- from ₹1,32,79,23,966.70/- to ₹1,53,79,26,137.70/-

3. The Expenditure decreased by ₹23,62,040/- from ₹1,19,26,22,703.06/- to ₹1,19,02,60,663.06/-
4. The excess of Income over Expenditure increased by ₹21,23,64,211/- from ₹13,53,01,263.64/- to ₹34,76,65,474.64/-

**E. Management Letter**

Deficiencies which have not been included in the Audit Report have been brought to the notice of the Institute's management through a management letter issued separately for remedial/corrective action.

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

(vi) In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read together with the Accounting Policies, Notes on Accounts, 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, Hamirpur as at 31 March 2024; and
- b. In so far as it relates to Income & Expenditure Account, of the surplus for the year ended on that date.

**For and on behalf of the C & AG of India,**



**Director General of Audit (Central), Chandigarh**

**Place: Chandigarh**

**Date: 22.01.2025**



**Annexure to Separate Audit Report**

**1. Adequacy of Internal Audit System**

The Internal audit of the Institute for the year 2023-24 was conducted by a Chartered Accountant firm. The Institute has maintained its Internal Audit manual and has prepared its internal audit report.

**2. Adequacy on Internal Control System**

Internal Control System was found inadequate to the extent that accounting manual was not prepared.

**3. System of Physical verification of fixed assets**

- a. Physical verification of the Fixed assets was conducted for the year 2023-24.
- b. A sample Physical verification of Central Library books of the Institute was conducted on 07.08.2024 where 404 books were found missing. Complete physical verification of the books was under process.

**4. System of Physical verification of Inventory**

Physical verification of inventory was not conducted for the year 2023-24.

**5. Regularity in Payment of Statutory dues**

The Institute is regular in depositing the statutory dues.



**Deputy Director**

के.एस. रामुवालिया, आई.ए.ए.एस.  
महानिदेशक  
**K. S. Ramuwalia, IAAS**  
Director General



कार्यालय महानिदेशक लेखा परीक्षा  
(केन्द्रीय), चंडीगढ़  
प्रथम तल, लेखा भवन, सेक्टर-17 ई,  
चंडीगढ़-160017  
OFFICE OF THE DIRECTOR GENERAL OF AUDIT  
(CENTRAL), CHANDIGARH  
1st Floor, Lekha Bhawan, Sector-17E,  
Chandigarh-160017

No. डी.जी.एल.सी. (कें. व्यय/सा.र-  
Date NITH/2023-24/993  
22-01-2025.

Dear Prof. Suryawanshi,

The audit of annual accounts of your Institute for the year ended 31 March 2024 was conducted and audit comments in respect of the same have been reported through the Separate Audit Report. In this regard, it is to bring to your kind attention that corrective action though taken to certain persistent irregularities which are repeatedly included in the Separate Audit Reports/ Management Letters but some are still to be considered for taking remaining as briefed in the Part A of the annexure enclosed. Besides, there are certain other deficiencies noticed which have not been included in the Separate Report but, nevertheless, are significant as detailed in the Part B of the annexure which are also being brought to your attention for remedial/corrective action.

With regards

Yours sincerely,

(K.S. Ramuwalia)

Prof. Hiralal Murlidhar Suryawanshi  
Director,  
National Institute of Technology, Hamirpur  
Himachal Pradesh-177005

**Annexure to the management letter****PART A: Persistent Irregularities being included in the Separate Audit Reports and Management Letters**

Compliance to the following observations included in the previous year Separate Audit Reports on the annual accounts was not made. As compliance of these observations, was not made, following observations have been repeated in the current year Separate Audit Report for the year 2023-24 (kindly refer to Separate Audit Report):

1. *Non-Provisioning for retirement benefits on actuarial valuation basis*  
 (Comment no. B.2 of Separate Audit Report, 2023-24)  
 (Comment no. D.2 of Separate Audit Report, 2022-23)  
 (Comment no. D.5 of Separate Audit Report, 2021-22)  
 (Comment no. B of Separate Audit Report, 2020-21)  
 (Comment no. B of Separate Audit Report, 2019-20)  
 (Comment no. B.4 of Separate Audit Report, 2018-19)  
 (Comment no. C.4 of Separate Audit Report, 2017-18)  
 (Comment no. C.2 of Separate Audit Report, 2015-16)
2. *Interest earned on grants is not quantifiable as separate bank account in respect of grants was not maintained by the Institute*  
 (Comment no. B.3 of Separate Audit Report, 2023-24)  
 (Comment no. D.1 of Separate Audit Report, 2022-23)  
 (Comment no. D.4 of Separate Audit Report, 2021-22)  
 (Comment no. C.2 of Separate Audit Report, 2020-21)  
 (Comment no. C.3 of Separate Audit Report, 2019-20)
3. *Non- Booking of Accrued Interest on Earmarked/Designated Funds*  
 (Comment no. A.2 of Separate Audit Report, 2023-24)  
 (Comment no. B.2.2.ii of Separate Audit Report, 2022-23)
4. *Wrong classification of Computer & Peripherals as Office Equipment*  
 (Comment no. A.1.2 of Separate Audit Report, 2023-24)  
 (Comment no. B.1.1.3 of Management Letter, 2022-23)  
 (Comment no. B.1.1 of Management Letter, 2021-22)

**PART B: Other Irregularities noticed during the audit of accounts of the Institute for the year 2023-24 which have not been included in the Separate Audit Report**

- B.1 Balance Sheet**  
**B.1.1 Fixed Assets (Schedule-4)**  
**B.1.1.1 Buildings: ₹299.66 Crore**  
**Additions: ₹132.86 lakh**

Above includes an amount of ₹54.34 lakh on account of works done towards construction of footpaths, dedicated earthing for XRD machines, aluminum partitions, upgradation of

STP (Sewage Treatment Plant), power connections, network connections, etc. These assets should have been capitalized under different asset heads as per the prescribed format instead of under Buildings head. The misclassification of these assets as "Buildings" has resulted in the overstatement of the "Building" by ₹53.25 lakh (54.34 lakh less depreciation at the rate of two per cent), understatement of "Site Development" by ₹25.16 lakh, understatement of "Plant & Machinery" by ₹18.11 lakh (1.28+16.83), understatement of "Electrical Installation and Equipment" by ₹6.17 lakh (1.22+4.95), understatement of "Furniture, Fixture & Fittings" by ₹3.35 lakh, and understatement of depreciation by ₹0.46 lakh (1.55-1.09), and the understatement of various other asset categories. Detailed information is provided below:

Sl. No.	Works which were mis-classified as Building	Amount (In ₹)	Dep. Charged by institute @ 2%	Work need to be classified as per format	Depreciat ion as per format	Net depreci ation (in ₹)	Understa tement of Asset (in ₹)
1	Footpath	25,15,882	50318	Site Development	0%	0	2515882
2	Aluminum partition	3,61,772	7235	Furniture, Fixtures & Fittings	7.5%	27133	334639
3	Power wiring & earthing for newly XRD machine	1,35,045	2701	Plant & machinery	5%	6752	128293
4	Up gradation of existing STP	17,72,000	35440	Plant & machinery	5%	88600	1683400
5	Power connection to work station	1,28,530	2571	Electrical Installation and equipment	5%	6427	122103
6	Supply fixing and testing of network	5,20,898	10418	Electrical Installation and equipment	5%	26045	494853
	<b>Total</b>	<b>54,34,127</b>	<b>1,08,683</b>			<b>1,54,957</b>	<b>52,79,170</b>

#### B.1.1.2 Scientific & Laboratory Equipment:

**Additions: ₹457.11 lakh**

i. Above includes an amount of ₹22.66 lakh towards purchase of Air Conditioners, Water cooler, Water purifier, Smart TV etc which should have been booked as "Plant & Machinery" instead of "Scientific & Laboratory Equipment". This has resulted in the overstatement of "Scientific & Laboratory Equipment" by ₹20.85 lakh, understatement of "Plant & Machinery" by ₹21.53 lakh and overstatement of depreciation by ₹0.68 lakh.

Sl. No.	Asset Particulars	Amount (in ₹)
1.	Air Conditioner	3,99,992
2.	Water Cooler	1,08,998

3.	Smart TV	53,479
4.	Water purifier	22,960
5.	High Quality Water Purifier System	3,83,000
6.	High Quality Water Purifier System	12,97,999
	<b>Total</b>	<b>22,66,428</b>

ii. Above included amounts of ₹1.90 lakh towards purchase of photostat machine and ₹0.17 lakh towards purchase of Washing Machine which should have been capitalized under heads 'Office Equipment' and 'Electrical Installation and equipment' respectively. This has resulted in the overstatement of Scientific Laboratory equipment by ₹1.90 lakh, understatement of 'Office Equipment' by ₹1.75 lakh, understatement of Electrical Installation and Equipment by ₹0.16 lakh and overstatement of depreciation by ₹0.01 lakh.

#### **B.1.2 Loans, Advances & Deposits (Schedule 8)**

##### **Income accrued on Investments-FDR: ₹27.96crore**

The Institute had invested funds of ₹185.00 lakh in the FDRs with State Bank of India from 'ST/SC Scholarship Account' and 'Project Account-II' as on 31.03.2024. As per the interest certificate provided by the bank, interest amounting to ₹8.39 lakh was accrued on these FDRs for the year 2023-24. Further, interest amounting ₹0.57 lakh was accrued on such FDRs during 2022-23 which was not booked in the respective funds in the annual accounts despite being pointed out in previous Separate Audit Report. This has resulted in the understatement of Loans, Advances and Deposits by ₹8.96 (8.39+0.57) lakh and understatement of Current liabilities and provisions by ₹8.96 lakh.

#### **B.2 General**

##### **B.2.1 Current Liabilities and Provisions (Schedule-3)**

Above includes liabilities on account of 'Outstanding Liability UNI' amounting ₹3.65 lakh and 'Deposits from staff (TWS)' amounting ₹0.12 lakh which have been shown outstanding in the annual accounts since 2014-15. The Institute should develop a policy to address such long-outstanding liabilities and ensure appropriate accounting treatment in accordance with applicable financial regulations.

**B.2.2** As per the prescribed format, the amount of caution money refundable to students during 12 months from the balance sheet date should be shown as "From current students" and "From ex- students". However, the Institute booked the above under the head of "Deposits from students" with no detailed break-up in the schedule.

**B.2.3** Institute has not prepared utilization certificate of grant received during the year 2023-24.

**B.2.4** As per the information provided by the Institute, the Institute has an NCPDS (CPF) Account with SBI (A/c No. 30423487160) having closing balance amounting ₹19.80 lakh as on 31.03.2024. The Institute is also having a Fixed Deposit amounting ₹34.44 lakh (FDR no. 41799138853 with same saving account) made on 31.03.2023.

Further, the bank certificate shows that interest amounting ₹0.70 lakh was paid during the year 2023-24 and interest accrued was ₹2.52 lakh (2.51 on FDR + 0.01 on Saving Bank Account) for the period 2023-24. The accounting of amounts held in Fixed Deposit accounts as well as interest accrued could not be verified.



Deputy Director

**REVISED**  
**Annual Accounts**  
**2023-24**

**NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR (H.P)**  
**BALANCE SHEET AS AT 31st March, 2024 (REVISED)**

(Amount-----Rs.)			
	Schedule	Current Year	Previous Year
<b><u>SOURCES OF FUNDS</u></b>			
Corpus/Capital Fund	1	6,624,046,093.39	6,22,96,78,294.04
Designated/Earmarked/Endowment Funds	2	5,63,37,650.67	5,48,05,847.67
Current Liabilities And Provisions	3	1,200,934,963.13	1,02,15,74,824.49
<b>TOTAL</b>		<b>7,881,318,707.19</b>	<b>7,30,60,58,966.20</b>
<b><u>APPLICATION OF FUNDS</u></b>			
<b><u>FIXED ASSETS</u></b>	4		
Tangible Assets		3,34,95,04,165.67	3,37,80,15,326.10
Intangible Assets		34,397,579.40	1.00
Capital Works-In-Progress		19,20,19,563.00	14,50,97,155.00
<b>INVESTMENT FROM EARMARKED/ENDOWMENT FUNDS</b>	5		
Long Term		5,63,35,000.00	5,48,04,000.00
Short Term			
<b>INVESTMENT - OTHERS</b>	6	-	-
<b>CURRENT ASSETS</b>	7	3,92,37,12,211.37	3,62,07,62,087.34
<b>LOANS, ADVANCES &amp; DEPOSITS</b>	8	325,350,187.75	10,73,80,396.75
<b>TOTAL</b>		<b>7,881,318,707.19</b>	<b>7,30,60,58,966.20</b>
SIGNIFICANT ACCOUNTING POLICIES	23		
CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS	24		

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**

**REGISTRAR**  
**NIT HAMIRPUR (HP)**

**DIRECTOR**  
**NIT HAMIRPUR (HP)**



**NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR (H.P.)**  
**INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD/YEAR ENDED 31/03/2024 (REVISED)**

(Amount --Rs.)

<b><u>INCOME</u></b>	<b>Schedule</b>	<b>Current Year</b>	<b>Previous Year</b>
ACADEMIC RECEIPTS	9	22,17,59,869.50	28,59,88,324.50
GRANT & SUBSIDIES	10	1,00,93,38,000.00	96,42,00,000.00
INCOME FROM INVESTMENTS	11	243,102,771.00	5,82,78,856.00
INTEREST EARNED	12	13,32,196.00	17,02,919.00
OTHER INCOME	13	3,61,93,301.20	3,31,60,009.61
PRIOR PERIOD INCOME	14	26,200,000.00	-
<b>TOTAL(A)</b>		<b>1,537,926,137.70</b>	<b>1,34,33,30,109.11</b>
<b><u>EXPENDITURE</u></b>			
STAFF PAYMENT & BENEFITS (ESTABLISHMENT EXPENSES)	15	71,77,51,840.00	59,41,38,769.00
ACADEMIC EXPENSES	16	9,88,77,018.00	11,24,08,258.00
ADMINISTRATIVE AND GENERAL EXPENSES	17	16,26,94,182.00	16,19,18,055.00
TRANSPORTATION EXPENSES	18	14,23,962.00	7,74,163.00
REPAIR & MAINTENANCE	19	3,47,28,635.00	3,17,39,562.00
FINANCE COSTS	20	0.00	-
OTHER EXPENSES	21	0.00	-
PRIOR PERIOD EXPENSES	22	0.00	-

Depreciation (Net Total at the year-end - corresponding to schedule 4)		<b>174,785,026.06</b>	<b>15,88,80,908.67</b>
<b>TOTAL (B)</b>		<b>1,190,260,663.06</b>	<b>1,05,98,59,715.67</b>
<b>Balance being excess of Income over Expenditure (A-B)</b>		<b>347,665,474.64</b>	<b>28,34,70,393.44</b>
Transfer to Corpus Fund		-	-
Building Fund			
Others (specify)		-----	-----
<b>BALANCE BEING SURPLUS/(DEFICIT) CARRIED TO CAPITAL FUND</b>		<b>347,665,474.64</b>	<b>28,34,70,393.44</b>
SIGNIFICANT ACCOUNTING POLICIES	<b>23</b>		
CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS	<b>24</b>		

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**

**REGISTRAR**  
**NIT HAMIRPUR (HP)**

**DIRECTOR**  
**NIT HAMIRPUR (HP)**

**NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR (H.P)**  
**RECEIPTS AND PAYMENTS ACCOUNT FOR THE PERIOD/YEAR ENDED 31/03/2024**

(Amount-Rs)

RECEIPTS	CURRENT YEAR	PREVIOUS YEAR		PAYMENTS	CURRENT YEAR	PREVIOUS YEAR
I. Opening Balances				1. Expenses		
a) Cash Balances	4,186.05	6,260.05		a) Establishment Expenses	69,00,09,192.00	59,26,90,814.00
b) Bank Balance				b) Academic Expenses	10,77,13,812.00	10,60,53,993.00
In Current accounts	4,81,29,223.26	6,08,34,271.85		c) Administrative Expenses	18,61,91,055.00	17,24,91,081.00
In Deposit Accounts	8,67,05,721.08	21,40,25,047.69		d) Transportation Expenses	13,82,295.00	7,86,310.00
Savings accounts	3,54,02,57,152.00	3,01,45,52,510.00		e) Repairs & Maintenance	1,22,52,905.00	1,37,66,637.00
				f) Prior period expenses	0.00	0.00
				g) Student curricular Activities		
II. Grants Received				II. Payments against Earmarked/Endowment Funds	0.00	0.00
a) From Government of India	1,12,96,38,000.00	1,06,44,00,000.00				
b) From State Government	0.00	0.00				
c) From other sources (details)	0.00	0.00				
(Grants for capital & revenue exp/ to be shown separately if available)						
III. Academic Receipts	22,17,59,869.50	27,75,98,331.50		III. Payments against Sponsored Projects/Schemes	0.00	0.00
IV. Receipts against Earmarked/Endowment Funds	0.00	0.00		IV. Payments against Sponsored Fellowships/Scholarships	0.00	0.00
V. Receipts against Sponsored Projects/Schemes	0.00	0.00		V. Investments and Deposits made		
				a) Out of Earmarked/Endowments funds	0.00	0.00
VI. Receipts against sponsored Fellowships Scholarships	0.00	0.00		b) Out of own funds (Investments- Others	0.00	0.00
				VI. Term Deposits with Scheduled Banks	0.00	0.00
VII. Income on Investments from				VII. Expenditure on Fixed Assets and capital WIP		
a) Earmarked/Endowment funds	0.00	0.00		b) Other investments a) Fixed Assets	12,03,10,344.00	9,92,09,415.00
b) Other investments	0.00	0.00		b) Capital Works- in- Progress	0.00	0.00
VIII. Interest received on				VIII Other Payments including statutory	0.00	0.00

				payments		
a) Bank Deposits	46,95,419.00	4,62,26,732.00				
b) Loans and Advances	0.00	0.00				
c) Savings Bank Accounts	12,99,353.00	0.00				
d) Project grant	0.00	0.00				
IX. Investments encashed	0.00	0.00		IX. Grants Laps	7,94,01,753.05	20,32,12,036.00
X. Term Deposits with Scheduled Banks encashed	0.00	0.00		X. Deposits, Advances and Stock	96,56,88,489.27	55,35,57,287.95
				Student curricular Activities Receipts	24,94,580.00	83,89,993.00
XI. Other income (including Prior Period Income)	3,58,96,426.20	3,33,21,049.61		XI. Other Payments	0.00	0.00
XII. Deposits, Advances and Stock	1,06,74,66,856.65	93,95,28,995.64		XII. Closing balances		
				Tfd to Project Cash book	0.00	0.00
				Tfd to Corpus fund	0.00	23,50,45,656.00
Student Curricular Activities Receipt	91,69,625.00	98,06,304.00		a) Cash in hand	4383.00	4,186.05
				b) Bank balances		
				In Current Accounts	7,99,23,623.67	4,81,29,223.26
				In Savings Accounts	65,11,302.54	8,67,05,721.08
				In Deposit Accounts	3,89,31,38,097.21	3,54,02,57,152.00
XIII. Miscellaneous Receipts including	0.00	0.00				
Statutory Receipts						
XIV. Any Other Receipts	0.00	0.00				
<b>TOTAL</b>	<b>6,14,50,21,831.74</b>	<b>5,66,02,99,502.34</b>		<b>TOTAL</b>	<b>6,14,50,21,831.74</b>	<b>5,66,02,99,502.34</b>

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**

**REGISTRAR**  
**NIT HAMIRPUR (HP)**

**DIRECTOR**  
**NIT HAMIRPUR (HP)**

**NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR (H.P)**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31/03/24**

(Amount--Rs.)

		Current Year		Previous year	
<b>SCHEDULE 1 A. CAPITAL FUND :</b>					
Balance as at the beginning of the year			4,00,82,26,332.28		3,98,42,38,935.84
Add : Contribution towards Capital fund					
Add: Grants from UGC, Government of India and State Government to the extent utilized for capital expenditure		12,03,00,000.00		10,02,00,000.00	
Add: Assets Purchased out of Earmarked Funds		0.00		7,85,74,695.00	
Add: Assets Purchased out of Sponsored Projects, where ownership vests in the institution		5,82,470.00			
		0.00		0.00	
Add: Assets Donated/Gifts Received		0.00		0.00	
Add: Other Additions (Interest on Corpus fund)					
Add: Excess of Income over expenditure transferred from the Income & Expenditure Account		347,665,474.64			
Less Amount Transferred to Corpus Account		32,05,79,216.21		28,34,70,393.44	
Less Unutilized CAPITAL grant (Transfer to schedule 3C)		41,563,665.24		23,50,45,656.00	
Less: Accrued interest for the year 2022-23 & 2023-2024 (Trfd To Corpus)		210,002,171.00			
Add: Amount of Income of PY parked in Deposit Trfd					
Add: Depreciation excess Charged PY					
Total					
(Deduct) lapsed grant TSA current liabilities		7,94,01,753.05	-182,998,860.86	20,32,12,036.00	2,39,87,396.44
<b>BALANCE AS AT THE YEAR -- END</b>			<b>3,825,227,471.42</b>		<b>4,00,82,26,332.28</b>

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**

**NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR (H.P)**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31/03/2024**

	Current year		Previous Year	
<b>SCHEDULE 1 B. CORPUS:</b>				
Balance as at the beginning of the year		2,22,14,51,961.76		1,89,09,65,598.76
Add : Contribution towards corpus	0.00		0.00	
Add: Grants from UGC, Government to the extent utilized for capital expenditure	0.00		0.00	
Add: Accrued interest for the year 2022-23 & 2023-24	210,002,171.00		0.00	
Add: Other additions (interest on corpus fund + PY contribution of excess income)	0.00			
Add: Appropriation of excess/loss in income & expenditure account for corpus funds	36,73,64,489.21		33,04,86,363.00	
Total	0.00	577,366,660.21	0.00	33,04,86,363.00
(Deduct) deficit transferred from the income & expenditure account		0.00		0.00
<b>BALANCE AS AT THE YEAR -END</b>		<b>2,798,818,621.97</b>		<b>2,22,14,51,961.76</b>

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**

**NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR (H.P)**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31/03/2024**

(Amount--Rs.)

<b>SCHEDULE 2 - DESIGNATED/ EARMARKED / ENDOWMENT FUNDS</b>	<b>Fund Wise Breakup</b>		<b>Total</b>	
	Pension Fund	Endowment Funds	Current Year	Previous Year
<b>A.</b>				
a) Opening balance	5,48,05,847.67		5,48,05,847.67	4,74,35,039.08
b) Additions during the year	15,31,803.00		15,31,803.00	73,70,808.59
c) Income from investments made of the funds	0.00		0.00	0.00
d) Accrued Interest on investments/Advances	0.00		0.00	0.00
e) Interest on Savings Bank a/c	0.00		0.00	0.00
f) Other additions (Specify nature	0.00		0.00	0.00
<b>Total (A)</b>	<b>5,63,37,650.67</b>		<b>5,63,37,650.67</b>	<b>5,48,05,847.67</b>
<b>B.</b>				
Utilization/Expenditure towards objectives of funds	0.00		0.00	0.00
i) Capital Expenditure	0.00		0.00	0.00
ii) Revenue Expenditure	0.00		0.00	0.00
<b>Total (B)</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>
<b>Closing balance at the yearend (A-B)</b>	<b>5,63,37,650.67</b>	<b>0.00</b>	<b>5,63,37,650.67</b>	<b>5,48,05,847.67</b>

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**

**NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR (H.P.)**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31/03/2024**

(Amount--Rs.)

	Current Year		Previous Year	
<b><u>SCHEDULE 3-CURRENT LIABILITIES AND PROVISIONS</u></b>				
<b><u>A. CURRENT LIABILITIES</u></b>				
1. Deposits from staff (TWS)	11,782.00		11,782.00	
2. Deposits from students				
College Caution Money	1,76,32,515.00		1,02,74,640.00	
Hostel Caution Money	1,47,24,661.50		1,50,22,161.50	
Library Security	46,38,450.00		52,13,450.00	
3. Sundry Creditors				
a) For Goods & Services	0.00		0.00	
b) Others	0.00		0.00	
4. Deposit-Others (including EMD, Security Deposit and other )	74,06,78,898.36		71,96,41,321.20	
5. Statutory Liabilities (GPF, TDS, WC TAX, CPF, GIS, NPS):	0.00	77,76,86,306.86	0.00	75,01,63,354.70
<b><u>B) Others</u></b>				
6. Other Current Liabilities				
a)Salaries and Pension	6,24,93,104.00		4,52,65,220.00	
b)Receipts against sponsored projects& consultancy	6,33,96,496.93		5,29,28,955.69	
c)Receipts against sponsored fellowships & scholarships SC &ST	23,54,702.00		22,91,909.00	
Receipts against sponsored fellowships & scholarships	0.00		77,34,040.00	
d)Unutilized Grants	41,563,665.24		0.00	
e) Grants in advance	0.00		0.00	
f) Other funds	2,39,31,209.00		2,13,72,406.00	



g) Other liabilities	0.00		0.00	
h) Fees received in advance	11,96,82,194.00		6,56,51,298.00	
i) Outstanding Liability UNI	3,65,353.00		3,65,353.00	
j) Interest on project Grant payable	0.00		0.00	
k) Extra Curricular Activities	5,52,46,686.10		4,85,71,641.10	
l) Medical Expenses	3,53,554.00		7,297.00	
m) Legal Fees	33,691.00		66,480.00	
n) Other Misc	20,650.00		3,50,000.00	
o) Security Charges	30,61,736.00		30,55,830.00	
p) Seminar Expense payable	0.00		0.00	
q) Professional Development allowance	21,90,462.00		0.00	
r) LTC	2,70,387.00		0.00	
s) Student Welfare expenses	0.00		0.00	
t) Children Education allowances	30,51,675.00		31,18,500.00	
u) Entertainment Expenses	16,660.00		0.00	
v) Maintenance of Building	2,40,058.00		0.00	
w) Wages	43,13,051.00		39,24,451.00	
x) Convocation	0.00		0.00	
y) NDCPS	39,99,132.00		22,39,859.00	
z) Vehicle running expenses	41,667.00	386,626,133.27	0.00	25,69,43,239.79
<b>TOTAL (A)</b>		1,164,312,440.13		1,00,71,06,594.49
<b><u>B.PROVISIONS</u></b>				
1. For Taxation	0.00		0.00	
2. Gratuity	50,85,528.00		19,60,497.00	
3. Superannuation Pension	0.00		0.00	
4. Accumulated Leave Encashment	36,56,490.00		11,99,351.00	
5. Trade Warranties/Claims	0.00		0.00	
6. Others ( Specify)	0.00		0.00	
Auditors remuneration payable	5,53,040.00		5,53,040.00	
Consultancy charges payable	2,02,960.00		1,68,960.00	
Telephone charges payable	6,316.00		6,379.00	
Electricity charges payable	10,97,179.00		10,10,395.00	
Salary contract/ part time staff	38,24,452.00		43,25,419.00	
Cleaning and Maintenance	14,91,338.00		15,36,276.00	

Water Charges	6,50,255.00		22,73,853.00	
Stationery expenses	56,240.00		0.00	
Departmental operating cost	0.00		0.00	
Examination expenses	0.00		0.00	
Leave salary contribution	0.00		0.00	
TA	0.00		0.00	
Provision for contingency, other work & Equipment	1,92,50,845.00		14,34,060.00	
E-Journal Capital expenditure	7,35,280.00		0.00	
Advertisement Expenses	12,600.00	3,66,22,523.00	0.00	1,44,68,230.00
<b>TOTAL (B)</b>		3,66,22,523.00		1,44,68,230.00
<b><u>TOTAL</u> (A+B)</b>		1,200,934,963.13		1,02,15,74,824.49

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**

**NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR (H.P)**  
**SCHEDULE 3(c) UNUTILISED GRANTS FROM UGC, GOVERNMENT OF INDIA AND STATE GOVERNMENTS**

	Current Year	Previous Year
<b>A. Plan grants: Government of India</b>		
Balance B/F	7,94,37,547.06	20,32,47,830.06
Add: Receipts during the year	1,12,96,38,000.00	1,06,44,00,000.00
<b>Total (a)</b>	<b>1,20,90,75,547.06</b>	<b>1,26,76,47,830.06</b>
Less Lapse	7,94,37,547.06	20,32,12,036.00
Less: Utilized for Revenue Expenditure	99,75,49,259.00	88,57,88,835.00
Less: Utilized for Capital expenditure	12,03,13,044.00	9,92,09,412.00
<b>Total (b)</b>	<b>1,19,72,99,850.06</b>	<b>1,18,82,10,283.00</b>
<b>Unutilized carried forward (a-b)</b>	<b>1,17,75,697.00</b>	<b>7,94,37,547.06</b>
<b>B. UGC grants: Plan</b>		
Balance B/F		
Add: Receipts during the year		
<b>Total (c)</b>		
Less Refunds		
Less: Utilized for Revenue Expenditure		
Less: Utilized for Capital expenditure		
<b>Total (d)</b>		
<b>Unutilized carried forward (c-d)</b>		
<b>C. UGC Grants Non Plan</b>		
Balance B/F		
Add: Receipts during the year		
<b>Total (e)</b>		

Less Refunds		
Less: Utilized for Revenue Expenditure		
Less: Utilized for Capital expenditure		
Total (f)		
<b>Unutilized carried forward (e-f)</b>		
<b>D. Grants from State Govt.</b>		
Balance B/F		
Add: Receipts during the year		
Total (g)		
Less Refunds		
Less: Utilized for Revenue Expenditure		
Less: Utilized for Capital expenditure		
Total (h)		
<b>Unutilized carried forward (g-h)</b>		
<b>'Grand Total (A+B+C+D)</b>	<b>1,17,75,697.00</b>	<b>7,94,37,547.06</b>

**DEPUTY REGISTRAR (F&A)**  
**NIT, HAMIRPUR (HP).**

**SCHEDULE 2A****ENDOWMENT FUNDS**

									Amount in Rupees		
1.Sr. No.	2. Name of the Endowment	Opening Balance		Additions during the year		Total		Expenditure on the object during the year 9	Closing Balance		Total
									10. Endowment	11. Accumulated interest	(10+11)
		3. Endowment	4. Accumulated Interest	5. Endowment	6. Interest	7. Endowment (3+5)	8. Accumulated Interest (4+6)				
<b>Total</b>											

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP).**

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

1.Sr. No.	2. Name of the Project	Opening Balance		5. Receipts/recoveries during the year	6. Total	7. Expenditure during the year	Closing Balance	
		3. Credit	4. Debit				8. Credit	9. Debit
1.	Sponsor Projects	1,37,46,287.94	0.00	1,22,72,176.08 0.00	2,60,18,464.02	70,54,363.00	1,89,64,101.02	0.00
<b>Total</b>		<b>1,37,46,287.94</b>	<b>0.00</b>	<b>1,22,72,176.08 0.00</b>	<b>2,60,18,464.02</b>	<b>70,54,363.00</b>	<b>1,89,64,101.02</b>	<b>0.00</b>

**SCHEDULE 3 (b) SPONSORED FELLOWSHIPS AND SCHOLARSHIPS**

1.Sr. No.	2. Name of Sponsor	Opening Balance		Transaction during the year		Closing Balance	
		3. Credit	4. Debit	5. Credit	6. Debit	7. Credit	8. Debit
1.	Ministry of Social Justice	22,91,909.00	0.00	62,793.00	0.00	23,54,702.00	0.00
<b>Total</b>		<b>22,91,909.00</b>	<b>0.00</b>	<b>62,793.00</b>	<b>0.00</b>	<b>23,54,702.00</b>	<b>0.00</b>

**DEPUTY REGISTRAR (F&A)**  
**NIT, HAMIRPUR (HP).**

## SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31/03/2024

### SCHEDULE-4

S. No.	Assets Heads	GROSS BLOCK				DEPRECIATION FOR THE YEAR				NET BLOCK (WDV)	
		Opening Balance	Additions	Deductions	Closing Balance	Depreciation Opening Balance	Depreciation for the year	Deductions / Adjustment	Total Depreciation	31/03/2024	31/03/2023
1	Land	4,420,551.00	0.00	0.00	44,20,551.00	0.00	0.00	0.00	0.00	44,20,551.00	44,20,551.00
2	Site Development/other Infrastructure	9,89,71,941.30	0.00	0.00	9,89,71,941.30	5,53,14,289.00	0.00	0.00	5,53,14,289.00	4,36,57,652.30	4,36,57,652.30
3	Buildings	4,19,48,39,497.24	1,32,86,271.00	0.00	4,20,81,25,768.24	1,12,73,85,493.85	8,41,62,515.36	0.00	1,21,15,48,009.22	2,99,65,77,759.02	3,06,74,54,003.39
4	Roads & Bridges	23,80,233.00	1,02,47,005.00	0.00	1,26,27,238.00	47,604.66	2,52,544.76	0.00	3,00,149.42	1,23,27,088.58	23,32,628.34
5	Tubewells & Water Supply	2,21,75,140.00	1,06,353.00	0.00	2,22,81,493.00	4,43,502.80	4,45,629.86	0.00	8,89,132.66	2,13,92,360.34	2,17,31,637.20
6	Sewerage & Drainage	2,67,01,462.00	0.00	0.00	2,67,01,462.00	5,34,029.24	5,34,029.24	0.00	10,68,058.48	2,56,33,403.52	2,61,67,432.76
7	Electrical Installation and equipment	5,91,298.00	5,26,287.00	0.00	11,17,585.00	53,932.40	55,879.25	0.00	1,09,811.65	10,07,773.35	5,37,365.60
8	Plant & Machinery	46,04,59,258.04	0.00	0.00	46,04,59,258.04	43,43,96,529.76	2,30,22,962.90	0.00	45,74,19,492.66	30,39,765.38	2,60,62,728.28
9	Scientific & Laboratory Equipment	7,25,43,098.00	4,57,11,068.00	0.00	11,82,54,166.00	1,04,01,690.08	94,60,333.28	0.00	1,98,62,023.36	9,83,92,142.64	6,21,41,407.92
10	Office Equipment	12,02,32,894.85	1,86,76,836.00	0.00	13,89,09,730.85	3,42,53,980.65	1,04,18,229.81	0.00	4,46,72,210.47	9,42,37,520.38	8,59,78,914.20
11	Audio Visual Equipment	4,99,715.00	0.00	0.00	4,99,715.00	37,478.63	37,478.63	0.00	74,957.25	4,24,757.75	4,62,236.38
12	Computers & Peripherals	5,56,57,907.00	2,96,85,050.00	0.00	8,53,42,957.00	3,58,72,356.40	1,70,68,591.40	0.00	5,29,40,947.80	3,24,02,009.20	1,97,85,550.60
13	Furniture Fixtures & Fittings	12,79,29,260.04	71,63,030.00	0.00	13,50,92,290.04	11,06,62,617.44	1,01,31,921.75	0.00	12,07,94,539.19	1,42,97,750.85	1,72,66,642.60
14	Vehicles	87,42,177.00	18,76,980.00	0.00	1,06,19,157.00	87,42,176.00	1,87,698.00	0.00	89,29,874.00	16,89,283.00	1.00
15	Lib. Books & Scientific Journals	6,21,90,067.06	0.00	0.00	6,21,90,067.06	6,21,90,066.06	0.00	0.99	6,21,90,066.06	1.00	1.00
16	Small Value Assets	1,22,262.00	0.00	0.00	1,22,262.00	1,05,688.45	12,226.20	0.00	1,17,914.65	4,347.35	16,573.55
	Total(A)	5,25,84,56,761.53	12,72,78,880.00	0.00	5,38,57,35,641.53	1,88,04,41,435.43	15,57,90,040.46	0.00	2,03,62,31,475.88	<b>3,34,95,04,165.67</b>	<b>3,37,80,15,326.10</b>
	Capital Work in Progress (B)	14,50,97,155.00	4,69,22,408.00	0.00	19,20,19,563.00					<b>19,20,19,563.00</b>	<b>14,50,97,155.00</b>
									<b>TOTAL</b>	<b>3,54,15,23,728.67</b>	<b>3,52,31,12,481.10</b>

S. No.	Intangible Assets	Opening Balance	Additions	Deductions	Closing Balance	Depreciation Opening Balance	Amortization for the year	Deductions / Adjustment	Total Depreciation	31/03/2024	31/03/2023
	Computer Software	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	E-Journals	8,49,00,238.00	5,33,92,564.00		13,82,92,802.00	8,49,00,237.00	2,13,57,025.60	2,362,040.00	103,895,222.60	34,397,579.40	1.00
	Patent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TOTAL C	8,49,00,238.00	5,33,92,564.00	0.00	13,82,92,802.00	8,49,00,237.00	2,13,57,025.60	2,362,040.00	103,895,222.60	34,397,579.40	1.00
	Grand Total (A+B+C)	5,48,84,54,154.53	22,75,93,852.00	0.00	5,71,60,48,006.53	1,96,53,41,672.43	17,71,47,066.06	2,362,040.00	2,140,126,698.48	3,575,921,308.07	3,52,31,12,482.10

**DEPUTY REGISTRAR (F&A)**

**NIT HAMIRPUR (HP)**



## SCHEDULE 4 A PLAN

S. No.	Assets Heads	GROSS BLOCK				DEPRECIATION FOR THE YEAR				NET BLOCK (WDV)	
		Opening Balance	Additions	Deductions	Closing Balance	Depreciation Opening Balance	Depreciation for the year	Deductions / Adjustment	Total Depreciation	31/03/2024	31/03/2023
1	Land	44,20,551.00	0.00	0.00	44,20,551.00	0.00	0.00	0.00	0.00	44,20,551.00	44,20,551.00
2	Site Development	9,89,71,941.30	0.00	0.00	9,89,71,941.30	5,53,14,289.00	0.00	0.00	5,53,14,289.00	4,36,57,652.30	4,36,57,652.30
3	Buildings	4,19,48,39,497.24	1,32,86,271.00	0.00	4,20,81,25,768.24	1,12,73,85,493.85	8,41,62,515.36	0.00	1,21,15,48,009.22	2,99,65,77,759.02	3,06,74,54,003.39
4	Roads & Bridges	23,80,233.00	1,02,47,005.00	0.00	1,26,27,238.00	47,604.66	2,52,544.76	0.00	3,00,149.12	1,23,27,088.58	23,32,628.34
5	Tube wells & Water Supply I	2,21,75,140.00	1,06,353.00	0.00	2,22,81,493.00	4,43,502.80	4,45,629.86	0.00	8,89,132.66	2,13,92,360.34	2,17,31,637.20
6	Sewerage & Drainage	2,67,01,462.00	0.00	0.00	2,67,01,462.00	5,34,029.24	5,34,029.24	0.00	10,68,058.48	2,56,33,403.52	2,61,67,432.76
7	Electrical Installation and equipment	5,91,298.00	5,26,287.00	0.00	11,17,585.00	53,932.40	55,879.25	0.00	1,09,811.65	10,07,773.35	5,37,365.60
8	Plant & Machinery	46,04,59,258.04	0.00	0.00	46,04,59,258.04	43,43,96,529.76	2,30,22,962.90	0.00	45,74,19,492.66	30,39,765.38	2,60,62,728.28
9	Scientific & Laboratory Equipment	7,25,43,098.00	4,57,11,068.00	0.00	11,82,54,166.00	1,04,01,690.08	94,60,333.28	0.00	1,98,62,023.36	9,83,92,142.64	6,21,41,407.92
10	Office Equipment	12,02,32,894.85	1,86,76,836.00	0.00	13,89,09,730.85	3,42,53,980.65	1,04,18,229.81	0.00	4,46,72,210.47	9,42,37,520.38	8,59,78,914.20
11	Audio Visual Equipment	4,99,715.00	0.00	0.00	4,99,715.00	37,478.63	37,478.63	0.00	74,957.25	4,24,757.75	4,62,236.38
12	Computers & Peripherals	5,56,57,907.00	2,96,85,050.00	0.00	8,53,42,957.00	3,58,72,356.40	1,70,68,591.40	0.00	5,29,40,947.80	3,24,02,009.20	1,97,85,550.60
13	Furniture Fixtures & Fittings	12,79,29,260.04	71,63,030.00	0.00	13,50,92,290.04	11,06,62,617.44	1,01,31,921.75	0.00	12,07,94,539.19	1,42,97,750.85	1,72,66,642.60
14	Vehicles	87,42,177.00	18,76,980.00	0.00	1,06,19,157.00	87,42,176.00	1,87,698.00	0.00	89,29,874.00	16,89,283.00	1.00
15	Lib. Books & Scientific Journals	6,21,90,067.06	0.00	0.00	6,21,90,067.06	6,21,90,066.06	0.00	0.00	6,21,90,066.06	1.00	1.00
16	Small Value Assets	1,22,262.00	0.00	0.00	1,22,262.00	1,05,688.45	12,226.20	0.00	1,17,914.65	4,347.35	16,573.55
	<b>Total (A)</b>	5,25,84,56,781.53	12,72,78,880.00	0.00	5,38,57,35,641.53	1,88,04,41,435.43	15,57,90,040.46	0.00	2,03,62,31,475.88	<b>3,34,95,04,165.67</b>	<b>3,37,80,15,326.10</b>
	<b>Capital Work in Progress (B)</b>	14,50,97,155.00	4,69,22,408.00	0.00	19,20,19,563.00					<b>19,20,19,563.00</b>	<b>14,50,97,155.00</b>
									<b>TOTAL</b>	<b>3,54,15,23,728.68</b>	<b>3,52,31,12,481.10</b>
S. No	Intangible Assets	Opening Balance	Additions	Deductions	Closing Balance	Depreciation Opening Balance	Amortization for the year	Deductions/ Adjustment	Total Depreciation	31/03/2024	31/03/2023
1	Computer Software	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2	E-Journals	8,49,00,238.00	5,33,92,564.00	0.00	13,82,92,802.00	8,49,00,237.00	2,13,57,025.60	2,362,040.00	103,895,222.60	34,397,579.40	1.00
3	Patent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL C</b>	8,49,00,238.00	5,33,92,564.00	0.00	13,82,92,802.00	8,49,00,237.00	2,13,57,025.60	2,362,040.00	103,895,222.60	34,397,579.40	1.00
	<b>Grand Total (A+B+C)</b>	5,48,84,54,154.53	22,75,93,852.00		5,71,60,48,006.53	1,96,53,41,672.43	17,71,47,066.06	2,362,040.00	2,140,126,698.48	3,575,921,308.07	<b>3,52,31,12,482.10</b>

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**

**SCHEDULE 4 B NON- PLAN**

S. No.	Assets Heads	GROSS BLOCK				DEPRECIATION FOR THE YEAR				NET BLOCK (WDV)	
		Opening Balance	Additions	Deductions	Closing Balance	Depreciation Opening Balance	Depreciation for the year	Deductions / Adjustment	Total Depreciation	31/03/2024	31/03/2023
1	Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	Site Development	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	Buildings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Roads & Bridges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	Tube wells & Water Supply I	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Sewerage & Drainage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	Electrical Installation and equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	Plant & Machinery	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	Scientific & Laboratory Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	Office Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	Audio Visual Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	Computers & Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	Furniture Fixtures & Fittings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	Vehicles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	Lib. Books & Scientific Journals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	Small Value Assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total(A)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Capital Work in Progress (B)	0.00	0.00	0.00	0.00					0.00	0.00
									<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>
S. No.	Intangible Assets	Opening Balance	Additions	Deductions	Closing Balance	Depreciation Opening Balance	Amortization for the year	Deductions / Adjustment	Total Depreciation	31/03/2024	31/03/2023
-	Computer Software	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	E-Journals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Patent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL C</b>	5,48,84,54,154.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>	<b>0.00</b>
	<b>Grand Total (A+B+C)</b>										

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**

**SCHEDULE 4( C) (i) PATENTS AND COPYRIGHTS**

Particulars	Opening Balance 01/04/2023	Additions	Gross	Amortization	Net Block 31/03/2024	Net Block 31/03/2023
<b>A. Patents Granted</b>						
1 Balance as on 31.03.14 of Patents obtained in 2008-09 (Original Value - Rs .... /-)	0.00	0.00	0.00	0.00	0.00	0.00
2 Balance as on 31.03.14 of Patents obtained in 2010-11 (Original Value- Rs .... /-)	0.00	0.00	0.00	0.00	0.00	0.00
3 Balance as on 31.03.14 of Patents obtained in 2012-13 (Original Value - Rs .... /-)	0.00	0.00	0.00	0.00	0.00	0.00
4 Patents granted during the Current Year	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	0.00	0.00	0.00	0.00	0.00	0.00
Particulars	Opening Balance 01/04/2023	Additions	Gross	Patents Granted/ rejected	Net Block 31/03/2024	Net Block 31/03/2023
<b>B. Patents Pending in respect of Patents applied for</b>						
1 Expenditure incurred during 2009-10 to 2011-12	0.00	0.00	0.00	0.00	0.00	0.00
2 Expenditure incurred during 2012-13	0.00	0.00	0.00	0.00	0.00	0.00
3 Expenditure incurred during 2013-14	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>C. Grand Total (A+B)</b>	0.00	0.00	0.00	0.00	0.00	0.00

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**

**SCHEDULE 5 : INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS**

Amount in Rupees

	Current Year	Previous Year
1 In Central Government Securities	0.00	0.00
2 In State Government Securities	0.00	0.00
3 Other approved Securities	0.00	0.00
4 Shares	0.00	0.00
5 Debentures and Bonds	0.00	0.00
6 Term Deposits with Banks	5,63,35,000.00	5,48,04,000.00
7 Others (to be specified)	0.00	0.00
Total	5,63,35,000.00	5,48,04,000.00

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

Amount in Rupees

	Current Year	Previous Year
1 Endowment Fund Investment Pension FUND	0.00	0.00
FDR	5,63,35,000.00	5,48,04,000.00
Total	5,63,35,000.00	0.00

**SCHEDULE 6 : INVESTMENTS - OTHERS**

Amount in Rupees

	Current Year	Previous Year
1 In Central Government Securities	0.00	0.00
2 In State Government Securities	0.00	0.00
3 Other approved Securities	0.00	0.00
4 Shares	0.00	0.00
5 Debentures and Bonds	0.00	0.00
6 Others (to be specified)	0.00	0.00
Total	0.00	0.00

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**

**NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P)**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31/03/2024**

(Amount-Rs)

<b>SCHEDULE 7 - CURRENT ASSETS</b>		<b>Current Year</b>		<b>Previous Year</b>	
<b>1. Stock:</b>					
a) Stores and Spares		0.00		0.00	
b) loose Tools		0.00		0.00	
c) Publications		0.00		0.00	
d) laboratory chemicals consumables and glass ware		3,50,000.00		3,50,000.00	
e) Building Material		0.00		0.00	
f) Electrical Material		0.00			
g) Stationery		0.00			
h) Water supply material		0.00	3,50,000.00	0.00	3,50,000.00
<b>2. Sundry Debtors:</b>				0.00	
a) Debts Outstanding for a period exceeding six months		0.00		0.00	
b) Others		0.00	0.00	0.00	0.00
<b>3. Cash and Bank Balances</b>					
<b>a) With Scheduled Banks:</b>					
Cash In Hand		4,383.00		4,186.05	
Current Account/Grant in Transit		7,99,23,623.67		4,81,29,223.26	
Fixed Deposit		3,83,68,03,097.21		3,48,54,53,152.00	
Saving Account Main Account		65,11,302.54		8,67,05,721.08	
Saving Account Secrecy Fund		1,19,804.94		1,19,804.94	
<b>b) With non-Scheduled Banks:</b>					
In term deposit Accounts		0.00		0.00	
In Savings Accounts		0.00	3,92,33,62,211.36	0.00	3,62,04,12,087.33
<b>4. Post Office- Savings Accounts</b>					
<b>TOTAL</b>			<b>3,92,37,12,211.36</b>		<b>3,62,07,62,087.33</b>

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**

<b>Annexure-A</b>	<b>Amount</b>
1. Grants from UGC A/c	0.00
2. University Receipt a/c	0.00
3. Scholarship A/c	3,54,702.00
4. Academic Fee Receipt a/c	
5. Development (Plan) A/c	
6. Combined Entrance Exams (CBT) A/c	
7. UGC Plan Fellowship A/c	
8. Corpus Fund A/c (EMF)	34.76
9. Sponsored Projects Fund A/c	24,64,101.02
10. Sponsored Fellowship A/c	
11. Endowment & Chair A/c (EMF)	2,650.67
12. UGC JRF Fellowship A/c (EMF)	
13. HBA Fund A/c (EMF)	
14. Conveyance A/c (EMF)	
15. UGC Rajiv Gandhi National Fellowship A/c (EMF)	
16. Academic Development Fund A/c (EMF)	
17. Deposit A/c	36,89,814.09
18. Student Fund A/c	
19. Student Aid Fund A/c	
20. Plan Grants for specific schemes	
I. TSA Balance	1,17,68,397.00
II. Current Account (Cash in Hand)	6,81,55,226.67
III Term deposit with Scheme Banks with SBI	3,89,31,38,097.21
	3,97,95,73,023.42

**NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P)**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31/03/2024**

Amount (Rs.)

<b>SCHEDULE 8- LOANS ADVANCES &amp; DEPOSITS</b>					
		<b>Current Year</b>		<b>Previous Year</b>	
<b>1. Advances to employees: (Non-interest bearing)</b>					
a) Salary	0.00			0.00	
b) Festival	0.00			0.00	
c) Medical Advance	0.00			0.00	
d) Other (to be specified)	37,79,035.51	37,79,035.51		38,23,906.51	38,23,906.51
<b>2. Long Term Advances to employees: (Interest bearing)</b>					
a) Vehicle loan	0.00			0.00	
b) Home loan	0.00			0.00	
c) Others (to be specified)	0.00	0.00		0.00	0.00
<b>3. Advances and other amounts recoverable in cash or in kind or for value to be received:</b>					
a) On Capital Account	4,15,63,665.24			8,84,86,073.24	
b) to Suppliers	0.00			0.00	
c) Others	0.00	4,15,63,665.24		0.00	8,84,86,073.24
<b>4. Prepaid Expenses</b>					
a) Insurance				0.00	
b) Other expenses		0.00		0.00	0.00
<b>5. Deposits</b>					
a) Telephone '	0.00			0.00	
b) Lease Rent	0.00			0.00	
c) Electricity	0.00			0.00	
d) AI GTE if applicable	0.00			0.00	
e) Others (to be specified)	0.00	0.00		0.00	0.00
<b>6. Income Accrued:</b>					



a) On Investments from Earmarked/ Endowment Funds	0.00		0.00	
b) On Investments-FDR	6,95,56,123.00		1,49,50,942.00	
c) On Investments-FDR(Corpus Fund)	210,002,171.00			
d) On Loans and Advances	0.00		0.00	
e) Others (includes income due unrealized) Saving Bank	32,843.00	279,591,137.00	0.00	1,49,50,942.00
<b>7. Other- Current assets receivable from UGC/sponsored projects</b>				
a) Debit balances in Sponsored Projects	0.00		0.00	
b) Debit balances in Sponsored Fellowships & Scholarships	0.00		0.00	
c) Grants Receivable	0.00		0.00	
d) Other receivables from UGC	0.00	0.00	0.00	0.00
<b>8. Claims Receivable</b>				
Misc. Income	2,03,090.00		7200.00	
License Fees	2,05,360.00		1,06,875.00	
Garage Rent	7,900.00		5400.00	
Interest on loan & Advances from Staff	0.00		0.00	
Income receivable from Forest Department	0.00		0.00	
Rent from Guest House	0.00		0.00	
Rent from Shop	0.00	4,16,350.00	0.00	1,19,475.00
<b>TOTAL</b>		<b>325,350,187.75</b>		<b>10,73,80,396.75</b>

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**

**NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR (H.P)**  
**SCHEDULE FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31/03/2024**

<b>SCHEDULE 9- ACADEMIC RECEIPT</b>		<b>(Amount-Rs)</b>	
		<b>Current Year</b>	<b>Previous Year</b>
<b>FEES FROM STUDENTS</b>			
<b>Academic</b>			
1. Tuition fee		20,02,01,225.50	25,68,10,273.50
2. Admission fee		14,43,100.00	8,93,200.00
3. Enrolment fee			0.00
4. Library Admission fee		36,69,150.00	35,47,900.00
5. Laboratory fee			0.00
6. Art & Craft fee			0.00
7. Registration fee		2,95,519.00	16,700.00
8. Syllabus fee			0.00
<b>Total (A)</b>		<b>20,56,08,994.50</b>	<b>26,12,68,073.50</b>
<b>Examinations</b>			
1. Admission test fee			0.00
2. Annual Examination fee		62,31,350.00	62,46,873.00
3. Mark sheet certificate fee			0.00
4. Entrance examination fee			0.00
5. Supplementary fees		6,54,700.00	55,509.00
6. Phd thesis submission		4,80,000.00	5,25,000.00
<b>Total (B)</b>		<b>73,66,050.00</b>	<b>68,27,382.00</b>
<b>Other Fees</b>			
1. Identity card fee		14,400.00	3,29,925.00
2. Fine/ Miscellaneous fee		3,61,200.00	80,60,068.00
3. Medical fee		39,50,650.00	38,22,125.00
4. Transportation fee			0.00
5. Hostel fee			0.00
6. Grade Card Fee		7,52,800.00	14,03,301.00
7. Common Facility Fee		37,05,775.00	42,57,850.00

<b>Total(C)</b>	<b>87,84,825.00</b>	<b>1,78,73,269.00</b>
<b>Sale of Publications</b>		
1. Sale of Admission forms	0.00	0.00
2. Sale of syllabus and Question Paper etc.	0.00	0.00
3. Sale of prospectus including admission forms	0.00	0.00
<b>Total (D)</b>	<b>0.00</b>	<b>0.00</b>
<b>Other Academic Receipts</b>		
1. Registration fee for workshops programmes	0.00	19,600.00
2. Registration fees (Academic Staff College)	0.00	0.00
<b>Total (E)</b>	<b>0.00</b>	<b>19,600.00</b>
<b>GRAND TOTAL (A+B+C+D+E)</b>	<b>22,17,59,869.50</b>	<b>28,59,88,324.50</b>

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**

**SCHEDULE 10- GRANTS SUBSIDIES IRREVOCABLE GRANTS RECEIVED****Amount in Rupees**

Particulars	Plan			Total Plan	Non Plan UGC/Govt. of India	Current year Total	Previous Year Total
	Govt. of India	UGC					
		Plan	Specific Schemes				
Balance B/F	7,94,37,547.06	0.00	0.00	0.00	0.00	7,94,37,547.06	20,32,47,830.06
Add: Receipts during the year	1,12,96,38,000.00	0.00	0.00	1,12,96,38,000.00	0.00	1,12,96,38,000.00	1,06,44,00,000.00
Total	1,20,90,75,547.06	0.00	0.00	1,20,90,75,547.06	0.00	1,20,90,75,547.06	1,26,76,47,830.06
Less: Refund to UGC	7,94,37,547.06	0.00	0.00	7,94,37,547.06	0.00	7,94,37,547.06	20,32,12,036.00
Balance	1,12,96,38,000.00	0.00	0.00	1,12,96,38,000.00	0.00	1,12,96,38,000.00	1,06,44,35,794.06
Less: Utilized for Capital expenditure (A)	12,03,13,044.00	0.00	0.00	12,03,13,044.00	0.00	12,03,13,044.00	9,92,09,412.00
Balance	1,00,93,24,956.00	0.00	0.00	1,00,93,24,956.00	0.00	1,00,93,24,956.00	96,52,26,382.06
Less: utilized for Revenue Expenditure (B)	99,75,49,259.00	0.00	0.00	99,75,49,259.00	0.00	99,75,49,259.00	88,57,88,835.00
Balance C/F (C)	1,17,75,697.00	0.00	0.00	1,17,75,697.00	0.00	1,17,75,697.00	7,94,37,547.06

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**

**SCHEDULE 11- INCOME FROM INVESTMENTS**

Particulars	Amount in Rupees			
	Earmarked/ Endowment Fund		Other Investments	
	Current Year	Previous Year	Current Year	Previous Year
<b>1. Interest</b>				
a. On Government Securities				
b. Other Bonds/Debentures				
2. Interest on Term Deposits	0.00	0.00	5,93,00,600.00	5,82,78,856.00
3. Income accrued but not due on Term Deposits/Interest bearing advances to employees			183,802,171.00	
4. Interest on Savings Bank Accounts			0.00	
5. Others (On Project Grants)				
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>	<b>243,102,771.00</b>	<b>5,82,78,856.00</b>
<b>Transferred to Earmarked/Endowment Funds Balance</b>				

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**SCHEDULE 12- INTEREST EARNED**

(Amount-Rs.)

Particulars	Current Year	Previous Year
1 On Savings Accounts With Schedule Bank	13,32,196.00	17,02,919.00
2 On Loans:		
a) Employees/Staff	0.00	0.00
b) Others	0.00	0.00
3. On Debtors and Other Receivables	0.00	0.00
<b><u>TOTAL</u></b>	<b>13,32,196.00</b>	<b>17,02,919.00</b>

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**NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P)**  
**SCHEDULE FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31/03/2024**

**SCHEDULE 13-OTHER INCOME****(Amount-Rs)**

		<b>Current Year</b>		<b>Previous Year</b>	
1. Hostel Room Rent		2,02,43,750.00		1,99,42,250.00	
2. License fee		22,04,700.40		20,60,167.40	
3. Hire Charges of Auditorium/Shop/Convention Centre etc.		13,08,264.80		10,58,828.20	
4. Electricity charges recovered				0.00	
5. Water charges recovered		18,14,179.00		0.00	
6. Rent from Guest House		16,21,649.00		12,00,500.00	
7. Rent from Garage		80,227.00		69,180.00	
	<b>Total</b>	<b>2,72,72,770.20</b>	<b>2,72,72,770.20</b>	<b>2,43,30,925.60</b>	<b>2,43,30,925.60</b>
<b>B. Sale of Institute's publications</b>			0.00	0.00	0.00
<b>C. Income from holding events</b>					
1. Gross Receipts from annual function/ sports carnival			0.00	0.00	
Less: Direct expenditure incurred on the annual function/ sports carnival					
2. Gross Receipts from fetes			0.00	0.00	
Less: Direct expenditure incurred on the fetes					
3. Gross Receipts for educational tours			0.00	0.00	
Less: Direct expenditure incurred on the tours					
4. Others (to be specified and separately disclosed)			0.00	0.00	
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

<b>D. Others</b>					
1. Income from consultancy		0.00		0.00	
2. RTI fees				1,714.00	
3. Income from Royalty		0.00		0.00	
4. Sale of application form (recruitment)		0.00		0.00	
5. Misc. receipts (Sale of tender form waste paper Grass tree etc.)		82,99,569.00		79,05,851.01	
6. Profit on Sale/disposal of Assets/Stock		0.00		0.00	
a) Owned assets		0.00		0.00	
b) Assets received free of cost		0.00		0.00	
7. Grants/Donations from Institutions Welfare Bodies and International Organizations		0.00		0.00	
8 Others (specify) Overhead Charges		6,20,962.00		9,21,519.00	
10. Charges for use of transport		0.00		0.00	
<b>Total</b>		<b>89,20,531.00</b>	<b>89,20,531.00</b>	<b>88,29,084.01</b>	<b>88,29,084.01</b>
<b>Grand Total (A+B+C+D)</b>			<b>3,61,93,301.20</b>		<b>3,31,60,009.61</b>

**SCHEDULE 14- PRIOR PERIOD INCOME**

Amount In Rupees

<b>Particulars</b>	<b>Current Years</b>	<b>Previous Year</b>
1. Academic Receipts	0.00	0.00
2. Income from Investments	0.00	0.00
3. Accrued Interest (FY2022-23 Corpus)	26,200,000.00	0.00
4. Other Income	0.00	0.00
<b>Total</b>	<b>26,200,000.00</b>	<b>0.00</b>

**DEPUTY REGISTRAR (F&A)**  
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**NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P)**  
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**SCHEDULE 15- STAFF PAYMENTS & BENEFITS (ESTABLISHMENT EXPENSES)**

	Current Year			Previous Year		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total
a) Salaries	0.00	54,71,69,129.00	54,71,69,129.00	0.00	46,12,27,664.00	46,12,27,664.00
b) Allowances and Bonus	0.00	0.00	0.00	0.00	0.00	0.00
c) Contribution to New Pension Fund	0.00	3,55,75,885.00	3,55,75,885.00	0.00	2,54,08,732.00	2,54,08,732.00
d) Contribution to Other Fund	0.00	0.00	0.00	0.00	0.00	0.00
e) Staff Welfare Expenses	0.00	3,19,063.00	3,19,063.00	0.00	3,01,979.00	3,01,979.00
D Retirement and Terminal Benefits	0.00	10,33,02,639.00	10,33,02,639.00	0.00	8,35,80,964.00	8,35,80,964.00
g) LTC facility	0.00	22,26,298.00	22,26,298.00	0.00	30,14,189.00	30,14,189.00
h) Medical facility	0.00	48,66,305.00	48,66,305.00	0.00	34,75,683.00	34,75,683.00
i) Children Education Allowance	0.00	37,40,175.00	37,40,175.00	0.00	9,85,500.00	9,85,500.00
j) Honorarium	0.00	71,095.00	71,095.00	0.00	0.00	0.00
l) Others (specify) Professional development allowance	0.00	1,29,13,458.00	1,29,13,458.00	0.00	48,65,841.00	48,65,841.00
Overtime Drivers	0.00	0.00	0.00	0.00	0.00	0.00
Leave Encashment	0.00	75,67,793.00	75,67,793.00	0.00	1,12,78,217.00	1,12,78,217.00
<b>TOTAL</b>	0.00	71,77,51,840.00	71,77,51,840.00	0.00	59,41,38,769.00	59,41,38,769.00

**DEPUTY REGISTRAR (F&A)**  
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**SCHEDULE 15 A- EMPLOYEES RETIREMENT AND TERMINAL BENEFITS**

	<b>Pension</b>	<b>Gratuity</b>	<b>Leave Encashment</b>	<b>Total</b>
Opening Balance as on ____				
Addition : Capitalized value of Contributions Received from other Organizations				
Total (a)				
Less: Actual Payment during the Year (b)				
Balance Available on 31.03 c (a-b)				
Provision required on 31.03 as per Actuarial Valuation (d)				
A. Provision to be made in the Current year (d -c)				
B. Contribution to New Pension Scheme				
C. Medical Reimbursement to Retired Employees				
D. Travel to Hometown on Retirement				
E. Deposit Linked Insurance Payment				
<b>Total (A+B+C+D+E)</b>				

**DEPUTY REGISTRAR (F&A)**  
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**NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P)**  
**SCHEDULE FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31/03/2024**

<b>SCHEDULE 16- ACADEMIC EXPENSES</b>						
	<b>Current Year</b>			<b>Previous Year</b>		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total
a) Laboratory expenses	0.00	17,700.00	17,700.00	0.00	0.00	0.00
b) Field work/Participation in Conferences	0.00	2430.00	2430.00	0.00	0.00	0.00
c) Expenses on Seminars/Workshops	0.00	2,22,170.00	2,22,170.00	0.00	81,900.00	81,900.00
d) Payment to visiting faculty	0.00	0.00	0.00	0.00	13,45,878.00	13,45,878.00
e) Examination	0.00	16,72,108.00	16,72,108.00	0.00	2,81,517.00	2,81,517.00
f) Student Welfare expenses	0.00	4,16,981.00	4,16,981.00	0.00	3,01,983.00	3,01,983.00
g) Admission expenses --	0.00	0.00	0.00	0.00	0.00	0.00
h) Convocation expenses	0.00	33,16,820.00	33,16,820.00	0.00	16,05,913.00	16,05,913.00
i) Publications	0.00	0.00	0.00	0.00	0.00	0.00
j) Stipend/means-cum-merit scholarship	0.00	8,68,62,627.00	8,68,62,627.00	0.00	9,30,01,286.00	9,30,01,286.00
k) Subscription Expenses	0.00	0.00	0.00	0.00	0.00	0.00
l) Others (specify) academic expenses	0.00	14,21,571.00	14,21,571.00	0.00	1,09,63,281.00	1,09,63,281.00
m) Accreditation to AICTE Expenses	0.00	0.00	0.00	0.00	2,46,000.00	2,46,000.00
n) Departmental Operating costless closing stock of consumable material.	0.00	49,44,611.00	49,44,611.00	0.00	45,80,500.00	45,80,500.00
<b>Total</b>	0.00	9,88,77,018.00	9,88,77,018.00	0.00	11,24,08,258.00	11,24,08,258.00

**DEPUTY REGISTRAR (F&A)**  
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**NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P)**  
**SCHEDULE FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31/03/2024**  
**SCHEDULE 17- ADMINISTRATIVE AND GENERAL EXPENSES**

Particulars	Current Year			Previous Year		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total
<b>A Infrastructure</b>						
a) Electricity and power	0.00	1,40,00,262.00	1,40,00,262.00	0.00	1,52,99,461.00	2,17,04,340.00
b) Water charges	0.00	42,21,203.00	42,21,203.00	0.00	64,04,879.00	
c) Insurance	0.00	0.00	0.00	0.00	0.00	
d) Rent Rates and Taxes (including property tax)	0.00	0.00	0.00	0.00	0.00	
<b>B Communication</b>						
e) Postage and Stationery	0.00	0.00	0.00	0.00	0.00	1,07,358.00
f) Telephone Fax and Internet Charges	0.00	82,635.00	82,635.00	0.00	1,07,358.00	
<b>C Others</b>						
g) Printing and Stationery (consumption)	0.00	12,34,093.00	12,34,093.00	0.00	5,88,881.00	14,01,06,357.00
h) Travelling and Conveyance Expenses	0.00	63,02,128.00	63,02,128.00	0.00	19,18,055.00	
i) Hospitality	0.00	16,660.00	16,660.00	0.00	0.00	
j) Auditors Remuneration	0.00	3,11,520.00	3,11,520.00	0.00	3,43,040.00	
k) Professional Charges	0.00	3,46,110.00	3,46,110.00	0.00	4,32,880.00	
l) Advertisement and Publicity	0.00	16,69,027.00	16,69,027.00	0.00	10,20,599.00	
m) Magazines & Journals	0.00	0.00	0.00	0.00	0.00	
n) Others Misc. Administrative expenses	0.00	75,80,989.00	75,80,989.00	0.00	65,98,162.00	
o) Security Charges	0.00	3,39,15,329.00	3,39,15,329.00	0.00	3,47,84,258.00	
p) Legal expenses	0.00	18,47,073.00	18,47,073.00	0.00	4,92,414.00	
r) Wages/ Outsourcing	0.00	3,97,854.00	3,97,854.00	0.00	87,56,602.00	
s) Salary Contract/ part time staff	0.00	9,07,69,299.00	9,07,69,299.00	0.00	8,51,71,466.00	
<b>Total</b>	0.00	16,26,94,182.00	16,26,94,182.00	0.00	16,19,18,055.00	16,19,18,055.00

**SCHEDULE 18-TRANSPORTATION EXPENSES**

Particulars		Amount in Rupees		
		Current Year		Previous Year
		Plan	Non-Plan	Total
<b>1 Vehicles (owned by institution)</b>				
a) Running expenses	0.00	10,49,988.00	10,49,988.00	5,72,770.00
b) Repairs & maintenance	0.00	2,96,913.00	2,96,913.00	1,36,206.00
c) Insurance expenses	0.00	77,061.00	77,061.00	65,187.00
<b>2 Vehicles taken on rent/lease</b>	0.00	0.00	0.00	0.00
a) Rent/lease expenses	0.00	0.00	0.00	0.00
<b>3 Vehicle (Taxi) hiring expenses</b>	0.00	0.00	0.00	0.00
<b>Total</b>	<b>0.00</b>	<b>14,23,962.00</b>	<b>14,23,962.00</b>	<b>7,74,163.00</b>

**DEPUTY REGISTRAR (F&A)**  
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**NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P)**  
**SCHEDULE FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31/03/2024**

**SCHEDULE 19- REPAIR & MAINTENANCE**Amount in  
Rupees

Particulars	Current Year			Previous Year		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total
a) Buildings	0.00	1,03,20,827.00	1,03,20,827.00	0.00	1,09,73,885.00	1,09,73,885.00
b) Furniture & Fixtures	0.00	0.00	0.00	0.00	0.00	0.00
c) Plant & Machinery	0.00	0.00	0.00	0.00	47,550.00	47,550.00
d) Office Equipment	0.00	20,65,102.00	20,65,102.00	0.00	21,22,898.00	21,22,898.00
e) Computers	0.00	83,730.00	83,730.00	0.00	3,42,200.00	3,42,200.00
f) Laboratory & Scientific equipment	0.00	23,304.00	23,304.00	0.00	0.00	0.00
g) Audio Visual equipment	0.00	0.00	0.00	0.00	0.00	0.00
h) Cleaning Material & Services	0.00	2,22,35,672.00	2,22,35,672.00	0.00	1,79,72,925.00	1,79,72,925.00
i) Book binding charges	0.00	0.00	0.00	0.00	0.00	0.00
j) Gardening	0.00	0.00	0.00	0.00	0.00	0.00
k) Estate Maintenance	0.00	0.00	0.00	0.00	0.00	0.00
l) Others Water supply	0.00	0.00	0.00	0.00	0.00	0.00
m) Road	0.00	0.00	0.00	0.00	0.00	0.00
n) Street light/Electric Installation	0.00	0.00	0.00	0.00	2,80,104.00	2,80,104.00
o) Oxidation Pond	0.00	0.00	0.00	0.00	0.00	0.00
p) Maintenance of Entrance Flayer In Admin Block	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	0.00	3,47,28,635.00	3,47,28,635.00	0.00	3,17,39,562.00	3,17,39,562.00

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**

**SCHEDULE 20- FINANCE COSTS**

Particulars	Current Year			Previous Year		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total
a) Bank charges	0.00	0.00	0.00	0.00	0.00	0.00
b) Others (specify)	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**

**NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P)****SCHEDULE FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31/03/2024****SCHEDULE 21- OTHER EXPENSES**

Particulars	Amount in Rupees			Amount in Rupees		
	Current Year			Previous Year		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total
a) Provision for Bad and Doubtful Debts/Advances	0.00	0.00	0.00	0.00	0.00	0.00
b) Irrecoverable Balances Written- off	0.00	0.00	0.00	0.00	0.00	0.00
c) Grants/Subsidies to other institutions/organizations	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	0.00	0.00	0.00	0.00	0.00	0.00

**SCHEDULE 22: PRIOR PERIOD EXPENSES**

Particulars	Amount in Rupees			Amount in Rupees		
	Current Year			Previous Year		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total
1 Establishment expenses	0.00	0.00	0.00	0.00	0.00	0.00
2 Academic expenses	0.00	0.00	0.00	0.00	0.00	0.00
3 Administrative expenses	0.00	0.00	0.00	0.00	0.00	0.00
4 Transportation expenses	0.00	0.00	0.00	0.00	0.00	0.00
5 Repairs & Maintenance	0.00	0.00	0.00	0.00	0.00	0.00
6 Other expenses	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	0.00	0.00	0.00	0.00	0.00	0.00

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**



**NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR (H.P)**  
**SCHEDULE FORMING PART OF THE ACCOUNTS FOR THE PERIOD ENDED**  
**31st March, 2024**

**SCHEDULE: 23 SIGNIFICANT ACCOUNTING POLICIES (ILLUSTRATIVE)**

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) 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 Land, Buildings and Other Property and Interest on Investments are accounted on accrual basis.

2.3 Interest on interest bearing advances to staff for House Building, Purchase of Vehicles and Computers is accounted on accrual basis every year.

**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 Gifted and Donated assets are valued at the declared value where available; if not available, the value is estimated based on the present market value adjusted with reference to the physical condition of the asset. They are set-up by credit to Capital Fund and merged with the Fixed Assets of the Institution. Depreciation is charged at the rates applicable to the respective assets.

3.3 Books received as gifts, are valued at selling prices printed on the books. Where they are not printed, the value is based on assessment.

3.4 Fixed assets are valued at cost less accumulated depreciation. Depreciation on fixed assets is provided on Straight line method, at the following rates:

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%

3.5 Depreciation is provided for the whole year on additions during the year.

3.6 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 that asset head.

3.7 Assets created out of Earmarked Funds and funds of Sponsored Projects, where the ownership of such assets vests in the Institution, are setup by credit to Capital Fund and merged with the Fixed Assets of the Institution. Depreciation is charged at the rates applicable to the respective assets. 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.

3.8 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 are continued by the holders of such assets.

#### **4 Intangible Assets:**

Patents and copy rights, E Journals and Computer Software are grouped under Intangible Assets. Depreciation charged @ 40% on the same. In reply to the audit observation no.A.2.3 pertaining to FY 2021-22, 2022-23 & 2023-24 has been rectified and necessary adjustment has been made in the respective accounts.

4.1. PATENTS: No such expenditure incurred.

4.2 Electronic Journals (E-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 in terms of perpetual knowledge acquired by the Academic and Research Staff; Depreciation is provided in respect of E-journals at a higher rate of 40% as against depreciation of 10% provided in respect of Library Books.

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

5. STOCKS: Expenditure on purchase of chemicals, glassware, publications and other stores is accounted as revenue expenditure, except that the value of closing stocks held on 31<sup>st</sup> March is set up as inventories by reducing the corresponding Revenue Expenditure on the basis of information obtained from Departments. They are valued at cost.

6. RETIREMENT BENEFITS: The Actual payments of Pension, Gratuity and Leave encashment are debited in the Accounts to the respective provisions. Other retirement benefits viz. Deposit Linked Insurance, Contribution to New Pension Scheme and Travel to Home Town on retirement are accounted on accrual basis (actual payments plus outstanding bills at the end of the year).

Future Obligations in respect of Leave Encashment and Gratuity will be met from the Capital / Corpus Fund. In compliance to the audit observation, the Institute has appointed Actuary vide letter no.NIT/HMR/Engagement of Actuary/2024/294-297 dated 08.01.2025, for computing the

provisions to be made for retirement benefits as per AS-15, in the books of accounts for the FY 2024-25.

## 7. INVESTMENTS

a. Long term investments: NIL

b. Short Term investments: NIL

## 8. EARMARKED/ENDOWMENT FUNDS:

8.1 CORPUS: Corpus fund is separately maintained. Interest accrued thereon has been accounted for in the books on accrual basis.

8.2 PENSION FUND : Pension fund is maintained by the Institution.

## 9 GOVERNMENT AND UGC GRANTS

9.1 Government Grants are now on TSA of PFMS portal.

9.2 Total Capital Grant is transferred to Capital fund and on TSA, any unutilised grant automatically lapsed in beginning next financial year. During the year 2023-24, an amount of Rs.4,15,63,665.24 has been kept as unutilized grant since this amount has not been booked as expense yet.

9.3 Total Revenue Grant is transferred to Income and Expenditure account and on TSA any unutilised grant is automatically lapsed in beginning of next financial year.

10 INVESTMENTS OF EARMARKED FUNDS AND INTEREST INCOME ACCRUED ON SUCH INVESTMENTS: Investment of above funds are kept in Separate deposits of Institution and income is accounted accordingly.

## 11 SPONSORED PROJECTS

In respect of ongoing Sponsored Projects, the amounts received from sponsors are credited to the head 11.1 "Current Liabilities and Provisions -Current Liabilities -Other Liabilities -Receipts against ongoing sponsored projects." As and when expenditure is incurred /advances are paid against such projects, or the concerned project account is debited with allocated overhead charges, the liability account is debited.

12 INCOME TAX The income of the Institution is exempt from Income Tax under Section 10(23c) of the Income Tax Act. No provision for tax is therefore made in the accounts.

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**SCHEDULE: 24 CONTINGENT LIABILITIES AND NOTES TO ACCOUNTS (ILLUSTRATIVE)**

1. CONTINGENT LIABILITIES: 1.1 As on 31.03.2024: Court Cases are filed against the Institution, however contingent liability if any cannot be ascertained at present stage except in two number arbitration cases in which Institute has filed appeal before hon'able High Court HP.
- 1.2 Letters of credit established by the Bank on behalf of the Institution and outstanding on 31.03.2024 - Rs NIL
- 1.3 A demand of Rs.65.46 Lakh has been raised by EPFO vide e-proceeding Diary No.22/2019 dated 09.02.2022. Against the penalty order u/s 7A of EPF and MP Act 1952, Institute has filed an appeal before the Hon'ble Tribunal Court, Chandigarh and 20% of the assessed amount has been deposited.
2. CAPITAL COMMITMENTS:
  - 2.1 The Value of contracts remaining to be executed on Capital Account and not provided, as major works are being executed through CPWD deposit.
  - 2.2 In the Balance Sheet as on 31.3.2024 and the Balance Sheets of earlier years, Fixed Assets created out of Plan funds and Fixed Assets created out of non plan funds were not exhibited distinctly.
  - 2.3 Fixed assets as set out in Schedule 4 include assets purchased out of funds of sponsored projects, held and used by the Institution, as in appropriate project contracts include stipulations that all such assets purchased out of projects funds will remain the property of the Institution.
3. Previous year's figures have been regrouped wherever necessary.
4. The details of balances in Saving Bank Accounts, Current Accounts and Fixed Deposit Accounts with Banks are enclosed as attachment 'A' to the Schedule of Current Assets.
5. In reply to the audit observation no.3 to the 'Persistent Irregularities in Annual Accounts', it is clarified that the institute is in the process of assessing/computing the interest earned on grants during the respective years and the same will be returned to MOE after seeking approval from competent authority, the entry to this effect shall be carried out in the accounts for the FY 2024-25. However, from FY 2020-21 the grant is being received through TSA portal of PFMS.
6. In reply to the audit observation no.4 to the 'Persistent Irregularities in Annual Accounts', it is clarified that observation relating to 'Wrong Classification of Computer & Peripherals as Office Equipment' shall be taken into consideration in the accounts for the FY 2024-25.
7. The campus of Institution is constructed on Land area measuring 688156 Sq meters, out of which Land Measuring 680083 Sq meter is owned by Government of Himachal Pradesh. The process of transferring the Land in the name of NIT has been taken up with the revenue authorities of the State.
8. Schedules I to 24 are annexed to and form an integral part of the Balance Sheet at 31<sup>st</sup> March 2024 and the Income & Expenditure account for the year ended on that date.

**NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P)**  
**GENERAL PROVIDENT FUND**  
**RECEIPTES AND PAYMENTS ACCOUNT**  
**FOR THE YEAR 1/4/2023 TO 31/3/2024**

PREVIOUS YEARS (Rs.)	RECEIPTS HEAD OF ACCOUNT	AMOUNT (Rs.)
46,96,95,189.57	CASH IN BANK	48,72,60,325.99
5,49,76,835.00	SUBSCRIPTION	5,08,19,043.00
16,43,500.00	REFUND OF ADVANCE	20,99,000.00
4,717.00	MIS RECEIPT	1,503.00
2,88,16,332.42	BANK INTEREST	63,93,624.00
<u>55,51,36,573.99</u>		<u>54,65,73,495.99</u>
	<b>PAYMENT</b>	
25,20,000.00	TEM. ADVANCE TO STAFF	17,83,700.00
6,49,17,248.00	WITHDRAWAL	4,91,04,779.00
0.0	BANK CHARGES	0.00
4,39,000.00	GENERAL ACCOUNT OF INSTITUTE	44,000.00
<u>48,72,60,325.99</u>	CLOSING BANK BALANCE	49,56,41,016.99
<u>55,51,36,573.99</u>		<u>54,65,73,495.99</u>

**DEPUTY REGISTRAR (F&A)**  
**NIT HAMIRPUR (HP)**

**REGISTRAR**  
**NIT HAMIRPUR (HP)**

**DIRECTOR**  
**NIT HAMIRPUR (HP)**

**NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P)**  
**GENERAL PROVIDENT FUND**  
**INCOME AND EXPENDITURE ACCOUNT**  
**FOR THE YEAR 1/4/2023 TO 31/3/2024**

<b>PREVIOUS YEARS (Rs.)</b>	<b>EXPENDITURE HEAD OF ACCOUNT</b>	<b>AMOUNT (Rs.)</b>
3,24,61,978.00	Interest credited to the Subscribers accounts	3,50,49,828.00
0.00	Bank Charges	0.00
-1,18,16,866.58	Excess of + Income/-loss	21,95,769.00
<u>2,06,45,111.42</u>		<u>3,72,45,597.00</u>
<b>INCOME</b>		
2,88,16,332.42	Income from Investment	
66,04,280.00	Bank Interest received	63,93,624.00
1,47,75,501.00	Add: Interest due for 2023-2024	3,74,56,253.00
	Less: Due of year 2022-2023	66,04,280.00
<u>2,06,45,111.42</u>		<u>3,72,45,597.00</u>
<u>2,06,45,111.42</u>		<u>3,72,45,597.00</u>

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**NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P)**  
**GENERAL PROVIDENT FUND**  
**BALANCE SHEET**  
**AS ON 31/3/2024**

PREVIOUS YEARS (Rs.)	HEAD OF ACCOUNT	AMOUNT (Rs.)	
	<b>LIABILITIES</b>		
	Subscription Account (PF Contribution)		
74,71,16,178.55	Upto 2023	80,20,93,013.55	
<u>5,49,76,835.00</u>	DURING THE YEAR	<u>5,08,19,043.00</u>	
<b><u>80,20,93,013.55</u></b>		<b><u>85,29,12,056.55</u></b>	
	Add: Interest		
32,81,17,060.45	Upot 2023	36,05,79,038.45	
<u>3,24,61,978.00</u>	During the year	<u>3,50,49,828.00</u>	
<b><u>36,05,79,038.45</u></b>		<b><u>39,56,28,866.45</u></b>	
	Less : Withdrawal		
59,30,21,803.00	upto 2023	65,79,39,051.00	
<u>6,49,17,248.00</u>	During the year	<u>4,91,04,779.00</u>	
<b><u>65,79,39,051.00</u></b>		<b><u>70,70,43,830.00</u></b>	<b>54,14,97,093.00</b>
<u>50,47,33,001.00</u>			
	<b>Income &amp; Expenditure Account</b>		
36,46,477.57	upto 2023	-81,70,389.01	
<u>-1,18,16,866.58</u>	During the year	<u>21,95,769.00</u>	<u>-59,74,620.01</u>
<b><u>-81,70,389.01</u></b>			
<b><u>3,74,159.00</u></b>			
	<b>Wrong credit in GPF Account Op Bal</b>	<b>3,74,159.00</b>	
	Add: CY	-42,497.00	3,31,662.00
<b><u>49,69,36,770.99</u></b>			<b><u>53,58,54,134.99</u></b>
	<b>ASSETS</b>		
	Temporary Advance		
4,53,36,048.00	upto 2023	4,78,56,048.00	
<u>25,20,000.00</u>	During the year	<u>17,83,700.00</u>	
<u>4,78,56,048.00</u>		<b><u>4,96,39,748.00</u></b>	
	Less : Refund		
4,35,79,383.00	upto 2023	4,52,22,883.00	
<u>16,43,500.00</u>	During the year	<u>20,99,000.00</u>	
<b><u>4,52,22,883.00</u></b>		<b><u>4,73,21,883.00</u></b>	<b>23,17,865.00</b>
<b><u>26,33,165.00</u></b>			
	<b>Bank Interest Accrued</b>		
1,47,75,501.00	Opening Balance	66,04,280.00	
<u>66,04,280.00</u>	Add : (C-Year accrued)	<u>3,74,56,253.00</u>	
<b><u>2,13,79,781.00</u></b>		<u>4,40,60,533.00</u>	
<u>1,47,75,501.00</u>	Less : Interest received on Maturity	<u>66,04,280.00</u>	<u>3,74,56,253.00</u>
<u>66,04,280.00</u>			
	RECOVERABLE FROM GENERAL ACCOUNT		4,39,000.00
<b><u>48,72,60,325.99</u></b>	Closing Balance Bank		<u>49,56,41,016.99</u>
<b><u>49,64,97,770.99</u></b>			<b><u>53,58,54,134.99</u></b>

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**ANNEXURE IV****ANNUAL REPORT**

Group	Representation of SCs/STs/OBCs/EWS (As on 1 <sup>st</sup> January)					Number of Teacher appointed during the preceding year				
	Total number of Teacher	SCs	STs	OBCs	EWS	Total	SCs	STs	OBCs	EWS
1	2	3	4	5	6	7	8	9	10	11
Professor HAG	04	0	0	0	0	0	0	0	0	0
Professor GP 10500/-	14	0	0	0	0	0	0	0	0	0
Associate Professor	67	04	0	02	0	0	0	0	0	0
Assistant Professor GP 8000/-	64	10	04	20	0	0	0	0	0	0
Assistant Professor GP 7000/-	03	01	0	0	0	0	0	0	0	0
Assistant Professor (Contract) GP 6000/-	36	05	01	02	0	0	0	0	0	0
Total	<b>188</b>	<b>20</b>	<b>05</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>