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

**ANNUAL REPORT & ANNUAL ACCOUNTS 2019-20** 



(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 and cooperative enterprise 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 accent 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 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.

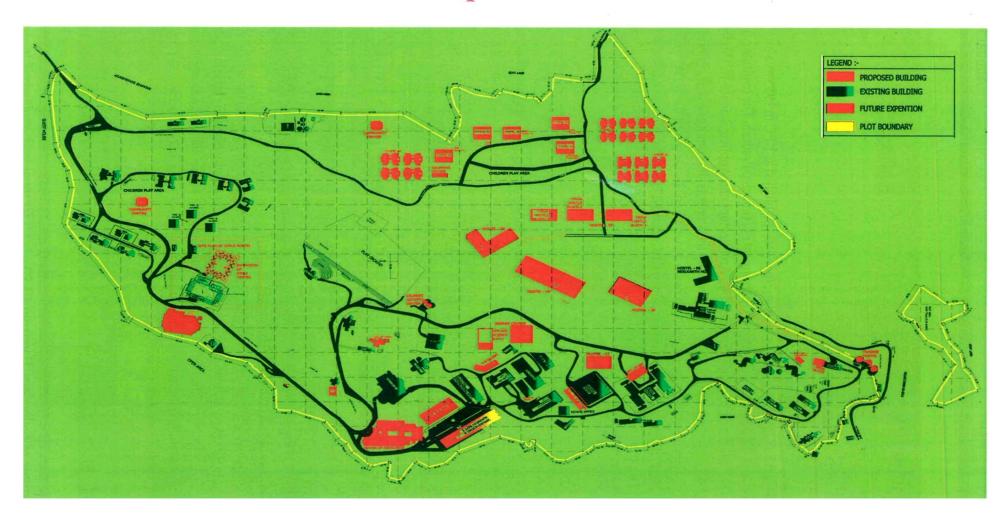
#### 2.2 LOCATION

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

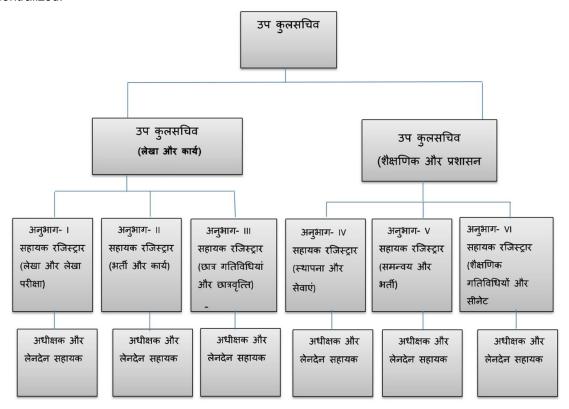
The campus has an area of 177.1 Acres in the picturesque surrounding with lush green pine trees, facing snow clad Dhauladhar mountain ranges. The place has healthy climate with moderate temperature ranging from 4° to 40° at an altitude of 900 meter. It presents a spectacle of harmony in architecture 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 Academ ic 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:

Sr. 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.	Engineering Physics & Photonics Science
10.	Chemistry
11.	Management Studies
12.	Humanities & Social Sciences
13.	Materials Science & Engineering

#### 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

#### **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)

Sr. No.	Department/Centre	M.Tech./ M.Arch. Programme	
1.	Civil Engineering	Geotechnical Engineering & Under Ground Structures	
		Structural Engineering	
		Transportation Systems Engineering	
		Water Resources Engineering	
2.	Electrical Engineering	Power System	
		Signal Processing & Control	
		Condition Monitoring, Control & Protection of Electrical Apparatus	
3.	Mechanical Engineering	Thermal Engineering (Computational Fluid Dynamics and Heat	
		Transfer)	
		CAD-CAM	
4.	Electronics &	VLSI Design Automation & Techniques	
	Communication	Communication Systems & Networks	
	Engineering		
5.	Computer Science &	Computer Science & Engineering	
	Engineering	Mobile Computing	
6.	Architecture	M.Arch. in Sustainable Architecture	
7.	Centre for Material Science	Material Science & Engineering	
	& Engineering		
8.	Centre for Energy &	Energy Technology	
	Environment	Environmental Engineering	

**MSc Programmes (04 Semesters)** 

- 1. Physics
- 2. Chemistry
- 3. Mathematics & Computing

## **MBA Programmes (04 Semesters)**

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

## 2.8.3 PhD Programmes

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

SNo	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/Nanocomposites, 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

#### 2.9 Admissions

Number of students admitted during 2019-20 are as follows:

Programme	Number of Students Admitted
UG Programmes (B.Tech./B.Arch./Dual Degree)	917
PG Programmes (M.Tech./M.Arch./MSc/MBA)	302
PhD Programmes	103
Total	1322

Number of students registered in different programmes are:

Programme	Number of Students Registered
B.Tech. [All Semesters]	2274
B.Arch. [All Semesters]	208
Dual Degree [All Semesters]	581
M.Tech. [All Semesters]	397
M.Arch. [All Semesters]	21
M.Sc. [All Semesters]	98
MBA [All Semesters]	38
Ph.D. [All Semesters]	242
Total	3859

## 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 are as under:

SNo	Programme	Sanctioned Intake	Actual Admission		
B.Ted	B.Tech. Programmes				
1.	Chemical Engineering	76	75		
2.	Civil Engineering	121	119		
3.	Computer Science and Engineering	120	120		
4.	Electrical Engineering	123	122		
5.	Electronics and Communication Engineering	116	116		
6.	Mechanical Engineering	121	121		
7.	Materials Science and Engineering	39	37		
Dual	Dual Degree Programmes				
1.	Computer Science and Engineering	76	76		
2.	Electronics and Communication Engineering	75	75		
B.Arc	B.Arch. Programme				
1.	Architecture	58	56		

#### 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 2019-20 are as follows:

SNo	M.Tech./M.Arch. Programme	Sanctioned Intake	Actual Admission
1.	Geotechnical Engineering & Under Ground	19	18
	Structures		
2.	Structural Engineering	19	19
3.	Transportation Systems Engineering	19	18
4.	Water Resources Engineering	19	14
5.	Power System	19	18
6.	Signal Processing & Control	19	10
7.	Condition Monitoring, Control & Protection of	19	12
	Electrical Apparatus		
8.	Thermal Engineering (Computational Fluid	19	17
	Dynamics and Heat Transfer)		
9.	CAD-CAM	19	08
	VLSI Design Automation & Techniques	19	18
11.	Communication Systems & Networks	19	16
12.	Computer Science & Engineering	19	19
13.	Mobile Computing	19	14
14.	M.Arch. in Sustainable Architecture	19	13
15.	Material Science & Engineering	19	-
	Energy Technology	19	06
17.	Environmental Engineering	19	12

SNo	MSc Programme	Sanctioned Intake	Actual Admission
1.	Physics	25	20
2.	Chemistry	25	18
3.	Mathematics & Computing	25	17

SNo	MBA Programme	Sanctioned Intake	Actual Admission
1.	Master of Business Administration	40	15

## 2.9.3 PhD Programmes

The admissions to the PhD 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 number of students admitted during 2019-20 in various Departments are as follows:

SNo	Department	Candidates Admitted with MHRD Fellowship	Candidates Admitted Under Other Schemes
1.	Architecture	05	-
2.	Civil Engineering	15	-
3.	Computer Science & Engineering	11	02
4.	Electronics & Communication Engineering	13	01

5.	Electrical Engineering	12	-
6.	Mechanical Engineering	18	-
7.	Chemical Engineering	01	-
8.	Materials Science & Engineering	03	-
9.	Chemistry	03	-
10.	Physics & Photonics Science	03	-
11.	Mathematics & Scientific Computing	05	02
12.	Management Studies	03	-
13.	Humanities & Social Sciences	04	01
14.	CEEE	01	-

#### 2.10 Results

The summary of results is as follows:

Programme	Students Passed
UG Programmes (B.Tech./B.Arch./Dual Degree) [Final Year]	563
PG Programmes (M.Tech./M.Arch./MSc/MBA) [Final Year]	234
PhD Programmes	14
Total	811

The results of various programmes are as follows:

# 2.10.1 UG Programmes

Sr.	Programme	Students Admitted	Students Passed
No.			
B.Tecl	h. Programmes		
1.	Chemical Engineering	56	51
2.	Civil Engineering	91	85
3.	Computer Science and Engineering	89	83
4.	Electrical Engineering	89	85
5.	Electronics and Communication	90	80
	Engineering		
6.	Mechanical Engineering	91	86
Dual D	Degree Programmes		
1.	Computer Science and Engineering	60	56
B.Arcl	n. Programme		
1.	Architecture	44	37

# 2.10.2 PG Programmes

Sr. No.	M.Tech./M.Arch. Programme	Students Admitted	Students Passed
1.	Geotechnical Engineering & Under Ground	13	10
	Structures		
2.	Structural Engineering	11	11
3.	Transportation Systems Engineering	15	14
4.	Water Resources Engineering	14	12
5.	Power System	12	7
6.	Signal Processing & Control	9	7
7.	Condition Monitoring, Control & Protection	12	6
	of Electrical Apparatus		
8.	Thermal Engineering (Computational Fluid	14	13
	Dynamics and Heat Transfer)		
9.	CAD-CAM	11	11
10.	VLSI Design Automation & Techniques	13	11
11.	Communication Systems & Networks	8	8
12.	Computer Science & Engineering	11	11
13.	Mobile Computing	7	7
14.	M.Arch. in Sustainable Architecture	9	9
15.	Material Science & Engineering	11	11
16.	Energy Technology	13	13
17.	Environmental Engineering	14	13

SNo	MSc Programme	Students Admitted	Students Passed
1.	Physics	14	13
2.	Chemistry	18	18
3.	Mathematics & Computing	16	16

SNo	MBA Programme	Students Admitted	Students Passed
1.	Master of Business Administration	11	10

## 2.10.3 PhD Programmes

SNo	Department	PhDs Awarded
1.	Architecture	01
2.	Civil Engineering	01
3.	Computer Science & Engineering	03
4.	Electronics & Communication Engineering	03
5.	Electrical Engineering	03
6.	Mechanical Engineering	01
7.	Chemical Engineering	-
8.	Materials Science & Engineering	-
9.	Chemistry	01
10.	Physics & Photonics Science	-
11.	Mathematics & Scientific Computing	01
12.	Management Studies	-
13.	Humanities & Social Sciences	-

LIST OF B.TECH. TOPPERS AND 2 <sup>ND</sup> TOPPERS PASSED OUT DURING 2018-19			
Sr. No.	Name	Roll No	CGPI
ARCHITE	ECTURE		
1	Meenu Chauhan	14607	9.13
2	Shiksha Singh	14643	8.82
CIVIL EN	GINEERING		
1	Anchal Verma	15173	9.43
2	Akshay Kumar	15115	9.26
1	ER SCIENCE & ENGINEERING Akash Sood	15518	9.5
2	Divyansh Sharma	15516	9.32
	ER SCIENCE & ENGINEERING (Dua		
1	Param Singh	14MI517	9.17
2	Yash Chaudhary	14MI522	9.1
ELECTRO	ONICS AND COMMUNICATION ENG	NEERING	
1	Rishabh Gupta	15477	9.67
2	Vibhor Gupta	15434	9.49
ELECTRI	CAL & ELECTRONICS ENGINEERIN	G	
1	Saurav Kumar	15278	8.79
2	Shubham Vijay	15253	8.73
MECHAN	IICAL ENGINEERING		
1	Akshay Thakur	15311	9.37
2	Animesh Sahoo	15376	8.84
CHEMICA	AL ENGINEERING		
1	Siddhant Gulati	15748	9.56
2	Arjun Malhotra	15734	9.49
CIVIL EN	GINEERING (GEOTECHNICAL ENGI	NEERING & UND	PERGROUND STRUCTURE)
1	Mohammad Saqib Bin Lateef	17M106	9.05
CIVIL EN	GINEERING (STRUCTURAL ENGINE	ERING)	
1	Jayoti	17M128	9.11
	1 -		

			Allitual Report-2019-2
CIVIL EN	GINEERING (TRANSPORTATION SY	STEM ENGINEE	ERING)
1	Garima Rana	17M150	9.21
	GINEERING (WATER RESOURCE E	1	
1	Preeti	17M170	9.08
ELECTRI	CAL ENGINEERING (POWER SYSTE	Ξ <b>M</b> )	
1	Aashish Goyal	17M202	8.84
	•	ONITORING CON	NTROL AND PROTECTION OF ELECTRICA
APPARA	, '	4784050	0.05
1	Shilvi	17M256	9.05
MECHAN	IICAI ENCINEEDING/TUEDMAJ EN	CINEEDING)	
MECHAN 1	IICAL ENGINEERING (THERMAL EN Varinder Kumar	17M303	9.34
<u>'</u>	Valifidei Kulliai	17101303	3.34
ELECTRO	ONICS & COMMUNICATION ENGINE	FRING (VI SI DE	ESIGN AUTOMATION & TECHNIQUES)
1	Aditya Ranjan	17M411	8.55
	- Congress congress	1	733
ELECTRO	ONICS & COMMUNICATION ENGINE	ERING (COMMU	JNICATION SYSTEMS & NETWORKS)
1	Akshay Goyal	17M430	9.37
2	Aashish Gupta	17M431	9.37
COMPUT	ER SCIENCE & ENGINEERING (COM	MPUTER SCIENC	CE & ENGINEERING)
1	Ankit Verma	17M504	9.05
	ER SCIENCE & ENGINEERING (MOI		,
1	Shivangi Kanungo	17M532	8.84
COMPUT 1	Vidushi Agarwal	MPUTER SCIEN 14MI506	CE & NGINEERING) - DUAL DEGREE 9.5
- 1	Vidusiii Agarwai	141011500	9.5
MATERIA	ALS SCIENCE AND ENGINEERING		
1	Shivam Shukla	17M604	9.37
	Onivani Onana	1710001	0.07
ENERGY	AND ENVIRONMENT ENGINEERING	G (Engineering T	「echnology)
1	Jivesh Goyal	17M709	9.18
		I.	ı
<b>ENEGRY</b>	& ENVIRONMENTAL ENGINEERING	6 (Environmenta	ıl Engineering)
1	Akash Agarwal	17M724	8.95
	<u> </u>	I	<u>.                                    </u>

CHEMISTRY (M.Sc. Chemistry)

	, , , , , , , , , , , , , , , , , , ,		
1	Rajat Arora	17MScC006	9.79

#### **MATHEMATICS (M Sc. Mathematics & Scientific Computing)**

	<b>,</b>	· · ·   · · · J/	
1	Bhavana Singh	17MScM002	8.92

#### PHYSICS (M.Sc. Physics)

1	Amrendra Kumar	17MScP014	9.2
	, um orial a realitai	1710001 0 1 1	U. <u>L</u>

#### Management & Humanities (MBA)

	, ,		
1	Neha	17M904	9.66

#### DIRECTOR MEDAL TO BEST ALL ROUNDER for 2018 -19

Sr. No.	Name	Roll No.	Medal	Branch
1	Ms. Swati	15585	Gold	Computer Science & Engineering

#### 2.11 Placement Cell:

The Training & Placement Cell was established in this Institute in the year 1995. Since than 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 balland 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 Faculty

Name of the Department	Professor			As	sociate Profes	sor	Ass	sistant Profes	sor	Total
·	Sanctioned strength	In position	Total	Sanctione d strength	In position	Total	Sanctioned strength	In position	Total	faculty in position
Civil Engineering		03	03		04	04		10	10	17
Electrical Engineering		04	04		06	06		07	07	17
Mechanical Engineering		03	03		06	06		12	12	21
Computer Science & Engineering	1	01	01		03	03	7	13	13	17
Electronic & Communication Engineering		02	02		05	05		13	13	20
Architecture	1	02	02		01	01	7	08	08	11
Mathematics	1	02	02		01	01	7	06	06	09
Physics	37	00	00	Ī _,	03	03	1	02	02	05
Chemistry	31	01	01	74	02	02	150	04	04	07
Humanities & Social Sciences		01	01		02	02		03	03	06
Centre for Energy & Environment	1	01	01		01	01	7	01	01	03
Centre for Material Science & Engineering		01	01		01	01		02	02	04
Training & Placement	1	00	00		00	00	7	00	00	00
Physical Education		00	00		01	01		00	00	01
Chemical	1	00	00	1	00	00	7	05	05	05
Management	1	00	00	1	00	00	1	02	02	02
Total		21	21		36	36		88	88	145

## 2.13.2 Head of the Institute :

Sr. No.	Name of the post	Sanctioned strength	In position
1	Director	01	01
	Total	01	01

#### **Academic Staff:**

Sr. No.	Name of the post	Sanctioned strength	In position
1	Professor	37	21
2	Associate Professor	74	36
3	Assistant Professor	150	88
	Total	261	145

#### (A) 2.13.3 Officers:

Sr. No.	Name of the Post	Sanctioned Strength	In Position
1.	Registrar	01	01
2.	Deputy Registrar	03	02
3.	Assistant Registrar	07	05
4.	Executive Engineer	01	01
5.	Engineer	02	02
6.	Assistant Librarian	02	02
7.	Sr. Medical Officer	01	&&
8.	Medical Officer	01	01
9.	Sr. Scientific/Technical Officer	04	&&
10.	Scientific/Technical Officer	04	03
	Total	26	17

## (B) Technical Higher:

Sr. No.	Name of the Post	Sanctioned Strength	In Position
1	Technical Assistant/ Junior Engineer/ SAS Assistant/Sr. Pharmacist	31	01
2	Sr. Technical Assistant/ Assistant Engineer/ Sr. SAS Assistant/ Pharmacist SG-II	23	06
3	Technical Assistant (SG –II) Assistant Executive Engineer SAS Assistant (SG-II)/Pharmacist SG-I	16	13
4	Technical Assistant (SG-I) Executive Engineer, SAS Assistant (SG-I)	08	01
	Total	78	21

<sup>\*</sup> Officiating \*\* On deputation

## (C) Technical Lower:

Sr. No.	Name of the Post	Sanctioned Strength	In Position
1	Technician , Lab. Assistant, Work Assistant, Driver	31	04
2	Sr. Technician, Sr. Lab Assistant, Sr. Work Assistant	23	07
3	Technician (SG-II), Lab Assistant (SG-II), Work Assistant (SG-II), Pharmacist	16	16
4	Technician (SG-I), Lab Assistant(SG-I), Work Assistant (SG-I)	08	04
	Total	78	31

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

Sr. No.	Name of the Post		Sanctioned Strength	In Position
1	Superintendent/ Accountant/ S	Secretary	09	09
2	Sr. Superintendent/Sr. Secret	ary	06	06
3	Superintendent SG-(II)/ (SG-II)	Secretary	04	02
4	Superintendent SG-(I)/ (SG-I)	Secretary	02	00
		Total	21	17

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

	Name of the Post		Sanctioned	In Position
Sr. No.			Strength	
1	Jr. Assistant		18	10
2	Sr. Assistant/ Stenographer		13	13
3	Assistant(SG-II) / Sr. Stenographer		09	11
4	Assistant (SG-I)/ Stenographer (SG-II		04	04
5	Stenographer (SG-I)		01	01
	To	tal	45	39

## (F) Supporting Staff:

Sr. No.	Name of the Post	Sanctioned Strength	In Position
1	Attendant/ Security Guard/ Mali/ Care Taker (Higher Scale)	16	
2	Sr. Attendant/ Security Guard/ Mali/ Care Taker	12	20
3	Attendant/ Security Guard/ Mali/ Care Taker (SG-II)	08	26
4	Attendant/ Security Guard/ Mali/ Care Taker (SG-I)	03	09
	Total	39	55
	Total (A to F)	287	

# 2.13.4 List of Assistant Professor (On Contract Basis)

S. No.	Name of Faculty	Post on which appointed	Department	Date of appointment
1.	Dr. Manendra Singh	Assistant Professor	DoCE	24/09/2019
2.	Dr. Ray Singh Meena	Assistant Professor	DoCE	26/09/2019
3.	Dr. Arpita Saha (Resigned)	Assistant Professor	DoCE	23/09/2019
4.	Dr. Jitendra Singh Yadav	Assistant Professor	DoCE	30/09/2019
5.	Dr. Sanku Konai (Resigned)	Assistant Professor	DoCE	11/11/2019
6.	Dr. Vimal Kumar	Assistant Professor	DoCE	22/11/2019
7.	Dr. Rajan Kumar	Assistant Professor	DoEE	20/05/2019
8.	Dr. Ram Niwash Mahia	Assistant Professor	DoEE	10/10/2019
9.	Dr. Rajesh Kumar	Assistant Professor	DoME	30/05/2019
10.	Dr. Laxmikant Yadav	Assistant Professor	DoME	25/09/2019
11.	Dr. Pranika Shrivastava	Assistant Professor	DoME	16/10/2019
12.	Dr. Priyadarshi Biplab Kumar (Expired)	Assistant Professor	DoME	25/11/2019
13.	Dr. Pushpendra Singh	Assistant Professor (Gr-I)	DoECE	03/06/2019
14.	Dr. Mahesh Angira	Assistant Professor (Gr-I)	DoECE	30/07/2019
15.	Dr. Yuvaraj S. (Resigned)	Assistant Professor	DoECE	25/09/2019
16.	Dr. Gopal Rawat	Assistant Professor	DoECE	25/09/2019
17.	Dr. Abhijit Bhattacharyya	Assistant Professor	DoECE	09/10/2019
18.	Dr. Sankalita Biswas	Assistant Professor	DoECE	11/11/2019
19.	Dr. Sandeep Kumar Singh	Assistant Professor	DoECE	13/11/2019
20.	Dr. Vijay Kumar	Assistant Professor (Gr-I)	DoCSE	26/07/2019
21.	Dr. Arun Kumar Yadav	Assistant Professor	DoCSE	23/09/2019
22.	Dr. Priyanka	Assistant Professor	DoCSE	24/09/2019
23.	Dr. Sitara K.	Assistant Professor	DoCSE	25/09/2019
24.	Dr. Jyoti Srivastava	Assistant Professor	DoCSE	03/10/2019
25.	Dr. Sangeeta Sharma	Assistant Professor	DoCSE	25/11/2019
26.	Dr. Smita Mondal (Resigned)	Assistant Professor	DoCHE	21/10/2019
27.	Dr. Alok Garg	Assistant Professor (Gr-I)	DoCHE	06/06/2019
28.	Dr. Subajit Majumder	Assistant Professor (Gr-I)	DoCHE	17/06/2019
29.	Dr. Pooja Thakur	Assistant Professor	DoCHE	04/10/2019
30.	Dr. Rahul Saha	Assistant Professor	DoCHE	06/11/2019
31.	Dr. Subit Kumar Jain	Assistant Professor	DoMSC	23/09/2019
32.	Dr. Om Prakash Yadav	Assistant Professor	DoMSC	24/09/2019
33.	Dr. Rifaqat Ali	Assistant Professor	DoMSC	03/10/2019
34.	Dr. Nidhi Gupta	Assistant Professor	DoMSC	14/10/2019

	35.	Dr. Sachin Kumar	Assistant Professor	DoMS	23/09/2019
	36.	Dr. Neeraj Dhiman	Assistant Professor	DoMS	23/09/2019
	37.	Dr. Shampy Kamboj	Assistant Professor	DoMS	21/10/2019
	38.	Dr. Richa Joshi	Assistant Professor	DoMS	25/11/2019
ſ	39.	Dr. Raj Bahadur Singh	Assistant Professor	DoMSE	03/10/2019
ſ	40.	Dr. Nitesh Kumar	Assistant Professor	DoMSE	10/10/2019
ſ	41.	Dr. Kunal Jayprakash	Assistant Professor	DoMSE	06/11/2019
		Borse			

## 2.13.5 Temporary Faculty (Purely on contract basis with Consolidated Salary)

S. No.	Name of Faculty	Post on which	Department	Date of appointment
		appointed		
1	Mr. Saurabh Kumar	Assistant Professor	Architecture	16/07/2019(FN)
2	Mr. Gaurav Thapak	Assistant Professor	Architecture	15/07/2019(FN)
3	Mr. Kinkar	Assistant Professor	Architecture	18.07.2019 (FN)
	Bhattacharjee			
4	Mr. Naveen Prashar	Assistant Professor	Architecture	19.07.2019 (FN)
5	Mr. Rahul Kumar	Assistant Professor	Civil	15/07/2019(FN)
6	Mr. Amrendra Kumar	Assistant Professor	Civil	11/07/2019 (FN)
7	Dr. Neelam Rani	Assistant Professor	Civil	15/07/2019(FN)
8	Dr. Arpita Saha	Assistant Professor	Civil	17/07/2019(FN)
9	Dr. Santhosh Kumar Verma	Assistant Professor	CEEE	18/07/2019(FN)
10	Dr. Suman Saha	Assistant Professor	Chemical Engineering	18/07/2019(FN)
11	Dr. Ratna Sandeep Katiyar	Assistant Professor	Chemical Engineering	20/07/2019(FN)
12	Dr. Brij Kishor	Assistant Professor	Material Science & Engineering	15/07/2019(FN)
13	Dr. Brij Mohan Mudotiya	Assistant Professor	Material Science & Engineering	19/07/2019(FN)
14	Dr Praveen Ramakrishnan	Assistant Professor	Material Science & Engineering	18/07/2019(FN)
15	Dr. Sudhir Kumar	Assistant Professor	Material Science & Engineering	19/07/2019(FN)
16	Dr. Prvan Kumar Katiyar	Assistant Professor	Material Science & Engineering	19/07/2019(FN)
17	Mr. Nimu Chand Reger	Assistant Professor	Material Science & Engineering	18/07/2019(FN)
18	Dr. Pratima Mishra	Assistant Professor	Management Studies	10.07.2019 (FN)
19	Dr. Gaurav Katoch	Assistant Professor	Management Studies	11.07.2019 (FN)
20	DR. Chetna Sharma Rajput	Assistant Professor	Management Studies	19.07.2019 (FN)
21	Dr. Palvi Pasricha	Assistant Professor	Management Studies	19.07.2019 (FN)
22	Dr. Maaz Hasan Khan	Assistant Professor	Management	18.07.2019 (FN)

			Studies	
23	Dr. Pushpender Kumar	Assistant Professor	Computer	09/07/2019 (FN)
23	Dr. r deliperaer reamar	7 1551514111 1 10105501	Science and	()
			Engineering	
24	Dr. Jyoti Kashniyal	Assistant Professor	Computer	19.07.2019 (FN)
			Science and	, ,
			Engineering	
25	Mr. Vishal Kaushal	Assistant Professor	Computer	02.08.2019 (FN)
			Science and	
			Engineering	
26	Mr Sourav Mondal	Assistant Professor	Computer	29.07.2019 (FN)
			Science and	
			Engineering	
27	Ms. Bhumika	Assistant Professor	Computer	01.08.2019 (FN)
			Science and	
20	No Classic D	A : 4 / D C	Engineering	07.00.2010 (ENI)
28	Mr. Shetanshu Parmar	Assistant Professor	Computer Science and	05.08.2019 (FN)
			Engineering	
29	Ms. Taveena	Assistant Professor	Computer	07.08.2019 (AN)
29	IVIS. Taveena	Assistant Professor	Science and	07.08.2019 (AIN)
			Engineering	
30	Dr. Rajni Bala	Assistant Professor	Chemistry	11/07/2019 (FN)
31	Ms. Jasmine Kaur Saini	Assistant Professor	Electrical	08.07.2019 (FN)
31	ivis. Jasinine Radi Saini	715515ta11t 1 10105501	Engineering	00.07.2015 (111)
32	Mr. Nandan Kumar	Assistant Professor	Electrical	
-	Navin	11001044114 110140001	Engineering	
33	Dr. Nikita	Assistant Professor	Electrical	19.07.2019 (FN)
	DI. I VIKILA	7 10010141111 1 10100001	Engineering	13.07.2013 (11.)
34	Dr. Arun Choudhary	Assistant Professor	Mathematics	19.07.2019 (FN)
				, ,
35	Ms. Anisha Devi	Assistant Professor	Mathematics	10.07.2019 (FN)
36	Ms. Niveda Pareek	Assistant Professor	Mathematics	01.08.2019 (FN)
37	Dr. Meenakshi	Assistant Professor	Mathematics	01.08.2019 (FN)
38	Dr. Ishan Choudhary	Assistant Professor	Physics	07.08.2019 (AN)
39	Dr. Tulsi Anna	Assistant Professor	Physics	12/07/2019
40	Dr. Pravin Kumar	Assistant Professor	Physics	15/07/2019 (FN)
41	Dr. Satveer Singh	Assistant Professor	H&SS	30.07.2019 (FN)
42	Ms. Shubhrika Pansari	Assistant Professor	H&SS	18.07.2019 (FN)
43	Dr. Puneeta	Assistant Professor	Electronics and	01.08.2019 (FN)
	Di. i dilectu	2 1001010111 1 10100001	Communication	01.00.2017 (111)
			Engineering	
44	Dr. Vindheshwari	Assistant Professor	Electronics and	08/07/2019 (FN)
	Prakash Singh		Communication	
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Engineering	
45	Dr. Rajiv Verma	Assistant Professor	Electronics and	19.07.2019 (FN)
			Communication	
			Engineering	
46	Mr. Pratik	Assistant Professor	Electronics and	19.07.2019 (FN)
			Communication	
			Engineering	

47	Mr. M. Nithin Varma	Assistant Professor	Electronics and	16.07.2019 (FN)
			Communication	
			Engineering	
48	Ms. Bineet Kaur	Assistant Professor	Electronics and	19.07.2019 (FN)
	Maunder		Communication	
			Engineering	
49	Mr. Apoorva Dwivedi	i Assistant Professor	Electronics and	19.07.2019 (FN)
	-		Communication	
			Engineering	
50	Mr. Ramesh Kumar	Assistant Professor	Electronics and	19.07.2019 (FN)
	Bhukya		Communication	
	5.1		Engineering	

## 2.13.6 Relived Faculty:-

S. No.	Name of Faculty	Designation	Date of Resigned
1	Dr. Hemant Kumar Vinayak	Associate Professor	18/12/2019
		Grade-II	
2	Dr. Sanku Konai	Associate Professor	6/03/2020
		(On Contract basis)	
3	Dr. Santhosh Kumar Gugulothu	Associate Professor	5/11/2019
	_	(On Contract basis)	
4	Dr. Yovraj S.	Associate Professor	18/10/2019
	-	(On Contract basis)	

## 2.13.7 Retiree Faculty:

S. No.	Name of Faculty	Designation	Date of Resigned
1	Dr. Virender Kumar	Professor	31/5/2019

## 2.13.8 Staff on Lien (EOL/Deputation-cum-Study Leave)/QI

Sr. No.	Name	Designation
1	Prof. Lalit Kumar Awasthi	Professor
2	Prof. Rakesh Sehgal	Professor
3	Dr. Minakshi Jain	Professor

## 2.13.9 Fresh appointment of Officers / Ministerial Staff:-

Sr. No.	Name	Name of Post	Date of Joining
1	Sh. Satish Chander Sharma	Deputy Registrar	08.02.2019
2	Sh. Vinod Dialani	Deputy Registrar	28.02.2019
3	Sh. Gaurav Yadav	Assistant Registrar	08.01.2019
4	Sh. Vipin Kumar	Assistant Registrar	17.01.2019
5	Sh. Kumar Saurabh	Assistant Registrar	04.02.2019

# 3.1 DEPARTMENT OF CHEMICAL ENGINEERING



## 1. ACADEMIC STAFF:

Head of the Department : Dr. Tapas Palai,

Ph.D

#### Faculties:

Professor	Associate Professor	Assistant Professor	Guest faculty	
		1. Dr. Radhe Shyam	1.Dr. Ratna Sandeep	
		2. Dr. Tapas Palai	Katiyar	
		<ol> <li>Dr. Alok Garg,</li> <li>Dr. Subhajit Majumder,</li> </ol>	2. Dr. Suman Saha	
		5. Dr. Leela Manohar		
		(on contract)		
		6. Dr.Arvind Kumar Gautam		
		7. Dr. Tara Chand Kumawat		
		8. Dr. Pooja Thakur		
		9. Dr. Smita Mondal		
		10.Dr. Rahul Saha		

#### **Technical Staff:**

- 1. Mr. Subhash Chand
- 2. Mrs. Praveen Kumari

#### **Ministerial Staff:**

- 1. Mr. Desh Raj Bansal, Private Secretary
- 2. Mr. Ashok Kumar, Attendant

#### 2. DISTINCTION ACHIEVED: NIL

#### **Anti Terrorism Day:**

Anti-Terrorism Day pledge was taken by the Faculty and staff of Chemical Engineering Department on 21.05.2019 at 11.30 AM in the Department.

#### Vigilance Awareness Week-2019.

Vigilance Awareness Pledge was taken by the Faculty and staff of Chemical Engineering Department on 29.10.2019 at 11.00 AM.

#### Rashtriya Ekta Diwas:

Rashtriya Ekta Diwas Pledge was taken by the Faculty, Staff and Students of Chemical Engineering Department on 31.10.2019 at 11.00 AM.

#### a) Research Publication

## i. Papers published by Faculties:

S.No.	Name of Faculty	Title of the paper	Name of Journal/Conference in which paper published
1.	Dr. Tapas Palai	Bioremediation of hexavalent chromium from wastewater using Bacillus firmus	National Conference on Advances in Chemical Engineering and Science(ACES- 2019), IISER, Bhopal, February, 28-29, 2020
2.	Dr. Alok Garg	Optimization methodology based on neural networks and box-behnken design applied to photo catalysis of acid red 114 dye	Environmental Engineering Research 25(5) 2019-753-762
3.	Arvind Kumar Gautam	The essential oils extraction from manosale flowers and leaves to prepare characterized fragrance  Heat Transfer from a	Industrial Application of Nanodcience and Nanotechnology(IANN-2019) November, 15-16, 2019, MNIT Allahabad, Prayagraj UP-211004 (India)  Asian Pacific Confederation of Chemical Engineering (APCChE 2019), Sapporo,
		semi-circular cylinder to a Newtonian fluid under rectangular confinement	Japan, (23-27 September, 2019)
		Pilot-scale soda pulping of wheat straw using continuous pulp digester	J. Indian Chem. Soc., Vol. 97, March 2020, pp. 403-408,

A computational study of excess properties for mW potential model of water in super cooled region,	J. Stat. Phys. Physica A, Vol. 548, March 2020, 124495
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#### (b) Papers accepted for publication : 01 No.

Dr. Radhe Shyam	Numerical Study of flow on	Proceedings of the Second International
	Non-Newtonian Power Law	Conference on Frontiers in Industrial and Applied
	Fluids Across an Arched	Mathematics(FIAM-2019) Accepted
	Roughened Circular Cylinder	

a. Patent: Nil

b. Doctoral Programme: This department is running Doctoral Programme .

c. Master thesis completed; NIL

d. Ph.D Degree awarded: Nil

e. Popular Lectures by outside experts: NIL

#### **Expert Lecturer delivered by faculty:**

**Leela Manohar:** Delivered an expert talk for one week Short Term Course (STC) on "Advances in Sustainable Thermal Energy Systems: Theory and Computation (ASTESTC-2020)" during February 24-29, 2020 at Mechanical Engg, Dept. NIT Hamirpur.

The title of talk was on "Electrochemical Carbon Dioxide Reduction to Green fuel: Problems and Prospects

**Arvind Kumar Gautam**: Application of Modelling and Simulation Techniques in Mechanical Engineering **Description**: Invited Talk under TEQIP-III, 15th November, 2019, Bundelkhand University (BU), Jhansi, UP

**Title:** Molecular Simulations in Chemical Engineering

Description: Invited Talk under STC (Technological Advancements in Chemical Engineering (TACE-2019)), 29

July 2019, BIET, Jhansi, UP

#### 3. EQUIPMENT ACQUIRED:

Sr.	Name of Equipment	Qty	Name of manufacturer/Supplier	Cost
No.				(in Rs.)
1	Snake Point Apparatus	01	M/s. Goodwill Industries, Ambala Cantt	21417
2.	Alkine Point Apparatus	01.	M/s. Popular Science Apparatus, Ambala Cantt	23246
3.	Pensky Marten Flash Point Apparatus	01	M/s. Popular Science Apparatus, Ambala Cantt	24780
4.	Cloud & Pour Point	01	M/s. Popular Science Apparatus, Ambala Cantt	32438

	Apparatus			
5.	Distillation Apparatus	01	M/s. Goodwill Industries, Ambala Cantt	45194
6.	Redwood Viscometer	01	M/s. Popular Science Apparatus, Ambala Cantt	51377
7.	Melting Point Apparatus,	01	M/s. Popular Science Apparatus, Ambala Cantt	171,100
	Dean & Dark Apparatus,	01		
	Carbon Residue Apparatus	01		
	Air Compressor	01.		
8.	All Quartz Double Distillation Bl Distillation Units Double Distillation Water Unit	01	M/s. MDT International, Ambala Cantt	39900

#### 10. 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
- Research Lab

# 3.2 DEPARTMENT OF CIVIL ENGINEERING



Head of the Department :Dr. R.S.Banshtu Ph.D

## Faculties :

Sr. No.	Name of Faculty	Designation		
Professor				
1.	Dr. V.K Sarda	Professor (Retd.in May/2019)		
2.	Dr. R.K.Sharma	Professor		
3.	Dr. Raman Parti	Professor		
4.	Dr. R.K.Dutta	Professor		
Associate P	Professor	·		
1.	Dr. Pardeep Kumar	Associate Professor		
2.	Dr. R.S.Banshtu	Associate Professor,		
		HEAD OF THE DEPARTMENT		
3.	Dr.S.S.Katoch	Associate Professor		
4.	Dr. V.S.Dogra	Associate Professor		
5.	Dr. V.K.Bansal	Associate Professor		
Assistant P	rofessor			
1.	Dr. Amrit Kumar Roy	Assistant Professor Grade-1		
2.	Dr. Umesh Kumar Pandey	Assistant Professor Grade-1		
3.	Sh. Chander Prakash	Assistant Professor Grade-1		
4.	Dr. Sunil Sharma	Assistant Professor Grade-1		
5.	Dr. Mamta Awasthi	Assistant Professor Grade-1		
6.	Dr. H.K.Vinayak	Assistant Professor Left in Nov/2019		

7.	Dr. Dharmendra	Assistant Professor Grade-1				
8.	Dr. K. Nallasivam	Assistant Professor Grade-1				
9.	Dr. Joy Pal	Assistant Professor Gr-II				
10.	Dr. Joseph Tripura	Assistant Professor Gr-II				
11.	Dr. Subhadip Biswas	Assistant Professor Gr-II				
12.	Dr. Arpita Saha	Assistant Professor Gr-II				
13.	Dr. Manendra Singh	Assistant Professor Gr-II				
14.	Dr. Ray Singh Meena	Assistant Professor Gr-II				
15.	Dr. Jitendra Singh Yadav	Assistant Professor Gr-II				
16.	Dr. Sanku Konai	Assistant Professor Gr-II				
17.	Dr.Vimal Kumar	Assistant Professor Gr-II				
Faculty (on Co	Faculty (on Contract)					
1.	Dr.Rahul	Guest Faculty (July/2019 to May/2020)				
2.	Dr.Amrendra	Guest Faculty (July/2019 to May/2020)				
3.	Dr. Santosh Verma	Guest Faculty (July/2019 to May/2020)				

# (II.) Achievements

# By students:

S. No.	Student Name	Achievement
1.	Mr. Onam Sharma	President, Cultural Activities of the institute for the session 2018-19.
2.	Mr. Ashutosh Saini	President, Technical Activities of the institute for the session 2018-19.
3.	All members of Team C-Helix in Nimbus 2019.	Best Departmental Team Award at Nimbus 2019.
4.	Mr. Rishav Jaryal	Treasurer, Cultural Activities of the institute for the session 2018-19.
5.	Miss Ruchi Mittal	<ol> <li>Secured 2<sup>nd</sup> position in 5<sup>th</sup> Inter-Technology University Athletics Men and Women Championship 2018-19 organized at Thapar Institute of Engineering and Technology, Patiala on 12&amp;13 April 2019.</li> <li>Gold at 100m in Lalkaar 2019.</li> </ol>
6.	Mr. Om Prakash Thakur	1. Represented Punjab, Haryana, Himachal Pradesh and Chandigarh directorate at All India NauSainik Camp 2k18 at INS Kadamba, Karwar, Karnataka.  a) 1st in Services Subject b) 3rd prize in Boat Puller c) 2nd in Semaphore

		3 <sup>rd</sup> in run for Unity Marathon     First Boat Puller from NIT     Hamirpur
7.	Mr. Chintha Shanmukh Reddy	Various medals at Lalkaar, the annual sports meet at NIT Hamirpur,  1) Bronze in 100m  2) Silver in 400m  3) Bronze in 800m  4) Bronze in 1500m  5) Silver in 4x100m
8.	Miss. Mimansa Thakur	Gold Medal in Badminton at Lalkaar 2019
9.	Miss. Bandana	Gold in Long Jump at Lalkaar 2019

## **REVIEWERS OF JOURNALS/EDITORIAL BY FACULTY**

## (III). Papers Published in Conferences:-

Sr. No.	Faculty Name	Year	Author's	Title	Conference Name with Place
1	Dr. R.K. Dutta	2019	Gnananandarao, T, Dutta, R.K. and Khatri, V.N.	Cost economics of flexible and rigid pavements over clay subgrades	Indian Conference on Geotechnical and Geoenvironmental Engineering (ICGGE-2019), March 01-02, Allahabad Prayagraj, Uttar Pradesh, India
2	Dr. Pardeep Kumar	2019	Bavita Bhardwaj, Pardeep Kumar and Sumit Arora	Comparative Study of Heat as well as Ambient Cured Alkali Activated Slag Concrete	Proceedings of UKIERI Concrete Congress Concrete: The Global Builder 5 - 8 March 2019, Jalandhar, Punjab, India. ISBN: 978-93- 5351-357-3 Pages 116.
3	Dr. Vijay Shankar Dogra	2019	34. Navsal Kumar, Arunava Poddar, AashishDhobal and Vijay Shankar	Performance Assessment of PSO and GA in estimating Soil hydraulic properties using Near-Surface Soil Moisture Observations	International Conference on Computational Modelling, Simulation and Optimization, June 27th-29th, 2019, Shaw Foundation Alumni House, National University of Singapore
		2019	35. Navsal Kumar, Arunava Poddar	Non Linear Regression for	International Conference on

			and Vijay Shankar	Identifying the optimal Soil Hydraulic Model Parameters	Numerical Optimization in engineering and Sciences (NOIEAS- 2019), June 19th- 21st, 2019, National Institute of Technology, Warangal, India
		2019	36. Navsal Kumar, Arunava Poddar and Vijay Shankar	Optimizing Irrigation through Environmental Canopy Sensing- A Proposed Automated Approach	. International Conference on Applied Mechanics and Optimization (ICAMeO-2019), June 19th-21st, 2019, Mar Baselios College of Engineering and Technology, Kerala, India
4	Dr. Vijay Kumar Bansal	2019	Bansal, V. K.	Use of GIS-Based 4D Simulation to Facilitate Construction Planning.	Proc. of 19th Int. Conf. on Computational Science and its application (ICCSA 2019), held in Saint Petersburg, Russia, July 1-4, 2019.
5	Dr. Mamta Awasthi	2019	Mamta Awasthi	Energy generation enhancement of an existing PV/wind hybrid system using biomass gasifier, International Conference on Materials, Manufacturing and Decision Making (MMDM – 78	Beant College of Engineering and Technology (BCET), Gurdaspur, Punjab, India. 22 – 23 February 2019.
6	Dr. Subhadip Biswas	2019	Biswas, S., Sharma, A. and Pandey, A.	"Performance evaluation of undivided streets: A clustering-based approach."	13th International Conference of the Eastern Asia Society for Transportation Studies (EASTS), Colmbo, Sri Lanka.

# (V). Papers Published in Journal:-

Sr. No.	Faculty Name	Year	Author's	Title	Journal Name
1	Dr.R.K. Sharma	2019	Abhishek Sharma and R. K. Sharma	An experimental study on uplift behaviour of granular anchor pile in stabilized expansive soil	International Journal of Geotechnical Engineering
		2019	Abhishek Sharma and R. K. Sharma	Effect of addition of construction— demolition waste on strength characteristics of high plastic clays	Innovative Infrastructure Solutions
		2019	Akhilesh Kumar, R. K. Sharma and V. K. Bansal	GIS-based comparative study of information value and frequency ratio method for landslide hazard zonation in a part of mid-Himalaya in Himachal Pradesh	Innovative Infrastructure Solutions
2	Dr. R.K. Dutta	2019	R.K.Dutta, V.N Khatri and S. Kumar	Soft computing based prediction of the support pressure in tunnels	International Journal of Engineering & Advanced Technology
		2019	Dutta, R.K., Kumar, P. and Gnananandarao, T.	Neural network based prediction of shear wave velocity for soils	International Journal of Geological and Geotechnical Engineering
		2019	Dutta, R.K., Khatri, V.N. and Gnananandarao, T.	Soft computing based prediction of ultimate bearing capacity of footings resting on rock masses	International Journal of Geological and Geotechnical Engineering
		2019	Dutta, R.K., Khatri, V.N. and Gnananandarao, T.	Soft computing based prediction of deviator stress of waste plastic reinforced sand	Journal of Geotechnical Engineering
		2019	Kumari, S. and Dutta, R.K.	Leakage rate prediction through the composite liner due to geomembrane defect using artificial neural network	Journal of Geotechnical Engineering
		2019	Vivek, R.K. Dutta and R. Parti	Effect of chemical treatment of the coir geotextiles on the interface properties of	Journal of The Institution of Engineers (India): Series A

				sand/clay- coir geotextile interface	
		2019	Vivek, R.K. Dutta and R. Parti	Application potential of treated coir geotextiles in unpaved roads	Journal of Natural Fibers
		2019	Dutta, R.K., Singh A., Gnananandarao, T.	Prediction of free swell index for the expansive soil using artificial neural networks	Journal of Soft Computing in Civil Engineering
		2019	Dutta, R.K., Dutta, K., Kumar, R., Chaudhary, S.	Development of mobile app for the soil classification	i-manager's Journal on Mobile Applications and Technologies
		2019	Dutta, R.K., Khatri V.N., Thakur V. and P.P. Das	Effect of alccofine addition on the index and engineering properties of bentonite	Journal of Geotechnical Engineering
		2019	R.K.Dutta, T. Gnananandarao and V.N. Khatri	Application of soft computing techniques in predicting the ultimate bearing capacity of strip footing subjected to eccentric inclined load and resting on sand	Journal of Soft Computing in Civil Engineering
		2019	Tammineni Gnanananda Rao, Rakesh Kumar Dutta, Ajay Sharma	Application of random forest regression in the Prediction of ultimate bearing capacity of strip footing resting on dense sand overlying loose sand deposit	Journal of Soft Computing in Civil Engineering
3	Dr. Pardeep Kumar	2019	Pardeep Kumar and Sandeep Petwal	Seismic Performance of Secondary Systems Housed in Isolated and Non Isolated Building	Earthquakes and Structures, An International Journal
4	Dr. R.S. Banshtu	2019	Laxmi Devi Versain, Rajeshwar Singh Banshtu , Desh Deepak Pandey,	Comparative Evaluation of GIS Based Landslide Hazard Zonation Maps Using Different Approaches	Journal of Geological Society of India, Volume 93 (6), June 2019, pp. 627-730. (SCI Indexed)

		2019	Laxmi Devi Versain, Rajeshwar Singh Banshtu , Desh Deepak Pandey,	Bi-Variate Statistical Approach In Landslide Hazard Zonation, District Kullu, Himachal Pradesh, India	International Journal of Applied Engineering Research, Volume 14 (2) February 2019, pp. 415-428. (SCOPUS Indexed)
		2019	Rajeshwar Singh Banshtu , Laxmi Devi Versain, Desh Deepak Pandey,	Risk assessment using quantitative approach: central Himalaya, Kullu, Himachal Pradesh, India",	Arabian Journal of Geosciences. (SCI & SCOPUS Indexed).
5	Dr. Vijay Shankar	2019	Arunava Poddar, Navsal Kumar and Vijay Shankar	22. Poddar, A., Kumar, N., & Shankar, Computation of moisture uptake based irrigation schedules to counter ill effects of saline irrigation on agricultural productivity.	Journal of Advanced Research in Dynamical and Control Systems 11(01):1004-1013 V. (2019).
6	Dr. Vijay Kumar Bansal	2019	Kumar, A, Sharma, R.K., and Bansal, V.K.	GIS-based comparative study of information value and frequency ratio method for landslide hazard zonation in a part of mid-Himalaya in Himachal Pradesh	Innovative Infrastructure Solutions
		2019	Kapoor, N., Jain, M., and Bansal, V.K.	GIS-based methodology for sustainable spatial planning at site level for hill areas: case study of a University Campus.	Research Journal of Recent Sciences, 8(4)
		2019	Kumar, S., and Bansal, V.K.	Use of GIS in locating TFs safely on a construction site in hilly regions	International Journal of Construction Management, 19(4), 341-353.
		2019	Tomar, A., and Bansal V.K.	Scheduling of repetitive construction projects using geographic information systems: an integration	Asian Journal of Civil Engineering (Building and Housing), 20(4), 549-562.

				of critical path method and line of balance.	
7	Dr. K. Nallasivam	2019	Virajan Verma & K. Nallasivam	"One-dimensional finite element analysis of thin-walled box-girder bridge"	Innovative Infrastructure Solutions, Springer (2020) 5:51
8	Dr. Mamta Awasthi	2019	Vivek Agarwal and M. Awasthi	Research Journal of Chemistry and Environment Vol 23(8), pp.136-42, 0972-0626	Potential of CordiaObliqua for turbidity removal in potable water
		2019	Malik, P., Awasthi, M., &Sinha,	Analysis of sensitive parameters influencing a SPV/WT/Biomass/Batt ery based hybrid system	In 2019 8th International Conference on Power Systems (ICPS) (pp. 1-6). IEEE,DOI:
9	Dr. Amrit Kumar Roy	2019	Singh, Jagbir, and Amrit Kumar Roy	'Wind Pressure Coefficients on Pyramidal Roof of Square Plan Low Rise Double Storey Building	Journal of Computational Engineering and Physical Modeling
		2019	Singh, Jagbir, and Amrit Kumar Roy	Effects of Roof Slope and Wind Direction on Wind Pressure Distribution on the Roof of a Square Plan Pyramidal Low-Rise Building Using CFD Simulation.	International Journal of Advanced Structural Engineering
10	Dr. Joy Pal	2019	Sikdar, S., Ostachowicz, W. and Pal, J.	Damage-induced Acoustic Emission Source Identification in an Advanced Sandwich Composite Structure & 202	Composite Structures
11	Dr. Subhadip Biswas	2019	Thakur, S. and Biswas, S.	"Assessment of pedestrian-vehicle interaction on urban roads: A critical review."	Archives of Transport, Vol: 51 (9), 49-63. DOI: 10.5604/01.3001.00 13.6162 2. 13.1777.
		2019	Biswas, S., Sharma, A. and Pandey, A.	"Performance evaluation of undivided streets: A clustering- based approach."	Journal of the Eastern Asia Society for Transportation Studies, Vol 13, 1777-1784. DOI: 10.11175/ easts.

		2020	Biswas, S., Chandra, S. and Ghosh, I.	"Side Friction Parameters and Their Influences on Capacity of Urban Streets."	International Journal of Transportation Science and Technology. DOI: 10.1016/j.ijtst.2020. 03.007.
12	Dr.Vimal Kumar	2020	V Kumar, KV Kartik, MA Iqbal	Experimental and numerical investigation of reinforced concrete slabs under blast loading	Engineering Structures https://doi.org/10.10 16/j.engstruct.2019. 110125

# (VIII). CONSULTANCY SERVICES:-

Sr. No.	Name of The Test	Sponsored Agency	Amount
1.	Routine Testing of Cement,	HPPWD, IPH, SJVNL, Power Grid	
	Aggregate Samples	Corporation of India, Unipro Techno,	
		Oil Corporation, Govt Contractors	1,47,76,751
2.	Field Testing of Soil Bearing	HPPWD,HP IPH, SJVNL, Power Grid	-
	Capacity and Testing of Various	Corporation of India, Unipro Techno,	
	soil Samples	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,	HPPWD, HP IPH, SJVNL, Power	
	Coarse Aggregate 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	

# (IX). M. Tech Dissertation Guidance:-

# M.Tech Completed in 2019:

# 1. Geotechnical Engineering & Under Structures:

S.No	Roll No.	Name of Student	Name of Guide
1.	17M101	Gyan Garima Singh	Dr. R.K.Sharma
2.	17M102	Rahul Goswami	Dr. R.K.Sharma
3.	17M104	Mohan Bajaj	Dr. R.K.Sharma
4.	17M105	Manish Kumar Yadav	Dr. R.K.Dutta

5.	17M106	Mohammad Saqib Bin Lateef	Dr. R.K.Dutta
6.	17M110	Rohit Chaurasia	Dr. R.K.Sharma
7.	17M111	Ambuj Kumar Shukla	Dr. R.K.Dutta
8.	17M112	Mohammad Naushad	Dr. R.K.Sharma
9.	17M113	Smriti Sagar	Dr. R.K.Dutta
10.	17M114	Neelesh Kumar	Dr. R.K.Dutta

#### 3. STRUCTURAL ENGINEERING:

S.No	Roll No	Name of Student.	Name of Guide
1.	17M121	Shashidhara	Dr. H.K.Vinayak
2.	17M122	SajidMasoom	Dr. A. K. Roy
3.	17M123	Desh Deepak Verma	Dr. A. K. Roy
4.	17M125	Deep Kumar Sharma	Dr. H.K.Vinayak
5.	17M126	P. V. Aditya	Dr. V.K.Bansal
6.	17M127	Nitin Bhardwaj	Dr. V.K.Bansal
7.	17M128	Jyoti	Dr. Pardeep
8.	17M130	RijulBabbar	Dr. U.K.Pandey
9.	17M131	Honey Verma	Dr. U.K.Pandey
10.	17M132	Vishal Kumar Gupta	Dr. Pardeep
11.	17M133	Alok Tiwari	Dr. K.Nallasivam
12	16M126	Nishant Kumar	Dr. K.Nallasivam

# 3. TRANSPORTATION ENGINEERING:

S. No	Roll No.	Name of Student	Name of Guide
1.	17M141	Sudhir Singh Rana	Dr. Chander Parkash
2.	17M143	Anand Kumar Dogra	Dr. Sunil Sharma
3.	17M144	Burande Akshay Om Prakash	Dr. Sunil Sharma
4.	17M145	Ravi Kant	Dr. Sunil Sharma
5.	17M147	Guneet Saini	Dr. Sunil Sharma
6.	17M148	Abhinandan	Dr. Sunil Sharma
7.	17M149	Shubham Tomar	Dr. Sunil Sharma
8.	17M150	Garima Rana	Dr. Sunil Sharma
9.	17M151	Vikas	Dr. Sunil Sharma
10.	17M152	Anil Chauhan	Dr. V.K.Bansal
11.	17M153	Shahrukh	Dr. Sunil Sharma
12.	17M154	Rohit Attri	Dr. Sunil Sharma
13.	17M155	Laksmi Kumar Bishoo	Dr. Sunil Sharma
14.	17M156	Ruhina Anjum	Dr. Sunil Sharma

# 4. WATER RESOURCE ENGINEERING:

S.No	Roll No.	Name of Student	Name of Guide
1.	17M161	Ram Raj	Dr. Vijay Shankar

2.	17M163	Arvind Kumar	Dr. V.K.Sarda
3.	17M165	Mekharaj Kunwar	Dr. Vijay Shankar
4.	17M166	Sajal Maharshi	Dr. Vijay Shankar
5.	17M167	Saumya Gupta	Dr. V.K.Sarda
6.	17M168	Pratik Gautam	Dr. V.K.Sarda
7.	17M169	Mohamad Umerjan Deva	Dr. Vijay Shankar
8.	17M170	Preeti	Dr. Vijay Shankar
9.	17M171	Nisha	Dr. V.K.Sarda
10.	17M172	Sourabh	Dr. V.K.Sarda
11.	17M173	Shivendra	Dr. Vijay Shankar
12.	17M175	Arindom Das	Dr. V.K.Sarda

# M.Tech Admission in 2019:

S.No	Roll No.	Name of the Student	Name of Guide	Brief Report
Geotech	nical Engineering		·	
1	19M101	PRIYANKA RAWAT	Prof. R.K.Dutta	On Going
2	19M102	AMIT MANRAL	Prof. R.K Sharma	On Going
3	19M103	ARJUN SINGH BHAKUNI	Prof. R.K Sharma	On Going
4	19M104	SUHAIL MUSHTAQ QAZI	Prof. R.K Sharma	On Going
5	19M105	MILIND	Dr. Manendra Singh	On Going
6	19M106	MOHD ASIF	Dr. Manendra Singh	On Going
7	19M107	AKSHAY KUMAR	Dr. J.S.Yadav	On Going
8	19M108	SOFI JUNAID MAJEED	Prof. R.K.Dutta	On Going
9	19M109	SAFEEENA NAZEER	Prof. R.K.Dutta	On Going
10	19M110	GIRDHARI LAL	Dr. Manendra Singh	On Going
11	19M111	SHANTANU SARASWAT	Dr. Manendra Singh	On Going
12	19M112	KESHAV KUMAR	Dr. J.S.Yadav	On Going
13	19M113	ARSHAD IQBAL	Prof. R.K Sharma	On Going
14	19M114	ASIF IQBAL	Prof. R.K Sharma	On Going
15	19M115	VISHAL	Dr. J.S. Yadav	On Going
16	19M116	S MEHRAN RASOOL ANDRABI	Prof.R.K.Dutta	On Going
17	19M117	VISHAL RAGHUWANSHI	Dr. J.S. Yadav	On Going
Structur	al Engineering	•	1	
1.	19M121	VIBHUM MAHAJAN	Dr. A. K. Roy	On Going
2.	19M122	SHIVANI NEGI	Dr.V. K. Bansal	On Going
3	19M123	MUKHTAR AHMED	Dr.V. K. Bansal	On Going
4	19M124	VAIBHAV BHANDARI	Dr.Vimal Kumar	On Going
5	19M125	PAWAN SANJAY CHANGEDIA	Dr.Vimal Kumar	On Going
6	19M126	ABHISHEK	Dr. U.K.Pandey	On Going
7	19M127	NEERAJ KUMAR	Dr.Pardeep Kumar	On Going
8	19M128	PANKAJ CHANDEL	Dr. U.K.Pandey	On Going
9	19M129	INDRESH KUMAR	Dr. U.K.Pandey	On Going

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10	19M130	ROHIT KUMAR	Dr. A. K. Roy	On Going
11	19M131	VIKAS DADHWAL	Dr. Pardeep Kumar	On Going
12	19M132	HARJOT SINGH	Dr. A.K. Roy	On Going
13	19M133	EASHAN PAHSHA	Dr. V. K. Bansal	On Going
14	19M134	NIKHIL SAINI	Dr. Joy Pal	On Going
15	19M135	VIPAN KUMAR	Dr. Pardeep Kumar	On Going
16	19M136	MANINDER PAL SINGH	Dr. Joy Pal	On Going
17	19M137	SANDEEP YADAV	Dr. Joy Pal	On Going
18	19M138	AKSHAY SANKHYAN	Dr. V. K. Bansal	On Going
19	19M139	SHER BAHADUR SINGH	Dr.Vimal Kumar	On Going
Transpor	tation Engineering			
1	19M141	MOHAMMAD SHAHID RAZA	Prof. Raman Parti	On Going
2	19M142	ANUBHAV SINGH	Dr. Sunil Sharma	On Going
3	19M143	ARVIND	Dr. Sunil Sharma	On Going
4	19M144	RAHUL KUMAR PANDEY	Prof. Raman Parti	On Going
5	19M145	AKANKSHA RAWAT	Prof. Raman Parti	On Going
6	19M146	NAVAL KUMAR	Dr. Sunil Sharma	On Going
7	19M147	ANKIT SHARMA	Dr. Sunil Sharma	On Going
8	19M148	VAKUL ANGARIA	Prof. Raman Parti	On Going
9	19M149	AYUSH GAUTAM	Dr. Subhadip Biswas	On Going
10	19M150	SAURABH DHIMAN	Prof. Raman Parti	On Going
11	19M151	SRADDHA MAURYA	Dr. Subhadip Biswas	On Going
12	19M152	AINDLA HARIKA	Dr. Sunil Sharma	On Going
13	19M153	BHAVNA	Dr. Subhadip Biswas	On Going
14	19M154	PRABHAT SHARMA	Dr. Sunil Sharma	On Going
15	19M155	RAHUL KUMAR	Dr. Subhadip Biswas	
16	19M156	SACHIN	Dr. Sunil Sharma	
17	19M157	NIKHIL CHAURASIA	Dr. Subhadip Biswas	
18	19M158	KAPIL VYAS	Dr. Subhadip Biswas	
Water Re	sources Engineeri	ng		
1.	19M161	SHUBHAM BHARDWAJ	Dr.Ray Singh Meena	On Going
2.	19M162	ROHIT	Dr.Ray Singh Meena	On Going
3.	19M163	RACHIT SONI	Dr. Vijay Shankar	On Going
4.	19M164	BHARTI SHARMA	Dr. Joshep Tripura	On Going
5.	19M165	ABHINAV KUMAR	Dr.Ray Singh Meena	On Going
6.	19M166	AMAN PARASHAR	Dr. Vijay Shankar	On Going
7.	19M167	SAKSHAR SHARMA	Dr. Ray Singh Meena	On Going
8.	19M168	ROHIT CHATURVADI	Dr. Joshep Tripura	On Going
9.	19M169	BHAVIT KUMAR SINGH	Dr. Joshep Tripura	On Going
10.	19M170	PRERIT MACHIWAR	Dr. Ray Singh Meena	On Going
11.	19M171	SHIVALI SHARMA	Dr. Vijay Shankar	On Going
12.	19M172	FAIZAN FAYAZ	Dr. Vijay Shankar	On Going

13.	19M173	DEEPAK PANDEY	Dr. Joshep Tripura	On Going
14.	19M174	ANKUSH BHARDWAJ	Dr. Vijay Shankar	On Going

# (X). Ph.D. Admission in 2019:-

S.No.	Name of Student	Research Area	Status	Name of Guide
1	Deepak Awasthi 2k19-Ph.D-CE-418	Road safety assessment and accident prediction countermeasures: a study for highways in Hilly region	On Going	Dr. Raman Parti
2	Japneet Sidhu 2k19-Ph.D-CE-419	Hydrophobic concrete	On Going	Dr. Pardeep Kumar
3	Naynish Pandey 2k19-Ph.D-CE-420	Effect of on-street parking in Urban context	On Going	Dr. A.K.Roy
4	Abhishish Chandel 2k19-Ph.D-CE-421	Investigations on the assessment of the flow through unconsolidated porous media (Borehole samples)	On Going	Dr. Vjay Shankar
5	Gyanendra Kumar Chaturvedi 2k19-Ph.D-CE-422	Rubberised Concrete	On Going	Dr. Umesh Kumar Pandey
6.	Smily Vishvakarma 2k19-Ph.D-CE-423	Wastewater Treatment	On Going	Dr. Dharmendra
7.	Mahendra Kr. Singh Yadav 2k19-Ph.D-CE-424	Application of GIS Dam Location planning	On Going	Dr. Vijay Kumar Bansal
8.	Sonu Singh 2k19-Ph.D-CE-425	Estimation of subsurface characteristics in Hilly regions	On Going	Dr. Joseph Tripura
9.	Anupam Anand Bharti 2k19-Ph.D-CE-426	Analysis of aerodynamic behavior and flutter derivative of long span Bridges	On Going	Dr. A.K.Roy
10.	Gaurav Juneja 2k19-Ph.D-CE-427	Behavior of footing on reinforced sand overlying clay soil	On Going	Dr. R.K.Sharma
11.	Anita Singh 2k19-Ph.D-CE-428	Integrated municipal solid waste management system	On Going	Dr. Chander Parkash
12.	Kumar Vaibhav 2K19-Ph.D-CEEE- 481	Analysis of Existing E-waste disposal in Indian scenario and system Dynamics modeling for sustainable disposal	On Going	Dr. Mamta Awashti

Ph.D Av	Ph.D Award 2019-20						
S.No.	Name of	f Student	Title of the Thesis	Status	Name of Guide		
1.	Suresh Walia, CE90	Kumar 2k9-PhD-	Structural health Assessment of Bridges Using Modal Parameters	Awarded	Dr.H.K Vinayak Dr.Raman Parti		

# (XI) Research Project

Sr. No.	Title of Project	Funding Agency & Amount Sanctioned	Allotment Year & Time	Present Status of the Project/PI	Name of PI/ Co-PI
1.	Application of Geospatial technologies in the development of scientific approach to prioritize Upgradation of roads constructed under PMGSY in HP	State Council for Science, Technology & Environment (SCSTE), H.P. Rs. 1.5 Lacs	3/04/2017 To 31/03/2019	Ongoing	Dr. Sunil Sharma (PI), Dr. V.K. Bansal (Co- PI)
2.	Wind Energy Conversion for Domestic Usage in Himachal Pradesh	State Council for Science, Technology & Environment (H.P.) SDA Complex, Kasumpti, Shimla – 171009 Rs.4.00 Lacs	01/10/2016	Ongoing	Dr.Amrit Kumar Roy
3	Application of Wollastonite micro fiber reinforced self- compacting concrete overlay for rehabilitating District and Village roads in Himachal Pradesh.	State Council for Science, Technology & Environment (SCSTE), Himachal Pradesh Rs.5.052 Lacs	27/12/2017 To 31/12/2019	Ongoing	Dr. Vijay Shankar
4	Sustaining Himalayan Water Resources in a Changing Climate (SusHi-Wat).	Ministry of Earth Sciences (MoES), GOI & Natural Environment Research Council (NERC), UK Rs.56.80 Lacs	18/01/2017 To 31/12/2019	Ongoing	Dr. Vijay Shankar
	Social-economic- environmental trade- offs in managing the Land-River-Interface	Department of Biotechnology, Ministry of Science & Technology, Government of India, Natural Environment Research Council-UK and National Science Foundation, China Rs. 31.382 Lacs	06/08/2019 To 31/08/2021	Ongoing	Dr. Vijay Shankar

5	Project on Geothermal	Department of Science		Ongoing on	Dr. R.S. Banshtu
	Energy "Maintenance/	& Technology Govt. of		extension	
	Operation of	India			
	Demonstration site of	Rs.16,98,000/-	20		
	Heating Space in		2/2018 To 2/2020		
	Chumathang, Laddakh"		2/ T 2		

# (XII) 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 Lab

# (XII) EQUIPMENT/ FURNITURE PURCHASED:

Sr.N	Name of Equipment/	Qty	Name of Manufacturer	Cost in Rs
0.	Furniture			
1.	HE-SPL Universal type Calibrated Load Cell,50 KN Capacity for Geosynthetics Universal Testing Machine	1 No.	Hydraulic & Engineering Instruments Manufacturers of Engineering New Delhi-110028	36750.00
2.	U50 Multi Parameter Kit: Water Quality	1 No.	Aimil Ltd. Instruments &Technologies, Plot No.194- 195,Phase-II Chandigarh	554786.00
3.	Replacement of upper plate of compression and site calibration	1 No.	Hydraulic & Engineering Instruments Manufacturers of Engineering New Delhi-110028	92040.00
4.	HP800 G4 A/O Touch i7 win 10 Pro 814 with 4gb gfx 8cc8490BCV	1 No.	SM Enterprises first floor 5502- 5/2,Amabala Cantt-133001	134865.00
5	Lab Scale Model No.PGB200	1 No.	M/S Disha Enterprises Anu Hamirpur HP	14868.00
6	PH Meter Bench-top Model No.LMPH-10	1 No.	Do	14160.00

# 3.3 DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



#### 1. ACADEMIC STAFF:

HEAD: Dr. T.P.Sharma

# **FACULTIES:**

Professor	Associate Professor	Assistant Professor Grade – I / II	
Dr. Lalit Kumar Awasthi	Dr. Mrs. Kamlesh Dutta	Sh. Rajeev Kumar	
(Director NIT Hamirpur)	Dr. Narottam Chand	Sh. Nitin Gupta	
(Additional Charge)	Dr. T.P. Sharma	Dr. Pardeep Kumar	
,	Dr. Siddhartha Chauhan Dr. Naveen Chauhan Dr. Divakar Yadav	Dr. Lokesh Chouhan( on contract)	
		Dr. Nagendra Partap Singh	
		Dr. Dharmendra Prasad Mahato	
		Dr. Jatoth Chandrashekar	
		Dr. Basant Subba	
		Dr. Parkash Choudhary	
		Dr. Arun Kumar Yadav	
		Dr. Vijay Kumar	
		Dr. Priyanka	
		Dr. Jyoti Srivastava	
		Dr. Sangeeta Sharma	
		Dr. Mohit Kumar	

#### 2. DISTINCTION ACHIEVED:

- a) By student:
- 1. Navneet Gupta (B.Tech. 2009-2013) joined GOOGLE as a software engineer.
- 2. **Sanya Dhingra (B.Tech. )** and **Prakriti Gupta (Dual Degree)** Joined Adobe India on 42.5 LPA package.
- 3. **TEN students** selected for Prestigious Google Summer of Code.
- 4. **Neelam Dayal, (M.Tech. 2014)**, joined IIITDM Jabalpur as an Assistant Professor.
- 5. Riya and Abhishek (M.Tech.) joined IIT Kharagpur as a JRF and a PhD student respectively.
- 6. Publications by students (B.Tech. or M.Tech. Only):
  - a. **Sushant Sharma, (Dual Degree),** published his M.Tech. Thesis work in "Internet Technology letter, Wiley", ESCI Indexed Journal
  - b. **Riya, (M.Tech Mobile Computing),** published her M.Tech. Thesis work in, "Peer to Peer networking and Applications, Springer", SCI Indexed Journal, IF 2.398 and a book chapter in upcoming book from CRC press, USA.

#### **Publications by faculty Member:**

- Dr. Kamlesh Dutta received Best Paper Award in, "Evaluating The Performance of Various Machine Learning Algorithms for Detecting DDoS Attacks in VANETS", in the 3rd International Conference on Innovations in Computing held on 12-13 December 2019 at CGC College of Engineering, Mohali, India
- 2. **Dr. Nagendra Pratap Singh** received Best Summer Internship award 2019 (Student Name: Ms. Kavya Nagpal, D/O Sh. Rakesh Nagpal, Jaypeey University)
- 3. Sh. Nitin Gupta, Elevated to IEEE Senior Member.

#### Journals/ Books/Book Chapters Publications:-

- 1. Krishan Pal Sharma and **T.P. Sharma**, "Dynamic load tuning for energy-hole avoidance in corona model for a wireless sensor network," Inderscience International Journal of Sensor Networks, vol. 30 issue 1, pp 56-68, 2019. (SCIE)
- 2. Rajeev Singh and **T.P. Sharma**, "Present Status of Distributed Denial of service (DDoS) Attacks in Internet World," International Journal of Mathematical, Engineering and Management Sciences, vol. 4. no. 4, pp1008-1017, 2019. (Scopus)
- 3. Rajeev Singh, Sudeep Tanwar and **T.P. Sharma**, "Utilization of Blockchain for mitigating the Distributed Denial of Service (DDoS) Attacks," Wiley Journal of Security and Privacy, pp. 1-13, 2019. (ACM Guide to Computing Literature (ACM))
- 4. Rajeev Singh and **T.P. Sharma**, "An Overview of WLAN Security," International Journal of Scientific & Technology Research, vol. 8, issue 11, pp. 1348-1352, 2019. (Scopus)
- 5. Mohammad Ahsan, Madhu Kumari and **T. P. Sharma**, "Rumors Detection, Verification and Controlling Mechanisms in Online Social Networks: A Survey," Elsevier (Science Direct) Online Social Networks and Media (OSNEM), vol. 14 (2019) 10 0 050, pp. 1-12, 2019. (SCIE)

- 6. Mohammad Ahsan, Madhu Kumari and **T. P. Sharma**, "Detection of Context-Varying Rumors on Twitter through Deep Learning," Journal of Advanced Science and Technology (IJAST), vol. 128, pp. 45-58, 2019. (SCI)
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- 75. Nancy Chauhan, Vidushi Agarwal, Amitosh Swain Mahapatra, and **Lokesh Chouhan**, "Applications of Machine Learning in Wireless Sensor Networks," Accepted for Publication in, International Journal of High Performance Computing and Networking, Inderscience, June 2020.
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#### **Conference Publications:**

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- 2. Kaushik Adhikary, Shashi Bhushan, Sunil Kumar, and **Kamlesh Dutta**, "Evaluating the Performance of Various Machine Learning Algorithms for Detecting DDoS Attacks in VANETs", in 3rd International Conference on Innovations in Computing, ICIC 2019, CGC, Mohali, Punjab [Best Paper Award].
- 3. Triveni Lal Pal and **Kamlesh Dutta**, "Aspect-based Text Classification Approach" In Proc. of ICAREMIT-2020, pp 220-225, ISBN-978-81-933433-9-5, 2020.
- 4. **Dharmendra Prasad Mahato**, Jasminder Kaur Sandhu, **Kamlesh Dutta**: Distributed routing for underwater wireless sensor networks using cuckoo search-ant colony optimization, Proceedings

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- Anamika Sharma and Siddhartha Chauhan, "Grid Scrutinize based Heuristic Sensor Node Scheduling Protocol with Partial Coverage Constraint in WSN," 4th International Conference on Internet of Things and Connected Technologies (ICIoTCT), 2019, Malaviya National Institute of Technology (MNIT), Jaipur, India.
- 7. Nilanshi Chauhan and **Siddhartha Chauhan**, "Building Dominating Sets to Minimize Energy Wastage in Wireless Sensor Networks," 4th International Conference Information, Communication & Computing Technology (ICICCT2019), New Delhi India.
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- Parnika Bhat, Kamlesh Dutta, Sukhbir Singh: Mapl Droid: Malicious Android Application Detection based on Naive Bayes using Multiple Feature Set, 2nd IEEE International Conference on Intelligent Communication and Computational Techniques (ICCT), Jaipur, 2019.
- 11. Prem Kumari, **Nagendra Pratap Singh, Divakar Yadav,** "Image Enhancement: A Review", 4th International Conference on Recent Advancement in Computer Communication and Computational Sciences (RACCCS-2019), 17-18 Aug 2019, Ajmer India, pp. 347-355.
- 12. Pawan Kumar Mall, PK Singh, and **Divakar Yadav**, "GLCM Based Feature Extraction and Medical XRAY Image Classification using Machine Learning Techniques" IEEE Conference on Information & Communication Technology, Dec 6-8, 2019 IIIT Allahabad.
- Arvind Pillania, Pardeep Singh and Vrinda Gupta, "Optimizing Stream Data classification using improved Hoeffding Bound," First International Conference on Advanced Communication & Computational Technology- 2019 (ICACCT-2019), December 6-7, 2019, SCOPUS.
- 14. Ankit Guleria, Radhika Sood and **Pardeep Singh**, "Automatic Keyphrase Extraction using SVM," First International Conference on Advanced Communication & Computational Technology- 2019 (ICACCT-2019), December 6-7, Pages 945-956, 2019.SCOPUS.
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- 21. Dharmendra Prasad Mahato, Jasminder Kaur Sandhu, Gitanshu and Kamlesh Dutta, "Distributed Routing for Underwater Wireless Sensor Networks Using Cuckoo Search-Ant Colony Optimization", in the 9th International Workshop on Computing and Networking for IoT and Beyond in conjunction with the 21st International Conference on Distributed Computing & Networking (ICDCN 2020) Jadavpur University, Kolkata, India, https://doi.org/10.1145/3369740.3372757, Conference Rank: Core B and Tier-II.
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- 26. PK Bhagat and **Prakash Choudhary**, An Efficient Image Bag Generator for Multi-instance Multi-label Learning, 42nd International Convention CIS Intelligent Systems, Opatija. Croatia, IEEE, Scopus, 2019.
- Abhishek Hazra, Prakash Choudhary, Arjun Choudhary, Diagnosis of Chest Diseases in X-Ray images using Deep Convolutional Neural Network, 10th ICCCNT, IIT Kanpur, IEEE, Scopus, 2019.
- 28. Sanasam Inunganbi, **Prakash Choudhary** and Khumanthem Manglem, Manipuri Handwritten Character Recognition by Convolutional Neural Network, Computer Vision and Image Processing, MNIT Jaipur, Springer, 2019.

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- 33. Pratibha, Akanksha Gahlot, Suraina Dhiman, Uprant, and **Lokesh Chouhan**, "Crime Prediction and Analysis," 2nd International Conference on Data, Engineering and Applications 2020 (IDEA-2k20), SIRT, RGPV, Bhopal, Conference date: Feb 28-29, 2020.
- 34. Amita and **Lokesh Chouhan**, "Computational Offloading Scheme in Mobile Edge Computing," 1st International Conference on Advancement in Engineering Sciences 2019, School of Electronics and Communication Engineering, Shri Mata Vaishno Devi University, Katra, Conference date: Sep 28-29, 2019.
- 35. Pankaj Kumar and **Lokesh Chouhan**, "A Survey of Privacy and Security Issues in Internet of Things (IoT)," 1st International Conference on Advancement in Engineering Sciences, School of Electronics and Communication Engineering, Shri Mata Vaishno Devi University, Katra, Conference date: Sep 28-29, 2019.
- 36. Vishnu Kumar Prajapati and **Lokesh Chouhan**, "Integration of Wireless Sensor Network with Internet of Things," 1st International Conference on Advancement in Engineering Sciences, School of Electronics and Communication Engineering, Shri Mata Vaishno Devi University, Katra, Conference date: Sep 28-29, 2019.
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- 38. Amita and **Lokesh Chouhan**, "Security Issues and Challenges in Internet of Things," 1st National Conference on Innovations in Applied Science and Engineering National Institute of Technology (NIT), Jalandhar, Conference date: April 27-28, 2019.
- 39. Pavan Bansal, Bimalkant Lauhny, Yash Chaudhary and **Lokesh Chouhan**, "A Survey on Cloud Federation Architecture and Challenges," International Conference on Social Networking and Computational Intelligence (SCI-2K18), Lecture Notes in Networks and Systems book series (LNNS, volume 100), Springer, Singapore, Online ISBN: 978-981-15-2071-6, RGPV Bhopal, Conference date: March 8- 9,2019.

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

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

Sponsoring	Name of the	Title of the Seminar/symposia	Duration
Agency	Co-ordinator		
NIT, Hamirpur	Dr. Siddhartha Chauhan	Software Freedom Day	Sep 17-18 2020
NIT Hamirpur	Dr. Divakar Yadav	Faculty Development Programme on "Research Trends in Al and Mobile Systems (RTAIMS-19),	Dec 16-21, 2019
DST (ICPS)	Dr. Chandrashekar Jatoth	Blockchain Technology and Its Applications (BCTA-2019)	Jul 8-17 2019
DST	Dr. Basant Subba	Advances in Artificial Intelligence and Machine Learning (AI-ML 2019)	Aug 10 – 12, 2019
NIT Hamirpur	Dr. Priyanka	Research Trends in Al and Mobile Systems (RTAIMS)	Dec 16-21 2019

# (b) Participated by Faculty Members:

Name of the Staff	Course/Seminar	Organization	Duration	Venue
Dr. Nagendra Pratap	FDP on "Block Chain Technology	NIT Hamirpur	Two week	Department
Singh	and its applications"	(H.P.)	08-07-2019 to	of CSE, NIT
			17-07-2019	Hamirpur
				(H.P.)
Dr. Chandrashekar	Recent trends in Artificial	NIT Hamirpur	5 days	NIT
Jatoth	Intelligence and Machine			Hamirpur
	Learning			
Nitin Gupta	FDP on Deep Learning and	EICT Academy,	27 May - 31,	NIT
	Applications	IIT Roorkee	May 2019	Hamirpur
		through NKN at		
		NIT Hamirpur,		

# 4. RESEARCH Projects:

Title of the Scheme	Sponsored by	Assistance Received (Rs) in lakh	Investigator
Information Security Education and Awareness (ISEA) Project Phase-II (May 2015 to Present)	Ministry of Electronics and Information Technology, Govt of India	36.23	Dr. Narottam Chand

Compressed Wavelet Tree Based	UPCST Lucknow	10.44	Dr. Sonam Gupta (PI)
Semantic Spatial Search			Dr. Divakar Yadav (Co-PI)
			Dr. Arun Kr Yadav (Co-PI)
BCTA-2019	DST (ICPS)	Rs. 9L	Dr. Chandrashekar Jatoth
Smart Gluco Binder: Design and	DST	Rs. 3,14,116/-	Dr. Vijay Kumar
Synthesis of Small Glucose Binder			
Molecule using Computational			
Intelligence Approach			
Efficient Fire Detection	HIMCOSTE, Shimla(HP)	5,60,000/-	Dr. Siddhartha Chauhan,
Mechanism using Wireless Sensor			Principal Investigator
Networks			

# 5. Research Supervision

Master thesis completed: 55

Sr.	Title	Guide	Name of the	Brief Report
No			student	
1.	Author Attribution Using Stylometry Based on Adleman Lipton Model	Dr. Kamlesh Dutta	Jyoti Prakhar	Completed
2.	Recurrent Neural Network and LSTM based Machine Translation of Hindi to Pahari dialect of Kangra Region	Dr. Kamlesh Dutta	ShivamKainth	Completed
3.	Outlier Detection over GPS Data using Kalman Filter and Isolation Forest method	Dr. Kamlesh Dutta	Vishal Choudhary	Completed
4.	Semantic Entities and Relation extraction from Sentences using improved Word2vec approach	Dr. Kamlesh Dutta	Pinak Sharma	Completed
5.	Evaluation of Dialog Systems based on Al Werewolf Game	Dr. Kamlesh Dutta	Arzoo	Completed
6.	Machine Learning Based Intrusion Detection System for Internet of Things	Dr. Narottam Chand	Deepa Rani (18M513)	Completed
7.	Target Detection in Wireless Sensor Network	Dr. Narottam Chand	Debasmita Manna (18M526)	Completed
8.	Symmetric Key Encryption Based Passive IoT Authentication Protocol using Self-Powered Timers	Dr. Narottam Chand	Nimit Bhardwaj (15MI506)	Completed
9.	Flood Prediction and Warning Using Internet of Things	Dr. Narottam Chand	Vinod Kumar (15MI507)	Completed
10.	Improving Shortest Path	Dr. Narottam Chand	Surbhi (15MI515)	Completed
11.	ConvNet based Blood Pressure estimation from Photoplethysmography Signal	Dr. Siddhartha Chauhan	Kushagra Gusain (Roll No. 18M506)	Completed
12.	Two Step Verification Technique for detection and Isolation of Blackhole attack in MANETs	Dr. Siddhartha Chauhan	A Sai Venkateshwar Rao (Roll No. 18M511)	Completed
13.	Online Charging Scheme in Wireless Rechargeable Sensor Network	Dr. Siddhartha Chauhan	Ashutosh Dubey (Roll No. 15Ml537)	Completed
14.	Energy Efficient Routing Protocol for Wireless Sensor Network using Meta-Heuristic Technique	Dr. Siddhartha Chauhan	Sakshi Pushkar (Roll No. 15MI548)	Completed

15.	Blackhole Detection and Its Isolation in Mobile Ad- Hoc Networks	Dr. Siddhartha Chauhan	Sobhan S Kothari (Roll no. 15MI551)	Completed
16.	Sentiment Analysis for Social Media Using Natural Language Processing	Dr. Divakar Yadav	Seema Singh	Completed
17.	Super Resolution of Single Image Using Deep Convolutional Neural Networks on Google Colab	Dr. Divakar Yadav	Shashank Gupta	Completed
18.	Mining Frequent Itemset on Temporal Data	Dr. Divakar Yadav	Tripti Tripathi	Completed
19.	Permissioned Blockchain-Based Incentive Distribution Scheme for Cooperative Sensing in CRN	Sh. Nitin Gupta	Archit Jain	Completed
20.	Efficient Caching Method in Fog Computing for Internet of Things Network	Sh. Nitin Gupta	Riya	Completed (With SCI and Book Chapter Publication)
21.	Federated Learning Based Caching Scheme for Fog Computing	Sh. Nitin Gupta	Sushant Sharma	Completed (With ESCI Publication)
22.	Optimal Cache Placement using Gradient Descent method in Wireless Sensor Networks	Sh. Nitin Gupta	Mohit Patyal	Completed
23.	Image Forgery Detection	Dr. Lokesh Chouhan	AkshayM.Tech. (CSE) 18M508	Completed
24.	Use of EDGE Computing in IoT	Dr. Lokesh Chouhan	Prashant Gupta M.Tech. (CSE	Completed
25.	Detection and Classification of BOTNE	Dr. Lokesh Chouhan	Rashi Shah M.Tech. (CSE) 15MI528	Completed
26.	Blind Image Deblurring using Smoothing	Dr. Lokesh Chouhan	Pramod Kumar Singh M.Tech. (CSE) 15MI547	Completed
27.	A Hybrid frame work for gender detection using Skin Patches	Dr. Nagendra Pratap Singh	Himanshu Sharma Roll No. 18M510	Completed
28.	A Morphological Operator Based Image Contrast Enhancement Technique	Dr. Nagendra Pratap Singh	Amandeep Singh Roll No. 15MI539	Completed
29.	Segmenting Retinal Blood Vessels Using Birnbaum-Saunders PDF	Dr. Nagendra Pratap Singh	Sunidhi Roll No. 15MI513	Completed
30.	Gender Prediction from Offline Handwriting using Enhanced LBP Technique	Dr. Nagendra Pratap Singh	Raj Rahi Roll No. 15MI530	Completed
31.	A Novel method of providing variable amount of computation to avoid side-channel attacks using Rubik's cubes	Dr. Dharmendra Prasad Mahato	Paritosh Roy	Completed
32.	Scalable and Balanced Leader Election	Dr. Dharmendra Prasad Mahato	Saurabh Rashpa	Completed
33.	Simple and Time-optimal Leader Election	Dr. Dharmendra Prasad Mahato	Prafull Dhiman	Completed
34.	Acceptance-based Leader Election for Adversarial Players in Asynchronous Network	Dr. Dharmendra Prasad Mahato	Mayank Kumar Singh	Completed
35.	Bi-level Optimization of Resource Allocation and Appliance Scheduling in Residential Areas Using Fog of Things (FOT) Framework	Dr. Chandrashekar Jatoth	Ankur Jain	Completed

36.	Cloud service composition based	Dr. Chandrashekar	Anubhav Markanday	Completed
	on QoS using Hybrid Improved Whale Optimization Algorithm	Jatoth		·
37.	Energy-aware virtual machine allocation using modified invasive weed optimization	Dr. Chandrashekar Jatoth	Gautam Kumar Poddar	Completed
38.	Novel Chaos Theory Based Hybrid Lstm Model For Bitcoin Price Prediction	Dr. Chandrashekar Jatoth	Gopal Khatri	Completed
39.	Detecting/Monitoring Psrkinson's Disease In Smart Region	Dr. Chandrashekar Jatoth	Amar Kumar	Completed
40.	A Hybrid Architecture of Wavelet Decomposition and CNN for Multi-Focus Image Fusion	Dr. Prakash Choudhary	Ashita Batra	Completed
41.	Performance Analysis between Apache Tez and Apache Spark	Dr. Prakash Choudhary	Apurav Sen	Completed
42.	A tool to build Vocabulary using Spaced Repetition Learning	Dr. Prakash Choudhary	Gourav Kandoria	Completed
43.	Disease detection in a Chest X-ray using Deep Learning	Dr. Prakash Choudhary	Shubham Sharma	Completed
44.	Development of Wild Animal Detection Technique Using Machine Learning Approaches	Dr. Vijay Kumar	Lalit Yadav	Completed
45.	Forest Fire Detection Using Machine Learning Techniques	Dr. Vijay Kumar	Naresh Kumar	Completed
46.	Visual Quality Improvement using Single Image Defogging Technique	Dr. Vijay Kumar	PritamVerma	Completed
47.	Repurposing Blockchain Mining for Data Preservation	Dr. T.P. Sharma	Vishal Bhardwaj (Dual Degree: 15MI543)	Completed
48.	Connectivity Restoration in Wireless Sensor Networks	Dr. T.P. Sharma	Prashant Arora (Dual Degree: 15MI544)	Completed
49.	Coverage Enhancement in Wireless Sensor Networks Using Mobile Sensors	Dr. T.P. Sharma	Gaurav Kumar (Dual Degree: 15MI531)	Completed
50.	Data Driven Synchronization for IoT Systems	Dr. T.P. Sharma	Shagun Dogra (MTech MC: 18M529)	Completed
51.	Effective Bio-Inspired Routing for Flying Ad Hoc Networks	Rajeev Kumar	Anvesh Anand (Dual Degree)	Completed
52.	Ant Colony Based Energy Efficient Algorithm for WSN	Rajeev Kumar	Anant Vikram Singh (Dual Degree)	Completed
53.	NBA Game Result Prediction using Feature Analysis and Machine Learning	Rajeev Kumar	Alka (Dual Degree)	Completed
54.	Facial Expression Recognition using Hybrid Deep Convolutional Neural Network	Rajeev Kumar	Ashwani Kumar (Dual Degree)	Completed
55.	Brain Tumor Classification in MRI Images Using Transfer Learning	Rajeev Kumar	Aaditya Pundir (M.Tech CSE)	Completed

# 6. DOCTORAL PROGRAMME:

Doctoral Programme: Submitted: 4 & In Progress: 19

Ph.D Degree awarded: 2

Sr. No	Title	Guide	Name of the student	Brief Report
1.	Semantic Interplay in Text Document	Dr. Kamlesh Dutta	Triveni Lal Pal	Ongoing
2.	Information Security	Dr. Kamlesh Dutta	Parnika Bhat	Ongoing
3.	Natural Language Processing	Dr. Kamlesh Dutta	Chetan Agarwal	Ongoing
4.	Time Synchronization in Wireless Sensor Networks	Dr. Narottam Chand	Dr. Gopal Chand Gautam	Awarded in August 2019
5.	Security in Wireless Mobile Ad-hoc Network	Dr. Siddhartha Chauhan	Shashi Gurung	Awarded PhD on 7/8/2020.
6.	Enhancing Security and Privacy for Robust Internet of Things (IoT)	Dr. Lokesh Chouhan	Pankaj Kumar 2K17-PhD-342	Ongoing
7.	Integration of cloud and internet of things	Dr. Lokesh Chouhan	Amita 2K18-PhD-399	Ongoing
8.	Not yet finalized	Dr. Lokesh Chouhan	Vishnu Kumar Prajapati 2K19-PhD-471	Ongoing
9.	Medical Image Procssing	Dr. Nagendra Pratap Singh	K. Susheel Kumar	Ongoing
10.	Wait-Free Consensus Algorithm	Dr. Dharmendra Prasad Mahato	Radha Rani	Ongoing
11.	Drug Traceability Using Blockchain Technology	Dr. Chandrashekar Jatoth	M. Sreenu	Ongoing
12.	Sentiment Based Information Diffusion in Online Social Networks	Dr. T.P. Sharm	Mr. Mohammad Ahsan	Submitted on 06.07.2020
13.	Dynamic and Fault Tolerant Topology for Efficient Data Dissemination in IoV	Dr. T.P. Sharma	Ms. Richa	Ongoing
14.	Resource Optimization in Opportunistic Networks	Dr. Naveen Chauhan	Mr. Prashant	Awarded
15.	Internet of Things	Dr. Naveen Chauhan	Mr. Himanshu	Ongoing
16.	Improving Data Availability in Internet of Vehicles Environmen	Dr. Naveen Chauhan	Mr. Nishant Sharma	Ongoing
17.	Body Area Networks	Dr. Siddhartha Chauhan	Ms. Deepshikha	Submitted
18.	Surveillance Wireless Sensor Networks	Dr. Siddhartha Chauhan	Ms. Anamika	Submitted
19.	Energy Efficient Protocols in Wireless Sensor Networks	Dr. Siddhartha Chauhan	Ms. Nilanshi Chauhan	Ongoing
20.	Lifetime Enhancement of Wireless Sensor Networks	Dr. Siddhartha Chauhan	Mr. Piyush Rawat	Ongoing
21.	Coreference Resolution for Hindi	Dr. Pardeep Singh	Ms. Kusum Lata	Ongoing

22.	Text Summarization for Hindi	Dr. Pardeep Singh	Ms. Namarta Kumari	Ongoing
23.	Causality Reference in Text	Dr. Pardeep Singh	Mr. Poonam Kashtariya	Ongoing
24.	Game Theory and machine learning based IDS frameworks for wireless network	Dr. Basant Subba	Mr. Yogendra Kumar	Ongoing
25.	Wait-Free Consensus Problem	Dr. Dharmendra Prasad Mahato	Ms. Radha Rani	Ongoing
26.	Energy Efficient Operation s in Wireless Sensor Networks	Dr. Naveen Chauhan	Mr. Rajeev Kumar	Submitted

#### 7. Visit of Renowned Speakers:

- Prof. R.K Shyamasundar, Fellow of IEEE, JC Bose National Fellow, Distinguished Professor, IIT Bombay.
- Prof. Tomohisa Wada, Dean at Engineering University of the Ryukyus, Okinawa, Japan
- Prof. G C Nandi, IIIT Allahabad
- Prof. Pradip K. Das, IIT Guwahati
- Dr. Debarka Sengupta, IIIT Delhi
- Dr. Vishwas Patil, Senior Research Scientist, IIT Bombay
- Mr. Sumit Puntambar, Founder and CEO of ZeroBlocks, Hyderabad.
- Mr. Anil singh, Blockchain Architect, Bangalore.
- Mrs. Shalmali Ayachit, Senior consultant, Talensprint, IIIT Hyderabad

#### 8. CONSULTANCY SERVICES:

Sr.	Name of the Scheme	Sponsored Agency	Amount
No			Earned
1.	CBS and Allied Services to KCCB Dharamshala, HP	KCCB Dharmashala	Rs. 11,32,356
2.	Migration from IPv4 to IPv6 of 27 LANs and Applications and websites of RINL, VIZAG Steel, Vishakhapatnam	RINL, VIZAG Steel, Vishakhapatnam	20 Lacs
3.	Establishment of ATMs, EFT switching and Allied Services to Punjab State Cooperative Bank and DCCBs.	PSCB Chandigarh	1.2 Lacs

#### 9. EQUIPMENT ACQUIRED:

Sr. No	Name of equipment	Name of manufacturer	Cost (Rs. In lakh)
	NIL		

#### 5. TECHNICAL ASSOCIATION / SOCIETIES:

- Dr. Narottam Chand: Senior Member, IEEE USA, Fellow, IE India
- **Dr. Lokesh Chauhan:** Member, IEEE. Member of Computer Society, Member of Communication Society. Association for ComputingMachinery (ACM). Institution of Engineers (India) [IEI].
- Dr. Jatoth Chandrashekhar Member of IEEE, Member of ACM
- Dr. Priyanka Member IEEE, Mentor IEEE YP Delhi section
- Nitin Gupta Senior Member IEEE, Communication Society, Vehicular Technology Society, and Member ACM

#### 5. 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 of the Department : Dr. Veena Sharma,

Ph.D

#### **FACULTIES:**

Professor	Associate Professor	Assistant Professor
04	06	09

Sr.No	Name	Designation	Qualification	Specialization
1.	Dr.Yog Raj Sood	Professor	Ph.D	Power system & Al Applications to Deregulation of Power System
2.	Dr.Sushil Chauhan	Professor	Ph.D	Power System
3.	Dr.Ram Naresh Sharma	Professor	Ph.D	Power System
4.	Dr. Ashwani Kumar Chandel	Professor	Ph.D	Electric Power Quality & Harmonics
5.	Dr. Zakir Hussain	Associate Professor	Ph.D	Power System
6.	Dr. Ravinder Nath	Associate Professor	Ph.D	Signal processing & Control Engg.
7.	Dr. Veena Sharma	Associate Professor	Ph.D	Instrumentation & Control Engg.
8.	Dr. R. K. Jarial	Associate Professor	Ph.D	Power Electronic & Drives
9.	Dr. B. B. Sharma	Associate Professor	Ph.D	Control Engineering
10.	Dr. O. P. Rahi	Associate Professor	Ph.D	Power System
11.	Dr. Amit Kaul	Assistant Professor	Ph.D	Signal Processing & Control Engineering
12.	Dr. Himesh Handa	Assistant Professor	Ph.D.	Instrumentation & Control Engg.
13.	Er. Rajesh Kumar	Assistant Professor	M. Tech.	Power System

14.	Er. Bharti Koul	Assistant Professor	M. Tech.	Power System
15.	Dr. Manisha Sharma	Assistant Professor	Ph.D	Power System
16.	Dr. Chandrasekaran S.	Assistant Professor	Ph.D	Power System
17.	Dr. Anil Kumar Yadav	Assistant Professor	Ph.D.	Control System
18.	Dr. Rajan Kumar	Assistant Professor		Power Electronics, Electrical Machines & Drives
19.	Dr. Ram Niwas Mahia	Assistant Professor	Ph.D.	Networked Control Systems

#### Patents -NITs

Name of NITs	No. of Patents Acquired	2019-20
National Institute of Technology,		
Hamirpur (HP).		

#### Research Publications -NITs

Name of NITs	Publications	2019-20
National Institute of Technology,	National Journal	1
Hamirpur (HP).	International Journals	20
	National Conference	1
	International Conference	11
	No. of Books Published	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	Duration	Venue
		•		

b) Participated by faculty members:

Name of the Faculty	Course/Seminar	Organization	Duration	Venue
/ staff Member				
Dr. Yog Raj Sood	AICTE Sponsored	NITTTR	Expert lecture	Department of
(Participated by delivering expert	Course on "Modeling and Real Time	Chandigarh	delivered on 7 Nov. 2019	Electrical Engineering NITTTR Chandigarh
lectures)	Implementation of Electrical Systems".		1404. 2013	Will Tit Onandigam
Dr. Yog Raj Sood (Participated by delivering expert lectures)	Faculty Development Programme	PTU Jalandhar	9-13 Dec. 2019 (Two expert lectures delivered on 12 Dec. 2019	PTU Jalandhar
Dr. Yog Raj Sood (Participated by delivering expert	Expert lecture delivered on "Development of Green	Veer Surendra Sai University	Expert lecture delivered on 9 Nov. 2019	Department of Electrical
lectures)	Micro Grid in	of Technology:	3 NOV. 2019	Engineering, Veer
	Deregulated Power	Odisha		Surendra Sai
	= = = = = = = = = = = = = = = = = = = =			University of

	Industry"			Technology: Odisha
Dr. Rajan Kumar	Advancements in Signal Processing and Optimization Techniques	Ministry of Electronics and Information Technology (MeitY), Govt. of India	03 June – 07 June 2019	NIT Hamirpur
Dr. Anil Kumar Yadav	One week FDP on "Advancements in Signal Processing and Optimization Techniques"	Ministry of Electronics & Information Technology (MeitY), Gov. of India	09-07, June, 2019	NIT Hamirpur
Dr. Himesh Handa	Workshop on Control & Simulation	IIST Thiruvanantpura m, Kerala	16-20, December, 2019	IIST Thiruvanantpuram, Kerala
Dr. Amit Kaul	Workshop on Control & Simulation	IIST Thiruvanantpura m, Kerala	16-20, December, 2019	IIST Thiruvanantpuram, Kerala

# 2. Research:

# a) Research Scheme:

Title of the scheme	Sponsored by	Assistance received (Rs. In lacs)	Investigator	Brief Report
Solution techniques to unit commitment problems in power system.	CSIR vide no.22 (0815)/19/EMR- II dated 02/12/2019 Date of project Initiation 01-03- 2020	2,47,000	Prof. Ram Naresh Sharma	One SRF at a fellowship @Rs 35000 per month is permitted. Process for recruitment of SRF is on.
Rapid and Precise Detection of Grid Voltage Amplitude and Phase forLVRT Capability in PV Systems1	CSIR, New Delhi	24.71	Dr. Chandrasekaran S.	Duration:2018-21
Synchronization in Complex Interconnected Network of a Class of Systems Using Contraction Theory	DST-SERB, New Delhi	18,91,802/-	Dr. B.B.Sharma	Ongoing since March, 2019
Automatic Recognition of Dialects of Himachal Pradesh	HIMCOST, Shimla	4.65	Dr. Amit Kaul, P.I. & Dr. R. Nath, Co. P.I.	Completed March, 2020.
Micro Grid Implementation	IEDC (DST Delhi)		Dr. R.K.Jarial	Ongoing till 30/09/2019

- b) Research publication:2. Ph.D Degree awarded: 13. Doctoral programme (Ongoing):

Sr. No.	Tentative Title	Guide	Name of the student(s)	Brief Report
1.	Optimal Planning and Sensitivity Analysis of Hybrid Green Microgrid	Dr. Yog Raj Sood	Sumit Sharma Regular	The candidate got registered in 2018 in EED and working in area of optimal planning of hybrid green microgrid with islanded mode and grid connected mode. Different renewable technologies would be included in the planning and sensitivity analysis of the microgrid system. The software used in this study is HOMER.
2.	Forecasting & Techno economical design of SPV based Systems	Dr Yog Raj Sood & Dr R K Jarial,	Mr. Shafqat Mughal (Part Time)	The candidate got registered in 2017 in EED and working in area of Forecasting techniques for Solar radiations at a given location under several variants and parameters that should be included while design and development of any SPV interfaced power system applications meant for harnessing solar energy.  Several forecasting techniques have been tried and testing for nearly real time operation of SPV System by considering case studies at BGSMS, Rajouri (J & K) site.
3.	Optimal Operation of Deregulated Power Sector incorporating Wind and Solar energy	Dr. Yog Raj Sood	Ankur Maheshwari (Full Time)	The candidate got registered in 2019 in EED and completed his course work requirement in his first year. He has developed and validated OPF software using PSO.
4.	Grid Synchronization Techniques	Dr R K Jarial & Dr Chandrasekaran S.	Mr Anant K Verma (P/T)	The candidate was registered in 2016 in EED and working in area of Developing algorithms for Grid Synchronization requirement in SPV interfaced Single phase and three phase Smart Inverters systems that are quite often being employed for harnessing solar energy for SPV - Grid Interface applications. A number of closed loop based grid synchronization algorithm based techniques are

				prevalent. The candidate is focusing on Open loop PLL based Grid Synchronization techniques with advantages of robustness and nearly optimized efficient solutions for reliable operation under fault and steady state circuit situations. The candidate has already completed his State of Art. Now, He is planning for Open Seminar in near future.
5.	Microgrid design and implementation	Dr R K Jarial	Mr Bhumaiah Jula (Full Time)	The candidate got registered in 2019 in EED and trying complete his course work requirement being in first year. He is trying explore possible research topic and keen to work in area of Renewable Systems specifically Microgrid Design & implementation aspects.
6.	Control and synchronization of dynamical systems (Tentative)	Dr. Himesh Handa	Pallav Sahay	The candidate got registered in 2019 in EED and has completed his course work. He is trying to explore possible research topic and keen to work in the area of control and synchronization of dynamical systems.
7.	Grid Integration of DG Systems	Dr. Chandrasekaran S	Manish Kumar	Comprehensive exam is completed and submitted two conference papers.
8.	Grid Synchronisation Techniques	Dr R K Jarial & Dr.Chandrasekaran S.	Anant Kumar Verma	Ongoing ( off campus scholar)
9.	Design & Performance Analysis Of Solar Power System	Dr YR Sood & Dr.R K Jarial	Shafquat Mughal	Ongoing ( off campus scholar)
10.	Modeling and Analysis of Wind Turbine based Multi- phase Induction Generator for Dispersed Generation and Utility Grid Application"	Dr. Zakir Husain	Mr. Neeraj Mishra	Ongoing
11.	Combining Esoteric and Traditional biometrics for Human Authentication	Dr. Amit Kaul	Akhil Walia	Ongoing
12.	Model Predictive Controller Based	Dr. Veena Sharma	Amita Singh	Ongoing ( off campus scholar)

13.	Frequency Regulation of Renewable Energy Sources Integrated Power System  Performance analysis and island detection in distribution power system		Nimish Bhatt	Ongoing
14.	Solution techniques to unit commitment problems in power system integrated with renewable energy sources	Dr. R. N. Sharma	Vineet Kumar	Ongoing
15.	Optimal operation and planning of green micro-grid in deregulated power sector	Dr. Y. R. Sood	Sumit Sharma	Ongoing
16.	Speed control of senseless BLDC Motor	Dr. Chandrasekaran S.	Manish Kumar	Ongoing
17.	State estimation in distribution system	Dr. Ashwani Kumar Chandel	Sukriti Tiwari	Ongoing
18.	Automatic Voltage Regulator control using MPC	Dr. Veena Sharma	Vineet Kumar	Ongoing
19.	Non-Invasive Disease Diagnosis	Dr. Amit kaul	Piyush Mahajan	Ongoing

4. M.Tech. thesis completed:

Sr.No.	Title	Guide	Name of the student(s)	Brief Report
1.	Modeling and Control of Renewable Energy Sources for Hybrid Microgrid	Dr. Yog Raj Sood	Aashish Goyal (17M202)	The mathematical models PV, wind, and hydro have been presented in the thesis and have been simulated to institute a hybrid microgrid by the use of MATLAB/ Simulink software. The individual models of PV, wind and mocrohydro system were also simulated. The simulation of integration of these models was analyzed.
2.	Optimal Distribution System Reconfiguration, DG Sizing and Placement Using Meta-Heuristic Techniques	Prof. Ashwani Kumar	Sridhar Batlu (17M203)	Present work proposes an efficient meta-heuristic particle swarm optimization (PSO) with binary method for reconfiguration of the distribution network to obtain a reduction in losses as compared to the normal network topology. The technique has been applied to the radial distribution systems such as IEEE 16-bus, 33-bus, and 69-bus.
3.	Hybrid Technique for Fault Classification and Location combining Wavelet Transform and Support Vector Machine for a distribution network	Prof. Ashwani Kumar	Satyajit Panigrahy (17M204)	Electric power systems have rapidly grown for the past fifty years. Distribution systems are constantly exposed to fault events because of different reasons, for example, lightning strike, failure of power system parts and human error. To improve the dependability of a distribution system, precise recognizable proof of a faulted segment is required so as to lessen the intrusion time interruption time during fault. Rapid and exact fault location assumes a significant job in quickening system reclamation, lessening blackout time, decreasing money related misfortune and altogether improving

				system dependability.
4.	A Novel Approach for Performance Enhancement of Partially shaded Solar Arrays	Dr. Zakir Husain	Vadodaria Kishan Subhashbhai (17M205)	From the results of all the cases considered for simulation and all the methods taken for comparison, it can be concluded that PRM-FEC scheme is better compared to Su Do ku method and TCT interconnection scheme. Reasons for declaring PRM-FEC as the best compared to the other two are mainly twofold.
5.	Management of Renewable Energy Based on Frequency Control of Microgrid	Dr. Yog Raj Sood	Ankur Maheshwari (17M207)	In this dissertation, a control strategy for renewable energy sources within mi-crogrid was examined in both grid-connected and isolated mode. These renewable energy sources are interfaced with the microgrid with the help of three phase-controlled inverters. The simulation results verify the importance control strategy based on frequency control of microgrid.
6.	Development of a Micro grid with Integration of Renewable Energy Sources and Energy Storage Systems	Dr. Y.R.Sood	Mukesh Singh (17M208)	In this research thesis, different type of ESS have been discussed. Their characteristic properties have been discussed and compared. Their utilization is also discussed. From all this study we can conclude that ESS plays a vital role in the stable operation of the micro grid. These days micro grid is supplying energy to the main grid where different kinds of loads are connected, some are very sensitive load which need uninterrupted power supply as we know that renewable sources are intermittent in nature so we cannot supply continuous power to these loads, here we need some storage devices to provide continuous power. ESS also ensures the stability

				of micro grid.  Different microgrid models have been studied in MATLAB Simulink to know the characteristics and functioning of ESS, and outcomes are addressed accordingly.
7.	Optimization of Wind Integrated Power Dispatch using Time varying Differential Evolution	Dr. Manisha S.	S.S.Kushwaha (17M212)	A Time — CTUBE varying Differential Evolution is suggested in this paper for solving the economic dispatch problem incorporating wind. The suggested TVDE algorithm is an unpretentious, effective, consistent and dominant population-based actual constrain optimization procedure that could be applied extensively in altered engineering arenas. The presentation of TVDE algorithm depends on the most important control parameters, that is crossover rate, mutation factor and population size. In this optimization model, wind uncertainty costs are also included. A comparison between other published results based on HN, HFPA are compared with TVDE. The strategy 3 is also compared with other strategies like 1 and 2 and it is found that the TVDE using strategy 3 gives best performance of the system and minimize the cost in wind integrated dispatch with fast convergence.
8.	Robust control of position and speed of DC servomotor	Dr. Veena Sharma	Vineet Kumar (17M226)	The techniques used for the DC servomotor control are, pole placement, linear quadratic regulator and model predictive control. The modeling and mathematical description of these techniques have been given along with the

				mathematical model of DC servomotor. Since the servomotors work in closed-loop, the stability is always an important issue in the case of servomotors. So, this study aims at work regarding the improvement of the stability and transient response of DC servomotor.
9.	Output Feedback Based Synchronization of a Class of Nonlinear Systems	Sharma	MeghaJiddewar (17M227)	In this dissertation, output feedback based control strategy has been explored. Practically, states information is inestimable even if they are observable. In such cases, it is advisable to design a controller based on output because it is always computable. Here, Feedback controller and parameter updation laws are developed based on the Lyapunov stability theorem to synchronize master and slave system when all the parameters are assumed to be uncertain.
10.	A Robust Algorithm for Glaucoma Detection using Fundus Images		Shivesh Medhawa Shukla (17M228)	In this work an algorithm has been proposed with aim to incorporate maximum biological markers while keeping in mind limitation of image processing techniques. Modified version of Mahfouz-Fahmy algorithm named as reduced search space approach is used to localize optic disc in digital fundus image. Various steps of preprocessing, enhanced contrast, removes vertical edge generated due to small blood vessels and small cluster of exudates at some location other than inside optic disc.
11.	Synchronization of similar and dissimilar fractional order chaotic systems using non-linear control	Dr. Himesh Handa	Rahul Joshi (17M229)	Synchronization of various fractional order chaotic systems has been carried. Several systems like Rossler, Lorenz, Chen, Genesio

Management Using Spontaneous Synchronization  Spontaneous Synchronization  Management Using Spontaneous Synchronization  Synchronization  Management Using Spontaneous Synchronization are discussed and a traffic management scheme is explored using spontaneous synchronization where oscillators (intersections) coordinate together to maintain the vehicular flow. The traffic intersection has been modelled as a coupled oscillator. To maintain the uninterrupted flow of vehicles, signals change their timings. The proposed system is very efficient in reducing the mean vehicle delay and it is confirmed through the results obtained after simulations.  14. Chaotic system synchronization using non-linear feedback control  Dr. Himesh Handa (17M233)  Vikash Ranjan (17M233)  Various aspects of Synchronization of chaotic systems have been carried. Non-linear control strategy like hybrid control has been considered to address the problem of synchronization for chaotic systems.  15. Development of Health Dr. Yog Raj Sood Mr. Karan Parmar In this thesis, the candidate has					systems have been
12. MPC Based Temperature Control of CSTR Process    Process					•
f CSTR Process  I temperature control of ČSTR using model predictive controller and comparing the results with a conventional PID control. A mathematical model of the system is formulated for both ideal and non-ideal operation of the reactor considering dead space and bypass problems of the reactor considering dead space and bypass problems of the reactor end then control the parameter of the process Spontaneous Synchronization  13. Traffic System Management Using Spontaneous Synchronization Synchronization Synchronization Synchronization Synchronization Synchronization  Synchronization  Synchronization  Dr. Himesh Handa Vikash Ranjan (17M233)  Traffic management synchronization are discussed and a traffic management scheme is explored using spontaneous synchronization where oscillators (intersections) coordinate together to maintain the vehicular flow. The traffic intersection has been modelled as a coupled oscillator. To maintain the uninterrupted flow of vehicles, signals change their timings. The proposed system is very efficient in reducing the mean vehicle delay and it is confirmed through the results obtained after simulations.  14. Chaotic system Synchronization using non-linear feedback control  Traffic Management of Health Dr. Health Dr. Yog Raj Sood Mr. Karan Parmar In this thesis, the candidate has	12.		Dr. Veena Sharma	Utwav Kumar	This dissertation basically,
Management Using Spontaneous Synchronization  Sharma  (17M232)  fundamentals of spontaneous synchronization are discussed and a traffic management scheme is explored using spontaneous synchronization where oscillators (intersections) coordinate together to maintain the vehicular flow. The traffic intersection has been modelled as a coupled oscillator. To maintain the uninterrupted flow of vehicles, signals change their timings. The proposed system is very efficient in reducing the mean vehicle delay and it is confirmed through the results obtained after simulations.  14. Chaotic system synchronization using non-linear feedback control  Dr. Himesh Handa (17M233)  Vikash Ranjan (17M233)  Various aspects of Synchronization of chaotic systems have been carried. Non-linear control strategy like hybrid control has been considered to address the problem of synchronization for chaotic systems.  15. Development of Health Dr. Yog Raj Sood Mr. Karan Parmar In this thesis, the candidate has				(17M231)	temperature control of CSTR using model predictive controller and comparing the results with a conventional PID control. A mathematical model of the system is formulated for both ideal and non-ideal operation of the reactor considering dead space and bypass problems of the reactor and then control schemes like PID and MPC are studied in detail, which are later implemented to control
synchronization using non-linear feedback control  Synchronization of chaotic systems have been carried. Non-linear control strategy like hybrid control has been considered to address the problem of synchronization for chaotic systems.  Development of Health Dr. Yog Raj Sood Mr. Karan Parmar In this thesis, the candidate has	13.	Management Using Spontaneous			scheme is explored using spontaneous synchronization where oscillators (intersections) coordinate together to maintain the vehicular flow. The traffic intersection has been modelled as a coupled oscillator. To maintain the uninterrupted flow of vehicles, signals change their timings. The proposed system is very efficient in reducing the mean vehicle delay and it is confirmed through the results obtained
15. Development of Health Dr. Yog Raj Sood Mr. Karan Parmar In this thesis, the candidate has	14.	synchronization using non-linear feedback	Dr. Himesh Handa	•	Various aspects of Synchronization of chaotic systems have been carried. Non-linear control strategy like hybrid control has been considered to address the problem of synchronization for
HIMON EVALUATION   LITTUREDOT   THICHANGA VERTICAS TECHNICA U	15.	Development of Health Index Evaluation	Dr. Yog Raj Sood	Mr. Karan Parmar (17M253)	In this thesis, the candidate has analyzed various features of

	Model based on Multi- feature Condition monitoring of Power Transformer			condition monitoring of Power Transformer. The health index evaluation model was developed.
16.	Investigation on Stability Control of Wind Integrated Power System	Dr. Zakir Husain	R Rupesh Kumar (17M254)	This thesis focus on the Investigation on condition assessment and stability control of wind integrated power system. The transient stability of power system are investigate by taking different configurations and suppress the oscillations by using proper facts devices and finds to the right location to install FACT devices for damps out the oscillations of both single and multi machine two area system and design the controller to mitigate the uncertainty occurs on system by managing the gains of synchronous machine voltage regulators for better characteristics.
17.	Comparative Analysis of random PWM Techniques for Multi- Level Inverters	Dr. Zakir Husain	Subham Chib (17M255)	In this thesis, simulation based study of RPWM technique has been done. Harmonic spectrum of output voltage for different combinations of modulation waves and carriers at different modulation indices has been analysed and compared for a 9 level CHB MLI. DC BUV and THD of output line voltages and currents has also been analysed. From the simulation studies, it is observed that RPWM has very good properties as compared to conventional technique, but in the case of over modulation, both techniques has somewhat similar characteristics up to some extent.

18.	Duval pentagon based user friendly expert system for Dissolved gas analysis of oil filled	Prof. R. N. SHARMA	SHILVI (17M256)	The student developed a duval pentagon based user friendly expert system for dissolved gas analysis of oil filled power transformer.
19.	Performance Analysis of Alternative liquid and Solid Dielectrics of Power Transformer	Dr. Zakir Husain	Abhishek Dogra (17M259)	In this research work, a mixture of mineral oil and natural ester oil in 80:20 ratio by volume is used as liquid insulation and is referred as mixed oil hereafter. The BDV test and tensile strength test of the insulating paper were conducted on the aged paper samples as per the their standards. The Dissipation factor and resistivity test of the artificially aged mixed oil containing different insulating papers were also conducted.
20.	Analysis of Various Methods for Residual life Assessment of Paper Insulation in Power Transformer.	Dr. Veena Sharma	Deepak Kanumuri (17M260)	The aging in the paper insulation is determined by mechanical strength or tensile strength of the solid insulation and is measured in terms of its Degree of Polymerization (DP). The traditional method for determining DP is called the direct method and it requires actual paper samples therefore making it costly and intrusive. Recently an indirect method is used, which estimates the DP value from the furan compounds dissolved in the oil and this is an non-intrusive process.
21.	Performance Assessment of Nomex-410 and Kraft paper insulation thermally aged in Rapeseed Based Ester oil	Dr. Manisha Sharma	Rajesh Roshan (17M261)	Comparative performance of Nomex-410 and Kraft paper thermally aged in rapeseed based natural ester oil has been done. Paper insulation comprises of 75-80% cellulose and remaining part is lignin. Nomex paper Is more thermally stable at higher temperature than Kraft paper. Nomex paper has higher

				tensile strength than Kraft paper. Actually, transformers are operated under various stresses such as electrical, mechanical, thermal and chemical, But in this work, only thermally stressed sample has been taken into account.
22.	Health Index Estimation of Power Transformers By using Adaptive Neuro-Fuzzy Approach	Dr. Manisha Sharma	T.S.Pradeep (17M262)	In this work, The results obtained by ANFIS model are compared with scoring method for the error calculation of RMSE and MAPE which are 0.023405 and 3.41117, respectively, The less error prediction approach of ANFIS model is implies that the model can be trained for large number of transformer datasets. Hence, the proposed model is useful for calculating transformer HI value accurately and HC can precisely monitored
23.	An Artificial Intelligence Based Transformer Furan Content Assessment	Dr. Zakir Husain	Vivek Kumar (17M263)	This thesis demonstrated, the use of Fuzzy logic and UV-Vis spectroscopy for estimating the concentration of furfural in transformer oil. It is observed that the spectral response of 'UV-Vis spectroscopy' is strongly corelated with furan concentration. The experimental results from various research papers provided an opportunity to for developing a novel artificial intelligence fuzzy logic expert system for abetter and more easier technology to estimate furan in transformer oil. The result so obtained from expert system is copared with test result and it is found that it is 96% accurate.

#### Popular lectures by outside experts:

Sr.No.	Date	Speaker	Topic	
1	5-6, Nov. 2019	Dr. D. P. Kothari	"Energy and Environment Problems Facing	the
			third World and their probable Solutions	for
			Sustainable Development and Poverty Alleviation"	

5. Consultancy services:

Sr.No.	Name of the scheme	Sponsored agency	Amount earned
1   1   1   1   1   1   1   1   1   1	Under TIFAC CORE,EED NITH, On Power Transformer Diagnostics, 4 Job order related to Transformer health diagnosis related enquiries were received during 2019-20. But due to unfavorable circumstances, the field substation related tasks could not be completed	HPSEBL, Shimla	Nil

#### 5. Technical association / societies :

Prof.(Dr.) Y.R Sood -

Dr. Ashwani Chandel -

Senior Member IEEE, USA

Fellow of Institution of Engineers (India),

Life Member, Indian Society for Technical Education (ISTE)

Member Power Globe

Member IEEE Indian Council

Senior Member International Association of Computer science and

Information Technology (IACSIT)
Member IEEE Education Society
Member IEEE Power & Energy Society

Member IEEE Dielectrics and Electrical Insulation Society

Member IEEE Sensors Council

Member IEEE Council of Superconductivity Member IEEE Nanotechnology Council

Fellow Member, International Institute of Education & Management Fellow IE(I), Fellow IETE, LM ISTE, LM Metrology Society of India.

**Dr. Ravinder Nath** - Fellow (IE): F-117078-5; Life Member ISTE:LM13062

**Dr. R.K. Jarial** - Member , IEEE DEIS, USA Member, IEEE PES,USA ,

Member, ISTE (Life Member) and

Member, AMIE, India

**Dr. B.B.Sharma** - Member, IEEE and Member IEEE (Control System Society)

**Sh. Rajesh Kumar** - Member Instrument society Of India (LM-1958) and

Member the Institution Of Engineers(INDIA) (AM-0998683)

**Dr. Chandrasakar S.** - Member, IEEE Reviewer, IEEE Power Electronics

**Dr. Anil Kumar Yadav** - Member, IEEE and Member, The Institution of Engineers (India).

Dr. Rajan Kumar - International Awards (01)

Awarded as Young Scientist by the Department of Science & Technology, Govt. of India to participate in 4th BRICS Young Scientist Conclave held in Rio de Janeiro, Brazil during 06-08

November 2019.

Membership of Societies (02)

Member, IEEE

Associate Member, IE (India)

#### **List of Publication**

#### (a) Research papers published in International Journals

- (1) Amita Singh, Veena Sharma, PreetiDahiya and Ram N. Sharma, "Model predictive based load frequency control of interconnected power systems," Recent Advances in Electrical and Electronic Engineering, vol. 11, no. 3, pp. 322-333, 2018.
- (2) Amita Singh and Veena Sharma, "Salp Swarm Algorithm Based Model Predictive Controller for Frequency Regulation of Solar Integrated Power System,". Neural Computing and Applications, Springer (Accepted for publication on 7th Aug. 2019). https://doi.org/10.1007/s00521-019-04422-3 (DOI: 10.1007/s00521-019-04422-3).
- (3) PreetiDahiya, Sandeep Dogra, Veena Sharma, Harish Pulluri, N. Gouthamkumar and U. Mohan Rao, "Performance Analysis of Classical Controllers Tuned Using Heuristic Approaches for Frequency Regulation", Applications of Computing, Automation and Wireless Systems in Electrical Engineering, Lecture Notes in Electrical Engineering 553, 2019. <a href="https://doi.org/10.1007/978-981-13-6772-4\_40">https://doi.org/10.1007/978-981-13-6772-4\_40</a>
- (4) Deepak Kanumuri, Veena Sharma and O. P. Rahi, "Analysis Using Various Approaches for Residual Life Estimation of Power Transformers", International Journal on Electrical Engineering and Informatics Volume 11, Number 2, June 2019.
- (5) AnujBanshwar, Naveen Kumar Sharma, Yog Raj Sood, Rajnish Shrivastava, "An International experience of Technical and Economic aspects of Ancillary Services in Deregulated Power Industry: Lessons for Emerging BRIC Electricity Markets", accepted for publication in Renewable & Sustainable Energy Reviews, Elsevier publishers, ISSN: 1364-0321, Impact Factor 8.050.
- (6) AnujBanshwar, Naveen Kumar Sharma, Bharat Bhushan Sharma, Yog Raj Sood, RajnishShrivastava, "Mixed GA-OPF based Optimal Procurement of Energy and Operating Reserve in Deregulated Environment", Journal of Intelligent & Fuzzy Systems, IOS Press, Netherlands, ISSN: 1064-1246, Impact Factor 1.426, SCIE. (DOI:10.3233/JIFS-169780)
- (7) Naveen Kumar Sharma, AnujBanshwar, Bharat Bhushan Sharma, Yog Raj Sood, RajnishShrivastava, "Mixed GA-OPF based Prioritized Optimal Location and Rating of Wind Power Generation in Deregulated Electricity Market" Journal of Intelligent & Fuzzy Systems, IOS Press, Netherlands, ISSN: 1064-1246, Impact Factor 1.426, SCIE. (DOI:10.3233/JIFS-169791)
- (8) Souvik Roy, AnujBanshwar, Naveen Kumar Sharma, Yog Raj Sood, "Simultaneous Optimization of Renewable Energy Based Pumped Storage Scheme in Energy and Ancillary Services Market under Deregulated Power sector" Journal of Intelligent & Fuzzy Systems, IOS Press, Netherlands, ISSN: 1064-1246, Impact Factor 1.426, SCIE. (DOI:10.3233/JIFS-169787)
- (9) S. Selvakumar, M. Madhusmita, C. Koodalsamy, S. P. Simon and Y. R. Sood, "High-Speed Maximum Power Point Tracking Module for PV Systems," in IEEE Transactions on Industrial Electronics, vol. 66, no. 2, pp. 1119-1129, Feb. 2019, (SCI, SCOPUS) impact factor 7.503.
- Digambar Singh, Yog Raj Sood, and Deepak, "Recent Techno-Economic Potential and Development of Solar Energy Sector in India," accepted for published in IETE Technical Review. Taylor and Francis, pp.1-12, March 2019. (SCI, SCOPUS) (DOI: https://doi.org/10.1080/02564602.2019.1596043) Impact Factor 0.829.

- (11) Jasmine Kaur, Yog Raj Sood, RajnishShrivastava. "Optimal Resource Utilization in a Multi-Microgrid Network for Tamil Nadu State in India". IETE Journal of Research, Taylor & Francis, ISSN: 0377-2063, 2019, p.1-11 DOI:10.1080/03772063.2019.1595182. (SCI, SCOPUS) Impact Factor 0.829
- (12) Jasmine Kaur, Yog Raj Sood, and Rajnish Shrivastava. "Emerging Green Energy Potential: An Indian Perspective." Applications of Computing, Automation and Wireless Systems in Electrical Engineering, Springer, Vol. 553, 2019, p. 91-96, Print ISBN: 978-981-13-6771-7, Online ISBN 978-981-13-6772-4, (SCOPUS, Springer Link) Impact Factor (SJR: 0.134)
- (13) Om Prakash Yadav, Jasmine Kaur, Naveen Kumar Sharma and Yog Raj Sood. "Renewable Energy Management in Multi-microgrid Under Deregulated Environment of Power Sector" Applications of Artificial Intelligence Techniques in Engineering, Springer, ISBN: 978-981-13-1819-1, pp.289-302,2019. (SCOPUS) DOI: 10.1007/978-981-13-1819-1\_28.
- (14) Shafqat Mughal, Yog Raj Sood, R.K.Jarial (2018) A review on Solar Photovoltaic technology and future trends, International Journal of Scientific Research in Computer Science Engineering and Information technology(IJSRCSEIT-2018), Vol 4, Issue1, ISSN: 2456-3307(UGC APPROVED)
- (15) Hassan M.S., Mughal S.N., Jarial R.K., Sood Y.R. (2019) A Comparative Analysis of Different Maximum Power Point Tracking Algorithms of Solar Photovoltaic System, Applications of Computing, Automation and Wireless Systems in Electrical Engineering. Lecture Notes in Electrical Engineering, vol 553. Springer, Singapore.pp.217-229 (Print ISBN 978-981-13-6771-7; Online ISBN 978-981-13-6772-4), (SCOPUS, Springer Link) Impact Factor (SJR: 0.134)
- (16) Mughal S.N., Sood Y.R., Jarial R.K. (2019) Design and Techno-Financial Analysis of Solar Photovoltaic Plant for School of Engineering and Technology at BGSB University, Rajouri (J&K), Applications of Computing, Automation and Wireless Systems in Electrical Engineering. Lecture Notes in Electrical Engineering, vol 553. Springer, Singapore. pp. 231-243 (Print ISBN 978-981-13-6771-7 ;Online ISBN 978-981-13-6772-4), (SCOPUS, Springer Link) Impact Factor (SJR: 0.134)
- (17) Jasmine Kaur, Yog Raj Sood, and Rajnish Shrivastava. "Optimal Resource Management of Microgrids in a Competitive Market Environment Using Dual Layer Control Approach." Electric Power Components and Systems, Taylor and Francis, Print ISSN: 1532-5008 Online ISSN: 1532-5016, (accepted and in press), (SCIE, SCOPUS) Impact Factor (SJR: 0.345).
- (18) Ashutosh Bhadoria, Vikram Kumar Kamboj, Manisha Sharma and S.K. Bath " A Solution to Non-convex/ Convex and Dynamic Economic Load Dispatch Problem Using Moth Flame Optimizer" INAE Letters, Springer, June 2018, volume 3, Issue 2, pp 65-86.
- (19) Anil Kumar Yadav and Prerna Gaur, "Modified IMC Technique for Nonlinear Uncertain Milling CNC Machine Tool System," The Arabian Journal for Science and Engineering, 2019. doi.org/10.1007/s13369-019-03984-7
- (20) Pawan Kumar Pathak and Anil Kumar Yadav, "Design of battery charging circuit through intelligent MPPT using SPV system," Solar Energy, vol. 178, pp. 79-89, 2019.
- (21) Anil Kumar Yadav, Pawan Kumar Pathak, Sneha V. Sah and Prerna Gaur, "Sliding Mode based Fuzzy Model Reference Adaptive Control Technique for an Unstable System," Journal of The Institution of Engineers (India): Series B, vol. 100, no. 2, pp. 169-177, 2019.

- (22) H. Handa, Controller design scheme for stabilization and synchronization of a class of chaotic and hyperchaotic systems in uncertain environment using SMC approach", International Journal of Dynamics and Control, volume 7, issue 1, pp. 256-275, March 2019.
- (23) Jaswal, Gaurav, Amit Kaul, and RavinderNath. "Multiple feature fusion for unconstrained palm print authentication." *Computers & Electrical Engineering* 72 (2018): 53-78.
- (24) Jaswal, Gaurav, et al. "Bring your own hand: how a single sensor is bringing multiple biometrics together." *Soft Computing* (2018): 1-19.
- (25) V. Sharma, M. K. Shukla, and B.B. Sharma, "Unknown Input Observer Design for a Class of Fractional Order Nonlinear Systems," Chaos, Solitons & Fractals (Elsevier Science), vol. 115, pp. 96-107, Sept. 2018.
- (26) B. B. Sharma and Sharad Mathur, "Synchronization And Message Recovery Scheme For Hyperchaotic System Using Extended Kalman Particle Filter", International Journal of Pure and Applied Mathematics, Volume 120, No. 6, pp. 10719-10743, 2018.
- (27) M. K. Shukla, and B.B. Sharma, "Control and Synchronization of a Class of Uncertain Fractional Order Chaotic Systems via Adaptive Backstepping Control," Asian Journal of Control, vol. 20, issue 2, pp. 707-720, March 2018.
- (28) V. Garg, and B.B. Sharma, "Complete Amplitude Scaling and Projective Synchronization of a class of Nonlinear Dynamical systems," International Journal of Systems, Control and Communications, vol. 9, no. 2, pp. 85-105, Jan. 2018.
- (29) V. Sharma, B.B. Sharma and R. Nath, "Unknown input reduced order observer based synchronization framework for class of nonlinear systems," International Journal of Dynamics and Control, Volume 6, Issue 3, pp. 1111–1125, Sept. 2018 (DOI:10.1007/s40435-017-0354-2).
- (30) Sundaram Kumar and B B Sharma, "Smart Traffic Control and Congestion Management Systems: A Review," International Journal of Innovative Science and Research Technology, Volume 4, Issue 5, pp. 641-646, May–2019 (ISSN No:-2456-2165).
- (31) Megha Jiddewar and B B Sharma, "Adaptive Output Feedback Control Strategy Based Chaotic Synchronization with Parametric Uncertainty," IOSR Journal of Electrical and Electronics Engineering (IOSR-JEEE), Volume 14, Issue 3, pp.43-52, May–June, 2019 (e-ISSN: 2278-1676, p-ISSN: 2320-3331).
- (32) M.K. Shukla, and B.B. Sharma, "Secure communication and image encryption scheme based on synchronization of fractional order chaotic systems using backstepping," International Journal of Simulation and Process Modeling, 13(5), pp. 473–485, Sept. 2018.
- (33) H. Handa, and B.B. Sharma, "Controller design scheme for stabilization and synchronization of a class of chaotic and hyperchaotic systems in uncertain environment using SMC approach," International Journal of Dynamics and Control, Volume 7, Issue 1, pp 256–275, March 2019.
- (34) Sudhanwa Kelkar, and B.B. Sharma, "Encoder-less field-oriented control of permanent magnet synchronous motor by using a full order adaptive state observer", International Journal of Automation and Control 13(6):755, January 2019. DOI:10.1504/IJAAC.2019.10022588.
- (35) Shafqat Mughal, Yog Raj Sood, **R.K.Jarial**, "A review on Solar Photovoltaic technology and future trends", published in International Journal of Scientific Research in Computer Science Engineering and Information technology(IJSRCSEIT-2018), Vol 4, Issue1,2018 (ISSN: 2456-3307)(UGC APPROVED)
- (36) Shafqat Mughal, Yog Raj Sood, **R.K.Jarial**. "Design and techno-financial Analysis of Solar Photovoltaic Plant for School of Engineering & Technology at BGSB University Rajouri (J & K)" published in proceedings of International conference on Manufacturing, Advance computing, Renewable Energy and Communication(MARC-2018),held on 19-20, July, 2018 at HMRITM, New Delhi. [Lecture Notes in Electrical Engineering(SPRINGER)], Vol.553, Springer, Singapore, pp 231-243, (Print ISBN 978-981-13-6771-7, Online 978-981-13-6772-4
- (37) Md.Sabir Hassan, Shafqat Nabi Mughal, R.K.Jarial and Yog Raj Sood "A comparative Analysis of different maximum Power Point Tracking Algorithms of Solar Photovoltaic Systems." published in proceedings of International conference on Manufacturing, Advance computing, Renewable Energy

- and Communication(MARC-2018),held on 19-20, July, 2018 at HMRITM, New Delhi. [Lecture Notes in Electrical Engineering (SPRINGER), Vol.553, Springer, Singapore,pp 217-229, (Print ISBN 978-981-13-6771-7, Online 978-981-13-6772-4)
- (38) Anant K Verma, C. Sekaran and **R K Jarial**, 'A robust open loop frequency estimation method for single phase systems," published in proceedings of International Conference on Intelligent Computing Techniques for Smart Energy Systems (ICTSES 2018) held at Jaipur wef Dec 22-23<sup>rd</sup>, 2018 and considered for inclusion in 'Lecture Notes in Electrical Engineering ( SPRINGER)' in under publication soon
- (39) U. Mohan Rao and **Raj Kumar Jarial**, "Measurement of transformer solid insulation degradation using dilatometry and X-ray diffraction analysis," in International Journal on Measurement, ELSEVIER, Measurement 131 (2019) pp 701-705.
- (40) Pratyush Verma, R K Jarial, "Probabilistic determination of failure of solid insulation paper used in a transformer under external environmental influence," Published in International Journal of Management, Technology and Engineering, Vol8, Issue IX, Sept. 2018 (ISSN No. 2249-7455)pp-446-457.
- (41) Piyus Jain, I. Jena, **R K Jarial**, "Automated Sensory based Farm Condition Assessment System," was presented during 3<sup>rd</sup> Himachal Pradesh Science Congress 2018- Jointly organized by HP Council for Science, Technology & Environment (HIMCOSTE), Shimla & IIT Mandi wef. Oct., 22-23, 2018 in thematic field on Agriculture & Horticulture Sciences by Mr Piyush & I. Jena (B tech IIIrd Year EED Students).
- (42) Ankit Chouhan, **R K Jarial**, U Mohan Rao, "Thermal Performance of Nomex-910 and TUK Insulating Papers in Soya-based Natural Ester oil," International Journal on Electrical Engineering and Informatics (Paper Id- L18-07407) submitted on 16-7-2018 & is under review process.
- (b) Research Papers Presented/Published in international Conferences
- 1) Amita Singh, Veena Sharma and Vineet Kumar, "Meta-heuristic Approaches for Solving Automatic Generation Control Problems: A Brief Review," IEEE 8th Power India International Conference (PIICON), Kurukshetra, 10-12th Dec 2018, India.
- 2) Deepak Kanumuri, Veena Sharma and O. P. Rahi, "Remaining Life Assessment of Solid Insulation in Power Transformer Using Fuzzy Interface System (FIS)", International Conference on Intelligent Computing and Smart Communication (ICSC), 19-21 April 2019.
- 3) Anuj Banshwar, Naveen Kumar Sharma, Jasmine Kaur, Yog Raj Sood, Rajnish Shrivastava, "Sequential Procurement of Energy and Operating Reserve under Competitive Electricity Market", IEEE International Conference on Power Energy, Environment and Intelligent Control (PEEIC-2018) organized by the EN Department, GLBITM. Greater Noida, 13th-14th April 2018.
- 4) Naveen Kumar Sharma, Anuj Banshwar, Jasmine Kaur, Yog Raj Sood, Rajnish Shrivastava, "Economic Profit Maximization by Optimal Allocation and Sizing of WPG in Double Auction Competitive Electricity Market", IEEE International Conference on Power Energy, Environment and Intelligent Control (PEEIC-2018) organized by the EN Department, GLBITM Greater Noida, 13th-14th April 2018.
- Jasmine Kaur, Anuj Banshwar, Naveen Kumar Sharma, Yog Raj Sood, Rajnish Shrivastava, "Strategic Utilization of Resources in a Microgrid in an Uncertain Electricity Market", IEEE International Conference on Power Energy, Environment and Intelligent Control (PEEIC-2018) organized by the EN Department, GLBITM Greater Noida, 13th-14th April 2018.
- 6) Anuj Banshwar, Naveen Kr. Sharma, Bharat Bhushan Sharma, Yog Raj Sood, Rajnish Shrivastava, "Mixed GA-OPF based Optimal Procurement of Energy and Operating Reserve in Deregulated

- Environment", *International Conference* on Signals, Machines and Automation (SIGMA-2018) organized by NSIT, Delhi, India, February 23-25, 2018.
- 7) Naveen Kr. Sharma, Anuj Banshwar, Bharat Bhushan Sharma, Yog Raj Sood, Rajnish Shrivastava, "Mixed GA-OPF based Prioritized Optimal Location and Rating of Wind Power Generation in Deregulated Electricity Market", *International Conference* on Signals, Machines and Automation (SIGMA-2018) organized by NSIT, Delhi, India, February 23-25, 2018.
- 8) Souvik Roy, Anuj Banshwar, Naveen Kr. Sharma, Yog Raj Sood, "Simultaneous Optimization of Renewable Energy Based Pumped Storage Scheme in Energy and Ancillary Services Market under Deregulated Power sector" *International Conference* on Signals, Machines and Automation (SIGMA-2018) organized by NSIT, Delhi, India, February 23-25, 2018.
- Jasmine Kaur, Yog Raj Sood and Rajnish Shrivastava, "Emerging Green Energy Potential: An Indian Perspective", Springer International Conference on Manufacturing Advanced Computing, Renewable Energy and Communication (MARC 2018), organized by HMR Institute of Technology &Management, New Delhi, during 19th – 20th July, 2018.
- 10) Anuj Banshwar, Naveen Sharma Yog Raj Sood, Akhilesh Singh, "Structural Modern Indian Power Sector Reforms: Current Strategies and Future Aspects", Scopus Indexed International Conference on New Technological Opportunities in Networking and Sciences 2018 (NEWTONS 2018), organized by SIT, Pithoragarh, Uttarakhand (India), 08th to 10th June, 2018.
- 11) Anuj Banshwar, Naveen Sharma, Yog Raj Sood, Akhilesh Singh, "A Case study of Condition Assessment of Power Transformer using DGA Analysis", Scopus Indexed International Conference on New Technological Opportunities in Networking and Sciences 2018 (NEWTONS 2018), organized by SIT, Pithoragarh, Uttarakhand (India), 08th to 10th June, 2018.
- 12) Jaswal, Gaurav, et al. "DeepPalm-A Unified Framework for Personal Human Authentication." 2018 International Conference on Signal Processing and Communications (SPCOM). IEEE, 2018.
- 13) Jaswal, Gaurav, Amit Kaul, and RavinderNath. "Multimodal Biometric Authentication System Using Hand Shape, Palm Print, and Hand Geometry." *Computational Intelligence: Theories, Applications and Future Directions-Volume II.* Springer, Singapore, 2019. 557-570.
- 14) ShafqatNabi Mughal, Yog Raj Sood and R.K. Jarial, "Design and Techno-Financial Analysis of Solar Photovoltaic Plant for School of Engineering & Technology at BGSB University Rajouri (J&K)", Springer International Conference on Manufacturing Advanced Computing, Renewable Energy and Communication (MARC 2018), organized by HMR Institute of Technology & Management, New Delhi, during 19th 20th July, 2018.
- Md.Sabir Hassan, Shafqat Nabi Mughal, R.K.Jarial, Yog Raj Sood "A comparative Analysis of different maximum Power Point Tracking Algorithms of Solar Photovoltaic Systems." published in International conference on Manufacturing, Advance computing, Renewable Energy and Communication (MARC-2018), held on 19-20, July, 2018 at HMRITM, New Delhi.
- 16) A. Chantola, M. Sharma, A. Saini, "Integrated Fuzzy Logic Approach For Calculation Of Health Index Of Power Transformer", published in 2nd IEEE conference on Inventive Communication and Computational Technologies (ICICCT 2018), Coimbatore, India, April 20-21, 2018.
- A. Saini, M. Sharma, A. Chantola, "Inter Disc Fault Simulation In Transformer Windings" published in 2nd IEEE conference on Inventive Communication and Computational Technologies (ICICCT 2018), Coimbatore, India, April 20-21, 2018.

- T.S.Pradeep Kumar, M. Sharma, Rajesh Roshan, "Health Index Estimation Of Power Transformers by Using Adaptive Neuro-Fuzzy Approach," 7th International conference on Advancements In Engineering and Technology(ICAET-2019), Sangrur, India, March 15-16, 2019.
- 19) S.S. Kushwaha, M. Sharma, "Optimization of Power Dispatch Incorporating Wind using Time-varying Differential Evolution", 7th International Conference on Advancements in Engineering and Technology (ICAET-2019), Sangrur, India, March 15-16, 2019.
- 20) Pawan Kumar Pathak, Anil Kumar Yadav and Pravendra Tyagi, "Design of Three Phase Grid Tied Solar Photovoltaic System Based on Three Phase VSI," In proceeding of IICPE-2018, MNIT Jaipur, 13th-15th December 2018.
- H. Handa, "Synchronization of similar and dissimilar fractional order chaotic system", 6th International Conference on signal processing and integrated networks, Spin 2019, 7th-8th, march 2019.
- 22) H. Handa, "Synchronization and anti-synchronization of fractional order system", 22 October 2018 ICPEICES 2018, second IEEE International Conference on Power Electronics, Intelligent Control and Energy systems.

# 3.5 DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



## 1 Academic Staff:

Head of the Department :Dr. Ashok Kumar

Ph.D

**FACULTIES:** 

Professor	Associate Professor	Assistant Professor Grade – I / II
Dr. Vinad Kanaan	Sh. K.S. Pandey	Dr. Krishan Kumar
Dr. Vinod Kapoor (on deputation)	Dr. Surender Kumar Soni	Sh. Vinod Kumar
Dr. Rajeevan Chandel	Dr. Ashok Kumar	Dr. P. Daniel
	Dr. Gargi Khanna	Sh. Manoranjan Rai Bharti
	Dr. Ashwani Kumar Rana	Sh. Rakesh Kumar

Sh. Gagnesh Kumar
Dr. Rohit Dhiman
Dr. Anuradha ( On contract)
Dr. Aman Kumar
Dr. Amit Bage
Dr. Dharmendra Singh Yadav
Dr. Chandra Shekhar Prasad
Dr. Saurabh Kumar
Dr. Sankalita
Dr. Abhijit Bhattacharya
Dr. Sandeep Kumar
Dr. Mahesh Angira
Dr. Pushpendra Singh
Dr. Gopal Rawat

### 2. DISTINCTION ACHIEVED

(a) By student: - Nil

(b) By faculty Member: - Nil

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
Scheme for financial assistance for setting up of Electronics and ICT Academies	Dr. Aman Kumar, Dr. Surender Soni & Dr. Amit Bage	Advancement in signal processing and Optimization Techniques	3 <sup>rd</sup> -7 <sup>th</sup> June , 2019
E&ICT Academy, IIT Guwahati	Dr. Saurabh (Jointly organized with Dr. M. R. Bharti & Dr. D S Yadav)	Antenna Trends	01 - 05 July, 2019
IRDT Kanpur U.P.	Dr. Saurabh (Jointly organized with Dr. D S Yadav)	Future Aspect of Electronics and Digital Learning	16-21 Sep., 2019
E&ICT Academy, IIT Roorkee	Dr. D S Yadav , Dr. Gargi Khanna	VLSI Chip Design Hands on using open source EDA	08-12 July , 2019

# a) Participated by Faculty Members:

Name of the Staff	Course/Seminar	Organization	Duration
Dr Aman Kumar	Deep Learning and Applications	Scheme for financial assistance for setting up of Electronics and ICT Academies	27 <sup>th</sup> -31 <sup>st</sup> May , 2019
	Antenna Trends	Scheme for financial assistance for setting up of Electronics and ICT Academies	1 <sup>st</sup> -5 <sup>th</sup> July , 2019
Dr. Chandra Shekhar	Scheme of financial assistance for setting up of Electronics and ICT Academics	MeitY	08 <sup>th</sup> -12 <sup>th</sup> July , 2019
Prasad	Scheme of financial assistance for setting up of Electronics and ICT Academics	MeitY	01 <sup>st</sup> – 05 <sup>th</sup> July , 2019

	One-week FDP on  "Advancements in Signal Processing and Optimization Techniques"	E&ICT Academy,  IIT Roorkee  (Through NKN Infrastructure)	03 <sup>rd</sup> -07 <sup>th</sup> June , 2019
Dr. Manoranjan Rai Bharti	One-week FDP on "Antenna Trends"	E&ICT Academy,  IIT Guwahati  (Through NKN Infrastructure)	01 <sup>st</sup> – 05 <sup>th</sup> July , 2019
	FDP on "Block Chain Technologies and its applications ( BCTA-, 2019)"	Sponsored by DST (ICPS Devision) Organized by DoCSE, NIT Hamirpur	8 <sup>th</sup> -17 <sup>th</sup> , July , 2019
	NKN FDP on "VLSI Chip Design Hands on Using Open Source EDA"	E&ICT Academy, MeitY, Govt. of India, IIT Roorkee	8 <sup>th</sup> -12 <sup>th</sup> , July , 2019
Dr. Saurabh Kumar	NKN FDP on "Antenna Trends"	E&ICT Academy, MeitY, Govt. of India, IIT Guwahati	1 <sup>st</sup> -5 <sup>th</sup> , July , 2019
	NKN FDP on "Advancements in Signal Processing and Optimization Techniques"	E&ICT Academy, MeitY, Govt. of India, IIT Roorkee	03 <sup>rd</sup> -07 <sup>th</sup> , June , 2019
	NKN FDP on "Deep Learning and Applications"	E&ICT Academy, MeitY, Govt. of India, IIT Roorkee	27 <sup>th</sup> -31 <sup>st</sup> , May , 2019
	Block Chain Technologies and its application (BCTA-, 2019)	Department of CSE, NIT Hamirpur	8 <sup>th</sup> -17 <sup>th</sup> July , 2019
<b>2</b>	Antenna Trends	Electronics and ICT Academics	01 <sup>st</sup> -08 <sup>th</sup> July , 2019
Dr. Amit Bage	Advances in artificial intelligence & Machine learning (AIML-, 2019)	Department of CSE, NIT Hamirpur	10 <sup>th</sup> -12 <sup>th</sup> August , 2019

### 4. RESEARCH

## (a) Research Scheme:

Title of the Scheme	Sponsored by	Assistance Received (Rs) in lakh	Investigator	Brief Report
-	-	-	1	-

(b) Research Publication : 50 Publications

(c) **Doctoral Programme** : 34 ongoing

(d) Ph.D Degree awarded : 04

## **DOCTORAL PROGRAMME**:

Sr. No.	Name of Guide	Name of students
1.	Prof. Rajeevan Chandel	Mr.Dilip Singh
2.		Mr. Vinith Chauhan
3.		Ms. Jyoti
4.	Dr. Surender Soni	Mr. Rajesh K. Garg
5.		Mr. Rahul Kumar
6.		Ms. Nikita Sandil
7.		Mr. Vivek Kanwar
8.	Dr. Ashok Kumar	Mr. Ashish Goswami
9.		Ms. Anshu Thakur
10.		Mr. Vinod Kumar
11.	Dr. Ashwani Rana	Ms. Shelja
12.		Ms. Priyanka

13.		Ms. M. Kodeeswari
14.	Dr. Philemon Daniel	Ms. Shefali Saxena
15.		Ms. Sweta Chauhan
16.	Dr. Carai Khanna	Mr. Prateek Asthana
17.	Dr. Gargi Khanna	Ms. Priya Kaushal
18.		Ms. Anchal Thakur
19.	Dr. Rohit Dhiman	Mr. Ashish Singh
20.		Mr. Ajay Kumar
21.	Dr. M. R. Bharti	Ms. Tanuja Dogra
22.	Dr. W. N. Dilarti	Ms. Pramila
23.		Mr. Ashok Kumar
24.	Dr. Krishan Kumar	Mr. Mani Shekhar Gupta
25.	Dr. Kristian Kumai	Ms. Amandeep Kaur
26.		Ms. Nidhi Sharma
27.		Mr. Monish Bhatia
28.	Dr. Anuradha	Deepanshu Kaushal
29.	D , and addition	Ms. Shakshi Anand
30.	Dr. Mahesh Angira	Ms. Raj Kumari
31.	Dr. Rakesh Sharma	Mr. G. Devender
32.	Dr. Aman Kumar	Mr. B. Mohan Rao
33.	Dr. Amit Bage	Mr. Surendra Kumar Gupta
34.	Dr. Dharmendra Singh Yadav	Mr. Prabhat Singh

## (e) POPULAR LECTURES BY OUTSIDE EXPERTS:

Sr. No. Date	Speaker	Topic
1. 24 <sup>th</sup> April , 2019	Er. H.S. Jatana, Head Fab Process, SCL, Dept of Space, under ISRO, SAS Nagar, Punjab	For PG/ Ph.D. students and faculty members in E&CE Department, NIT Hamirpur, under SMDP- C2SD project.

## (f) CONSULTANCY SERVICES:

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

## (g) EQUIPMENT ACQUIRED:

Sr. No.	Name of equipment	Name of manufacturer	Cost (Rs. In lakh)
-	-	-	-

## 5. TECHNICAL ASSOCIATION / SOCIETIES: -NIL -

### 6. DETAIL OF THE LABORATORIES:

Sr. No.	Name of the Laboratory
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



### 1. ACADEMIC STAFF

HEAD Dr. Somesh Kumar Sharma

Ph. D

## **FACULTIES:**

Professor	Associate Professor	Assistant Professor SG – I	Assistant Professor SG – II
Prof. Vinod Yadava	Dr. Rajesh Sharma	Dr. Mohit Pant	Dr. Santosh B. Bopche (On contract)
Dr. Rakesh Sehgal (On Deputation)	Dr. Rajiv Kr. Sharma	Dr. Debasish Das	Dr. Deepak Sharma
Dr. Sunand Kumar	Dr. Somesh Sharma		Dr. Param Singh
Dr. Anoop Kumar	Dr. Sant Ram Chauhan		Dr. Manoj Kr. Sinha
Dr. N.S. Thakur	Dr. Prashant Kumar		Dr. Akhilesh Choudhary
	Dr. Siddhartha		Dr. Ajoy Debberma
	Dr. Varun		Dr. Dilshad Ahmad Khan
	Dr. P.K. Sood		Dr. Rajesh Kumar
			Dr. Laxmikant Yadav
			Dr. Parnika Shrivastava
			Dr. Priydarshi Biplab Kumar

### 2. DISTICTION ACHIEVED:

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

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

(a) Conducted in the Department: Mechanical Engg. Deptt.

Sponsoring Agency	Name of the Co- ordinator	Title of the Seminar/Symposia/STC etc.	Duration	Venue
MHRD	Dr. Varun Goel, Dr. Laxmikant Yadav, Dr. Deepak Sharma	ASTESTC-2020 (Advances in Sustainable Thermal Energy System: Theory & Computation	Feb. 24-28, 2020	Auditorium, NIT Hamirpur (HP)
MHRD	Dr. Mohit Pant, Dr. Santosh B. Bopche	Workshop on Applications of Computational Methods in Mechanical Engineering	March-03-07, 2020	Auditorium, NIT Hamirpur (HP)
HIMCOSTE, Shimla	Dr. Santosh B. Bopche	Workshop on Exposure to Intellectual Property Rights (Patents, Copyrights, Trademarks, Gls) Experts: Mr. Shashi Dhar, Scientist and Ms. Mitanshi Sharma (Project Scientist)	Feb20, 2020	Auditorium, NIT Hamirpur (HP)

#### 4. RESEARCH:

### (a) Research Scheme:

Title of the Scheme	Sponsored by	Assistance Received ₹ (in lakh)	Investigator	Brief Report
Drawing Strategy Canvas for the Global trade of High Technology Products:	DST NSTMIS. New Delhi	11.43 Lakhs	Dr. Somesh Sharma	Ongoing

Study of High Defence Systems funded by DST, New Delhi  Health Care Solid Waste Management Practices in HP: An assessment and development of Strategic Tools	DST SCSTE, Shimla	4.80 Lakhs	Dr. Somesh Sharma	Ongoing
Manufacture of pine needle based fibre boards/particle boards	DST (Govt. of India)	41 Lakhs	Dr. Rajesh Sharma (Co-PI)	Ongoing
Numerical Simulation of Thermoelastic Fracture Problems Using Element Free Galerkin Method	DST (Govt. of India)	16.38 Lakhs	Dr. Mohit Pant	Sanction on Apr-2017, Project Ref. No. : ECR/2017/000131
Early Career Research Award	SERB DST (Govt. of India)	₹ 9,16,970 Lakhs	Dr. Santosh Bhaulal Bopche	Effect of surface protrusions on the collection efficiency of a modified cavity receiver  Sanction on 03-Apr-2017, Project Ref. No. : ECR/2017/000225
Innovation and Entrepreneurship Development Centre, NITH	NSTEDB, DST	₹ 60000/-	Mentor Dr. Santosh B. Bopche	Design, Development and Testing of a Multistage parabolic solar collector
R&D	HP SCSTE, Shimla	₹ 5,35, 000/-	PI-Dr. Santosh B. Bopche and Co-PI Dr. Varun	Solar thermal collection efficiency improvement using multistaging of parabolic dish collector

## (b) Research Publication:

## i) PAPER PUBLISHED BY FACULTY:

S. No.	Name of Faculty	Name of Refereed Journal	National / International	Title of the Paper	Year of Publication
1	Dr. Anoop Kumar	Renewable Energy, SCIE131, 788-799	International	Performance Improvement And Development of Correlation for Friction Factor and Heat Transfer Using Computational Fluid Dynamics for Ribbed Triangular Duct Solar Air Heater.	2019
2	Dr. N.S. Thakur	Green Buildings and Sustainable Engineering. Springer Transactions in Civil and Environmental Engineering 2020, pp47-59.	International	Pine Needles Biomass Gasification Based Electricity Generation for Indian Himalayan Region: Drivers and Barriers",	2019
3	Dr. N.S. Thakur,	Impact of Multi- staggered rib parameter of the 'W' shaped roughness on the performance of solar air heater channel DOI 10.1080/15567036.20 20.	International	Energy Sources Part A Recovery Utilization and Environment Effect.	2019
4	Dr. Rajesh Sharma	Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology	International	Adiabatic Analysis of Microtextured Porous Journal Bearings Functioned with Power Law Fluid Model	July, 2019

	T				
		Year, volume and page number: 2019, 233, 1541-1553			
5	Dr. Somesh Sharma	Case Studies on Transport Policy (Elsevier) 7 (2), 477- 488	SCOPUS	Investigating the moderating effects of multi group on safety performance: The case of civil aviation	2019
6	Dr. Somesh Sharma	Journal of Air Transport Management (Elsevier) 77, 32-38	SSCI (Impact Factor : 2.111	What drives Indian Airlines operational expense: An Econometric Model	2019
7	Dr. Somesh Sharma	International Journal of System Assurance Engineering and Management 10 (2), 212–227	SCOPUS (Impact Factor : 1.14)	AHP-Entropy based priority assessment of factors to reduce aviation fuel consumption	2019
8.	Dr. Somesh Sharma	International Journal of Manufacturing Technology and Management	Inernational	Measuring Constructs useful for studying industrial automation: assessment in terms of performance, In Press Operations  Management	2019
9.	Dr. S. R. Chauhan	Effects of cutting conditions, tool geometry and material hardness on machinability of AISI H13 ysing CBN tool;	International	Materials Today Proceedings (Impress)	March, 2020
10.	Dr. S.R. Chauhan, Dr. Varun,	Using Binary Biodiesel Fuel Blend, J.Energy Resour Technol, 2020, 142 (1): 012201 published online	International	Enhancing Diesel Engine Performance and Reducing Emissions	July, 2019
11.	Dr.S. R. Chauhan	Journal: Optimization Methods in Engineering;	International	An Improved Artificial Neural Networking Architecture	2019

		Proceedings of CPIE, 2019		Approach	
12.	Dr. Siddhartha	Journal of Engineering Tribology Vol. 234 (4), 473-489.	International	Development and Investigation on TransmissionEfficiency of Functionally Graded Materials based Polybutylene Terephthalate Spur Gears	2020
13.	Dr. Siddhartha	International Polymer Processing, Vol 34, Issue 5	International	Mechanical and Fracture Peculiarity of Polypropylene Lene-Based Functionally Graded Materials Manufactured Vis Injection Molding	2019
14.	Dr. Siddhartha	Materials Today : Proceedings pp 908- 912	International	Mechanical Peculiarity of Nano BN Filled Polyster based Homogeneous Nano Compisites and Their FGMs – A Comparative Study	2019
15.	Dr. Varun Goel	Transactions of ASME Journal of Thermal Sciences Engineering and Applications, 11 (3), 031001.	International	Effect of Dimple Intrusions And Curvature Radius of Rounded Corner Triangular Duct on Fluid Flow and Heat Transfer	2019
16.	Dr. Varun Goel	Transactions of ASME Journal of Energy Resources Technology, 141(3), 032204	International	Binary Biodiesel Blend Endurance Characteristics in A Compression Ignition Engine	2019
17.	Dr. Varun Goel	Transactions of ASME Journal of Energy Resources Technology, 141(3), 032203-032203-8.	International	Impact Of Binary Biofuel Blend on Lubricating Oil Degradation in A Compression Ignition Engine	2019
18.	Dr. Varun Goel	Journal of Energy Storage (Elsevier),	International	Performance Evaluation and Optimization of Solar Assisted Air Heater with Discrete	2019

		26, 100978.		Multiple Arc Shaped Ribs	
19.	Dr. Varun Goel	Transactions of ASME J Solar Energy Engineering, 142(3), 031011	International	Innovatively Arranged Curved-Ribbed Solar-Assisted Air Heater: Performance and Correlation Development for Heat and Flow Characteristics	2020
20.	Dr. Varun Goel	Transactions of ASME Journal of Energy Resources Technology, 142(1), 012201.	International	Enhancing Diesel Engine Performance and Reducing Emissions Using Biodiesel Fuel Blend	2020
21.	Dr. Debasish Das	Heat and Mass Transfer, Springer, 56:1293–1306.	International	Experimental Determination of Buoyancy Induced Convection Heat Transfer Characteristics in A Rectangular Cavity With Cylindrical Porous Medium Fixed Between Pin Fins	2020
22.	Dr. Debasish Das	Int. J. Computational Materials Science and Surface Engineering, Vol. 8, Nos. 3/4, 269.	International	Thermo-Mechanical Evaluation of Plasma Sprayedysz-Based Multi-Layered Thermal Barrier Coatings	2019
23.	Dr. Debasish Das	International Journal of Surface Engineering and Interdisciplinary Materials Science Volume 7 • Issue 1	International	Plasma Sprayed WC-12%Co- Coatings for TBC Applications on Diesel Engine Piston	2019
24.	Dr. Santosh B. Bopche	Int. J. Energy and Environmental Engg., Springer (ESCI, SCOPUS)	International	Experimental Investigations on Thermal Performance Characteristics of A Solar Cavity Receiver	Sept., 2019
25.	Dr. Santosh B. Bopche	Emerald Wourld Journal of Engg. (ESCI and SCOPUS)	International	Experimental Evaluation Study of Collection Efficiency of Cavity Receivers Vol. 17 (Issue 2), 2020, Pp. 161–173	2020

26.	Dr. Param Singh	International Journal of Precision Technology	Internationa	Micro-EDM Performance of Inconel 718 Superalloy With and Without Ultrasonic Vibration	2019
27.	Dr. Manoj Kumar Sinha,	Journal of Engineering Manufacture (Part B), Vol. 233(2), 443–460, Impact Factor 1.445.	International	Modelling of Specific Grinding Energy for Inconel 718 Superalloy.	2019
28.	Dr. Manoj Kumar Sinha	Journal of Engineering Manufacture (Part B), Vol. 233(3), 2019, 727–744, Impact Factor 1.445.	International	Some Investigations in Grindability Improvement of Inconel 718 Under Ecological Grinding.	2019
29.	Dr. Dilshad Ahmad Khan	International Journal of Precision Technology	International	Effect of Polishing Fluid Composition on Forces in Ball End Magnetorheological Finishing Process	2019
30.	Dr. Dilshad Ahmad Khan	International Journal of Precision Technology	International	Constant Work Gap Perpetuation in Ball End Magnetorheological Finishing Process	2019
31.	Dr. Laxmikant Yadav	Heat & Mass Transfer Vol. 56, 1153-1169	International (SCI)	Performance Analysis of Cooling Tower using Desiccent	2020
32.	Dr. Laxmikant Yadav	Heat & Mass Transfer 30 June, 2020 (Accepted)	International (SCI)	Performance Analysis of Counter Flow Cooling Tower using Reciperocating Desiccent Mesh	2020
33.	Dr. Parnika Shrivastava	Special Issue of the International Journal of Materials Forming on NUMIFORM 2019	SCI	Revisiting Micro-Mechanical Damage Characterization for Single Point Incremental Forming Process	2019

34.	Dr. Priyadarshi Biplab Kumar	Applied Soft Computing Navigational 89, 106088	SCI	Analysis of Multiple Humanoids Using A Hybrid Regression- Fuzzy Logic Control Approach in Complex Terrains	2020
35.	Dr. Priyadarshi Biplab Kumar	Robotica Improved Motion	SCI	Planning of Humanoid Robots Using Bacterial Foraging Optimization	2020
36.	Dr. Priyadarshi Biplab Kumar	Computer Animation & Virtual Worlds 31(3), e1919	SCI	Implementation of Grey Wolf Optimization Controller for Multiple Humanoid Navigation	2020
37.	Dr. Priyadarshi Biplab Kumar	International Journal of Humanoid Robotics	SCI	Navigational Analysis of Multiple Humanoids using A Hybridized Rule Base-Sugeno Fuzzy Controller	2020
38.	Dr. Priyadarshi Biplab Kumar		SCI	Soft Computing Motion Control of Multiple Humanoids using A Hybridized Prim's Algorithm-Fuzzy Controller	2020
39.	Dr. Priyadarshi Biplab Kumar	International Journal of Intelligent Unmanned Systems	SCOPUS	Design of A Hybrid Controller using Genetic Algorithm and Neural Network for Path Planning of A Humanoid Robot	2020
40.	Dr. Priyadarshi Biplab Kumar	Robotica	SCI	Dynamic Strategy Planning of Humanoid Robots using Glowworm Based Optimization	2020
41.	Dr. Priyadarshi Biplab Kumar	International Journal of Intelligent Unmanned Systems7(3), 112-119	SCOPUS	Path Optimization for Navigation of A Humanoid Robot using Hybridized Fuzzy-Genetic Algorithm	2019
42.	Dr. Priyadarshi Biplab	79, 8125–8144	SCI	Multimedia Tools & Applications Navigational Analysis of A Humanoid using Genetic Algorithm with Vision	2020

	Kumar			Assistance	
43.	Dr. Priyadarshi Biplab Kumar	27(1), 262- 272	SCI	Scientia Iranica Intelligent Navigation of A Self-Fabricated Biped Robot using A Regression Controller	2020
44.	Dr. Priyadarshi Biplab Kumar	38(4), 565-581	SCI	Robotica Intelligent Hybridization of Regression Technique with Genetic Algorithm for Navigation of Humanoids in Complex Environments	2020
45.	Dr. Priyadarshi Biplab Kumar	Journal of Theoretical and Applied Mechanics 57(2), 369-382	SCI	Analysis of Hybrid CSADEA Method for Fault Detection of Cracked Structures	2019
46.	Dr. Priyadarshi Biplab Kumar	Australian Journal of Mechanical Engineering	SCOPUS	Design and Control of A 7 DOF Redundant Manipulator Arm.	2019
47.	Dr. Priyadarshi Biplab Kumar	30(2), e1858	SCI	Computer Animation & Virtual Worlds An Intelligent Navigation of Humanoid NAO in the Light of Classical Approach and Computational Intelligence	2019
48.	Dr. Priyadarshi Biplab Kumar	26(1), 375-393	SCI	Scientia Iranica Static and Dynamic Path Planning of Humanoids ysing An Advanced Regression Controller	2019
49.	Dr. Priyadarshi Biplab Kumar	78(9), 11463-11486	SCI	Multimedia Tools & Applications An Intelligent Computer Vision Integrated Regression Based Navigation Approach for Humanoids in A Cluttered Environment	2019

50.	Dr. Priyadarshi Biplab Kumar	36(2), e12360	SCI	Expert Systems Path Planning of Humanoids based on Artificial Potential Field Method in Unknown Environments	2019
51.	Dr. Priyadarshi Biplab Kumar	46(1), 104-117	SCI	Industrial Robot An Approach to Optimize the Path of Humanoid Robots using A Hybridized Regression- Adaptive Particle Swarm Optimization-Adaptive Ant Colony Optimization Method	2019
52.	Dr. Priyadarshi Biplab Kumar	Robotica 37(4), 626- 640	SCI	Smart Navigation of Humanoid Robots using DAYKUN-BIP Virtual Target Displacement and Petri-Net Strategy	2019

Туре	Title	Publisher	Authors	ISBN/ISSN No.	Year
Book	Advances in Engineering Design	Springer Nature Singapore Pte Ltd.	Akant Kumar Singh, Siddhartha, Sanjay Yadav and Prashant Kumar Singh	978-981-13-6468-6	2019
Book	Hierarchical Composite Materials, Manufacturing, Engineering	De Gruyter	Akant Kumar Singh, Siddhartha, Prashant Kumar Singh	978-3-11-054400-8	2019
Book	Chapter Path Planning of a Humanoid Robot Using Rule Based Technique	Springer	M.K. Muni, P.B. Kumar, D.R. Parhi, A.K. Rath, H.C. Das, A. Chhotray, K.K. Pandey, K. Salony	9789811501241	2020
Book	Chapter Investigation of Humanoid Movement using Classical Approach	Apple Academic Press	P.B. Kumar, A. Chhotray, K.K. Pandey, D.R. Parhi	9781351170161	2019

Book	Chapter	Springer Nature	Akhilesh Kumar	978-981-15-1531- 6	2020
	Introduction to	Singapore Pte Ltd	Choudhary & Dilshad		
	Condition		Ahmad Khan		
	Monitoring of				
	Mechanical				
	Systems				
Book	Chapter Design	Springer Nature	Dilshad Ahmad Khan,	978-981-32-9486- 8	2020
	and Development	Singapore Pte. Ltd.	Zafar Alam, Faiz Iqbal		
	of Improved Ball		and Sunil Jha		
	End				
	Magnetorheological				
	Finishing Tool with				
	Efficacious Cooling				
	System				
Book	Chapter Design	Springer Nature	Zafar Alam, Dilshad	978-981-32-9486- 8	2020
	and Development	Singapore Pte. Ltd.	Ahmad Khan, Faiz Iqbal		
	of Cartridge-Based		and Sunil Jha		
	Automated Fluid				
	Delivery System for				
	Ball End				
	Magnetorheological				
	Finishing Process				
Book	Chapter Part	Springer Nature	Faiz Iqbal, Zafar Alam,	978-981-32-9486- 8	2020
	Program-Based	Singapore Pte. Ltd.	Dilshad Ahmad Khan		
	Process Control of		and Sunil Jha		
	Ball-End				
	Magnetorheological				
	Finishing				

# ii) PAPER

# PRESENTED IN CONCERNECE/SEMINAR/SYMPOSIS:

	Name of Faculty	Details of Conference Proceeding	National / Internationa	Title of the Paper	Year of Publicatio
			I		n
1.	Dr. N.S. Thakur	11 <sup>th</sup> International Exergy, Energy and Environment Symposium	International	Pyrolysis kinetics of pine needle biomass using	14-18 July 2019.

		(IEEES 11), SRM University Chennai, Tamilnadu, India		thermogravimetric analysis	
2.	Dr. N.S. Thakur	11th International Exergy, Energy and Environment Symposium (IEEES 11), SRM University Chennai, Tamilnadu, India.	International	Forest Biomass Waste to Energy in the Indian Himalayan Region: Potential & Scope	14-18 July 2019
3.	Dr. N.S. Thakur,	International Conference on New and Renewable Energy Resources for Sustainable Future, ICONRERR-2019, SKIT Jaipur, Rajasthan, India,	International	Identification of the factors related to pine needle gasification based electricity generation in the western Himalayan region"	07-09 November, 2019
4.	Dr. Siddhartha	ICMPC 2019 at Gokaraju Rangaraju Institute Of Engineering and Technology. Hyderabad, Andhra Pradesh, India.	SCOPUS	Transmission Efficiency of Functionally Graded Material Based HDPE Spur Gears	2019
5.	Dr. Siddhartha	A KIET Ghaziabad NONE 2019	None	comparative analysis of Transmission efficiency of Polyamide-66 spur gears meshing with dissimilar and dissimilar gear materials'	2019
6.	Dr. Siddhartha	KIET Ghaziabad NONE 2019	None	Thermo - Mechanical peculiarity of TiC filler filled Gkass fiber based hybrid composites	2019
7.	Dr. Siddhartha	KIET Ghaziabad NONE 2019	None	Exploration on wear characteristics:performance of gears of Poly amide 66	2019
8.	Dr. Manoj Kr. Sinha	1st National Conference On Advances In Mechanical Engineering (NCAME-2019), NIT	National	Improvement in Machining Characteristics of Al 6063 in Dry Environment	2019

		Delhi, 16th March 2019.			
9.	Dr. Manoj Kr. Sinha	1st National Conference On Advances In Mechanical Engineering (NCAME-2019), NIT Delhi, 16th March 2019	National	Drilling Process Improvements in EN31 Steel under Different Environments	2019
10.	Dr. Manoj Kumar Sinha	4 <sup>th</sup> International Conference on Advanced Production and Industrial Engineering (ICAPIE 2019), D.T.U. Delhi, December 20 - 21, 2019, Page 104.	International	A state-of-the art review on Fused Deposition Modelling Process	2019
11.	Dr. Manoj Kumar Sinha	4th International Conference on Advanced Production and Industrial Engineering (ICAPIE 2019), D.T.U. Delhi, December 20 - 21, 2019, Page 103.	International	Investigations on process parameters of Wire Additive Manufacturing (WAAM): A review	2019
12.	Dr. Manoj Kumar Sinha	4th International Conference on Advanced Production and Industrial Engineering (ICAPIE 2019), D.T.U. Delhi, December 20 - 21, 2019, Page 120.	International	A review on solar panel cleaning through chemical self-cleaning method,	2019
13.	Dr. Parnika Shrivastava and Puneet Tandon	38th International Deep- Drawing Research Group Conference	Scopus	Enhancement of Fracture Forming Limits by Crystallographic Texture Reformation of AA1050 Sheets in Single Point Incremental Forming	2019
14.	Dr. P.B. Kumar	The International	International	Sugeno Fuzzy Logic Analysis:	2019

		Conference on Artificial Intelligence in Manufacturing Renewable Energy (ICAIMRE2019), Gandhi Institute for Education Technology, Baniatangi, Bhubaneswar		Navigation of Multiple Humanoids in Complex Environments	
15.	Dr. P.B. Kumar	The International Conference on Artificial Intelligence in Manufacturing Renewable Energy (ICAIMRE2019), Gandhi Institute for Education Technology, Baniatangi, Bhubaneswar.	International	Navigation of Humanoids and Mobile Robots Using Neural Network Based Approach: A Comparative Review	2019
16.	Dr. P.B. Kumar	The International Conference on Artificial Intelligence in Manufacturing Renewable Energy (ICAIMRE2019), Gandhi Institute for Education Technology, Baniatangi, Bhubaneswar	International	A Comprehensive Review on Motion Planning of Bi- Differential Wheeled Robots in Cluttered Environments Using Various Artificial Intelligent Techniques	2019
17.	Dr. P.B. Kumar	The International Conference on Artificial Intelligence in Manufacturing Renewable Energy (ICAIMRE2019), Gandhi Institute for Education Technology, Baniatangi, Bhubaneswar	International	Navigation and Path Planning of an Aerial Drone (Quadcopter)	2019

### iii) PAPER ACCEPTED FOR PUBLICATION: NIL

(c) Doctoral Programme: 29 Nos. ongoing (During Session July, 2019 to July, 2020)

(d) Ph. D. Degree awarded: 02 Nos. (During Session July, 2019 - July, 2020)

(e) Master Thesis completed: 11 + 13 + 10 = 34 Nos. (M.Tech in Thermal/CAD- CAM/Energy

Technology (Admitted in 2018 and Passed in 2020)

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 Jagota	Dr. Rajesh Sharma	-	2013	Part-Time	Investigation of Sliding Wear Behaviour of AISI H13 Tool Steel	Thesis Submitted (18-08-2020)
2.	Mr. Jagroop Singh	Dr. Somesh Sharma	-	2013	Full Time	Assessing the Parameters of Aviation Fuel Consumption	Thesis Submitted (28-08-2019)
3.	Mr. Rajneesh Kumar	Dr. Anoop Kumar	-	2013	Full Time	Heat Transfer Enhancement and Fluid Flow Behaviour through Non- Circular (Triangular) Duct	Thesis Submitted (20-08-2018)
4.	Mr. Anant Krishan Pun	Dr. Siddhartha	-	2014	Part Time	Investigations on Erosion Wear Characteristics of Some Oxide and Non- Oxide Filler Based Polymer Composites	In-Progress (10-09-2014)
5.	Mr. Surender Kumar	Dr. P.K. Sood	-	2014	Full Time	Investigations on Machinability and Wear behavior of Aluminium Matrix Nanocomposit e	Thesis Submitted (13-11-2019)

	1		1		1	1 1	1
6.	Mr. Arvind Kr. Bisht	Dr. N.S.Thakur	-	2015	Full Time	Thermal Analysis of Bio Mass Gasification for IC Engine Application	Thesis Submitted (10-07-2020)
7.	Mr. Sushant Thakur	Dr. N.S. Thakur	-	2016	Full Time	Solar Air Heater	In Progress (17-08-2016)
8.	Mr. Navneet Arya	Dr. Varun	1	2018	Full Time	Passive Heat Transfer Augmentation Techniques	In Progress (19-07-2018
9.	Mr. Vishal Kumar	Dr. Debasish Das	-	2018	Full Time	Experimental Investigation of Bio Diesel in Modified Diesel Engine	In Progress (19-07-2018)
10.	Mr. Ajay Kumar	Dr. Prashant Dhiman	1	2018	Full Time	Thermal Performance of New Solar Thermal Air Heater	In Progress (19-07-2018)
11.	Mr. Sunil Setia	Dr. S.R. Chauhan	1	2018	Full Time	Development Mechanical Tribological and Machining Characteristics of Mono and Hybrid Nano Composites	In Progress (19-07-2018)
12.	Mr. Amitesh Sharma (QIP)	Dr. Prashant Dhiman	1	2018	Full Time	Performance of Jet Impingement Type Solar Air Heat	In Progress (01-08-2018)
13.	Mr. Roopak Varshney	Dr. Param Singh	-	2019	Full Time	Assisted Electrical Discharging Machine	In Progress 22-07-2019
14.	Mr. Kamal Kishore	Dr. Manoj Kumar Sinha	-	2019	Full Time	Sustainable Machining of Difficult to Machine Materials	In Progress 22-07-2019
15.	Mr. Sudhir Kumar Singh	Dr. Deepak Kumar	-	2019	Full Time	Boiling Heat Transfer	In Progress 22-07-2019

		Sharma				Enhancement	
16.	Mr. Ayush Awasthi	Dr. Mohit Pant	-	2019	Full Time	Computational Fracture Mechanics	In Progress 22-07-2019
17.	Mr. Yogesh Kumar Yadav	Dr. Siddharatha	-	2019	Full Time	Erosion Wear Modelling	In Progress 22-07-2019
18.	Mr. Vivek Singh	Dr. Rajesh Kumar Sharma	-	2019	Full Time	Experimental Investigation on Tribological Behaviour of Material	In Progress 22-07-2019
19.	Ms. Akanksha Maurya	Dr. Santosh B. Bopche	-	2019	Full Time	Investigations on the Performance Improvement of Solar Cavity Receives	In Progress 22-07-2019
20.	Mr. Vijay Kumar	Dr. Akhilesh Kumar Choudhary	1	2019	Full Time	Condition Monitoring of Mechanical System	In Progress 22-07-2019
21.	Mr. Rajat Kumar	Dr. Varun	1	2019	Full Time	Thermal Management System using Heat Pipes	In Progress 22-07-2019
22.	Mr. Jasveer Singh	Dr. Rajesh Kumar, AP Gr. - II	1	2020	Full Time	Atomistic Modelling of Nano Materials for Mechanical Characterizati on	In Progress (08-01-2020)
23.	Mr. Saurabh Thakur	Dr. Parnika Shrivastava	1	2020	Full Time	Incremental Sheet Forming of Polymer Material	In Progress (08-01-2020)
24.	Mr. Sohan Lal Sharma	Dr. Ajoy Debbarma	-	2020	Full Time	Thermal Storage System for Power Generation using TEG Models	In Progress (08-01-2020)
25.	Mr. Prince Oliver Horo	Dr. Dilshad Ahmad Khan	-	2020	Full Time	Magnetorheolo gical Finishing (MRF)	In Progress (08-01-2020)

26.	Mr. Ankur Dwivedi	Dr. Anoop Kumar	-	2020	Full Time	Battery Thermal Management System	In Progress (08-01-2020)
27.	Mr. Ashutosh Kumar Verma	Dr. Laxmikant Yadav	-	2020	Full Time	Solar Assisted Deficient Cooling Tower	In Progress (08-01-2020)
28.	Mr. Love Kumar	Dr. Rajiv Kumar Sharma	-	2020	Full Time	Industrial Engineering	In Progress (08-01-2020)
29.	Mr. Biswajit Sahoo	Dr. Priyadarshi Biplab Kumar	-	2020	Full Time	Robotics	In Progress (08-01-2020)

# iv) PATENT:

Sr. No.	Title of Patent (CBR No.)	Application Number	Application filing Agency/ office	Application Filing date	Present Status
1.	Continuous Roller Garbage Collecting Machine (Dr. Rajesh Sharma)	201911014051			04/04/2019

# (f) DOCTORAL PROGRAMME:

S. No.	Title of Thesis	University / Institute & Year of Ph. D. Award	Name of the Scholar	Name of the supervisors
1.	Developing Measures to Assess the Extent of Competence Provided by Automation to to Indian Steel Corporation	(03-02-2020) Awarded	Sh. Vikas Acharya	Dr. Sunand Kumar Dr. Somesh Sharma
2.	Experimental Investigation of Diesel Engine Characteristics by using Dual Biofuel Approach for Complete Elimination of Diesel	(05-09-2019) Awarded	Sh. Paramveer Singh	Dr. S.R. Chauhan Dr. Varun

## 5. DISTICTION ACHIEVED:

(a) By Student:

(b) By Faculty Member:

### 6. DETAILS OF LABORATORIES:

SI. No.	Name of Laboratory	Capacity	Year of Establishment
1	Foundary, Forming and Welding Laboratory	313 Sq.m	1996
2	Metrology & Measurement Laboratory	156 Sq.m	2020
3	Industrial Engineering Laboratory	78 Sq.m	1996
4	Computer Aided Manufacturing Laboratory	78 Sq.m	2005
5	Advanced Manufacturing Laboratory	78 Sq.m	2020
6	Mechatronics & Robotics Laboratory	78 Sq.m	2005
7	Material Testing Laboratory	117 Sq.m	1986
8	Theory of Machine	78 Sq.m	1996/1997
9	Computer Aided Design Laboratory	156 Sq.m	1992
10	Tribology Laboratory	78 Sq.m	1997
11	Rapid Design & Development Lab.	78 Sq.m	2020
12	Product Design & Development Laboratory	78 Sq.m	2020
13	Fluid Mechanics & Machinery Laboratory	243 Sq.m	1996
14	Heat & Mass Transfer Laboratory	78 Sq.m	1996
15	Steam Power Engineering Laboratory	120 Sq.m	2000
16	I.C.Engine Laboratory	117 Sq.m	1995
17	Refrigeration and Air Conditioning Lab.	78 Sq.m	1997
18	Automobile Engineering Laboratory	117 Sq.m	1995
19	Solar Energy Laboratory	120 Sq.M	2020
20	C.F.D (New) Laboratory	117 Sq.m	2010
21	Energy Research Laboratory	120 Sq.m	2020

### 3.7 DEPARTMENT OF CHEMISTRY



### 1.0 ACADEMIC STAFF

HEAD Prof. A.S. Singha

Ph.D

### **FACULTIES:**

Professor	Associate Professor	Assistant Professor Grade – I / II
Dr. A.S. Singha	Dr.Pamita Awasthi	Dr. K.S. Ghosh
	Dr.Bharti Gaur	Dr.Raj Kaushal
		Dr. Jaibir Kherb ( On contract)
		Dr. Jai Prakash

# Work shop Organized:

Work shop on "Materials modification and Characterization: An Interdisciplinary Approach", Organized by Chemistry Department, Feb. 17-22, 2020

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

Sponsoring Agency	Name of the Coordinator	Title of the seminar/symposia etc.	Duration	Venue
Sponsoring Agency	Name of the Coordinator	Title of the seminar/symposia etc.	Duration	Venue
MHRD-GIAN	Dr.PamitaAwasthi Prof.A.S.Singha	Molecules to human: Application of multidimensional NMR in deciphering biomolecular structures, functions and cellular mechanism	2-7 December, 2019	Web Studio, Central Block NIT-Hamirpur
NITH (MHRD)	Dr. Jai Prakash/ Dr. Kalyan S Ghosh	Recent Advances in Characterization of Multifunctional Materials (RACMM-2020)	17-21 <sup>st</sup> February 2020	NIT Hamirpur

#### 3 RESEARCH:

#### **Research Scheme**

Title of the scheme	Sponsored by	Assistance received(Rs.) in lakh	Investigator	Brief Report
Manufacture of pine needle based fiber/Particle boards	DST, Govt. of India	40.77 Lacs	Dr. Bharti Gaur	On going
Exploring diversity, Functional Dynamics and Biotechnological Applications of Bacterial Communities Inhabiting Hot Water Spring Atop the Himalayan Ranges at Manikaran, Himachal Pradesh, India	DBT Govt. of India	52,23,200	Dr. Bharti Gaur Prof. Rup Lal Prof. Mallikarjun N Shakarad	On going

### 4) Research Publication: (w.e.f. 1.04.2019 to 31.03.2020)

1. Rana Ashvinder Kumar, Sharma Archana and Singha Amer Singh," Synthesis and evaluation of Physicochemicalproperties of Grewia optiva Fiber Graft Co polymers" Polymer Science Series B,61 (4), 409-420,2019.

- 2. T Thakur, S Jaswal, S Parihar, B Gaur, AS Singha; <u>Bio-based epoxy thermosets with rosin derived imidoamine curing agents and their structure-property relationships</u> Express Polymer Letters 14 (6), 512-529.
- 3. Sharma, V., Sharma, S., Rana, S., **Ghosh, K. S.** (2020) Inhibition of amyloid fibrillation of human γD-crystallin by gold nanoparticles: Studies at molecular level, **Spectrochimica Acta A 233, 118199**. (*IF:* 3.23)
- 4. Rana, S., <u>K.S. Ghosh</u> (2020) Explication of human γD-crystallin interactions with its aggregation inhibitor Schiff base at molecular level, *J. Mol. Struct.* **1204**, **127556**. (*IF*: 2.46)
- 5. Rana, S., **K.S. Ghosh** (2020) Protective role of hesperetin against posttranslational oxidation of tryptophan residue of human γD-crystallin: A molecular level study, **Arch. Biochem. Biophys. 679**, **108204**. (*IF*: 3.39)
- 6. Rana, S., Velappan, A. B., Debnath, J., **K.S. Ghosh** (2019) Inhibition of copper-induced aggregation of human γD-crystallin by a diimine molecule and investigations on their molecularinteractions, *J. Biomol. Struct. Dyn.* (in press) DOI: 10.1080/07391102.2019.1686426. (IF: 3.31)
- 7. Chauhan, P., **Ghosh, K. S.** (2019) Inhibition of copper-induced aggregation of human γD-crystallin by rutin and studies on its role in molecular level for enhancing the chaperone activity of human αA-crystallin by using multi-spectroscopic techniques, **Spectrochim. Acta A 218, 229-236.** (*IF:* 3.23)
- 8. . <u>Jai Prakash</u>, Fundamentals and applications of recyclable SERS substrates, Int. Rev. in Phys. Chem. 38 (2019) 201-242. (IF: 10.17) (DOI: 10.1080/0144235X.2019.1660114)
- 9. 2. C. Zhangsen, G. Zhang, <u>Jai Prakash</u>, S. Sun, Rational design of novel catalysts with atomic layer deposition for the reduction of carbon dioxide, Adv. Energy Materials 9 (2019) 1900889. (IF: 24.88) DOI: (<a href="https://doi.org/10.1002/aenm.201900889">https://doi.org/10.1002/aenm.201900889</a>)
- 10. 3. B. Balasubarmaniam, N. Singh, P. Kar, A. Tyagi, <u>Jai Prakash</u>, R. K. Gupta, Engineering of transition metal dichalcogenide-based 2D nanomaterials through doping for environmental applications, Mol. System Design and Eng. (2019) (IF:2.708) DOI: 10.1039/C8ME00116B
- 11. 4. M. Wu, G. Zhang, M. Wu, Jai Prakash, S. Sun, Rational design of multifunctional air electrodes for rechargeable Zn–Air batteries: Recent progress and future perspectives, Energy Storage Materials 21 (2019) 253-286 DOI: https://doi.org/10.1016/j.ensm.2019.05.018
- 12. 5. X. Yang. G. Zhang, <u>Jai Prakash</u>, S. Sun, chemical vapor deposition of graphene: the layercontrol, transfer process, characterization and related applications, Int. Rev. in Phys. Chem. 38 (2019) 149-199 (IF: 10.172) DOI: 10.1080/0144235X.2019.1634319
- 13 Structural and biological study of synthesized anthraquinone series of compounds with sulfonamide feature. **Awasthi P**\*, Vatsal M and A. Sharma *Journal of Biomolecular structure and dynamics (Taylor & Francis*) 37, 4465-4480, 2019.

14. Sulfonamide phenylalanine (SPA) series of analogues as an antibacterial, antifungal, anticancer agents along with p53 tumor suppressor-DNA complex inhibitor – part 1 Kirna Devi and PamitaAwasthi, Department of Chemistry, National Institute of Technology, Hamirpur, 177005, Himachal Pradesh, India Journal of Biomolecular Structure and Dynamics, TAYLOR & FRANCIS 2019 https://doi.org/10.1080/07391102.2019.1671229

5. Patents filed: NIL

**6. Doctoral Programme:**- 16 Nos. on going

Ph. D Degree Awarded:- 01 No.

### **Doctoral Programme:**

Sr.	Title	Guide	Name of the student	Brief
No				Report
	"Self Healing Thermoset	Dr. A.S. Singha	Ms. Tamanna Thakur	In Progress
1	Resin"	Dr. Bharti Gaur		
2	"Proton Exchange Membranes for Fuel cell application"	Dr. Bharti Gaur Dr. A.S. Singha	Ms. Rashi	In Progress
3	"Self healing coatings based on thermo reversible Diel's Alder reactions"	Dr. Bharti Gaur	Ms. Shalini	In Progress
4.	"Polymer Drug Delivery Vehicles."	Dr. Bharti Gaur	Mr. Avtar Chand	In Progress
5	"Posttranslational modifications on crystallins and its inhibition"	Dr. K.S. Ghosh	Ms. Shiwani Rana	In Progress
6.	"Application of nanomaterials for amyloid inhibition and antibacterial	Dr. K.S. Ghosh	Ms. Anchal Sharma	In Progress
7.	"Interactions of nanomaterials with biomacromolecules"	Dr. K.S. Ghosh	Ms. Shivani Sharma	In Progress
8.	Titanium- Indol Complexes as Potential Biological Agents	Dr. Raj Kaushal	Ms. Archana Thakur	In Progress
9.	Chalcone based vanadium complexes, their antibacterial and antidiabetic studies	Dr. Raj Kaushal	Ms. Mandeep Kaur	In progress
10.	Carbon quantum dits as probes for measuring specific ionic interactions	Dr. Jaibir Kherb	Ms. Shameema Rana	In progress

11.	Green Synthesis of Silica nanoparticals	Dr. Jaibir Kherb	Ms. Pratibha Sharma	In progress
12	"Multifunctional Hybrid Nanostructured Materials" (tentative)	Dr.Jai Prakash	Ms.Samriti	In Progress
13	Synthesis, Characterization, Biological screening and computational studies of Sulfonamide	Dr. Pamita Awasthi	Ms. Kirna Devi	In progress
14	Synthesis Characterization Computational and biological studies of Juvenile hormone analogues as insect growth regulators	Dr. Pamita Awasthi	Ms. Vandna Devi	In progress
15	Synthesis Biological Screening and DNA-Interaction studies of 9,10 anthraquinone class of Compounds as potential anticancer agents	Dr. Pamita Awasthi	Ms. Anjali Sharma	In progress
16	Designing and Synthesis of IGR's"	Dr. Pamita Awasthi	Ms. Neetika Kumari	In progress

# 6 Popular Lectures by outside experts:

Sr. No.	Date	Speaker	Topic
1.		Nil	

# 8. DETAIL OF THE LABORATORIES:

Sr.No.	Name of the Laboratory
1.	Research & Development Laboratory R&D Lab (PG)
2.	Under Graduate (UG) Laboratory
3.	Instrumentation Laboratory
4	Physical Laboratory
5	Organic Laboratory
6	Inorganic Laboratory
7	Nanomaterials Research Laboratory
8	Organic synthesis research Lab.
9	Computational Chemistry research lab.

# 3.8 DEPARTMENT OF MATHEMATICS & SCIENTIFIC COMPUTING



### 1.0 ACADEMIC STAFF

HEAD: Prof. Y.D. Sharma,

Ph.D

### **FACULTIES:**

Professor	Associate Professor	Assistant Professor Grade II
Professor  Dr. Yogeshver Dutt Sharma, Ph.D. Dr. Sunil, Ph.D.	Dr. Ramesh Kumar Vats Ph.D. Dr. Pawan kumar Sharma, Ph.D.	Assistant Professor Grade II  Dr. Suket, Ph.D. Dr. Rajesh Kumar Sharma (On contract), Ph.D. Dr. Abhishek Singh (On contract), Ph.D. Dr. Talari Ganesh (On contract), Ph.D. Dr. Neha Yadav, Ph.D. Dr. Subit Kumar Jain, Ph.D. Dr. Om Prakash Yadav, Ph.D. Dr. Rifagat Ali, Ph. D.
		Dr. Nidhi Gupta, Ph.D

#### 2. Research (2019-20)

### i. Research Scheme (2019-20):

S.	Name of the	Title of the Scheme	Sponsored by	Assistance	Investigator	Brief
No	Staff			Received (Rs.) in lakh		Report
1.	Mr. Ankit Kumar (JRF) (1/04/2019- 29/09/2019)	Numerical Investigations of Some Momentum and Heat Transfer Problems in Complex Nanofluids	Science & Engineering Research Board (SERB)		Dr. Rajesh Kumar Sharma	Completed on 29 September, 2019
2. Dr. Kamaljeet		Solution of Various form of Differential and Integral Equations through concept of Fixed Point Theorems	CSIR, New Delhi	Till now we have received Rs. 12,91,633/-	Dr. R.K. Vats	We have published 6 research papers under this project

#### ii. Research Publications:

#### Paper published in National and International Journals/Conferences/Seminars.

- 1. Patel, S, G Agrawal, B Mathew, S Patel, B Mohanty and **Abhishek Singh** (2019), Climate change and women in South Asia: a review and future policy implications, World Journal of Science, Technology and Sustainable Development, 17(2), pp. 145-166.
- 2. **Pawan Sharma**, Radial Vibrations of Functionally Graded Spheres due to Thermal Load (Accepted) J. Thermal Stresses.
- 3. **Rajesh Sharma** and Ankita Bisht, Effect of buoyancy and suction on Sisko nanofluid over a vertical stretching sheet in a porous medium with mass flux condition, Indian Journal of Pure & Applied Physics, 58 (2020)178-188.
- 4. Ankita Bisht and **Rajesh Sharma**, Non-similar solution of casson Nanofluid with variable viscosity and variable thermal conductivity, International Journal of Numerical Methods for Heat and Fluid Flow, 22 (2019) 3919-3938.https://doi.org/10.1108/HFF-08-2019-0629.
- 5. **Rajesh Sharma** and Ankita Bisht, MHD flow of Sisko nanofluid over a stretching sheet with Joule heating, AIP Conference Proceedings, 2134 (2019) 030002-1-030002-7.
- 6. Preeti Chandrakar, Sonam Sinha, and **Rifaqat Ali**. "Cloud-based authenticated protocol for healthcare monitoring system." *Journal of Ambient Intelligence and Humanized Computing* (2019): 1-17.
- 7. Prachi Agrawal and **Talari Ganesh** (2020), "Fuzzy Fractional Stochastic Transportation Problem involving Exponential Distribution" OPSEARCH, https://doi.org/10.1007/s12597-020-00458-5.

- 8. Prachi Agrawal & **Talari Ganesh** (2020): Solution of stochastic transportation problem involving multichoice random parameter using Newton's divided difference interpolation, Journal of Information and Optimization Sciences, https://doi.org/10.1080/02522667.2019.1694741
- M. Hemanth Kumar, Talari Ganesh, M. Venkateswaran & P. R. S. Reddy (2020): Compound intervened Poisson distribution through one server queuing model with non-homogeneous compound Poisson arrivals in bulk and its service rates, Journal of Statistics and Management Systems, https://doi.org/10.1080/09720510.2020.1714897
- 10. Prachi Agrawal and **Talari Ganesh** (2020), Solving Multi-Choice Fractional Stochastic Transportation Problem involving Newton's Divided Difference Interpolation, Numerical Optimization in Engineering and Sciences, Advances in Intelligent Systems and Computing 979, <a href="https://doi.org/10.1007/978-981-15-3215-3">https://doi.org/10.1007/978-981-15-3215-3</a> 28.
- 11. **Talari Ganesh** and Anithakumari Kattamanchi (2020), "Inferential Aspects of Double Truncated Generalized Gaussian distribution", Soft Computing: Theories and Applications, Advances in Intelligent Systems and Computing 1053, <a href="https://doi.org/10.1007/978-981-15-0751-9\_50">https://doi.org/10.1007/978-981-15-0751-9\_50</a>
- 12. Prachi Agrawal, **Talari Ganesh** and Ali Wagdy Mohamed (2020), Scheduling Shuttle Ambulance Vehicles for COVID-19 Quarantine Cases, A Multi-objective Multiple 0-1 Knapsack Model with A Novel Discrete Binary Gaining-Sharing knowledge-based Optimization Algorithm accepted for inclusion in the book Multi-Objective Combinatorial Optimization Problems and Solution Methods to be published by Elsevier.
- 13. Arpan Garg, Prachi Agrawal and **Talari Ganesh** (2020), A Statistical Study on the Emotional Intelligence of B.Tech Students of NIT Hamirpur, International Conference on Future of Engineering Systems and Technologies, Journal of Physics: Conference Series 1478 (2020) 012016, IOP Publishing, doi:10.1088/1742-6596/1478/1/012016.
- 14. Prachi Agrawal and **Talari Ganesh** (2020), Selection of Indian Cricket team in ODI using Integer Optimization, International Conference on Future of Engineering Systems and Technologies Journal of Physics: Conference Series 1478 (2020) 012001, IOP Publishing, doi:10.1088/1742-6596/1478/1/012001.
- Agrawal, P., & Ganesh, T. (2019). Solving Transportation Problem with Stochastic Demand and Non-Linear Multi-Choice Cost. In AIP Conference Proceedings, Vol. 2134, No. 1, p. 060002, <a href="https://doi.org/10.1063/1.5120227">https://doi.org/10.1063/1.5120227</a>
- 16. **Sunil**, Shalu Choudhary and Amit Mahajan, Stability analysis of a couple-stress fluid saturating a porous medium with temperature and pressure dependent viscosity using a thermal non-equilibrium model, Applied Mathematics and Computation, (Netherlands), 340(..), 15-30 (2019). https://doi.org/10.1016/i.amc.2018.08.025
- 17. **Gupta N**, Bhatele P, and Khanna P (2019), Customized expectation maximization for glioma segmentation and identification from brain MRIs, 15th International Conference on Machine Learning and Data Mining July 2019. http://toc.proceedings.com/50946webtoc.pdf
- 18. A. Yadav, A. Sadollah, **N. Yadav**, J.H. Kim, Self-adaptive global mine blast algorithm for numerical optimization, Neural Computing & Applications, 32 (2020) 2423-2444.
- 19. Shivani, **Y.D. Sharma** Double-diffusive bioconvection in a suspension of gyrotactic microorganisms saturated by a nanofluid, Journal of Applied Fluid Mechanics 12, no. 1, 2019, 271-280. DOI: 10.29252/jafm.75.253.29097.

- 20. Shivani, **Y.D. Sharma** Linear instability of the throughflow in a rectangular box saturated by a nanofluid., Journal of Applied Fluid Mechanics 12, no. 2, 2019, 469-475 DOI: 10.29252/jafm.12.02.28917.
- 21. Shivani, **Y.D. Sharma** Numerical study of bioconvection saturated with nanofluid containing gyrotactic microorganisms confined within the Hele-Shaw cell, Instrumentation Mesure Metrologie 17, no.4, 2019, 573-591 DOI:10.3166/i2m.17.573-591

#### iii. Editorial Work:

- 1. H. Sharma, A.K.S. Pundir, **N. Yadav**, A. Sharma, S. Das, Recent trends in Communication and Intelligent Systems, Proceedings of ICRTCIS 2019, Springer Nature, ISBN: 978-981-150426-6.
- 2. A. Yadav, **N. Yadav**, J.H. Kim, Recent Advances in Soft Computing and Applications, Journal of Theoretical and Artificial Intelligence, 31:5, 699-700.

#### 3. National/International Conference Organized

#### 4. Summer/Winter/FDP Organized

- 1. Short term course on statistical techniques using R software (STCSTR-2019), DoMSC, NIT Hamirpur (H.P.) (**Dr. Abhishek Singh**)
- 2. Short Term Course on Statistical Techniques using R software, Dec 9-14, 2019. (Dr. Pawan Sharma)

#### 5. National/International Conferences Attended:

- 1. International Conference in Mathematics in Space and Applied Sciences. (Dr. Pawan Sharma)
- 2. Indian summer monsoon rainfall prediction: a comparison of ARIMA and ANN models, vISEC 2020, Sydney, Australia (**Dr. Abhishek Singh**)
- 3. 2<sup>nd</sup> International Conference on Numerical Heat Transfer and Fluid Flow (NHTFF-2020), organized by Department of Mathematics, National Institute of Technology Warangal during Jan. 17-19, 2020 (**Dr. Talari Ganesh**)
- 4. Paper presentation in international conference on applied mechanics and optimization (ICAMeO-2019) at Thiruvananthapuram, India during June 13-15, 2019 (**Dr. Rajesh Sharma**)

#### 6. Workshop Attended

1. Summer FDP on Deep Learning & Applications (27 – 31 May 2019) Jointly organized by: Electronics & ICT Academies at-IIT Roorkee, IIT Guwahati, IIITDM Jabalpur, MNIT Jaipur, NIT Patna. (**Dr. Neha Yadav**)

2. Summer FDP on Advancements in Signal Processing and Optimization Techniques (03- 07 June 2019) Jointly organized by: Electronics & ICT Academies. (**Dr. Neha Yadav**)

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

- 1. Learning in R: optimization and linear regression delivered at ITCOD 2019, Chitkara University, Rajpura, Punjab (**Dr. Abhishek Singh**)
- 2. Reliability and validity of measurements delivered at RMDA 2019, NIT Hamirpur, (H.P.) (**Dr. Abhishek Singh**)
- 3. Delivered Lectures in More than 20 Schools Under Rashtriya Aviskar Abhiyan and Coordinated visit of Students from 20 schools to NIT Hamirpur under Abhiyan (**Dr. Pawan Sharma**)
- 4. Invited talk on "An introduction to Element Free Galerkin Method and its Application" at National institute of technology Srinagar, Uttarakhand, India on February 28, 2020. (Dr. Rajesh Sharma)
- 5. Delivered in South Asian University, New Delhi on 15th Dec., 2019. (Dr. R K Vats)
- 6. Talk on "Linear, Nonlinear and Logistic Regression using R" in short-term course on Statistical Techniques using R softwares organized by Department of Mathematics & Scientific Computing, NIT Hamirpur during 09-14, December 2019. (Dr. Talari Ganesh)
- 7. Invited lecture on "Estimation of Early stage of Parkinson's Disease using Machine Learning Techniques" in workshop on Workshop on Data Science for a Growing Nation on the eve of 13th National Statistics Day organized by Department of Statistics, Sri Venkateswara University, Tirupati during 29 June to 1st July 2019. (Dr. Talari Ganesh)
- 8. Delivered a talk on Smart Healthcare Applications at BIT's 6th Annual Congress of InfoTech 2019 held at Nanjing, China, May 10-11 2019. (Dr. Nidhi Gupta)

#### 8. Doctoral Programme

On Going or Completed: (2019-20)

Sr. No.	Name of Registered Student	Registration No.	Topic of his/her Research	Name of his/her Supervisor/ Co- Supervisor	Brief Report
1.	Mr. Mohd Shad	2K18-Ph.D-MATH- 413	Generalized Time Series Models	Dr. Abhishek Singh	Developing new models for non-gaussian data
2.	Mr. Bhupendra Kumar	2K19-Ph.D-MATH- 495	Time Series Models	Dr. Abhishek Singh)	Developing new models with fuzzy concepts
3.	Ms. Anisha	2K20-Ph.D-MATH -	Numerical solutions of	Dr. Om Prakash	She has done course

	Devi	519	partial differential equations (tentative)	Yadav	of 12 credits in the last semester and she is doing literature survey on the topic.
4.	Mr. Ankit Kumar (Ongoing)	2K20-Ph.D-MATH - 518	Image restoration and segmentation using partial differential equation based models	Dr. Subit Kumar Jain	He completed 12 credits course work and doing literature survey on the topic of his research.
5.	Mr. Ankit Bajpai	2K17-Ph.D-MATH- 376	A study Wave propagation in Thermoelastic media using Two temperature theory	Dr. Pawan Kumar Sharma	
6.	Ms. Geetanjali	2K18-Ph.D-MATH- 412	Wave propagation in Thermoelastic media considering Non L:ocal effects	Dr. Pawan Kumar Sharma	
7.	Ms. Ankita Bisht	2k17-Ph.D-MATH- 374	Numerical Simulation of some problem of complex Nano fluid	Dr. Rajesh Kumar Sharma	State of Art completed successfully, 04 Journal and 03 conference paper published
8.	Ms. Sanjalee	2K19-Ph.D-MATH- 493	Computational Fluid Dynamics	Dr. Rajesh Kumar Sharma	Course work completed successfully
9.	Mr. Sachin Kumar	2K15-Ph.D-Math- 287	Existence of Solutions of Fractional Differential Equations by using Concept of Fixed Point Theory.	Dr. Ramesh Kumar Vats	At the stage of final submission
10.	Mr. Ankit Kumar	2K17-Ph.D-Math- 344	Controllability of Integer and Non- Integer Order Differential Systems	Dr. Ramesh Kumar Vats	Conducted Comprehensive and state of the art seminar
11.	Mr. Ankit Kumar Nain	2K17-Ph.D-Math- 349	Existence of solutions for fractional boundary value problems	Dr. Ramesh Kumar Vats	Conducted Comprehensive and state of the art

					seminar
12.	Ms. Kanika	2K18-Ph.D-Math- 411	Existence and Stability Results for Fractional Differential Equations	Dr. Ramesh Kumar Vats	Conducted Comprehensive and state of the art seminar
13.	Mr. Parveen Kumar	2K19-Ph.D-Math- 497	Differential Equation & Fixed Point Theory	Dr. Ramesh Kumar Vats	Course Work completed
14.	Ms. Prachi Agrawal	2K17-Ph.D-Math- 375	Stochastic Programming in the framework of Statistical Distributions involving metaheuristic Algorithms	Dr. Talari Ganesh	
15.	Mr. Arpan Garg	2K17-Ph.D-Math- 494	Statistical decisions of Analytical Hierarchy Process	Dr. Talari Ganesh	
16.	Mr. Harender Kumar	2K-19-Ph.D-Math- 496	ANN method for solution of differential equations	Dr. Neha Yadav	Literature Review is in progress for numerical solution of differential equations using ANN and other soft computing approaches.
17.	Ms. Shivani	2K15-Ph.D-Math- 286	Some Thermal and Bio-Convection Problems in Nano- Fluid.	Dr. Yogeshver Dutt Sharma	Completed in September 2019
18.	Mr. Atul Kumar Kushwaha	2K18-Ph.D-Maths- 414	Some Problems on Bio-Convection.	Dr. Yogeshver Dutt Sharma	On Going

### 9. Detail of the Laboratories:

S. No.	Name of Laboratory
1.	Mathematical Computational Lab
	Basic Computational Lab is functional for PG students and Research Scholars with equipped facilities and software.

# 3.9 DEPARTMENT OF PHYSICS & PHOTONICS SCIENCE



### 1.0 ACADEMIC STAFF

HEAD : Dr. Arvind Kumar

Ph.D

#### **FACULTIES**

Professor	Associate Professor	
-	Dr. Subhash Chand	Dr. Rajesh Kumar
-	Dr. Arvind Kumar	Dr. Vimal Sharma
-	Dr. Kuldeep Kumar Sharma	-

### 2. **DISTINCTION ACHIEVED**

(a) **By student**: - Seven M.Sc Students Qualified Graduate Aptitude Test in Engineering (GATE) exam. One student qualified the national level Joint Entrance Screening Test (JEST) examination. One student joined Ph. D. program at IIT Dhanbad.

(b) By faculty Member:

### 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	Duration	Venue
-	-	-	-	-

### b) Participated by Faculty Members:

Name of the Staff	Course/Seminar	Organization	Duration	Venue
Dr. Arvind Kumar	STC on "Advances in Laser Technology"	National Institute of Technical Teachers Training & Research (NITTR)	16-20 September, 2019	Department of Applied Sciences, National Institute of Technical Teachers Training & Research- Chandigarh
Dr. Vimal Sharma	IIC/ARIIA/POC mentoring session	MHRD's Innova tion Cell	19/07/2019	PEC, Chandigarh

### 4. **RESEARCH**

### (a) Research Scheme:

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

#### (b) Research Publication

- i) PAPER PUBLISHED BY FACULTIES: 07
- 1) Paper Title: Effects of temperature, bias and frequency on the dielectric properties and electrical conductivity of Ni/SiO2/p-Si/Al MIS Schottky diodes Authors: Naveen Kumar, Subhash Chand Journal Year and page No. Journal of Alloys and Compounds 817 (2020) 153294.
- Paper Title: On high-field conduction and I–V measurements in quaternary Se–Te–In–Pb nano-chalcogenide thin films Authors: Anjali, Balbir Singh Patial, Subhash Chand and Nagesh Thakur Journal Year and page No.: Journal of Materials Science: Materials in Electronics (2020) 31:2741–2756
- 3) **Title of the paper:** Structural, electronic, transport and magnetic studies of LaCo 1 x Ni x O 3 (x = 0, 0.3) thin films Author (s) Ashok Kumar, Vinod Kumar, Dinesh Shukla, Rajesh Kumar, Ram Janay Choudhary and Ravi Kumar *Journal of Applied Physics* ISBN/ISSN No.:Year of Publication: 2019 Vol. No. ..... 126 (235103).
- 4) **Title of the paper**: 200 MeV Ag+15 ion irradiation-induced modification in structural, magnetic and electrical properties of LaCoO3 thin film Author (s): Ashok Kumar, Rajesh Kumar, Vinod Kumar, Dinesh Shukla, Ram Janay Choudhary & Ravi Kumar Journal of *Applied Physics A* ISBN/ISSN No.: Year of Publication: 2020 Vol. No. ..... 126 (499).
- 5) Title of the paper: Role of Ni2+ substituent on the structural, optical and magnetic properties of chromium oxide (Cr Ni O ) nanoparticles Author (s): Jarnail Singh, Rajesh Kumar, Vikram Vermaa and Ravi Kumar -Journal: Ceramic International ISBN/ISSN No.: Year of Publication: 2020 Vol. No...
- 6) Title of the paper: Structural, optical and electrical characterization of epitaxial Cr2O3 thin film deposited by PLD Author (s): Jarnail Singh, Vikram Verma, Rajesh Kumar and Ravi Kumar Journal: Materials Research Express ISBN/ISSN No.: Year of Publication: 2019 Vol. No. ..... 6
- 7) **Title of the paper**: Application of Co-doped copper oxide nanoparticles against different multidrug resistance bacteria Author (s): Anu, N. Thakur, K. Kumar and K. K. Sharma -Journal: Inorganic and Nano-Metal Chemistry ISBN/ISSN No.:2470-1556 (Print) 2470-1564 (Online) Year of Publication: 2020Vol. No. ..... Page No.: From 01 to 1
- ii) PAPER PRESENTED IN CONFERENCE/SEMINAR/ SYMPOSIUM : 01

Role of aluminium and MWCNT as a fuel in MoO<sub>3</sub> based nanothermite (May 2020) AIP Conference - Dr. Vimal Sharma

iii) PAPER ACCEPTED FOR PUBLICATION:

iv) **PATENT**: -nil-

(c) **Doctoral Programme**: 07 Nos. Ongoing

Sr. No	Title	Guide	Name of the student	Brief Report
1.	Condensed Matter Physics	Dr. Vimal Sharma	Ms. Manisha Sharma	In progress
2.	Synthesis & Characterization Phosphor material	Dr. Arvind Kumar	Mr. Ishant Kumar	In progress
3.	Condensed Matter Physics	Dr. Subhash Chand	Ms. Seema	In progress
4.	Synthesis & Characterization of High K dilation Materials and their Heterojunctions	Dr. Subhash Chand	Mr. Naveen Kumar	In progress
5.	Properties of transmission metal doped C&D	Dr. Rajesh Kumar	Ms. Leelavati	In progress
6.	Study of Ni Doped Rate Earth Cobaltite Thin Film	Dr. Rajesh Kumar	Mr. Ashok Kumar	In progress
7.	Fabrication and Electrical Characterization of Metal/Titanium Dioxide/Silicon and Metal/Silicon Hetrojuntions	Dr. Kuldeep Kumar Shrama	Mr Arvind Kumar	Thesis submitted

(d) Ph.D Degree awarded: Nil

(e) Master thesis completed: 13

(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 (Rs. In lakh)

### 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

### 3.10 DEPARTMENT OF MATERIAL SCIENCE & ENGINEERING



#### 1.0 ACADEMIC STAFF

HEAD : Dr. Vishal Singh

Ph.D

#### **FACULTIES**

Professor	Associate Professor	Assistant Professor Grade - II			
Dr. Ravi	Dr. Vishal Singh	Dr. Vikram	Dr. Rita	Dr. Raj	Dr. Nitesh
Kumar		Verma	Maurya	Bahadur Singh	Kumar
		(On contract)			

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

### 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	Investigator	Brief Report
		lakh		
-	-	-	-	-

#### (b) Research Publication:-

#### PAPERS PUBLISHSED IN JOURNALS/CONFERENCES BY FACUTLY MEMBERS:

- 1. Enhanced visible-light photocatalytic activity of samarium-doped zinc oxide nanostructures, Sukriti, Prakash Chand and Vishal Singh, Journal of Rare Earths, Elsevier, 2019
- 2. Effect of pH values on structural, optical, electrical and electrochemical properties of spinel LiMn<sub>2</sub>O<sub>4</sub> cathode materials, Journal of Science, Prakash Chand, Vivek Bansal, Sukritiand Vishal Singh, Advanced Materials and Devices, Vol. 4, pp. 245-251, 2019
- 3. Rare earth substituted Bi<sub>0.84</sub>RE<sub>0.16</sub>FrO<sub>3</sub> (RE = La, Gd) an efficient multiferroic photo-catalyst under visible light irradiation, Praveen Kumar, Prakash Chand, Aman Joshi, Vijay Luxmi and Vishal Singh, International Journal of Hydrogen Energy, 2019
- 4. Mechanical Properties and Microstructure Evaluation of Differently Cryogenically Treated AlSI-H11 Steel, Sanjeev Katoch, Vishal Singh and Rakesh Sehgal, International Journal of Steel Structures, Springer, 2019
- 5. Response surface methodology based analysis of the impact of nanoclay addition on the wear resistance of polypropylene, Suthir Saralch, Vishal Jagota, Dinesh Pathak and Vishal Singh ,The European Physical Journal: Applied Physics, Vol. 86, 2019
- 6. Improvement in triobolgical behavior of H-13 steel by optimizing the cryogenic-treatment process using evolutionary algorithms, Sanjeev Katoch, Rakesh Sehgal, Vishal Singh et al, Tribology International, Vol. 140, 2019
- 7. Structural, electronic, transport and magnetic studies of LaCo<sub>1-x</sub>Ni<sub>x</sub>O<sub>3</sub> (x= 0, 0.3) thin films, Ashok Kumar, Vinod Kumar, Dinesh Shukla, Rajesh Kumar, R.J. Choudhary and Ravi Kumar, J. Appl. Phys. 126 (2019) 235103.
- 8. Effect of structural and thermal disorder on optical band gap of C<sub>r2O3</sub> nanoparticles, Jarnail Singh, Vikram Verma, Rajesh Kumar, Sandeep Sharma and Ravi Kumar, Mater. Res. Express 6 (2019) 085039.
- 9. Influence of Mg<sup>2+</sup>-substitution on the optical band gap energy of Cr<sub>2-x</sub>Mg<sub>x</sub>O<sub>3</sub> nanoparticles, Jarnail Singh, Vikram Verma, Rajesh Kumar and Ravi Kumar, Results in Physics 13 (2019) 102106. (Impact Factor: 2.147)
- 10. Structural, optical and electrical characterization of epitaxial Cr<sub>2</sub>O<sub>3</sub>thinfilm deposited by PLD ,Jarnail Singh, Vikram Verma, Rajesh Kumar and Ravi Kumar, Mater. Res. Express,6,(2019),106406
- 11. Defect states and kinetic parameter analysis of ZnAl<sub>2</sub>O<sub>4</sub> nanocrystals by x-ray photoemission spectroscopy and thermoluminescence, . Mega Jain, Manju, Ravi Kumar, O.W. Sung, K.H. Chae, Ankush Vij and Anup Thakur, Scientic Report: Nature-research 385 (2020) 57227-8.
- 12. Consequesces of R³+ cationic radii on the dielectric and magnetic behavior of RCrO₃ pervoskites, . Kapil Dev Singh, Fouran Singh, R.J. Choufhary and Ravi Kumar, Appl. Phys. A 126 (2020) 148.
- 13. Effect of temperature on structural and optical properties of Methyl-Ammonium Bismuth Iodide thin films". N.P. Vikas, Sadiq Mahmood, S. Pranoy, Schin Kumar and Ravi Kumar, J. Nanoscience and Nanotechnology 20 (2020) 3734.

- 14. Reduction in tilting of oxygen octahedron and its effect on band gap with La doping in SrSnO<sub>3</sub>, Yogesh Kumar, Ravi Kumar, R.J. Choudhary, Anup Kumar and A.P. Singh, Ceramic International 46 (2020) 17569.
- 15. Effect of gamma irradiation on thermoluminiscence studies of LiF: Sm3+, Dy3+ nanophosphors, Arun Kumar, Arvind Kumar, Rakesh Dogra, Mohit Minhas, Sandeep Sharma and Ravi Kumar, Emerging materials Research 9 (2020) 122.
- 16. Role of Ni<sub>2</sub>+substituent on the structural, optical and magnetic properties of chromium oxide (Cr<sub>2</sub>-xNixO<sub>3</sub>) Nanoparticles, Jarnail Singh, Rajesh Kumar, Vikram Verma, Ravi Kumar, Ceramic International,46(2020),24071-24082
- 17. Comparative studies on optoelectronic properties of epitaxial MgxCr2-xO3and AlxCr2-xO3(x½0, 0.1, 0.2 and 0.3) thin films deposited onsapphire substrates ,Jarnail Singh, Rajesh Kumar, Vikram Verma, Ravi Kumar, Alloys and Compounds,2020,847,15671
- 18. Effect of europium concentration on gamma ray exposedthermoluminescence behaviour of LiF: Sm3+,Dy3+,Eu3+nanophosphor ,Arun Kumar, Arvind Kumar, Rakesh Dogra, Mohit Minhas, Sandeep Sharma, Narain Singh and Ravi Kumar, Optik,216(2020),164965
- 19. 200 MeV Ag+15 ion irradiation-induced modification in structural, magnetic and electrical properties of LaCoO3 thin film ,Ashok Kumar, Rajesh Kumar, Vinod Kumar, Dinesh Shukla, Ram Janay Choudhary, Ravi Kumar, Applied Physics A,126(2020),499
- 20. Effect of heat-treatment on microstructure, mechanical and tribological properties of Mg-Li-Al based alloy,R. Maurya, D. Mittal, K. Balani, Materials Research and Technology, 9(2020),4749-4762.
- 21. Damage mechanics of polypropylene-based composites using progressive-and constant-load scratching,S. Ariharan, R. Maurya, R. K. Sharma, V. K. Sharma, S. Lohia, K. Balani, Polymer Composites, 2020
- 22. Development of single phase bimodal microstructure in bulk ultrafine-grained low carbon steel ,Raj Bahadur Singh, N.K. Mukhopadhyay, G.V.S. Sastry, R. Manna, Materials Today: Proceedings ,26(2020),1514-1519

iii) PAPER ACCEPTED FOR PUBLICATION : -nil-iv) PATENT : -nil-

(c) **Doctoral Programme** : 09 No (Ongoing)

Sr.	Title	Guide	Name of the	Brief
No.			student(s)	Report
1	Synthesis and Optical,	Dr. Vikram Verma/	Mr. Jarnail Singh	Ongoing
	Electrical Characterization of	Dr. Ravi Kumar		
	P-type Transparent			
	conducting Oxides Material			
2	Synthesis and	Dr. Vishal Singh	Mr. Ashish	Ongoing
	Characterization of LDPE,			
	HDPE with falters graphite			
	GE,CNT and study the			
	electrical and mechanical			
	properties			
3	Structural, Electrical and	Dr. Ravi Kumar	Mr. Kapil Dev Singh	Ongoing
	Magnetic Studies of			
	Transition Metal substituted			
	RCrO₃			
4.	Morphological,	Dr. Vikram Verma	Sh. Amarjeet Singh	ongoing

	microstructural and mechanical characterization of metal metrix composite (MMC).			
5.	Swift Heavy Ion Irradiation induced modification in Structural, Electrical and Optical properties in Substituted RCrO <sub>3</sub> thin film.	Dr. Ravi Kumar	Sh. Ravinder Kumar	Ongoing
6.	Polymer Nan composite based sensors for the sensitive and selective detection of mercury ions	Dr. Vishal Singh	Sh. Lovepreet Singh	Ongoing
7.	Diluted Magnetic Semiconductor(DMS)	Dr. Vikram Verma	Sh. Pankaj Bhardwaj	Ongoing
8.	Advanced Manufacturing of Advanced Engineering Materials	Prof. Vinod Yadava	Sh. Pankaj Sharma	Ongoing
9	Metal-Matrix Composite(MMC)Coating	Dr. Rita Maurya	Sh. Piyush Pridarshi	Ongoing

(d) Ph.D. Degree awarded : Nil

(e) Master thesis completed : 11

S.No.	Title	Name of Student	Guide allotted
1	Synthesis and characterization of Nd-BatiO3/ Polyaniline Polymer Composite	Utkarsh Upadhyay, (17M601)	Dr. Vishal Singh
2	A Study on Machinability of Cryo-treated D3 Tool Steel Using Response Surface Methodology	Gagan Saraswat, (17M602)	Dr. Vishal Singh
3	Study of Mechanical and Tribological Behavior of Nanoclay/PMMA Composite Prepared By Twin Screw Extruder	Aneesh Paul (17M603)	Dr. Vishal Singh
4	Defect Induced Optical& Photoluminescence	Shivam Shukla	Prof. Ravi

	Properties of Cu Doped Zinc Oxide	(17M604)	Kumar
5	Synthesis of Pure MgO Nanocomposites for Visible Light Emission	Sat Paul (17M605)	Dr. Vikram Verma
6	Synthesis and characterization of ZINC Doped Magnesium Oxide Nanopartcles	Pratigya Prabhakar (17M606)	Dr. Vikram Verma
7	Synthesis of ZINC Oxide Nanoparticles and Study the Effect of Manganese substitution of ZINC Oxide Structural and Optical Properties	Ravi Kumar Yadav (17M607)	Prof. Ravi Kumar
8	Synthesis and characterization of Cadmium Doped ZINC Oxide Nanoparticles	Mohd. Furkan Ansari (17M608)	Dr. Vikram Verma
9	A Study on Machinability of Cryo-treated Ti-6Al-4V Alloy using Taguchi Technique	Nissamol Sunny (17M609)	Dr. Vishal Singh
10	Effect of Chromium(Cr)Doping On Structural and Optical Properties of Zinc Oxide (ZNO) Nano Crystals Synthesized By Chemical Precipitation Method	Anuj Kumar Singh (17M610)	Prof. Ravi Kumar
11	Synthesis & characterization of RGO/PMMA Nanocomposites	Anupama Kashyap (17M611)	Dr. Vishal Singh

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

Sr. No.	Date	Speaker	Topic
1	27/08/2019	Prof. Jyotsna Dutta Majumda, IIT	Laser Composite Surfacing
		Kharagpurr	
2	2/03/2020	Prof Rajiv Prakash, IIT, BHU	Advance Materials and
			composite for sensors and
			electronic devices

### (g) **CONSULTANCY SERVICES**:

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

(i) **EQUIPMENT ACQUIRED**:

-nil-

4. TECHNICAL ASSOCIATION / SOCIETIES:

-nil-

### 5. **DETAIL OF THE LABORATORIES**:

Sr. No.	Name of the Laboratory
1.	Polymer Composites Lab
2.	XRD Lab
3.	FESEM / Nano Indentor Lab
4.	PLD Lab
5.	PL/Micro-Raman Lab
6.	Spectro scopy Lab
7.	Nano materials Synthesis. Lab
8.	Materials Science & Research Lab
9.	Physical Metallurgy Lab

# 3.11 DEPARTMENT OF ARCHITECTURE



#### 1. ACADEMIC STAFF

HEAD : Dr. Inderpal Singh

Ph.D

#### **FACULTIES:**

Professor	Associate Professor	Assistant Professor
Dr. Minakshi Jain (Ph.D.) ( On deputation )	Dr. Inderpal Singh (Ph.D.)	Dr. Aniket Sharma (Ph.D.)
Dr. Bhanu. M. Marwaha (Ph.D.)		Dr. Puneet Sharma (Ph.D.)
		Dr. Vandna Sharma (Ph.D.)
		Ar. Amanjeet Kaur (M.Arch.)
		Ar. Neetu Kapoor (M.Arch.)
		Ar. Sandeep Sharma (M.Arch.)
		Ar. Venu Shree (M.Arch.)
		Dr. Rashmi Kumari (Ph.D.)

### 2. DISTINCTION ACHIEVED:

- a) By Student: 03 nos.
- b) By Faculty Member:
- 3. RESEARCH:
- a) Research Publication by faculties:
- (i) International journal:

- 1. N. Kapoor, M. Jain, and V. K. Bansal, (2019) GIS-based framework for local spatial planning in hill areas, International Review for Spatial Planning and Sustainable Development, vol. 7, no. 4, pp. 113-130.
- 2. N. Kapoor, M. Jain, and V. K. Bansal, (2019) GIS-based methodology for sustainable spatial planning at site level for hill areas: case study of a university campus, Research Journal of Recent Sciences, vol. 8, no. 4.
- 3. N. Kapoor, M. Jain, and V. K. Bansal, (2020) A methodological approach for weighting fact assessment: a tool for facilitating spatial planning, Journal of Mountain Science, vol. 17, no. 3, pp. 721-739.
- 4. N. Kapoor, V. K. Bansal, and M. Jain, (2020) Development of creative problem solving-based framework for site planning in hill areas," Frontiers of Architectural Research, vol. 9, no. 2, pp. 450-466.
- 5. Shree, V., Marwaha, B. M., & Awasthi, P., (2019) Indoor Air Quality Investigation at Primary Classrooms in Hamirpur, Himachal Pradesh, India. Hydro Nepal: Journal of Water, Energy and Environment, 24, 45-48.
- 6. Shree, V., Marwaha, B. M., & Awasthi, P., (2019) Assessment of Indoor Air Quality in Building using CFD: A Brief Review. International Journal of Mathematical, Engineering and Management Sciences, 4 (5), 1154–1168.
- 7. Shree, V., Marwaha, B. M., & Awasthi, P., (2019) Indoor Air Quality (IAQ) investigation in primary schools at Hamirpur (India). Journal of the Indian Chemical Society.

#### (ii) International Conferences:

- 1. K, Amanjeet & G, Pushplata "Climate or Socio-cultural aspects: Guiding elements in traditional house forms" 53rd ASA Conference, IIT Roorkee, 28-30 November, 2019.pp 69-78.
- 2. Athul P, Vandna Sharma Sustainability & Cultural Conformity In Vernacular Architecture: a case study of Kurichyar tribe of Wayanad Kerala, ICFC 2019 International Conference on Future Cities at Indian Institute of Technology Roorkee on 11-13 Dec 2019, pp 386-389.
- 3. Kumari R., Analysis of the Impact of Multidimensional Factors on Park Accessibility: A Study of Hamirpur, India ICFC 2019 International Conference on Future Cities at Indian Institute of Technology Roorkee on 11-13 Dec 2019, pp 99-102.

#### b) Research project

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

Sr. No.	Title of R&D Project/Patent	Heading Status [PI / Co-PI(.)]	Present Status of Project [Completed / Ongoing]	Patent Granted [Yes / No]	Rs.
1	Improving compressive strength, durability properties of adobe for propagating sustainable and cost-effective mass housing especially in rural areas of different districts of Himachal	PI Dr. Vandna Sharma	Completed	No	6,37,800/-

	Pradesh				
2	International project "Building Urban Resilient Communities" co funded by Erasmus + Programme of the European Union	PI Dr Inderpal Singh	Ongoing	NO	1,39,50,000/- Approx.
3	Impact of daylight quality within indoor residential spaces: A study in Hamirpur	PI Dr Rashmi Kumari	Ongoing	NO	304700/-

### c) Book published

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

d) Doctoral Programme: 11 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 & Dr. Inderpal Singh	Ar. Vikas Bhola	SOA completed
2.	Developing Sustainable Residential Model by Integrating Landscape Elements : study area Nainital	Dr. Minakshi Jain & Dr. Inderpal Singh	Ar. Priyank Jain	SOA completed
3.	Geo-design approach for spatial planning in Hill area	Dr. Minakshi Jain & Dr. Vijay Kumar Bansal	Ar. Neetu Kapoor	Completed
4.	Study of ventilation and Indoor paints in Primary School class Rooms of composite climate for monitoring its indoor air quality	Dr. Bhanu M Marwaha	Ar. Venu Shree	Completed
5.	Sustainable Housing for Industrial Workers. Case Study-Noida (U.P.)	Dr. Bhanu M Marwaha	Ar. Manisha	Course work Complete
6.	Impact of Yamuna Expressway on the Quality of Life in selected villages under the Master Plan of YEIDA-I	Dr. Inderpal Singh	Ar. Kaushlendra Singh	SOA completed
7.	Role of Fenestration for daylight performance in government offices of Hamirpur	Dr. Aniket Sharma	Ar. Rohit Thakur	SOA completed
8.	Predicting Energy of Hotel buildings using core based reasoning Approach	Dr. Aniket Sharma	Ar. Rajat Nainwal	Course work Complete
9.	Developmental Model for Urban Revitalization of Core area in India: case of Sagar, MP, India	Dr. Puneet Sharma	Ar. Akansha Soni	SOA completed
10.	Framework for development of hill Town Resilience-HP	Dr. Puneet Sharma	Ar. Geetika Kaundal	Course work

				Complete
11.	Visual Quality framework for the city of Dharamshala, HP	Dr. Vandna Sharma	Ar. Rahul Bharmauria	Course work Complete
12.	Effect of different types of roof systems on the indoor thermal comfort of houses of Himachal Pradesh.	Dr. Vandna Sharma	Ar. Ridima Sharma	Course work Complete
13.	Gender Sensitive Strategies in Urban Planning	Dr. Rashmi Kumari	Ar. Asmita Yadav	Course work Complete

### 4. POPULAR LECTURES BY OUTSIDE EXPERTS:

Sr. No.	Date	Speaker	Торіс
		NIL	

### 5. TECHNICAL ASSOCIATIONS/SOCIETIES:

Sr. No.	Name of Professional Societies/ Institutions	Name of the Faculty	Status	National/ International
1.	Council of Architecture	Dr. Minakshi	CA/90/13558	National
2.	Indian Society of Landscape Architects	Jain	J-10/A2007	National
3.	Council of Architecture	Dr. Bhanu M	CA/92/15454	National
4.	Associate Member of The Indian Institute of Architects Mumbai	Marwaha	A-14291	National
5.	Institute of Town Planners, India	Dr. Inderpal	Fellow Member 2006/52	National
6.	The Indian Institute of Architects Mumbai	Singh	A-16465 Fellow Member	National
7.	Council of Architecture		CA/89/12443	National
8.	The Indian Institute of Architects		Lifetime	National
9.	Council of Architecture		CA/2006/38390	National
10.	Institute of Town Planners, India		Associate Member (2011-119)	National
11.	Indian Society of Heating, Refrigeration & Air Conditioning Engineers (ISHRAE)	Dr. Aniket	Member (2017-2020)	National
12.	Indian Building Congress (IBC)	Sharma	Lifetime (ML6231)	National
13.	Indian Concrete Institute		Lifetime (10542)	National
14.	Autodesk User Group International Organization (AUGI)		Lifetime member	International
15.	International Network for Traditional Building, Architecture and Urbanism (INTBAU)		Member	International
16.	The Indian Institute of Architects	Dr. Puneet	Lifetime	National

17.	Council of Architecture	Sharma	CA/2004/33626	National
18.	Institute of Urban Design India		Lifetime	National
19.	Council of Architecture	Dr. Vandna Sharma	CA/2005/36353	National
20.	Council of Architecture	Ar. Amanjeet	CA/2001/28647	National
21.	The Indian Institute of Architects	Kaur	Lifetime	National
22.	The Indian Institute of Architects	Ar. Neetu	Lifetime	National
23.	Council of Architecture	Kapoor	CA/2006/37880	National
24.	The Indian Institute of Architects	Ar. Sandeep	Lifetime	National
25.	Council of Architecture	Sharma	CA/2006/37836	National
26.	Council of Architecture		CA/2006/38789	National
27.	The Indian Institute of Architects	Ar. Venu Shree	Lifetime	National
28.	Indian Society of Technical Education	Ai. Veilu Sillee	LM 76112	National
29.	Council of Architecture	Dr. Rashmi	CA/2009/45688	National
30.	Institute of Town Planners, India	Kumari	2016-242	National

#### 6. DETAILS OF LABORATORIES:

- 1. Research & Documentation Lab
- 2. Computer Lab
- 3. Climatology & Energy Lab
- 4. Survey Lab
- 5. Audio Visual lab (SH-I to IV)
- 6. Visual Arts Lab
- 7. Building Material & Construction lab
- 8. Carpentry lab
- 9. Built Environment Model Making lab
- 10. BReUCom Research Lab

#### 7. STUDENT ACTIVITIES:

• A quiz competition to celebrate the Harit Prem Bharat Mahotsav 2020 on 14/2/2020 at 4:30pm.

# 3.12 DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES



### 1. ACADEMIC STAFF:

**HEAD:** Prof. Piar Chand Ryhal

Ph.D

### **FACULTIES:**

Professor	Associate Professor	Assistant Professor Gr-II
Dr. Piar Chand, Ph.D	Dr. Yogesh Gupta,	Dr. Manoj Sharma,
	Ph.D	Ph.D
		Dr. Manoj Kumar Yadav,
	Dr. Saroj Thakur,	Ph.D
	Ph.D	Dr. Sunder Kala Negi,
		Ph.D

### 2. RESEARCH:-

### (a) Research Publication:

i) Paper published in National and International Conferences/Seminars:

Author	Year	Title of Publication	Name of Journal ISSN	Volume (Issue)	Pages (PP)
Manoj Sharma	2019	Trust and Power as Determinats of Tax Compliance across 44 nNations	Economic Psychology	23(1)	22-30
Ritu Rana & Manoj Sharma	2019	Dynamic Causality Testing for EKC Hypothesis, Pollution Haven Hypothesis and International Trade in India	The Journal of International Trade & Economic Development (United Kingdom) ISSN:0963-8199 (Print) ISSN:1469-9559 (online)	28(3)	348- 364
Ritu Rana & Manoj Sharma	2019	International trade, foreign direct investment, economic growth and CO2 emissions: a study of India	Interdisciplinary Environmental Review, (United Kingdom) ISSN: 1521- 0227(Print) ISSN:2042-6992 (Online)	20 (1)	73-82
Manoj Sharma & Vinod Kumar	2018	Apple farming in Himachal Pradesh: Identification and examination of production problem of Apple Growers	Himachal Pradesh Journal of Social Sciences ISSN: 2249 3441	8(1)	74-91
Manoj Sharma & Vinod Kumar	2018	Apple Farming in Himachal Pradesh: An Assessment of Marketing Problems of Apple Growers	Administrative Development ISSN: 2319-1976	V(2)	13-23
Shivam Dogra,	2018	FDI and its Determinants	IJETSR	V-5 (5)	583- 600

Rajneesh	Evidence from Emerging		
Parkash	Nations		
Verma and			
Yogesh Gupta			

### 3. P.G. Supervision

Sr. No.	Title of	Guide/Supervisor	Department/Institute	Year
1.	<b>Dissertation/Project</b> Promotion of Rural	Dr. Manoj Sharma	M&HD, NIT	July,2018
1.	Tourism through	Di. Manoj Sharma	Hamirpur	July,2016
	Home Stay in		Traininpur	
	Himachal Pradesh A			
	Study of Kangra			
	District			
	Coordination among	Dr. Yogesh Gupta	M&HD, NIT	July,2018
	Humanitarian		Hamirpur	-
	Supply chain and			
	Commercial Supply			
	Chain during			
	disaster Relief			
	operations			
	FDI and its	Dr. Yogesh Gupta	M&HD, NIT	July,2018
	determinants:		Hamirpur	
	evidence from			
	emerging nations	D V 1 C 4	MOUD NIT	T 1 2010
	Exploring Impact of	Dr. Yogesh Gupta	M&HD, NIT	July,2018
	product and consumer		Hamirpur	
	characteristics on			
	ecommerce			
	adoption: A case			
	study of NIT			
	Hamirpur			
	Determinants of	Mohd. Adil	M&HD, NIT	July,2018
	Consumers' initial		Hamirpur	
	Trust and Behavioral		_	
	Intention in m-			
	Banking			
	Advertising Effect,		M&HD, NIT	July,2018
	Memory-Based		Hamirpur	
	Measures and Brand			
	Recall: An			
	Experimental Study			

# In Progress

Sr. No.	Title of Dissertation/Project	Guide/Supervisor	Department/Institute
	Performance of Mutual fund in India: Empirical analysis of open ended equity and debt funds	Dr. Yogesh Gupta	M&HD, NIT Hamirpur
	Fll and its Determinants: Evidence from India	Dr. Yogesh Gupta	M&HD, NIT Hamirpur
	Measuring Attitude of Women Working in Self-Help Group (SHG s)of Kangra and Hamirpur	Mohd. Adil	M&HD, NIT Hamirpur
	From Thinking Green to Buying Green A Study of NIT Hamirpur	Mohd. Adil	M&HD, NIT Hamirpur

# 4. PH.D Degree Awarded

Sr. No.	Title	Guide's	Name of Student	Brief Report
1.	Workplace spirituality Emotional ownership, job satisfaction: a Paradigm for managing job stress.	Prof. Piar Chand	Mr. Vikrant Jaswal	Awarded
2.	Performance An analysis of Indian Textile Exports: A study of post Reform Period.	Dr. Manoj Sharma	Mr. Rahul Dhiman	Awarded

### 4. (b) DOCTORAL PROGRAMME: 03 Nos. on going

Sr.No.	Title	Guide's	Name of Student	Brief Report
1	Organizational Behavior (O.B)/HRM	Prof. Piar Chand	Ms. Sonika	In progress
2	FDI/Environmental Economics	Dr. Manoj Sharma	Ms. RituRana	In progress
3	Transport Management Economics	Dr. Manoj Sharma Prof. Piar Chand	Mr. Daljit Singh	In progress

### **5(a) Sponsored Research Project:**

Sr. No.	Title of Project	Sponsoring Organization	PI	Year of award	Status
1	Determinants of Volatility in Farm Income, Prices and Yields of Apple: An Empirical Study of Himachal Pradesh, India	ICSSR, New Delhi	Dr. Manoj Sharma	2018	Completed Feb. 2019
2	Impact of Government to Citizen e-governance Services in HP	HP Institute of Public Administration, Shimla	Dr. Manoj Sharma	2018	Completed Dec 2018
3	Linking Human Resource Management: and Environmental Performance: The Role of Organizational Citizenship Behaviour for the Environment	ICSSR MHRD New Delhi	Dr. Mohd. Adil	2018	Completed Dec 2018
4	The Synergetic Effect of financial factors and public Promotion Programme on Export Performance: An Empirical Examination of small and Medium – Sized Enterprises.	ICSSR MHRD New Delhi	Dr. Mohd. Adil	2018	Completed Dec 2018

### 5 (b) In Progress

Sr. No.	Title of Project			_	onsoring ganization	PI		
	Prospects Entrepreneu	and urship	Problems	of	Tribal	Tribal Departme Pradesh	Development nt, Himachal	Dr. Manoj Sharma

### 6. DETAIL OF THE LABORATORIES:

Sr. No.	Name of the Laboratory
1.	Language Lab

# **3.13 DEPARTMENT OF MANAGEMENT STUDIES**



#### 1. ACADEMIC STAFF

HEAD: Dr. Y.D Sharma, Professor & Head

#### **FACULTY:**

Professor	Associate	Assistant Professor	<b>Assistant Professor</b>
	Professor	Grade-I	Grade-II
		Dr. Vivek Tiwari	Dr.Sachin Kumar
Dr. Y.D.Sharma	NIL	Dr.Mohd.Adil	Dr.Neeraj Dhiman
			Dr.Shampy Kamboj
			Dr.Richa Joshi

#### 1. DISTINCTION ACHIEVED:

By Student:

(2019-2020)	M.B.A
1 <sup>st</sup> Year	14
2 <sup>nd</sup> Year	24

By Faculty Member: 06

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

(a) Conducted in the Department: NIL(b) Participated by Faculty Members: NIL

#### 4. RESEARCH:

(a)Research Scheme: NIL

(b) Research Publications:01

(I) PAPER PUBLISHED BY FACULTIES: 10

Paper Published in International Journals:

S. No	Journal Name	Title of paper	Year in which publish	Author	Journal Pages
1.	Journal of Indian Business Research	Consumer adoption of Smartphone fitness apps: an extended UTAUT2 perspective	2019	Neeraj Dhiman Arora, Dogra,& Gupta, (2019)	363-388
2.	Behavior & Information Technology	Social comparison and continuance intention of smart fitness wearable: an extended expectation confirmation theory perspective	2020	Gupta, Neeraj Dhiman, Yousaf,& Arora, (2020)	1-14
3.	International Journal of Productivity and Quality Management	Exploring the applicability of SERVPERF model in Indian two-wheeler industry: a CFA approach	2020	+2 M.Adil	329-354
4.	International Journal of Services and Operations Management	Automated banks' service quality in developing economy: empirical evidences from India	2019	+1 M.Adil	331-350
5.	Journal of Electronic Commerce in Organizations	Factors driving consumer engagement and intentions with gamification of mobile apps	2020	Kamboj, S., Rana, S. and Drave, V.	17-35 Vol. 18 No. 2
6.	International Journal of Asian Business and Information	Developing Sustainable Relationships Through Organizational Citizenship Behaviour: An Indian Context	2019	Dr. Vivek Tiwari	38-54

	Management				
7	Journal of Asia-Pacific Business	Brand Desire: Scale Development and Empirical Examination	2020	Richa Joshi	
8	Vision	Captivating Brand Hate Using Contemporary Metrics: A Structural Equation Modelling Approach.	2020	Richa Joshi	
9	International Journal of Indian Culture and Business Management	The study of brand extension among generation Y in Indian market	2019	Richa Joshi	Page No. 339-353

(ii) PAPER PRESENTED IN CONFERENCE/SEMINAR/SYMPOSIS:

#### **International / National Conferences**

i) PAPER ACCEPTED FOR PUBLICATION: Nil

ii) PATENT :Nil

(c) Doctoral Programme:

(d) Ph.D. Degree awarded: Nil

(e)Master Thesis Completed: 29

#### (f)DOCTORAL PROGRAMME:

Sr. No.	Title	Guide	Name of Student	f Brief Report
1.				

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

- 5. CONSULTANCY SERVICES: Nil
- **6. EQUPMENT ACQUIRED:**

Sr. No.	Name of Equipment	Name of Manufacturer	Cost INR)	(Rs.	In
		NIL	<b></b>		

### 7. NAME OF LABORATORIES:

S.N.	Name of Laboratory
1	Managerial Computational and Simulation Laboratory

# 4 Staff Details

### 4.1 ADMINISTRATIVE STAFF

Sr.	Title	First Name	Last Name	Designation	Employee
No.					Code
1	Dr.	Sushil	Chauhan	Registrar (Officiating)	S0030
2	Sh.	Satish Chander	Sharma	Deputy Registrar (Admin)	
3	Sh.	Sanjay	Jamwal	Assistant Registrar	S0151
4	Sh.	Gaurav	Sharma	Assistant Registrar	S0344
5	Sh.	Vipan	Kumar	Assistant Registrar	
6	Sh.	Kumar Saurabh	Kumar	Assistant Registrar	
7	Sh.	Gaurav	Yadav	Assistant Registrar	
8	Sh.	Baldev Ram	Sharma	Assistant Registrar	S0123
9	Dr.	Mani	Verma	Medical Officer	S0293
10	Sh.	Anil	Kumar	Sr. Scientific Officer	S0243
11	Sh.	Jagdish Chand	Verma	Sr. Scientific Officer	S0057
12	Sh.	Ashwani	Kumar	Scientific Officer	S0059
13	Sh.	Nitin	Paliwal	Assistant Librarian	S0343
14	Sh	Vimlesh	Patel	Assistant Librarian (On Lien)	S0359

#### 4.2 Technical Staff

Sr.	Title	First Name	Last Name	Designation	Employee
No.					Code
1	Sh.	Sanjeev Kumar	Vashisth	Assistant Engineer (Elect.)	-
2	Sh.	Rajesh	Sharma	Assistant Engineer (Tele)	S0172
3	Sh.	Birender Singh	Minhas	Assistant Librarian	S0166
4	Sh.	Rajesh	Paul	Sr. Library Assistant	S0167
5	Sh.	Joginder	Singh	Library Assistant	S0169
6	Sh.	Sarvjit	Singh	Sr. Library Assistant	S0170
7	Sh.	Amarjeet	Singh	Foreman (SG-II)	S0270
8	Sh.	Ravi	Singh	Hardware Engineer (SG-II)	S0240
9	Sh.	Om Parkash	Sharma	Senior Technical Assistant	S0105
10	Sh.	Jaspal	Singh	Senior Technical Assistant	S0106
11	Sh.	Balbir	Singh	Senior Technical Assistant	S0077
12	Sh.	Rajpal	Minhas	Senior Technical Assistant	S0092
13	Sh.	Avinash	Aggarwal	Senior Technical Assistant	S0269
14	Sh.	Santosh	Kumar	Senior Technical Assistant	S0275
15	Sh.	Inder Singh	Guleria	Technical Assistant	S0104
16	Sh.	Partap	Chand	Technical Assistant	S0113
17	Sh.	Dhian	Singh	Technical Assistant	S0066
18	Sh.	Bikram	Singh	Technical Assistant	S0084
19	Sh.	Ravinder	Kumar	Technical Assistant	S0107
20	Sh.	Sanjeev Kumar	Thakur	Technical Assistant	S0058
21	Sh.	Dev	Raj	Technical Assistant	S0114
22	Sh.	Dinesh	Kumar	Technical Assistant	S0067
23	Sh.	Joginder	Singh	Technical Assistant	S0093
24	Sh.	Kuldeep	Kumar	Technician SG-I	S0171

25	Sh.	Desh	Raj	Technician SG-II	
26	Sh.	Kalyan	Singh	Technician SG-II	
27	Sh.	Ashwani	Kumar	Technician SG-II	
28	Smt.	Reeta	Singh	Senior Technician	S0268
29	Sh.	Ajay	Kumar	Senior Technician	S0101
30	Sh.	Sukh Dev	Singh	Senior Technician	S0102
31	Sh.	Parkash	Singh	Senior Technician	S0079
32	Sh.	Rakesh	Kumar	Senior Technician	S0115
33	Sh.	Suresh	Kumar	Senior Technician	S0069
34	Sh.	Shiv	Dayal	Senior Technician	S0070
35	Sh.	Jiwan	Kumar	Senior Technician	S0061
36	Sh.	Rakesh	Sharma	Senior Technician	S0060
37	Sh.	Gajinder	Singh	Senior Technician	
38	Sh.	Surinder	Singh	Senior Technician	S0086
39	Sh.	Sunil	Kumar	Senior Technician	S0111
40	Sh.	Santosh Kumar	Yadav	Senior Technician	S0266
41	Sh.	Chet	Ram	Technician	S0095
42	Sh.	Roop	Lal	Technician	S0087
43	Sh.	Surinder	Kumar	Technician	S0116
44	Sh.	Vijay	Kumar	Technician	S0267
45	Sh.	Kishore	Chand	Sr. Technician	S0265
46	Sh.	Naresh	Kumar	Technician	S0264
47	Sh.	Mahesh	Chand	Work Assistant (Driver)	S0173
48	Sh.	Yaswant	Singh	Work Assistant (Driver)	S0174
49	Sh.	Surender	Pal	Work Assistant (Driver)	S0316
50	Sh.	Sanjeev	Kumar	Work Assistant (Driver)	S0317
51	Sh.	Shameem	Ahmed	Work Assistant (Driver)	S0319
52	Sh.	Pawan	Kumar	Work Assistant (Driver)	S0326
53	Sh.	Ashok	Kumar	Technical Assistant	

### 4.3 Ministerial Staff:

Sr.	Title	First Name	Last Name	Designation	<b>Employee Code</b>
No.					
1	Sh.	Nanak Chand	Negi	Sr. Superintendent(SG-II)	S0126
2	Sh	Pritam Chand	Rangra	Sr. Superintendent	S0129
3	Sh.	Amar Nath	Nath	Sr. Superintendent	S0133
4	Sh.	Satpal	Sharma	Sr. Superintendent	S0132
5	Sh.	Rattan Chand	Verma	Sr. Superintendent	S0131
6	Sh.	Parkash Chand	Bhardwaj	Sr. Superintendent	S0139
7	Sh.	Raman	Kumar	Superintendent	S0272
8	Sh.	Parvesh	Kumar	Personal Secretary	S0282
10	Sh.	Desh Raj	Bansal	Personal Secretary	S0099
11	Sh.	Dev	Raj	Secretary	S0071
12	Sh.	Gulab Singh	Thakur	Stenographer (SG- I)	S0117
13	Smt.	Pushpa	Devi	Sr. Stenographer	S0164
14	Sh.	Ram	Kumar	Sr. Stenographer	S0080
15	Smt.	Sangeeta	Kumari	Stenographer	S0150
16	Sh.	Vinod	Kumar	Stenographer	S0149
17	Smt.	Raj Kumar	Sharma	Sr. Superintendent	S0136

18	Sh.	Sanjeev	Mehta	Asst. SG I	S0097
19	Sh.	Pardeep	Kumar	Asst. SG I	S0137
20	Sh.	Kishore	Kumar	Asst. SG I	S0138
21	Sh.	Joginder	Singh	Asst. SG I	S0141
22	Sh.	Rameshwar	Attri	Asst. SG I	S0140
23	Sh.	Pritam	Chand	Asst. SG I	S0143
24	Sh.	Yashpal	Singh	Asst. SG I	S0142
25	Sh.	Pawan Kumar	Sharma	Asst. SG I	S0145
26	Sh.	Jitender	Kumar	Asst. SG I	S0146
27	Sh.	Surinder	Singh	Asst. SG I	S0072
28	Smt.	Surindera	Verma	Asst. SG I	S0147
29	Sh.	SukhDev	Singh	Sr. Assistant	S0286
30	Sh.	Raman	Thakur	Sr. Assistant	S0158
31	Sh.	Meera	Thakur	Sr. Assistant	S0155
32	Sh.	Madan	Lal	Sr. Assistant	S0152
33	Smt.	Rajbala	Jassi	Sr. Assistant	S0062
34	Sh.	Raj	Kumar	Sr. Assistant	S0160
35	Smt.	Nazima		Sr. Assistant	S0159
36	Sh.	Vikas	Dogra	Sr. Assistant	S0311
37	Sh.	Ashwani	Kumar	Sr. Assistant	S0314
38	Sh.	Ajit	Kumar	Jr. Assistant	S0157
39	Smt.	Meena	Devi	Jr. Assistant	S0162
40	Sh.	Vishal	Narota	Jr. Assistant	S0313
41	Sh.	Vipan	Kumar-I	Jr. Assistant	S0312
42	Sh.	Vipan	Kumar-II	Jr. Assistant	S0315
43	Sh.	Shashi Kant	Ratnakar	Jr. Assistant	S0320
44	Sh.	V.K.	Tippan	Jr. Assistant	S0321
45	Sh.	Neenu	Sharma	Jr. Assistant	S0325

# 4.4 Supporting Staff:

1	Mr.	Partap	Chand	Attendant	S0189
2	Mr.	Bhagwan	Dass	Attendant	S0198
3	Mr.	Suresh Chand	Rangra	Attendant	S0186
4	Mr.	Om	Prakash	Attendant	S0181
5	Mr.	Sunil	Kumar	Attendant	S0180
6	Smt.	Sulesho	Devi	Attendant	S0083
7	Mr.	Hari	Singh	Attendant	S0219
8	Mr.	Bhupinder	Singh	Attendant	S0210
9	Mr.	Surinder	Kumar	Attendant	S0280
10	Mr.	Yoginder	Singh	Attendant	S0187
11	Smt.	Manorma	Chopra	Attendant	S0098
12	Mr.	Hem	Raj	Attendant	S0197
13	Mr.	Kashmir	Singh	Attendant	S0196
14	Mr.	Kehar	Singh	Attendant	S0194
15	Mr.	Ravinder	Kumar	Attendant	S0207
16	Mr.	Vijay	Kumar	Attendant	S0202
17	Mr.	Balwant	Chand	Attendant	S0064
18	Mr.	Rajinder	Singh	Attendant	S0213

19	Mr.	Tilak	Raj	Attendant	S0075
20	Mr.	Manohar	Lal	Attendant	S0188
21	Mr.	Banka	Ram	Attendant	S0074
22	Mr.	Suresh	Kumar	Attendant	S0192
23	Mr.	Ashok	Kumar-I	Attendant	S0195
24	Mr.	Ravi	Das	Attendant	S0190
25	Mr.	Ashok	Kumar-II	Attendant	S0191
26	Mr.	Lekh	Raj	Attendant	
27	Mr.	Joginder	Singh	Attendant	S0119
28	Mr.	Partap	Chand	Attendant	S0189
29	Mr.	Devinder	Kumar	Attendant	S0214
30	Mr.	Suresh	Kumar	Attendant	S0186
31	Mr.	Ramesh	Chand-I	Attendant	S0205
32	Mr.	Manmohan	Lal	Attendant	S0089
33	Mr.	Jiwan	Parkash	Attendant	S0206
34	Mr.	Ramesh	Chand-II	Attendant	S0201
35	Mr.	Subhash	Chand	Attendant	S0222
36	Mr.	Chain	Singh	Attendant	S0203
37	Mr.	Jai	Chand	Attendant	S0208
38	Mr.	Vinod	Kumar	Attendant	S0221
39	Mr.	Subhash	Chand	Attendant	S0183
40	Mr.	Anil	Kumar	Attendant	S0262
41	Smt.	Salochna		Attendant	S0263
42	Mr.	Jiya	Lal	Attendant	S0274
43	Mr.	Neeraj	Kumar	Attendant	S0271
44	Mr.	Roshan	Lal	Attendant (Works)	
45	Mr.	Vidya	Sagar	Attendant (Works)	
46	Mr.	Parkash	Chand	Attendant (Works)	
47	Mr.	Rajinder	Singh	Attendant (Works)	
48	Mr.	Rakesh	Kumar	Attendant (Works)	
49	Mr.	Prem	Lal	Attendant (Works)	
50	Mr	Om	Parkash	Attendant (Library)	S0276
51	Mr.	Sunil	Kumar	Attendant (Library)	S0277
52	Mr.	Subhash	Chand	Attendant (Library)	S0279
53	Mr.	Mukesh	Kumar	Attendant (Library)	S0278
54	Mr.	Basant	Singh	Attendant	

#### 4.5

#### यान्द्रीय ष्रीद्योगिकी संस्थान स्मीस्पुर NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR ACADEMIC CALENDAR FOR THE ODD SEMESTER 2019-20 July 2019 August 2019 October 2019 November 2019 September 2019 M 1 T 1 S 1 T 1 F 1 S 1 First Notification of Shortage of T 2 F 2 M 2 W 2 Gandhi Javanti 5 2 M 2 Attendance W 3 5 3 Т 3 S 3 T 3 T 3 HILL'FAIR (Annual T 4 W 4 Cultural Festival) 2019 S 4 F 4 М 4 W 4 **End Semester Theory** F 5 M 5 T 5 Т 5 Examinations (Continued) T 5 S T 6 F 6 S 6 Mid Semester Break W 6 F 6 S M 7 W 7 S 7 Т 7 S 7 M 8 T 8 T 8 5 8 Dussehra F 8 5 8 T 9 F 9 M 9 W 9 S M T 10 W 10 S 10 T 10 Muharram S 10 Id-e-Milad/Milad-ul-nabi T 10 **End Semester Evaluation of** T 11 S 11 W 11 F 11 M 11 W 11 **UG Project** Mid Semester Break F 12 Id-ul-Zuha (Bakrid) S 12 T 12 M 12 T 12 T 12 Guru Nanak's Birthday S 13 Last Date for End Semester T 13 F 13 S 13 W 13 F 13 T 14 S 14 W 14 S 14 M 14 5 14 **End of Classes** Last Date of Showing Evaluated Final Notification of Shortage M 15 T 15 Independence Day S 15 15 F 15 S 15 Mid Semester Answer Sheets of Attendance Notification of List of T 16 F 16 M 16 S W 16 16 M 16 Registered Students Last Date for Grade W 17 S 17 T 17 T 17 S 17 T 17 Submission Registration of PG/PhD Mid Semester Theory T 18 S 18 M 18 W 18 F 18 W 18 (Except First Year) Examinations **End Semester Practical** Registration of UG F 19 M 19 T 19 T 19 S 19 T 19 Examinations (Except First Year) S 20 T 20 F 20 W 20 S 20 F 20 **End Semester Evaluation of** S 21 W 21 S 21 S 21 M 21 PG Project/Dissertation Commencement of Classes M 22 T 22 S 22 T 22 F 22 S 22 (Except First Year) F 23 T 23 M 23 W 23 S 23 M 23 W 24 Janamashtami T 24 T 24 S 24 S 24 T 24 T 25 S 25 W 25 F 25 M 25 W 25 Mid Semester Evaluation of F 26 Last Date for Registration\* T 26 M 26 S 26 T 26 T 26 UG/PG Project/Dissertation S 27 T 27 S 27 Diwali (Deepavali) **End Semester Theory** F 27 W 27 F 27 Examinations S 28 W 28 S 28 M 28 T 28 S 28 M 29 T 29 5 29 T 29 F 29 S 29 T 30 F 30 आगमन (Agman) 2019 M 30 W 30 S 30 M 30 W 31 S 31 T 31 T 31 Declaration of Results

#### \*Including Candidates for Improvement in CGPI

#### Note

- Dates for Registration/Orientation/Commencement of Classes of First Year UG/PG/PhD will be Notified.
- End Semester PhD Seminar During 01.11.2019 to 15.12.2019 (Slots to be Notified by the Concerned Department/Centre).
- Winter Break for Students 14.12.2019 to 05.01.2020.
- Winter Vacations for Faculty 18.12.2019 to 02.01.2020.
- Convocation-2019 in the Month of October 2019 (Exact Date will be Notified).

#### अञ्जीरा ब्रीहोिन्नी खंखान स्मीरपुर NATIONAL INSTITUTE OF TECHNOLOGY HAMIRFUR ACADEMIC CALENDAR FOR THE EVEN SEMESTER 2019-20 May 2020 April 2020 January 2020 February 2020 March 2020 M 1 W 1 5 1 W 1 S 1 T 2 S 2 M 2 T 2 S 2 T 2 Mid Semester Evaluation of W 3 5 3 T F 3 F 3 M 3 UG/PG Project/Dissertation M 4 T 4 W 4 S 4 **End Semester Theory** T 4 5 4 F 5 **Declaration of Results** T 5 S 5 Examinations (Continued) W 5 Т 5 S 5 First Notification of Shortage of 5 6 M 6 W 6 F Registration of PG/PhD Т 6 M 6 6 Attendance S 7 T 7 5 7 T 7 Registration of UG F 7 M 8 5 8 W 8 F 8 S W 8 Commencement of Classes 8 T 9 T 9 5 9 M 9 T 9 S 9 W 10 F 10 **Good Friday** S 10 M 10 T 10 F 10 S 11 M 11 GP Evaluation T 11 T 11 W 11 S 11 F 12 S 12 T 12 of UG Final Year W 12 T 12 S 12 S 13 M 13 W 13 T 13 F 13 M 13 T 14 T 14 S 14 F 14 S 14 T 14 **End of Classes End Semester Evaluation** M 15 S 15 W 15 Submission of UG Project S 15 of UG Project W 15 Last Date for Registration\* Report to Project Guide T 16 5 16 S 16 M 16 T 16 Last Date of Showing Evaluated Mid W 17 अलिदा (Alvida) 2020 S 17 F 17 M 17 T 17 F 17 Last Date for End Semester T 18 S 18 M 18 T 18 W 18 S 18 **Evaluation of Answer Sheets** F 19 T 19 Last Date for Grade Submission S 19 W 19 5 19 T 19 S 20 M 20 W 20 T 20 F 20 लतकार (Lalkaar) M 20 T 21 S 21 T 21 F 21 S 21 (Annual Sports Meet) 2020 T 21 **End Semester Practical** M 22 W 22 F 22 S 22 S 22 W 22 Examinations T 23 T 23 S 23 M 23 T 23 S 23 S 24 W 24 T 24 F 24 M 24 F 24 M 25 T 25 S 25 T 25 W 25 S 25 S 26 T 26 F 26 S 26 Republic Day T 26 W 26 Mid Semester Theory M 27 W 27 Registration for S 27 T 27 F 27 M 27 NIMBUS (Annual Technical **Supplementary Examinations** Examinations S 28 T 28 T 28 S 28 Festival) 2020 T 28 F 28 (Summer 2020) **End Semester Theory** Last Date for Submission of M 29 F 29 S 29 W 29 Examinations W 29 S 29 PG Project/Dissertation Last Date for Evaluation of T 30 S 30 T 30 M 30 PG Project/Dissertation T 30 Notification of List of S 31 T 31 F 31 Registered Students

\*Including Candidates for Improvement in CGPI

#### Note

- End Semester PhD Seminar During 01.04.2020 to 15.05.2020 (Slots to be Notified by the Concerned Department/Centre).
- Distribution of PG Projects/Dissertations and UG Projects for Next Session 2020-21 by HoD/HoC During 01.04.2020 to 30.04.2020.
- Teaching Subjects Distribution to Faculty for Next Session 2020-21 by HoD/HoC During 01.04.2020 to 15.05.2020.
- Summer Break for Students 18.05.2020 to 19.07.2020.
- Summer Vacations for Faculty 20.05.2020 to 16.07.2020.

#### 5.0 Training and 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.

#### 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 placement.

#### 5.1 Short Term Industrial Research Experience

Short Term Industrial Research Experience is an integral part of engineering education that aims to making 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.

Short Term Industrial Research Experience for the B.Tech. /B.Arch. students were arranged in 431 different organizations/industries throughout the country/abroad during May-July 2019 for all B.Tech./B.Arch./Integrated M.Tech. students who had completed their pre final year. 4-6 weeks of internship at the end of 3<sup>rd</sup> year are to be completed by each student before appearing the final year.

Detail of Training /Internship to be undertaken by students in industries/organization during May-July 2019 is as under:

Sr. No.	Address	No. of students
1.	N.H. Division, UPPWD Lucknow (U.P.)	1
2.	Pwd. Rajasthan SMS medical college	1
3.	Irrigation and Public Health Sadwan	1
4.	L&T Construction Bangalore	1
5.	NHPC POWER HOUSE SAINJ KULLU H. P.	2
6.	HPPWD HPPWD Division Tanda District Kangra HP	3
7.	HPPWD Fatehpur	3
8.	HPPWD (NH) Dhahol, Jukhala	1
9.	BBMB Nangal Township and Talwara Township	1
10.	HPPWD Nalagarh, Nalagarh	1
11.	HPPWD Tanda medical college	1

12.	HPPWD	12
14.	Hamirpur, Himachal Pradesh	12
13.	Bihar Rajya Pul Nirman Nigam Limited	1
10.	R Block, Patna, Bihar	'
14.	NHPC, CHAMERA-2	1
17.	Chamba	'
15.	Department of Public Health Engineering, Sub-Division, Doda(west).	1
10.	Doda (J&K)	,
16.	BSNL	1
	Chamba	
17.	IIT Mandi	1
	Mandi	
18.	IIT Gandhinagar	1
	Gandhinagar, Gujarat	
19.	Meridian Construction House	1
	Jaipur	
20.	National Highway Of Authority	3
	Hamirpur	
21.	NHPC, Nagwain distt. Mandi (H.P.)	1
	Sainj (Power House) , Kullu (H.P.)	
22.	HPPWD Anni Kullu H.P	1
	Anni Kullu	
23.	HPPWD	1
	Shimla	
24.	Afcons Infrastructure Limited	1
	Aut, Kullu	
25.	Public working department, kota	1
	Kota (khanpur), Rajsthan	
26.	Research, Design and Standards Organization (RDSO)	1
07	Lucknow	4
27.	PWD KARAULI( RAJ)	1
20	Karauli, Rajasthan	4
28.	IISc Bangaluru	1
29.	Bangaluru	1
29.	Jaipur Development Authority Jaipur	
30.	BBMB sundernagar (h.p.)	1
30.	Sundernagar (II.p.)	'
31.	Ramboll India Private Ltd	2
J1.	Gurugram	-
32.	Public health department, Sangareddy	1
JZ.	Siddipet town(T.S)	'
33.	IIT BHU	1
	Civil engineering department IIT BHU	'
34.	L&T	1
	Faridabad	'
35.	PWD	1
	Delhi	
36.	National Hydroelectric Power Corporation (NHPC)	1
	Chamera 2, Chamba District, Himachal Pradesh	
	, , , , , , , , , , , , , , , , , , , ,	1

37.	AFCONS Infrastructure Ltd.	1
38.	P.W.D. Jaipur	1
	Jaipur, Rajasthan	·
39.	HPPWD	1
	Suni (Shimla)	
40.	PWD SUJANPUR HP	1
	At Bias river	
41.	JAIPUR DEVELOPMENT AUTHORITY, JAIPUR, RAJASTHAN	1
	Near Birla Mandir , Rambagh Circle , Jaipur , Rajasthan	
42.	ANSAL HOUSING	1
	Alwar,Rajasthan	
43.	PWD	1
	Banda	
44.	HP PWD	2
	Sujanpur	
45.	PWD Rajasthan, Hindaun Division, Todabhim Sub-division	1
46.	IIT Guwahati	1
	Guwahati, Assam, 781039	
47.	IPH	1
	Sundernagar	
48.	DMRC.LTD., Delhi	1
49.	U.P Jal Nigam	1
	Banda, U.P	
50.	Shahdara, New Delhi	1
51.	NHPC, Nagwain	1
	Phep-2,Sainj, Kullu	
52.	Public Works Department Laxmangarh	1
	PWD Laxmangarh, Laxmangarh Sikar Rajasthan, 332311	
53.	National Highway Authority of India	1
	Hanumangarh	
54.	HPPWD Junga	1
	Shimla	
55.	PWD Himachal Pradesh	1
	Sujanpur, Himachal Pradesh	
56.	UPPWD	1
	Orai CD-3	
57.	HP PWD	1
	Hamirpur	
58.	Patel Infrastructure Ltd.	1
	Vadodara, Gujarat	
59.	NHAI	1
	Prayagraj	
60.	GMR Energy	1
04	New Delhi	
61.	BBMB NANGAL	1
	NANGAL Phabha Atamia Rasaarah Cantra	4
62.	Bhabha Atomic Research Centre.	1
	Mumbai	

		14
63.	Bakhra beas management board	1
	Talwara	
64.	NJHPS ( SJVN Ltd.)	6
	Jhakri , Shimla	
65.	Siemens Itd.	1
	Gurugram	
66.	Giri power house, Girinagar	1
	Girinagar	
67.	Pong power house Talwara	1
	Talwara	
68.	HPSEB 132 KV Substation ANU, Anu	8
69.	Bhakra beas management board	2
	Talwara	
70.	Guru Gobind Singh Super Thermal Power Plant Ropar	1
	Ghanauli	
71.	Jaipur Metro Rail Corporation	1
	Jaipur	
72.	JSW HYDRO ENERGY LIMITED	1
	Karchham	
73.	Powergrid Corporation of India Limited	1
	Nalagarh	'
74.	Bhakra Beas Management Board	1
' ''	Talwara	'
75.	NHPC-limited	1
	Bihali sanj	'
76.	NHPC Parbati -III Hydroelectric power Project	1
	Behali	
77.	NTPC Koldam	1
	Bilaspur	
78.	Power grid corporation of india limited	1
	Delhi	
79.	Indian Railways	1
	Aimer	
80.	TATA Power DDL	1
	Delhi	
81.	Satyam Software Solutions Pvt. Ltd. Noida	1
82.	Mattansidh 220/132KV substation	2
J.	Hamirpur(H.P.)	-
83.	220 KV GSS RVPNL Dausa, Rajasthan.	1
	Dausa	'
84.	IIT mandi	1
	Mandi	
85.	North West Railway	1
	Jaipur	
86.	PGCIL	1
	NALAGARH	
87.	IISc bengaluru	1
	Bengaluru	'
88.	BSPTCL	1
	DOLIGE	'

	Patna, Bihar	
89.	Suratgarh super thermal power plant	1
	Suratgarh	
90.	Bhel, Bhopal	1
91.	SIEMENS ENERGY AUTOMATION LTD	1
	Verna	
92.	HPSEB Rakkar Una	1
93.	220 KV ES SSSSD	1
	HPSEBL Baddi	
94.	Hpseb 132 kv substation	1
	Himachal Pradesh	
95.	BCH ELECTRIC LIMITED	1
	Faridabad	4
96.	Larji hydroelectric project, HPSEBL	1
97.	Thalout PANIPAT THERMAL POWER PLANT	1
91.	PANIPAT THERMAL POWER PLANT   PANIPAT	
98.	GSS 400 KV, HEERAPURA	2
30.	JAIPUR	2
99.	Delhi Metro Railway Corporation	1
	Delhi	
100.	KVCH Noida	1
	Noida	
101.	66MW Bassi Power house, HPSEBL	1
	Bassi( jogindernagar), distt. Mandi , himachal Pradesh	
102.	North western Railway	1
	Jodhpur	
103.	Powergrid corporation of India limited	1
404	Biharsharif	4
	GIS 400kv substation Tikker	1
105.	HPSEB katha, Baddi	1
100	Katha, Baddi	4
106.	Powergrid corporation of India Ltd	1
107.	Hamirpur Rajasthan Rajya Sabha Vidyut Prasharan Nigam Limited	1
107.	Jaipur	
108.	BHARAT HEAVY ELECTRICALS LIMITED BHOPAL MP	1
100.	BHOPAL	'
109.	Panipat thermal power plant	1
	Panipat	
110.	Mathura Refinery IOCL	1
	Mathura	
111.	Bosch Automotive Electronics (I) Pvt. Ltd.	1
	Bangalore	
112.	DMRC(Delhi metro rail corporation limited)	1
440	Delhi Limond hattaria and Last	4
113.	Livguard batteries pvt. Lmt.	1
111	Baddi	1
114.	CSIO-CSIR	I

	Chandigarh	
445	-	4
115.		1
440	Delhi	4
116.	400KV GSS Heerapura, Jaipur	1
	Jaipur	
117.		1
	Baddi	
118.	•	1
	Gagret	
119.		1
	Delhi	
120.	KBUNL	1
	Kanti	
121.	Livguard Batteries Pvt. Ltd.	1
	Baddi, H.P	
122.	SWARAJ MAZDA LIMITED ISUZU	1
	RUPNAGAR, PUNJAB	
123.		1
	Vadodara, Gujrat	
124.	Rail Coach factory , Kapurthala	1
	Kapurthala	
125.	NTPC	1
	Dadri, Vidyut Nagar, U.P.	
126.	Saint Gobain India Pvt. Ltd.	1
127.	International Tractor limited Sonalika	1
	Hoshiarpur	
128.	Escon Industries	1
	Gurgao	
129.	GURU GOVIND SINGH SUPER THERMAL PLANT, ROPAR (PUNJAB)	1
	ROPAR(PUNJAB)	
130.	BBMB	1
	Dehar, Sundernagar	'
131.	Indo Farm Equipment Limited	1
132.	Tata Steel	1
102.	Jamshedpur	'
133.	Escon Industries	1
133.	Gurgaon	l l
134.	TVS MOTORS	1
104.	NALAGARH	l l
135.	Gabriel India limited	1
135.	Gurugram	'
136.	Sonalika International Tractors Limited	1
130.		'
107	Hoshiarpur NHPC	1
137.	NHPC   Khairi chamba	
120		1
138.	Solid State Physics Laboratory (SSPL), DRDO	I
120	Timarpur, Delhi ITC LTD	1
139.		1
	MANPURA, BADDI	

140.	ROKI Minda Co. Private Limited PHASE 2, INDUSTRIAL GROWTH, BAWAL, HARYANA-123501	1
141.	MARUTI SUZUKI INDIA LTD. MANESAR, GURUGRAM	2
142.		1
	Gurgaon	
143.	Briez Briopai	1
144.	DCM ENGINEERING PRODUCTS ROOPNAGAR ,PUNJAB	1
145.	Fiat India Automobiles Pvt. Ltd	2
	Pune, Maharashtra	
146.	,	1
	Kapurthala	
147.		1
440	Ghaziabad	4
148.	SONALIKA INTERNATIONAL TRACTOR LIMITED	1
140	Hoshiarpur(Punjab)	1
149.	Copia, Engineering Bevies Eta.	1
150.	SEDL	1
454	MOHALI	
151.	IndiaFIRST Robotics Aundh, Pune	1
152.	Hindustan Copper Limited	1
	Khetri copper complex ,jhunjhunu ,Rajasthan	
153.	CNH Industrial India Pvt. Ltd.	1
	Greater Noida	
154.	1	1
	Mohali	
155.		1
	Nalagarh, distt. Solan (H.P)	
156.	Spray Engineering Devices (SED)	1
4==	Mohali, punjab	
157.	Sonalika, International Tractors Ltd.	1
450	Vill. Chak Gujran, Hoshiarpur, Punjab	
158.	IND SPHINX	1
150	Parwanoo	1
159.	IndiaFIRST Robotics	1
160	Pune, Maharashtra GAIL (INDIA) LIMITED	1
160.		'
161.	Vijaypur, Guna (M.P.) Saint Gobain India private Limited	1
101.	Sriperumbudur, chennai	'
162.	INDO FARM EQUIPMENT LIMITED	1
102.	Baddi, Solan(H.P)	'
163.	STEEL STRIPS WHEELS LIMITED	1
100.	Lehli, (Dist - Mohali)	[ '
164.	Tata Motors	1
101.	Lucknow	[ '
165.		1
	DETT VINVIIVIOI	

	Varanasi	
166.	Himalaya Construction Company Pvt. Ltd.	1
100.	Kinnaur	
167.	GSECL THERMAL POWER STATION	1
	Gandhinagar Gujarat	
168.	SJVN Limited	2
	Bayal, Rampur	-
169.	NTPC	1
	Ramagundam, Telangana	
170.		1
	Parwanoo, Himachal Pradesh	
171.		1
	Jaipur	
172.	l l	1
	Ecotech 3, greater noida, UP	
173.	Small Arms Factory	1
	Kanpur	
174.	CSIR-CSIO	1
	Chandigarh	
175.	GAIL	1
	VIJAY PUR GUNA M.P.	
176.	Suratgarh super thermal power plant	1
	Parbhat Nagar, Suratgarh, Rajasthan (335804)	
177.	Gail India limited	1
	Jaipur	
178.	IIT Mandi	1
	Mandi	
179.	Indo Farm Equipment Limited	1
180.	DLW VARANASI	1
	Varanasi	
181.	SML Isuzu Limited	1
	Ropar Punjab	
182.	HCIL GNU	1
	Noida	
183.	emug technologies	1
	Hyderabad	
184.	PRITIKA INDUSTRIES LIMITED	1
	MOHALI, PUNJAB	
185.	NTPC	1
	BARH	1.
186.	Guru govind Singh super thermal power plant (ghanauli)	1
407	Ropar ( ghanauli)	1
187.	Honda cars India Itd	1
400	Greater Noida	1
188.	Rail Coach Factory , Kapurthala	1
400	Kapurthala	1
189.	WAGON REPAIR WORKSHOP NORTH CENTRAL RAILWAY,JHANSI	1
	(U.P.)	
	JHANSI (UTTAR PRADESH)	1

100	Facen industries	1
190.	Escon industries	1
404	Gurgaon	4
191.	Reliance power limited	1
400	Shahjahanpur Microturners-2	4
192.		1
400	Baddi, Himachal Pradesh	4
193.	Prakash industries Ltd.	1
404	Champa (Chhattisgarh)	4
194.	Lift-Tech Materials Movement	1
405	Faridabad, Haryana	4
195.	NHPC Ltd	1
400	Khairi (176325),chamba(H.P.)	4
196.	ITC Limited	1
407	Baddi	4
197.	Everest sugar and chemical industry limited	1
	Ramnagar, Nepal	
198.	Oops infotech	2
	Chandigarh	
199.	Luminous Pvt Ltd	1
	Una	
200.	BSNL	1
	Amb	
201.	Credo Systems	1
	Chennai	
202.	BSNL	1
	Kullu	,
	RVPN Jaipur	1
204.	BSNL	3
	Hamirpur	
205.	C-DAC	10
	Mohali	
206.	Byte System	1
	Kota	
207.	DRDO Dehradun	1
208.	Bharat electronic limited	1
	Panchkula	
209.	D.R.M Jaipur	1
	Jaipur	
210.	Hawkscode Technologies Ltd.	1
211.	Kych	1
	Noida	
212.	NITK, Surathkal	1
	Surathkal (Mangalore)	
213.	Nag FoodBee Services Pvt. Ltd.	1
214.	Yellowant	1
۲۱٦.	Banglore	'
215.	Johannes Kepler University-Linz, Austria	1
210.	Linz-Austria, Europe	'
216.	·	1
۷١٥.	Indian Institute of Technology Patna	<b>'</b>

	Patna	
217.		4
217.	NOIDA	
218.	National Thermal Power Corporation	1
210.	Bilaspur	
219.		1
210.	Delhi	
220.	Wipro Technologies	1
	Bangalore	
221.	ECIL	1
	HYDERABAD	
222.	NTPC	1
	BARH ,BIHAR	
223.	Alog Tech	1
	Hyderabad	
224.	Jaipur metro rail corporation	1
	Jaipur	
225.	Central Electronics Ltd.	1
	Shibabad, Ghaziabad (UP)	
226.	IIT Indore	1
	Indore	
227.	Geeks portal foundation	1
	Jaipur, Rajasthan	
228.	BSNL, Warangal	1
229.	Wipro Limited	1
	Pune	
230.	Vasa Denticity Pvt. Ltd.	1
	Dentalkart	
	Delhi	
231.	Space for Children in education and development	1
	Chandigarh	
232.	ECIL Hyderabad	1
233.	Bharat Heavy Electrical Limited	1
	Haridwar	
234.	ECIL Hyderabad	1
235.	Uttar Pradesh Power Corporation Limited	1
	Lucknow	
236.	Nreach Solution private limited	1
	Banglore	
237.	Gap it services india pvt limited	16
	Hyderabad	
238.	Indian institute of technology Ropar	1
	Ropar	
239.	Kruzr	1
	Banglore	
240.	MMAD Communications Pvt. Ltd.	1
	Delhi	
241.	Vehant Technology Pvt. Ltd.	1
242.	Bharat Heavy Electricals Limited (BHEL)	1

	Visakhapatnam	
243.	Wipro Limited	1
243.	Hyderabad	I
244.	IIT KHARAGPUR	1
244.	Kharagpur	'
245.	Indian Institute of Technology (BHU), Varanasi	1
245.	Varanasi	1
246.		1
240.	New Delhi	I
247.	VIZAG STEEL PLANT	1
241.	Visakhapatnam	1
248.	Zeftware Solutions	1
240.		I
240	Biratnagar, Nepal	1
249.	Electronics corporation of India limited	1
250	Hyderabad RAD TECHNOLOGIES	1
250.		1
054	CHANDIGARH	4
251.	Zeftware Solutions Pvt Ltd	1
0.50	Biratnagar, Nepal	4
252.	Ecil	1
050	Hyderabad	4
253.	wiredsoft solutions Pvt LTD.	1
054	noida	4
254.	Hydro Power Limited	1
055	Dharamshala	4
255.	•	1
050	Germany	4
256.	Hump Back wonders	1
0.57	Gurugram	4
257.	Tech Mahindra Limited	1
050	Chandigarh	4
258.	Department of Information Technology	1
050	Shimla	
259.	CDAC, Bangalore	5
000	Bangalore	4
260.	DRDO Ob and in and	1
004	Chandigarh	40
261.	CDAC ,MOHALI and FORCECLOSE TECHNOLOGIES	10
000	MOHALI,WORK FROM HOME	4
262.	HDFC ERGO	1
000	Noida	4
263.	BSNL	1
004	Dharamshala	4
264.	Cepta Pvt. Ltd	1
	Noida	
265.	Elluminati Inc.	4
	Rajkot, Gujarat	
266.	TCIL-IT Chandigarh	1
	Chandigarh	

007	AV/D Educ Nativada	T 4
267.	AVR Edge Networks	1
	Bangalore	<u> </u>
268.	zCon Solutions Pvt. Ltd.	1
	Pune, Maharashtra	
269.	University of British Columbia	1
	BC, Canada	
270.	IIT Roorkee	1
	Roorkee, UK	
271.	NHPC, ltd.	1
	Chamba, District	
272.	ICET IT Solutions Pvt. Ltd.	1
	Bangalore	
273.		1
	Hyderabad	
274.		1
	Greator Noida	
275	IISC Bangalore	1
	Bangalore	
276.		1
210.	Ahmedabad	'
277	Dentalkart Vasa Denticity	1
211.	New Delhi	'
278	Cetpa infotech	1
210.	Noida	'
279.	PS Market Scientist Private limited	1
219.	Noida	
200		1
280.	Indian Oil Corporation Ltd,WRO	1
004	Mumbai	1
281.	Acuvate Software Pvt. Ltd	1
000	Hyderabad	1
282.	CETPA infotech	1
000	Noida	
283.	Aptira IT Services PTY LTD.	1
***	Ahmedabad	
284.	Google Summer Of Code - MetaBrainz	1
	Work From Home	
285.	Yellowant INC	1
	Bangalore	
286.	Aptira	1
	work from home	
287.	University of Lüneburg	1
	Germany	
288.	Apitra IT Services PTY LTD.	1
	Ahmedabad	
289.	SocialTek	1
	Hyderabad	
290.	IIT BHU	1
	Varanasi	
291.	Cronj It Technology Private Limited	1
	Bangalore	
L		

292.	KBIHM CONSULTING PVT. LTD	1
	Chandigarh	
293.	ONGC, Dehradun	1
	Dehradun	
294.	NIT Hamirpur	1
	Hamirpur	
295.	Aptira IT Services PTY LTD.	1
	Work from Home	
296.	Google Summer Of Code - Librecad	1
	Work from Home	
297.	Foxaisr Tech. Pvt Limited	1
	Indore	
298.	IIT, Kanpur	1
	Kanpur, UP	
299.	Wipro Limited	1
	Bangalore	
300.	Wipro limited	1
	Bangalore	
301.	HRBOT	1
	Gurugram	
302.	Dentalkart - Vasa Denticity	1
302.	Delhi	
303.	Tata Power DDL	1
	Delhi	
304.	H.T. Logics Pvt Ltd	1
	Kharar	
305.	Leading India.ai, Bennett University	1
	Greater Noida	
306.	Department of Information Technology	1
	Shimla	
307.	Zestmoney	1
	Bangalore	
308.	Jaza Software Pvt Ltd.	1
	Bangalore	
309.	QuantMagnum Technologies	1
	Hyderabad	
310.	National Informatics Centre	1
	HQ, New Delhi	•
311.	Eco Vision	3
	Construction Consultants Pvt. Ltd.	
	Gandhi Nagar, Gandhi Chowk	
	Hamirpur (HP)	
312.	Didi Contractor	1
312.	Design Consultants	
	Rakkar Road, Dharamshala	
313.	Delhi Metro Rail Corporation Ltd.	1
310.	Metro Bhawan, Barkhamba Road	
	New Delhi	
314.	H.P.P.W.D. Nirman Bhawan	1
017.	Shimla – 171002	·
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315.		1
	Ludhiana	
316.	,	1
	405-A, Shiv Vihar Road	
	Dharamshala	
317.	Arcop Associates Pvt. Ltd.	1
	New Delhi	
318.	Town & Country Planner	1
	Dharamshala, Kangra	
319.	1.1	1
	Panchkula	
320.	H.P.P.W.D. Dharamshala	1
321.	Hiren A. Gandhi & Associates	1
	Ahmedabad, Gujarat	
322.	Vaastu Consultants	1
	Chandigarh	
323.		2
	Panchkula	
324.	HP Public Works Department	1
	Dharamshala	
325.	Line Design Forum	1
	Jalandhar	
326.		1
	Shimla	
327.		1
	Mandi	
328.		1
	Shalimar Bagh	
	Delhi	
329.	Axiom India	1
	New Delhi	
330.	Design Dynamics India (P) Ltd.	1
	Gurgaon	
331.	Town & Country Planner	1
	Dharamshala, Kangra	
332.	Rajinder Kumar & Associates	1
	Safdarjung Enclave	
	New Delhi	
333.	Spar Design Studio	1
	Omaxe Square	
00.4	New Delhi	1
334.	NU.DU Architecture	1
225	Mumbai	
335.	Vastu Group	1
000	Sector 40 B, Chandigarh	
336.	Hiren A. Gandhi & Associates	1
	Memnagar, Ahmedabad, Gujarat	
337.	Pioneer Fabricators (P) Ltd.	1
	Partapur, Meerut	

338.	Attixs Architecture	1
330.	Calicut, Kerala	'
339.	Sukrit Vastu Architects	1
339.	Manali, Distt. Kullu	'
340.	Kothari Associates Pvt. Ltd.	1
340.	Cannaught Circus	'
	New Delhi – 110001	
341.	Livin Systems Consultants Pvt. Ltd.	1
0-11.	Near Nirmaya Hospital	'
	Delhi	
342.	Harsh Kakkar	1
	Kakkar Buildwall	
	205 N.T.D. Almora	
343.	National Fertilizer Limited	11
	Bathinda	
344.		2
	Panipat,Haryana	
345.	NFL NANGAL	1
	Nangal	
346.	Ambuja Cement Ltd	4
	Darlaghat, Solan (HP)	
347.	Bhabha Atomic Research Centre	1
	Bombay, Maharashtra	
348.	Continental Carbon India Limited	1
	Ghaziabad	
349.	Brintons carpets asia pvt LTD	1
	Pune, Maharashtra	
350.	ONGC	1
	Surat, gujarat	
351.	IOCL GUJARAT REFINERY	1
	Karachiya, Vadodara	
352.	Tata Steel LTD.	1
	Jamshedpur	
353.	NFL Nangal	2
	Nangal, Punjab	
354.	IOCL	3
	Barauni, Bihar	
355.	ONGC	1
0.50	Surat, gujarat	
356.	ONGC, Uran Mumbai	1
0.57	Uran, Mumbai	4
357.	Cement Corporation of India(CCI)	1
050	Rajban, Teh. Paonta Sahib. Distt. Sirmour	4
358.	India Glycols Limited	1
250	Gorakhpur	1
359.	ONGC	1
200	Jodhpur	1
360.	Indian Oil Corporation Limited (Panipat Refinery and Petrochemical	1
	Complex)	
<u> </u>	Panipat, Haryana	

361.	locl	2
301.		
200	Panipat  Phabba Atomia Bassarah centra	1
362.	Bhabha Atomic Research centre Mumbai	1
262		1
363.	HEAVY WATER PLANT (KOTA) RAWATBHATA	1
264		1
364.	ONGC jodhpur (Rajsthan Kutch Onland Exploratory Asset)	1
265	Jodhpur, rajsthan IFFCO	1
365.		1
266	Allahabad	1
366.	Indian Synthetic Rubber Ltd	1
267	Panipat	1
367.	Indian Institute of Technology, Kanpur	1
260	Kanpur Indian Institute of Petroleum	1
368.		1
200	Dehradun Cail (India) Limited Data	1
369.	,	1
070	Pata, Uttar Pradesh	1
370.	Siemens Healthcare Pvt Ltd	2
274	Gurugram  Device over the property of the control o	1
371.	BYTE SYSTEM EDUCATION DEVELOPMENT AND SOCIAL SOCIETY	1
270	KOTA	1
372.	National Institute of Technology Delhi	1
272	New Delhi	1
373.	Dare DRDO	1
274	Bangalore	1
374.	Eight Owls Communication	1
075	Noida	1
375.	IIT PKD	1
270	palakkad	7
376.	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7
277	Mohali  Physician Canabar Nigam Limited (P. C.N.L.)	12
377.	Bharatiya Sanchar Nigam Limited (B.S.N.L)	3
070	Hamirpur	1
378.	MTNL delhi	1
070	Shadipur, Delhi	1
379.	Indian Institute of Technology , Jammu	1
200	Jammu (J&K)	1
380.	Doordarshan	1
204	Lucknow  Defence Avienies Research Establishment DRDO Bengalers	1
381.	Defence Avionics Research Establishment, DRDO Bangalore	1
200	Bangalore	1
382.	Regional Telecom Training Center	1
000	Rajpura Punjab	1
383.	BSNL	1
001	PALAMPUR PRABEOLI)	1
384.	IIT MANDI ( HIMACHAL PRADESH)	2
225	Mandi	
385.	Beta Brain PVT.LTD	4
	Hamirpur (HP)	

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411.	IIIT Bangalore 26/C, Hosur Rd, Electronics City Phase 1, Bengaluru, Karnataka	1
440		0
412.	Omninos Solutions SCO-37, TDI City, Sector 118, Mohali Chandigarh	2
413.	ASDN CYBERNETICS PVT. LTD.	1
	44-A, ASDN Complex, Panchwati Nagar, Kunhadi, Kota, Rajasthan-324008	
414.	Geeks Portal	4
	263, Jagdamba Nagar, Heerapura, Near 200 ft bypass, Jaipur	
415.	Springfield Olympaids Private Limited	6
	C29, Mohan Nagar, Riddhisiddhi Chauraha, Gopalpura Road, Jaipur,	
	Rajasthan	
416.	IIT Mandi	2
	Kamand, Mandi, Himachal Pradesh	
417.	IIT JAMMU	1
	Jagti, Nagrota, J & K - 181221	
418.		2
	IIT area, Powai, Mumbai, Maharashtra	
419.	EME Technologies	1
	C-134,PUNCOM TECHNOLOGY PARK PHASE8 INDUSTRIAL	
	AREA, Mohali	
420.	Learning Sage	1
	Flat no 85, Sector 45, Gurgaon	
421.	Intelliroot	1
	#11, Sharada Building, 3rd Floor, Old Madras Road, Byappanahalli	
	Extension, Bengaluru-38, Karnataka	
422.	IIT Kanpur	2
	IIT Kanpur, Kalyanpur, Kanpur, Uttar Pradesh	
423.	Codeinfo Tech	1
	SCO 58-59, Basement, Sector 34A, Chandigarh,	
424.	Mitacs Globalink Intern	5
	Ecole de technologie Superieure, Montreal, Quebec, Canada	
425.	Algoji enterprises Pvt ltd	1
	B86/A LGF kalkaji New Delhi 110019	
426.	Codeinfo Tech	1
	SCO 58-59, Basement, Sector 34A, Chandigarh, 160022	
427.	Intelliroot	1
	#11, Sharada Building, 3rd Floor, Old Madras Road, Byappanahalli	
	Extension, Bengaluru-38, Karnataka	
428.	Innovatiview Pvt Ltd	1
	Windsor IT Park, Sector-125, Noida	
429.	Tech Mahindra Ltd.	1
	Plot No. 58 A & B ,NSEZ , Noida , India	
430.	Aptira Pty Ltd	2
	43 Marshall Street, Surry Hills, NSW, 2010 Australia	
431.	Department of Information Technology,	4
	Government of Himachal Pradesh, I.T.Bhawan, Mehli, Shimla-171013	

#### 5.2 Placement for 2019 - 2020

#### B.Tech. 2020 Batch

## 2020 (Total 62 Nos. of organizations in which students have been placed during the year 2019-20).

Sr. No.	Discipline	Eligible/ Appeared Candidate	Placed	% placement	Total Jobs Offered	% Jobs offered to NIT Hamirpur	Max. CTC in Lacs
1	Electronics & Comm. Engg.	73	60	82.19 %	84	115.06%	16.50
2	Computer Science & Engg.	82	79	96.34 %	103	125.60 %	22.37
3	Electrical Engg.	73	50	68.49 %	52	71.23 %	14.70
4	Mechanical Engg.	83	44	53.01 %	50	60.24 %	35.00
5	Civil Engg.	54	22	40.74 %	22	40.74 %	6.80
6	Chemical Engg.	42	18	42.85 %	19	45.23 %	14.70
	Total	407	273	67.07 %	330	81.08 %	

### **Dual Degree 2020 Batch**

### 2020 (Total 23 Nos. of organizations in which students have been placed during the year 2019-20)

Sr. No.	Discipline	Eligible/ Appeared Candidate	Placed	% placement	Total Jobs Offered	% Jobs offered to NIT Hamirpur	Max. CTC in Lacs
1.	Computer Science & Engg.	49	45	91.83 %	55	112.24 %	35.00
2.	Electronics & Comm. Engg.	43	27	62.79 %	29	67.44 %	11.50
	Total	92	72	78.26 %	84	91.30%	·

#### B.Arch. 2020 Batch

20	2020 (Total 02 Nos. of organization in which students have been placed during the year 2019-20)								
	Discipline	Eligible/ Appeared Candidate	Placed	% Placement	Total Job Offered	% Jobs offered to NIT Hamirpur	Max. CTC in Lacs		
1	Architecture	31	04	12.90 %	04	12.90 %	6.00		

#### M.Tech./M.Arch 2020 Batch

2020 (Total 11 Nos. of organizations in which students have been placed during the year 2019-20)								
Sr. No.	Discipline	Eligible/ Appeared Candidates	Placed	Total Job Offers	Percentage of placement			
1	Geotechnical Engg.	12	-	-	-			
2	Structure Engg.	10	01	01	10.00%			
3	Transportation Systems Engg.	10	-	-	-			
4	Water Resource Engg.	08	-	-	-			
5	THERMAL ENGG. (MECH. ENGG.)	11	-	-	-			
6	(CAD-CAM) (ME)	13	01	01	7.69%			
7	Power Systems (EE)	14	-	-	-			
8	Signal Processing & Control (EE)	09	01	01	11.11%			
9	Condition Monitoring, Protection & Control of Electrical Apparatus (EEE)	09	-	-	-			
10	VLSI Design & Automation Techniques (ECE)	12	01	01	8.3%			
11	Comm. Systems & Networks (ECE)	05	01	01	20.00%			
12	Comp.Sc. & Engg.	10	08	12	80.00%			
13	Mobile Computing	07	04	04	57.14%			
14	Energy Technology	10	-	-				
15	Environmental Engg.	11	-	-				
16	Material Sc. & Engg.	12	-	-				
17	Architecture	00	-	-				
18	Chemical Technology	02	-	-				
	Total 165 17 21 10.30%							

#### MBA 2020 Batch

202 20)	0 (Total 01	No. of or	ganizations ir	n which studen	ts have bee	n placed duri	ng the year 2019-
		Disciplin	е	Eligible/ Appeared Candidates	Placed	Total Job Offers	Percentage of placement
1	Master	of	Business	11	8	8	72.72 %
	Administra	ation					
			Total	11	8	8	72.72 %

#### MSc. 2020 Batch

202 20)	0 (Total 02 No. of organizations in	n which studen	ts have beer	n placed duri	ng the year 2019-
	Discipline	Eligible/ Appeared Candidates	Placed	Total Job Offers	Percentage of placement
1	Chemistry	13	01	01	7.69 %
2	Math	11	01	01	9.09%
	Total	24	02	02	8.33%

# NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR (HP) CAMPUS PLACEMENT RECORD OF B.TECH. / B.ARCH. / M.TECH./MBA

YEAR: 2019 - 2020 (B.Tech.)

			App.Pay		St	udents	Selecte	ed		
Sr. No.	Name of Organisation	Disc.of Engg considered	Pac. (Rs. Lakhs per annul	E&CE	CSE	EE	ME	CE	Che mic al	Total
1.	First American (India) Private Limited	CSE	7.00	-	3	-	-	-	-	03
2.	Info Edge India Limited, Noida	CSE	12.50	-	1	-	-	-	-	01
3.	Ittiam Systems Private Limited	CSE/E&CE	10.90	1	1	-	-	-	-	02
4.	Samsung R&D Institute India – Delhi	CSE/E&CE	14.00	4	6	-	-	-	-	10
5.	Cvent India Private Limited, Gurugram	CSE	15.10	-	1	-	-	-	-	01
6.	Tredence Analytics Solutions Pvt. Ltd.	CSE/E&CE/EE/ME/ Chem	6.50	1	3	1	1	-	3	09
7.	Publicis Sapient Pvt. Ltd.	CSE	9.50	-	3	-	-	-	-	03
8.	OPTUM, an United Health Group company	CSE/E&CE	11.59	3	7	-	-	-	-	10
9.	ZS Associates India Pvt. Ltd.	EE	8.93	-	-	1	-	-	-	01
10.	SourceFuse Technologies Pvt. Ltd.	CSE	8.00	-	1	-	-	-	-	01
11.	Wipro Limited, Haryana	CSE/E&CE/EE/ME	6.50	7	9	4	1	-	-	21
12.	Socomo Technologies Pvt. Ltd. (Jugnoo)	E&CE	12.00	2	-	-	-	-	-	02
13.	BYJU'S	CE/ME/Chemical	6.00	-	-	-	2	4	1	07
14.	Accenture Pvt. Ltd.	CSE/E&CE/ME	8.91	4	7	-	1	-	-	12
15.	EXL Services Pvt. Ltd.	CSE/E&CE/ME/CE/ Chemical	6.00	4	3	-	1	1	1	10
16.	Reliance Jio Infocomm Ltd., Mumbai	CSE/E&CE	5.31	5	3	-	-	-	-	08
17.	Capgemini India Pvt. Ltd.	CSE/E&CE/EE/CE/	6.80	6	4	4	-	2	2	18

		Chem								
18.	OYO Rooms	CSE	10.50	-	1	-	-	-	-	01
19.	One E Info Private Ltd., Noida	CSE	10.00	-	4	-	-	-	-	04
20.	Larsen & Toubro Infotech Ltd.,	CSE/E&CE/EE	8.00/6.5	2	5	2	-	-	-	09
	Mumbai		0							
21.	SGM Software Private Limited	CSE	6.00	-	2	-	-	-	-	02
	(Octro Inc.)									
22.	Virtusa Ltd.	CSE/E&CE	5.00	1	1	-	-	-	-	02
23.	Ericsson Global, Gurgaon,	CSE/E&CE	6.50	4	1	-	-	-	-	05
	Haryana									
24.	HSBC Technology India, Pune	CSE/E&CE	16.50	1	3	-	-	-	-	04
25.	GreyB Research Pvt. Ltd.	EE	4.20	-	-	1	-	-	-	01
26.	L&T Construction, Chennai	CE/ME	6.00	-	-	-	1	14	-	15
27.	SRF Limited	ME	6.00	-	-	-	1	-	-	01
28.	Oracle Financial Services Software	CSE/EE	6.40	-	3	1	-	-	-	04
29.	Larsen & Toubro Limited, Chandigarh	CE/ME/E&CE	6.00	1	-	-	3	1	-	05
30.	Amdocs Development Centre India LLP	E&CE	5.20	5	-	-	-	-	-	05
31.	Thermax Limited, Pune	ME	5.75	-	-	_	3	_	_	03
32.	Avalara Technologies Private	CSE	8.00	1	1	+-	3	<del>  -</del>	-	01
	Limited			-		ļ <u> </u>		ļ <u> </u>		
33.	Infosys Limited	CSE/E&CE/EE/ME/ Chem	3.60	4	2	7	12	-	5	30
34.	MothersonSumi INfotech & Designs Limited	CSE/E&CE	5.00	2	1	-	-	-	-	03
35.	BrahMos Aerospace Private Limited	EE	11.87	-	-	1	-	-	-	01
36.	Suzuki Motor Gujarat Private Limited	ME/EE	5.75	-	-	1	2	-	-	03
37.	Raam Group	ME	4.80	-	-	-	2	-	-	02
38.	Orient Electric Ltd a CK Birla	EE	5.40	-	-	3	-	-	-	03
	Group									
39.	Maruti Suzuki India Limited	ME	8.40	-	-	-	2	-	-	02
40.	Tata Power Delhi Distribution Ltd.	EE	5.50	-	-	8	-	-	-	08
41.	Samsung R&D Institute India, Noida	E&CE/CSE	12.00	2	6	-	-	-	-	08
42.	Renata Precision Components Pvt. Ltd.	ME	4.50	-	-	-	2	-	-	02
43.	ZestMoney(Camden Town Tech. Pvt. Ltd.)	CSE	11.00	-	1	-	-	-	-	01
44.	Godrej & Boyce Mfg. Co. Ltd.	ME	5.75	-	-	_	3	_	-	03
45.	Relinace Industries Limited	Chemical	7.50	-	-	-	-	-	3	03
46.	Cognizant Technology Solutions	CSE/E&CE	10.31/ 7.25	1	4	-	-	-	-	05
47.	CGI Information Systems & Management Consultant Pvt. Ltd.	E&CE	7.11	1	-	-	-	-	-	01

48.	iCuerious Research Services LLP	ME	4.00	-	-	-	2	-	-	02
49.	Reliance Jio Infocomm Limited	CSE	4.50	-	3	-	-	-	-	03
50.	Technip India Limited	ME	5.16	-	-	-	2	-	-	02
51.	Anglo-Eastern Ship Management Ltd.	ME	35.00	-	-	-	2	-	-	02
52.	Abaca Systems Private Limited	E&CE/EE/CSE	4.00	3	1	1	-	-	-	05
53.	Invenio Business Solutions Limited	EE	5.00	-	-	1	-	-	-	01
54.	Samsung R&D Institute India – Delhi	CSE/E&CE	14.00	8	7	-	-	-	-	16
55.	DXC Technology	EE/E&CE/ME	3.60	1	-	6	2	-	-	09
56.	Infosys Ltd.	EE	5.00	-	-	1	-	-	-	01
57.	Adobe Systems	CSE	22.37	-	1	-	-	-	-	01
58.	Noida Power Company Limited (NPCL)	EE	5.00	-	-	5	-	-	-	05
59.	Hindustan Petroleum Corporation Limited (HPCL)	EE/ME/Chemcial	14.70	-	-	1	4	-	1	06
60	Jungle Works pvt. Ltd	ECE/CSE/CSE,Dua I Degree	10-12	3	4	-	-	-	-	07
61	Whitehat Pvt. Ltd.	Chemical	6.00						1	01
62	Doubtnut Pvt. Ltd.	ECE/Chemical	5.04	1	-	-	-	-	2	03
63	Luminous Power Technologies	EE/ME	7.25	-	-	1	1	-	-	02
64	Bharat Electronics Limited	ECE	10.34	4	-	-	-	-	-	04
65	Microtek Technology	ECE/EE	3.00	3	-	2	-	-	-	05
		Total		84	103	52	50	22	19	33 0

# Dual Degree (CSE) 2020 Batch

		Disc.of Engg	App.Pay	Students	Selected	
Sr. No.	Name of Organisation	considered (Dual Degree)	Pac. (Rs. Lakhs per annul	CSE	E&CE	Total
1.	Info Edge India Limited, Noida	CSE	12.50	3	-	03
2.	Axtria Limited	CSE	8.00	8	-	08
3.	Ittiam Systems Private Limited	E&CE	11.50	-	1	01
4.	Tredence Analytics Solutions Pvt.	CSE/E&CE	6.50	1	4	05
	Ltd.					
5.	Publicis Sapient Pvt. Ltd.	CSE	9.50	2	-	02
6.	SourceFuse Technologies Pvt. Ltd.	CSE/E&CE	10.0/9.50	1	1	02
7.	Wipro Limited, Haryana	CSE/E&CE	6.50	1	1	02
8.	Socomo Technologies Pvt. Ltd.	E&CE	12.00	=	1	01
	(Jugnoo)					
9.	AMAZON	CSE	28.75	1	-	01
	EXL Services Pvt. Ltd.	CSE	6.00	5	-	05
10.	Capgemini India Pvt. Ltd.	CSE/E&CE	6.80	4	3	07
11.	One E Info Private Ltd., Noida	CSE/E&CE	10.00	1	1	02

12.	Oracle Financial Services Software	CSE/E&CE	6.40	1	3	04
13.	Amdocs Development Centre India LLP	CSE/E&CE	5.20	6	3	09
14.	Avalara Technologies Private Limited	CSE	8.00	1	-	01
15.	Infosys Ltd.	CSE/E&CE	3.60	3	5	08
16.	MothersonSumi INfotech & Designs Limited	CSE/E&CE	5.00	2	1	03
17.	Samsung R&D Institute India, Noida	CSE	12.00	3	-	03
18.	Arcesium India Pvt. Ltd.	CSE	35.00	3	-	03
19.	Reliance Jio Infocomm Limited	CSE/E&CE	4.50	2	3	05
20.	Invenio Business Solutions Ltd.	E&CE	5.00	-	2	02
21.	Samsung R&D Institute India – Delhi	CSE	14.00	2	-	02
22.	Adobe Systems	CSE	22.37	1	-	01
23	Jungle Works pvt. Ltd	CSE	10-12	4	-	04
			Total	55	29	84

### B.Arch. 2020 Batch

Sr. No	Name of Organisation	App. Pay Pac. (Rs. Lakhs per annum)	B.Arch.	Total
1.	L&T Construction, Chennai	6.00	03	03
2.	Godrej & Boyce Mfg. Co. Ltd.	5.75	01	01
		Total		04

### M.Tech. 2020 Batch

		Disc.of	App.Pay			Stu	dents	Selecte	d			
Sr. No	Name of Organisation	Engg considere d	Pac. (Rs. Lakhs per annum)	ECE	CSE	EE	ME	CE	Mat. Sc.	Ar ch	Energ y	Total
1	Axtria Limited	CSE	8.00	-	2	-	-	-	-	-	-	02
2	Socomo Technologies Pvt. Ltd. (Jugnoo)	CSE	12.00	-	1	-	-	-	-	-	-	01
3.	Oracle Financial Services Software	CSE	6.40	-	2	-	-	-	-	-	-	02
4.	Amdocs Development Centre India LLP	CSE	5.20	-	1	-	-	-	-	-	-	01
5.	Infosys Limited	CSE/EE/ E&CE/ME	3.60	1	1	1	1	-	-	-	-	04
6.	L&T Construction	CE	6.00	-	-	-	-	1	-	-	-	01
7.	iNurture Edu. Sol. Pvt.	CSE	4.20	-	4	-	-	-	-	-	-	04

	Ltd.											
8.	Abaca Systems Pvt. Ltd.	CSE	4.00	-	1	-	-	-	-	-	-	01
9.	Invenio Business Solutions Limited	E&CE	5.00	1	-	-	-	-	-	-	-	01
10.	Dolcera ITES (P) Limited, Noida	CSE	6.00	-	2	-	-	-	-	-	-	02
11.	Bharat Electronics Limited, Ghaziabad	CSE	11.00	-	2	-	-	-	-	-	-	02
		Total		02	16	01	01	01	00	0	0	21

#### MBA 2020 Batch

Sr. No	Name of Organisation	App. Pay Pac. (Rs. Lakhs per annum)	MBA	Total
1.	Abaca Systems Pvt. Ltd.	4.00	03	03
2.	Mlcrotek Technology	3.00	05	05
		Total	08	08

#### MSc. 2020 Batch

Sr. No	Name of Organisation	App. Pay Pac. (Rs. Lakhs per annum)	Chemistry	Math	Total
1.	Infosys Limited	3.60	00	01	01
2	Doubtnut	5.40	01	0	01
		Total	01	01	02

Total Nos. of organizations in which students placed from UG = 62 Nos.

Highest Package offered = Rs. 35.00 Lacs PA
Lowest package offered = Rs. 3.60 Lacs PA
Average package offered = Rs. 7.62 Lacs PA

Total Nos. of organizations in which students placed from Dual Degree = 23 Nos.

Highest Package offered = Rs. 35.00 Lacs PA
Lowest package offered = Rs. 3.60 Lacs PA
Average package offered = Rs. 8.48 Lacs PA

Total Nos. of organizations in which students placed from PG (M.Tech.) = 11 Nos.

Highest Package offered = Rs. 12.00 Lacs PA
Lowest package offered = Rs. 3.60 Lacs PA
Average package offered = Rs. 6.00 Lacs PA

#### **Branch wise B.Tech students:**

Branch	Highest Package offered	Lowest Package Offered	Average package offered
Civil Engg.	Rs. 6.80 Lacs	Rs. 3.60 Lacs	6.07
Electrical Engg.	Rs. 14.70 Lacs	Rs. 3.60 Lacs	5.58
Mechanical Engg.	Rs. 35.0 Lacs	Rs. 3.60 Lacs	6.58
Electronics & Comm. Engg.	Rs. 16.50 Lacs	Rs. 3.60 Lacs	8.13
Computer Science & Engg.	Rs. 22.37 Lacs	Rs. 3.60 Lacs	9.37
Chemical Engg.	Rs. 14.70 Lacs	Rs. 3.60 Lacs	6.26

# **Branch wise Dual Degree students:**

Branch	Highest Package offered	Lowest Package Offered	Average package offered
Computer Science & Engg.	Rs. 35.00 Lacs	Rs. 3.60 Lacs	9.84
Electronics & Comm. Engg.	Rs. 12.00 Lacs	Rs. 3.60 Lacs	6.12

## 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. Chandra Shakher	
	Professor Emeritus,	
	IDDC, Indian Institute of Technology Delhi,	Chairman
	Hauz Khas, New Delhi - 110016	
2	Director, NIT Hamirpur (HP) - 177005	(Ex- officio)
		Member
3	Additional Secretary (T)	Member
	Department of Higher Education	(MHRD Nominee)
	Government of India, Ministry of HRD	
	Shastri Bhawan, New Delhi	
4	Joint Secretary & Financial Adviser	Member
	Department of Higher Education	(Nominee of MoF)
	Government of India, Ministry of HRD	
	Shastri Bhawan, New Delhi—110 015	
5	Director (Technical Education), Industrial and Vocational	Member
	Training, Sundernagar, District Mandi (HP) - 175018	
6	Prof. Rajender Modgil, Professor, Department of Physics,	Member
	Kurukshetra University, Kurukshetra	
7	Dr. Shakuntala lyer, Director, Shanders Group, R/o 2505,	Member
	Ground Floor, 14th Main, 2nd Stage, Kumaraswamy	
	Layout, Bengaluru - 560075	
8	Prof. Sunil, Professor, Mathematics Department, NIT	Member
	Hamirpur (HP) - 177005	
9	Dr. Naveen Chauhan, Assistant Professor (CSED), NIT	Member
	Hamirpur (HP) - 177005	
10	Director, Indian Institute of Technology, Mandi (HP) -	Member
	175005 or [His nominee, not below the rank of Professor]	
11	Registrar, NIT Hamirpur (HP) - 177005	Secretary

## 6.2 FINANCE COMMITTEE

## The Finance Committee present incumbents are:

Sr. No.	Name & address	Designation
1	Prof. Chandra Shakher, Professor Emeritus, I.D.D.C., Indian	(Ex-officio)
	Institute of Technology Delhi, Hauz Khas, New Delhi - 110	Chairman
	016).	
2	Director,	(Ex- officio)
	NIT Hamirpur (HP) - 177005	Member
3	Joint Secretary (NITs), Department of Higher Education,	Member
	Ministry of Human Resource Development, Government of	
	India, Shastri Bhawan, New Delhi - 110 001 or [His nominee]	
4	Financial Adviser, Department of Higher Education, Ministry	Member
	of Human Resource Development, Government of India,	
	Shastri Bhawan, New Delhi - 110 001 or [His nominee]	
5	Prof. Sunil, Professor, Mathematics Department, NIT	Member
	Hamirpur (HP) – 177 005	
6	Prof. Rajender Modgil, Professor, Department of Physics,	Member
	Kurukshetra University, Kurukshetra	
7	Registrar, NIT Hamirpur (HP) - 177005	Member Secretary

## 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	Ex-officio
	NITs, Department of Higher Education, Ministry of Human	Member
	Resource Development, Government of India, Shastri	
	Bhawan, New Delhi – 110 001	
3	Director or Deputy Secretary or His nominee dealing with	Ex-officio
	Finance (NITs), Department of Higher Education, Ministry of	Member
	Human Resource Development, Government of India,	
	Shastri Bhawan, New Delhi – 110 001	
4	Prof. Sunil, Professor, Mathematics Department, NIT	Member
	Hamirpur (HP) – 177 005	
5	Dean (P&D) NIT Hamirpur (HP) - 177 005	Member
6	One Expert from Civil Wing of Central or State Government	Member
	or Autonomous body of repute	
7	One Expert from Electrical Wing of Central or State	Member
	Government or Autonomous body of repute	
8	Registrar, NIT Hamirpur (HP) - 177 005	Ex-officio Member 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. **External Member** Prof. M.R. Maurya,

Professor Chemistry Department, Indian Institute of Technology, Roorkee.

Prof. Purnima Singh, 2. External Member

Prof. & Head Humanities & Social Sc.,

Department IIT Delhi.

**External Member** 

3. Prof. R.P Yadav, Professor, E&CED, MNIT Jaipur.

Dr. Y.R. Sood, 4. Member

Prof. EED, NIT, Hamirpur (HP).

NIT, Hamirpur (HP).

5. Dr. A. S. Singha, Member Prof. in Chemistry

6 Dr. Sunand Kumar, Member

Prof. MED, NIT, Hamirpur (HP).

7. Dr. R.K. Sharma, Member

Prof. CED, NIT, Hamirpur (HP).

8. Dr. Anoop Kumar, Member

Prof. in MED, NIT, Hamirpur (HP).

9. Member Prof Ravi Kumar,

Prof. Material Science & Engg Deptt,

NIT, Hamirpur.

10. Dr. Sushil Chauhan, Member

Porf. EED, NIT, Hamirpur.

Member

12. Dr. R.N. Sharma, Member Prof. EED, NIT, Hamirpur (HP). 13. Dr. Raman Parti, Member Prof. CED, NIT, Hamirpur (HP). 14. Dr. Piar Chand, Member Prof. Humanities & Social Science, NIT, Hamirpur (HP). Dr. Y. D. Sharma, 15. Member Prof. in Mathematics. NIT, Hamirpur. 16. Prof. Sunil, Member Deptt. of Mathematics, Member NIT, Hamirpur H.P. 17. Dr. R.K.Dutta, Member Prof., CED, NIT, Hamirpur(HP). 18. Dr. Ashwani Chandel Member Prof. EED NIT Hamirpur 19. Dr. Bhanu Marwaha, Member Prof. Architecture Deptt., NIT, Hamirpur(HP). 20. Dr. Rajeevan Chandel, Member Prof. E&CED. NIT Hamirpur 21. Registrar NIT Hamirpur H.P. Member Secretary

11.

Dr. N.S. Thakur,

NIT, Hamirpur.

Prof. Energy & Environment Engg.,

## CENTRAL FACILITIES

#### 7.1. 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, centre 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 **NIT** Hamirpur aspires be 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/analyze 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 Ltd. For external telephone connectivity E1 PRI of 30 Channels has been subscribed from BSNL.

## 3). Technical Officers/Officials

Faculty Incharge : Dr. Naveen Chauhan Scientific Officer : Er. Anil Kumar Scientific Officer : Sh. Jagdish Verma

Scientific Officer : Er. Ashwani Kr. Sharma

Hardware Engineer (SG-II) : Er. Ravi Singh Sr. Technician : Sh. Rakesh Sharma

4). The detail of the assets/equipment purchased for the Computer Centre during the financial year 2019-20 is as below:-

Sr. No.	Name of Asset/Equipment	Quantity
1	POE Switch	50 Nos.
2	Fiber Patch Cords (Single Mode)	05 Nos.
3	CISCO SG 350x24P-K9-EU Switch	30 Nos.
4	CISCO SG 350x48P-K9-EU Switch	20 Nos.
5	Minigibic SPF CISCI Modular GLC-LH SMD	25 Nos.
6	Mat Lab Software	01 No.
7.	Wireless Controller (Aruba 7240 XM (RW)(JW783A)	01 No.
8.	Wireless Access point (Aruba AP-515)(RW) Unified AP(Q9H62A)	07 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

## **Academic Staff:**

Dr. P.K. Sood

Ph. D

Workshop Superintendent

## 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:

A. No. of books available up to 31/03/2020 : 86638

B. No. of books added during the year : 18

C. Expenditure on purchase of books during the year : 10,454.00

D. E-resources subscribed by Institute:

1. BIS Code for Civil Engineering

2. IEEE Xplore Digital Library

3. Science Direct (5 subject collection)

4. Taylor and Francis e-Journals

5. ASTM International

6. Emerald e-Journals

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

- 1. ASCE Library
- 2. ASME Digital Collection
- 3. ISID (Institute for Studies in Industrial Development)
- 4. Springer Link
- 5. Oxford University Press e-Journals
- 6. Web of Science

## G. Other Facilities

- RFID based Library Management System for self check-in, check-out, renewal etc.
- 2. INFED to provide the facility of Off-Campus Access of e-Resources.
- 3. Institutional Repository for archiving research output.
- 4. Wi-Fi services to access e-resources.

## 7.4 DISPENSARY:

1) Background:

The medical facilities are available on working days from 9:00 AM to 8:00 PM daily for students and staff.. Ambulance is available on a telephone call. The doctors available in Health Centre are:-

- I. Dr. Mani Verma (Incharge)
- II. Dr. Wattan Singh (E.N.T. Specialist)
- III. Dr. S.K Sharma(General Physician)
- IV. Dr. K.C. Chopra(General Physician)
- V. Dr. Swatantra Sharma (Eyes Specialist)
- VI. Dr. Vivek Sharma(M.D. Medicine)
- VII. Dr.Dinesh Thakur(Orthopedician)
- 2) The working hours of the dispensary are as follow:-

Monday to Friday - 9:00 AM to 8:00 PM

- 3) Total patients treated annually 18213
- 4) No. of outdoor attendance 0
- 5) No. of day care patients 48 (Approx.)
- 6) No. of referral cases 439 (Approx.)
- 7) Immunization camps are organised once in a month in health centre
- 8) Ambulance service is available 24\*7 with basis of facilities.

## 7.5 PHYSICAL FACILITIES & GAMES AND SPORTS FACILITIES:



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 facility 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 machine 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 construction of student activity centre (SAC) Is going on which is handed over for the use of student very shortly with the 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 2019-20)

At Institute level Sports Department organized Inter Branch Tournament in the Odd Semester and Inter Year Tournament in the Even Semester for both Boys & Girls every year. All the students take part in these tournaments with great spirit. Due to COVID-19 pandemic, The Annual Athletic Meet/Prize Distribution Function 2019-20, and some activities of End Semester could not be concluded.

## (Participation outside the Institute 2019 - 20)

Besides this our Institute teams have also participate in the Tournament held at other Institute. During the session 2019-20 our different teams proved their talent in different games outside the Institute and performed very well. The detail of the participant game wise given below:-

## A: - Boys

S.No.	Game	Date & Year	Name of Tournament	Venue	Position
1	Volleyball	12-13 Apr.2019	ITUSA Northern Region	TIET Patiala	4 <sup>th</sup>
2	Lawn Tennis	12-13 Apr.2019	ITUSA Northern Region	TIET Patiala	
3	Athletic	12-13 Apr.2019	ITUSA Northern Region	TIET Patiala	Gold- 5000M Bronze-5000M, 1500M, Triple Jump
4	Cricket	02-04 Nov.2019	ITUSA Northern Region	TIET Patiala	
5	Football	02-04 Nov.2019	ITUSA Northern Region	TIET Patiala	3rd
6	Volleyball	05-07 Mar.2020	MST-20	MNIT, Jaipur	2 <sup>nd</sup>
7	BasketBall	05-07 Mar.2020	MST-20	MNIT, Jaipur	
8	Badminton	05-07 Mar.2020	MST-20	MNIT, Jaipur	3 <sup>rd</sup>
9	Cricket	05-07 Mar.2020	MST-20	MNIT, Jaipur	
10	Table Tennis	05-07 Mar.2020	MST-20	MNIT, Jaipur	

## B: -Girls

S.No.	Game	Date & Year	Name of Tournament	Venue	Position
1	Volleyball	12-13 Apr.2019	ITUSA Northern Region	TIET Patiala	3rd
2	Athletic	12-13 Apr.2019	ITUSA Northern Region	TIET Patiala	Silver-100M
3	Volleyball	05-07 Mar.2020	MST-20	MNIT, Jaipur	1st
4	BasketBall	05-07 Mar.2020	MST-20	MNIT, Jaipur	1st
5	Badminton	05-07 Mar.2020	MST-20	MNIT, Jaipur	2nd

# Physical Facilities & Games and Sports Facilities:-

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

1	Athletic track & field	200 M Track (grass)		There is one
2	Football ground	Without Flood Light	01 No	Ground for all
3	Cricket Ground	Without Flood Light	01 No	these 03 Games
4	Volleyball court	With Flood Light	02 No	
5	Basketball Court	With Flood Light	01 No	
6	Lawn Tennis Court	With Flood Light	03 No	Synthetic
7	Badminton Court	With Flood Light	04 No	01 No Synthetic

8	Gymnasium	Well		Inside the hostels		
		Equipped				
		Gymnasium is				
		available				
		inside				
		Hostel.				
9	Indoor Games facilities are available inside hostel compounds (Table Tennis, Carrom, Chess, Outdoor Badminton Court etc.) there are an attractive Stadium with the provision for 1500 spectators.					
10	Open Air Theater					
11	Student Activity Center (SAC	) under construction				

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

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

Name of the Hostel	Type (Single/ Double/ 03	Capacity
	Seated/ 04 seated/ 06 seated	
Kailash Boys Hostel	03 seated	720
Vindhyachal Boys Hostel	Single seated	169
Satpura Hostel	Triplet	250
Mani Mahesh & Aravali Girls	Single seated	222
Hostel		
Dhouladhar Boys Hostel	Single seated- 91	160
	03 seated- 24	
Neelkanth Boys Hostel	Double seated-03	565
	03 seated- 145	
Himadri Boys Hostel	Triplet	710
Udyagiri Boys Hostel	Singlet room 371	489
	Double room 11	
Ambika & Parvati Girls Hostel	Single seated-54	507
	03 seated-36	

## **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 toped 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 NIT BUILDING

Sr.	Description	Number	Plinth area	Total area sq.	Equivalent
No.			(approx. in sq. Ft.	Ft.	area in Sq.
			after renovation		MT.
	QTRS				
1	Type-I	20	345.36	6907.20	642.00
2	Type-II	82	688.51	56457.72	5247.00
3	Type-III	54	907.82	49022.56	4556.00
4	Type-IV	48	1341.41	34387.68	5984.00
5	Type-V	16	1985.22	31763.52	2952.00
6	Duplex Type-VI	4	269.22	1076.88	100.00
7	Director	1	3281.80	3281.80	305.00
	Residence				
8	Garage	97	134.50	13046.50	1213.00
9	Faculty residence	48	1827.85	87736.80	8154.00
10	Non-teaching	16	1827.85	29245.60	2718.00
	residence				
В	Hostel wise Area	1	221818.52	221818.52	197195.00
С	Academic Area	1	856313.08	856313.08	79583.00
				Total	308649.00
		Gross plinth area= Qtrs. Area+ Hostel Area +Academic area			
		Total= 308649.00 Sq.m 76.26 Acre			
		Total developed area= Plinth Area + Garden + Road etc.			
		Total 100.84 Acre = 408085.00 Sq.m			

## 7.8 List of Assets Purchased during the year 2019-20 in Construction & Maintenance Section, NIT, Hamirpur (HP).

## "Annexure-B"

Sr.No	Name of Guarantee Institution	No. & date of sanction	Amount of sanction grant	Brief purpose of the Grant	Whether any condition regarding the right of ownership of Govt. in the property or other assets acquired out of the grants as incorporated in the grants -in - aid sanctioned.	Particulars of assets actually credited or acquired	Qty.	Amount as on 31.3.2020	Purpose for which utilized
	NIT, Hamirpur	F.No.34- 2/2/2013-TS- 111 Dated 4/6/2013 & 27/12/2013		Develop the lab/dept for created.	Yes				For lab work by the students.
1	-do-	-do-	-do-	To meet the day to day requirement in r/o complaints in Residential & Non residential Buildings.	-do-	Requirement of material for WSS System in NIT complex.( Residential & Non-residential building.).		428275.00	Being used in R/M of W.S.S. Residential & Non residential buildings in campus.
2	-do-	-do-	-do-	To keep the centralized UPS (Old) operative.	-do-	Replacement of batteries of 3x60KVA centralized UPS System at NIT Hamirpur (HP).		507024.00	The centralized UPS (Old) 3x60KVA is utilized for providing backup UPS supply to the various Labs, corporate office, computer servers & Telephone exchange etc.

3	-do-	-do-	-do-	To keep the centralized UPS (New) operative.	-do-	A/R & M/O of Existing Centralized UPS System at NIT Hamirpur.( SH:-Replacement of batteries of UPS 3x60 KVA(New) year 2019-20.	999600.00	The centralized UPS (New) 3X60KVA is utilized for providing backup UPS supply to the various Labs, corporate office, computer servers & Telephone exchange etc
4	-do-	-do-	-do-	In view of fire safety.	-do-	Refilling of fire extinguisher installed at various building of NIT Hamirpur (HP) Year 2019-20.	330663.00	Prov. fire safety to the students, Faculty & staff in case of fire hazard.
5	-do-	-do-	-do-	The existing Guest House has not enough accommodation for visiting guests.	-do-	Estimate for modernizing 05 Nos. toilet/ bath room of Guest room in Satpura Hostel NIT Hamirpur.	247430.00	Ordinary suits converted to VIPs suits in Satpura Hostel to accommodate visiting VIPs to the Institute
6	-do-	-do-	-do-	Better street light facility to students and staff.	-do-	Repair and maintenance of street light.	1304075.00	Providing street light facility to students and staff along road sides.
7	-do-	-do-	-do-	R/M of Generators.	-do-	Repair and maintenance of Generators and providing generators supply to the various buildings, Library, Lecture hall, auditorium, Administrative block and street light including load sharing of the generators.	1670612.00	Repair and maintenance of Generators including providing Generators supply to the Library, Admin. Block, Lecture Halls, Auditorium & street

								light.
8	-do-	-do-	-do-	To provide clean and drinking water to the in mates/residents.	-do-	Cleaning of main water tanks in NIT, Hamirpur (SH:-Cleaning of tanks by using of a slugde of a pump disinfectant etc.	112700.00	Being used for providing clean and drinking water for the campus in mates /residents.
9	-do-	-do-	-do-	To provide facilities to the students of the Hostel	-do-	Renovation/ Construction of footbridge protection wall & cage for water tanks at Shivalik & Vindhyachal boys Hostel in NIT Hamirpur.	441998.00	Used for providing facilities to the students and connected the main Block by shortest route.
10	-do-	-do-	-do-	To accommodate faculties with providing independent offices and cabins.	-do-	Proposed the faculty cabin in civil engineering department. (SH:- Civil work).	1400104.00	To provide cabins (Aluminium partitioning) to faculties with the view to avoid disturbance near.
11	-do-	-do-	-do-	To accommodate faculties with providing Electrical equipment's.	-do-	Proposed the faculty cabin in civil engineering department. (SH:- Electrical work).	283384.00	To provide cabins (electrical facilities) to faculties.
12	-do-	-do-	-do-	To provide better facilities for user and connect Both Bed room with attached	-do-	Construction of additional toilets in Type-IV B Block at NIT Hamirpur. (06 Nos. Qtrs.	504418.00	To attach the Bed rooms with each toilet.

				bath.		Civil work).		
13	-do-	-do-	-do-	To provide better facilities for Electrical.	-do-	Construction of additional toilets in Type-IV B Block at NIT Hamirpur. (06 Nos. Qtrs. Electrical work).	46230.00	To provide electrical facilities.
14	-do-	-do-	-do-	R/M of various residential & non residential buildings.	-do-	R/M of various residential & non residential building street light sub-station in NIT Campus for the year 2017-18( SH:-Supplying of Electric material).	689470.00	R/M of various residential & non residential building street light & substation for better facilities for students & staff.
15	-do-	-do-	-do-	Extra light fixture, fans& augmentation of capacity of geysers.	-do-	Providing extra light fixture, fans& augmentation of capacity of geysers of Kailash Boys Hostel at NIT Hamirpur (Electrical work).	1127117.00	R/M of various residential & non residential building street light & substation for better facilities for students & staff.
						G: Total:	=10093100.00	

## **AUDIT CERTIFICATE**

Separate Audit Report of the Comptroller & Auditor General of India on the Accounts of the National Institute Technology, Hamirpur for the year ended 31 March 2020

- 1. We have audited the Balance Sheet of National Institute of Technology, Hamirpur As at 31<sup>st</sup> March 2020, Income & Expenditure Account and Receipts & Payments Account for the year ended on that date under Section 19(2) of the Comptroller and Auditor General's (Duties, Power & Conditions of Service) Act, 1971 read with Section 22 (2) of the National Institutes of Technology, Science Education and Research Act, 2007.
- 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 in 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 financial statements are free from material misstatements. An audit includes examining, on a test basis, evidences supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

## 4. Based on our audit, we report that:

- i. We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of audit;
- ii. The Balance Sheet and Income and Expenditure Account/Receipt and Payment Account dealt with by this Report have been drawn up the format prescribed by the Ministry of Human Resources Development (MHRD), 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 National Institute of Technology, Hamirpur in so far as it appears from our examination of such books.
- iv) We further report that:
- A. Balance Sheet

**Sources of Funds** 

**Current Liabilities and Provision (Schedule 3)** 

## Unutilized Grants (SI. No. 6(d)): Rs. 0.00

As per the prescribed format of accounts, unutilized grants are to be shown as Current Liability in the Balance Sheet. Institute was having unutilized grant of Rs. 26.56 Crore at the close of the year, against which current liabilities was shown as zero. This has resulted in understatement of Current Liabilities & Provisions by Rs. 26.56 Crore and overstatement of Corpus / Capital Fund to the same extent.

## **B. Significant accounting Policy (Schedule 23)**

As per the format of accounts prescribed by the MHRD, provision for retirement benefits is to be made on Actuarial Valuation Method.

However, the Institute has in contravention of above instructions, adopted the accounting policy (Sr. No. 6 Schedule 23), according to which actual payments of pension, gratuity and leave encashment are debited in the accounts to the respective provisions. The accounting policy adopted by the Institute is in contravention to the aforesaid guidelines prescribed by MHRD, as well as AS 15.

## C. General

- C-1 As per the prescribed format, Schedule 3 (C) should show the grant balance in respect of recurring as well as non-recurring grant at close of the year. However, the Institute has prepared Schedule 3(C) in respect of Capital Grant only.
- C-2 As per the Sr. No. 1 of Significant Accounting Policies, the accounts of the Institute are prepared on the accrual method of accounting. The Institute has got conducted the physical verification of inventory held in various departments (inter-alia, including Department of Electronics & Communication Engineering, Architecture, Mechanical Engineering, Electrical Engineering etc.). However the Institute has shown the inventory at nil value under the head Current Assets, which is not in consonance with the aforesaid Accounting Policy prescribing the Accrual method of accounting.
- C-3 General Financial Rules 230 (8) (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 clearly also included above condition.

The Institute had earned interest on saving accounts as well as FDRs (Schedule 11 &12) amounting to Rs. 4.91 Crore, which included interest earned on Grants in Aid. Interest earned on grants is not quantifiable, as separate bank accounts in respect of grants are not maintained by the Institute.

**C-4** As per the prescribed format, applicable rate of depreciation on 'Site Development' and 'Road & Bridges' is 0 and 2 percent, respectively. The Institute has shown both under one head as

site 'Site Development/Roads/Other Infrastructure', which needed to be segregated and applicable depreciation be charged.

C-5 As per the annual accounts, total amount deposited with agencies as on 31.03.2021, has been worked out to Rs. 139.21 Crore (CWIP- Schedule 4: Rs. 122.83 Crore and Capital Advances-Schedule 8: Rs. 16.38 Crore), As per Form 65 submitted by the CPWD, CPWD has confirmed that an amount of Rs. 63.47 Crore is deposited with it (for which works amounting to Rs. 53.10 Crore were under progress and Rs. 10.37 Crore remained unutilized).

However, details for the balance amount of Rs. 75.74 Crore (Rs. 139.21 Crore – Rs. 63.47 Crore) shown in the accounts i.e. name of the agencies with whom deposited, expenditure incurred by these agencies upto 31.3.2020 and physical status of work upto 31.3.2020, have not been furnished.

D. Grant in AidThe position of grants-in-aid received during the year 2019-2020 is as follows: -

Particulars	OH-31	OH-35	OH-36	Total
Opening Balance	4.51	7.95	48.54	61.00
Add: Grant received	35.00	35.37	31.22	101.59
during the year				
Total available funds	39.51	43.32	79.76	162.59
Utilization as on	38.19	27.06	43.71	108.96
31/03/2020				
Un-utilization balance	1.32	16.26	36.05	53.63
as on 31/03/2020				
Adjustment of Grant	0	0	-27.07	-27.07
approved by the				
Ministry against deficit				
of 2017-18				
Un-utilized balance as	1.32	16.26	8.98	26.56
on 31/03/2020				

(ii) The closing balance of grant Rs. 26.56 crore is partly represented by the advances Rs. 16.38 crore, leaving grants of Rs. 10.18 crore representing grant funds other than advances. On the other hand, Institute has confirmed a balance of Rs. 11.98 crore, showing a difference of Rs. 1.80 crore which is due to the same difference in the opening balance of the grant. Institute should reconcile the aforesaid difference of Rs. 1.80 crore.

## 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.

i) Subject to our observations in the preceding paragraphs, we report that the Balance sheet, Income and expenditure Account and receipts and payments account dealt with by this report are in agreement with the books of accounts.

- ii ) In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read together with the accounting policies and notes on accounts, and other 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, Himachal Pradesh as at 31<sup>st</sup> march 2020; and
  - b. In so far as it relates to Income & Expenditure Account, of the surplus for the year ended on that date.

For and behalf of the C & AG of India

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Principal Director of Audit (Central), Chandigarh.

Place: Chandigarh

Date: 8 6 21

## **Annexure to Separate Audit Report**

## 1. Adequacy of Internal control system

Internal control system of the Institute is adequate except that, the Accounting Manual has not been prepared.

## 2. Adequacy of Internal Audit System

Through Pre-Audit section is functioning in the Institute; yet, Internal Audit for the year 2019-20 was not conducted.

## 3. System of Physical Verification of Fixed Assets

Physical Verification of Fixed Assets (except the Library books) was conducted for the year 2019-20.

## 4. System of Physical Verification of Inventory

Physical Verification of Inventory was conducted for the year 2019-20.

## 5. Regularity in payment of statutory Dues.

The Institute was regular in depositing statutory dues.

Director

# Annual Accounts 2019-20

## NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR (H.P) BALANCE SHEET AS AT 31st March, 2020

			(AmountRs.)
<u>-</u>	Schedule	Current Year	Previous Year
SOURCES OF FUNDS			
CORPUS/CAPITAL FUND	1	533,983,3753.86	4,918,812,076.98
DESIGNATED/EARMARKED/ENDOWMENT FUNDS	2	38,860,153.08	32,874,115.08
CURRENT LIABILITIES AND PROVISIONS	3	612,939,270.78	489,360,362.55
TOTAL		5,991,633,177.72	5,441,046,554.61
APPLICATION OF FUNDS			
FIXED ASSETS	4		
Tangible Assets		2,204,131,984.73	2,24,73,84,678.15
Intangible Assets		11,777,032.20	10,595,581.20
Capital Works-In-Progress		1,228,292,953.00	1,020,219,895.00
INVESTMENT FROM EARMARKED/ENDOWMENT FUNDS	5		
Long Term			
Short Term			
INVESTMENT - OTHERS	6	0.00	0.00
CURRENT ASSETS	7	2,346,101,883.55	2,039,705,154.02
LOANS, ADVANCES & DEPOSITS	8	201,329,324.24	123,141,246.24
TOTAL		5,991,633,177.72	5,441,046,554.61
SIGNIFICANT ACCOUNTING POLICIES	23		
CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS	24		
ASSISTANTREGISTRAR (A&F)	REGISTRAR	DIRECTOR	
NIT HAMIRPUR (HP)	NIT HAMIRPUR (HP)	NIT HAMIRP	UR (HP)

# NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR (H.P) INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD/YEAR ENDED 31/03/2020

(Amount -- Rs.)

INCOME	Schedule	Current Year	Previous Year
ACADEMIC RECEIPTS	9	219,530,245.00	272,832,895.82
GRANT & SUBSIDIES	10	662,200,000.00	992,868,000.00
INCOME FROM INVESTMENTS	11	45,070,869.00	43,626,779.00
INTEREST EARNED	12	4,076,607.00	31,73,987.00
OTHER INCOME	13	23,530,259.00	27,913,511.00
PRIOR PERIOD INCOME	14	337.00	78,391.00
TOTAL(A)		954,408,317.00	1,340,493,563.82
EXPENDITURE			
STAFF PAYMENT & BENEFITS (ESTABLISHMENT EXPENSES)	15	507,823,743.00	514,991,932.00
ACADEMIC EXPENSES	16	130,277,148.00	89,673,597.38
ADMINSTRATIVE AND GENERAL EXPENSES	17	156,875,856.00	70,909,690.00
TRANSPORTATION EXPENSES	18	1,852,148.00	3,599,231.00
REPAIR & MAINTENANCE	19	35,059,324.00	50,527,443.00
FINANCE COSTS	20	5,886.00	2,814.42
OTHER EXPENSES	21	0.00	0.00
PRIOR PERIOD EXPENSES	22	0.00	0.00

Depreciation (Net Total at the year-end - corresponding to schedule 4)		111,514,487.93	109,602,533.83
TOTAL (B)		943,408,592.94	839,307,241.63
Balance being excess of Income over Expenditure (A-B)		10,999,724.06	501,186,322.19
Transfer to /from Designated Fund		303,822,898.82	194,215,057.94
Building Fund			
Others (specify)  BALANCE BEING SURPLUS/(DEFICIT)  CARRIED TO CAPITAL FUND		- 292,823,174.76	306,971,264.25
SIGNIFICANT ACCOUNTING POLICIES CONTINGENT LIABILITIES AND NOTES ON	23		
ACCOUNTS	24		

ASSISTANT REGISTRAR (A&F) 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 31/03/2020

(Amount--Rs.)

	Current Yea	ar	Previous year	
SCHEDULE 1. CORPUS/ CAPITAL FUND :				
Balance as at the beginning of the year		4,042,056,366.84		3,186,569,811.89
Add: Contribution towards Corpus/Capital fund	0.00		0.00	
Add: Grants from UGC, Government of India and State Government to the extent				
utilized for capital expenditure	353,700,000		443,500,000.00	
Add: Assets Purchased out of Earmarked Funds	0.00		0.00	
Add: Assets Purchased out of Sponsored Projects, where ownership vests in the	0.00		0.00	
institution				
Add: Assets Donated/Gifts Received	0.00		0.00	
Add: Other Additions (Interest on Corpus fund)	0.00		0.00	
Add: Excess of Income over expenditure transferred from the Income & Expenditure	202 922 174 77		207.071.274.25	
Account	-292,823,174.76		306,971,264.25	
Less: Amount of deposit being tfd a corpus account tfd back	0.00		0.00	
Add: Amount of Income of PY parked in Deposit tfd	0.00		96,814,752.70	
Add: Depreciation excess Charged PY	12,870,674.52		8,200,538.00	
Total		73,747,499.76		855,486,554.95
(Deduct) Deficit transferred from the Income & expenditure Account		0.00		0.00
BALANCE AS AT THE YEAR END		4,115,803,866.60		4,042,056,366.84

# NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR (H.P) SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31/03/2020

	Currei	nt year	Previous	Year
SCHEDULE 1 B. CORPUS:				
Balance as at the beginning of the year		876,755,710.14		643,677,203.20
Add : Contribution towards corpus	2,019,646.00	, ,	6,000,000.00	
Add: Grants from UGC, Government to the extent utilized for	0.00		0.00	
capital expenditure	0.00		0.00	
Add: Assets purchased out of corpus funds	0.00			
Add: Other additions (interest on corpus fund + PY contribution of			0.00	
excess income)	41,431,632.30		227,078,506.94	
Add: Appropriation of excess/loss in income & expenditure account	, ,	0.00		
for corpus funds	303,822,898.82		0.00	
Total	, ,	347,274,177.12		233,078,506.94
(Deduct) deficit transferred from the income & expenditure account		, , , , , , ,		
BALANCE AS AT THE YEAR -END		1,224,029,887.26		876,755,710.14

# NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR (H.P) SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31/03/2019

(Amount--Rs.)

SCHEDULE 2 - DESIGNATED/ EARMARKED / ENDOWMENT FUNDS		Fund '	Wise Breaku	p	То	Total	
Α.	Pension Fund	Fund BBB	Fund CCC	Endowment Funds	Current Year	Previous Year	
a) Opening balance	32,874,115.08	BBB	T und CCC	Endowment Tunds	32,874,115.08	25,372,172.08	
b) Additions during the year	5,986,038.00				5,986,038.00	7,501,943.00	
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	
Total (A)	38,860,153.08				38,860,153.08	32,874,115.08	
В.							
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	
Total (B)	0.00				0.00	0.00	
				1			
Closing balance at the yearend (A-B)	38,860,153.08	0.00		0.00	38,860,153.08	32,874,115.08	

# NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR (H.P) SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31/03/2020

(Amount--Rs.)

				(Minount-As.)
	Current Year		Previous Ye	ar
SCHEDULE 3-CURRENT				
LIABILITIES AND PROVISIONS				
A. CURRENT LIABILITIES				
1. Deposits from staff (TWS)	11,782.00		11,782.00	
2. Deposits from students	,		,	
College Caution Money	6,194,100.00		5,338,350.00	
Hostel Caution Money	5,761,161.50		4,886,611.50	
Library Security	10,617,950.00		9,106,950.00	
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)	317,084,247.19		237,043,433.87	
5. Statutory Liabilities (GPF, TDS, WC	, ,		, ,	
TAX, CPF, GIS, NPS):	0.00	339,669,240.69	76,838.00	256,463,965.37
Total (A)			ŕ	
B) Others				
6. Other Current Liabilities				
a)Salaries	37,966,173.00		36,642,816.00	
	, ,		, ,	
b)Receipts against sponsored projects&				
consultancy	57,509,834.76		43,642,165.85	
c)Receipts against sponsored fellowships & scholarships SC	21,86,510.00		3,416,570.00	
&ST	21,00,010.00		5, 110,5 / 5.00	
Receipts against sponsored fellowships & scholarships	11,353,166.00			
d)Unutilized Grants	0.00		0.00	
e) Grants in advance	0.00		0.00	
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f) Other funds	14,103,412.00		12,829,131.00	
g) Other liabilities	0.00		0.00	
h) Fees received in advance	67,500,000		60,950,000.00	
i) Outstanding Liability UNI	365,353.00		365,353.00	
j) Interest on project Grant payable	12,738,391.23		11,535,815.23	
k) Extra Curricular Activities	42,263,151.10		37,323,781.10	
1) Medical Expenses	0.00		0.00	
m) Legal Fees	0.00		0.00	
n) Other Misc	426,607.00		0.00	
o) Security Charges	3,316,242.00		3,035,583.00	
p) Seminar Expense payable	0.00		0.00	
q) Professional Development allowance	660,543.00		0.00	
r) LTC	0.00		0.00	
s) Student Welfare expenses	23,250.00		0.00	
Children Education allowances	4,968,000.00		4,491,000.00	
t) Maintenance of Equipment	173,991.00		0.00	
u) Maintenance of Building	176,138.00		3,950.00	
w)Wages	5,023,401.00		0.00	
v) Convocation	0.00		0.00	
NDCPS	2,131,300.00		1,065,842.00	
Hostel furniture account payable	0.00	262,885,463.09	0.00	215,302,007.18
<u>TOTAL</u> (A)		602,554,703.78		471,765,972.55
B. <u>PROVISIONS</u>				
1. For Taxation	0.00		0.00	
2. Gratuity	851,760.00		2,769,872.00	
3. Superannuation Pension	881,019.00		5,408,102.00	
4. Accumulated Leave Encashment	499,699.00		1,716,960.00	
5. Trade Warranties/Claims	0.00		0.00	
6. Others ( Specify)	15,750.00		0.00	
Auditors remuneration payable	210,000.00		355,123.00	
Consultancy charges payable	180,000.00		180,000.00	
Telephone charges payable	8,926.00		9,130.00	
Electricity charges payable	0.00		1,037,565.00	
Salary contract/ part time staff	1,478,400.00			
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Cleaning and Maintenance	2,898,342.00		2,611,556.00	
Water Charges	1,826,435.00		1,394,186.00	
Stationery expenses	194,045.00		3,499.00	
Departmental operating cost	612,882.00		7,552.00	
Examination expenses	23,399.00		24,000.00	
Leave salary contribution	65,436.00		65,436.00	
TA	221,901.00		2,107.00	
Provision for contingency, other work &				
Equipment	0.00		42,386.00	
E-Journal Capital expenditure				
	38,955			
Periodic journal expenditure				
	377,618.00	10,384,567.00		17,594,390.00
TOTAL (B	)	10,384,567.00		17,594,390.00
TOTAL (A+B)		612,939,270.78		489,360,362.55

## SCHEDULE 3(c) UNUTILISED GRANTS FROM UGC, GOVERNMENT OF INDIA AND STATE GOVERNMENTS

		Current Year	Previous Year
A. Plan grants: Government of India			
Balance B/F		7,796,000.00	
Add: Receipts during the year		353,700,000.00	
	Total (a)	361,496,000.00	
Less Refunds			
Less: Utilized for Revenue Expenditure		0.00	
Less: Utilized for Capital expenditure		349,404,184.00	
	Total (b)	349,404,184.00	
Unutilized carried forward (a-b)		12,091,816.00	
B. UGC grants: Plan			
Balance B/F			
Add: Receipts during the year			
	Total (c)		
Less Refunds			
Less: Utilized for Revenue Expenditure			
Less: Utilized for Capital expenditure			
	Total (d)		
Unutilized carried forward (c-d)			
C. UGC Grants Non Plan			
Balance B/F			
Add: Receipts during the year			
	Total (e)		
Less Refunds			
Less: Utilized for Revenue Expenditure			
Less: Utilized for Capital expenditure			

Total (f)		
Unutilized carried forward (e-f)		
D. Grants from State Govt.		
Balance B/F		
Add: Receipts during the year		
Total (g)		
Less Refunds		
Less: Utilized for Revenue Expenditure		
Less: Utilized for Capital expenditure		
Total (h)		
Unutilized carried forward (g-h)		
'Grand Total (A+B+C+D)	12,091,816.00	

## SCHEDULE 2A

ENDOWNENT FONDS									reupees			
	2. Name of the Endowment	Opening Balance		Additions during the year				Expenditur	Closing Balance		Total	
1.Sr. No.						Total	e on the	10.	11. Accumulate	(10+11)		
	Endownient							object Endowment d interes		d interest	` ′	
			4 4 1.4.1			7.	0 4 1.4.1	during the year 9				
		3. Endowment	4. Accumulated Interest	5. Endowment	6. Interest	Endowment 8. Accumulated (3+5) Interest (4+6)	, c >					
Total												

# ASSISTANT REGISTRAR (A&F), NIT, HAMIRPUR (HP).

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

Amount in Rupees

1 C N.	2 Name of the Descript	Opening 2	Balance	5. Receipts/recoveries	6. Total	7. Expenditure during the	<b>Closing Balance</b>	
1.Sr. No.	2. Name of the Project	3. Credit	4. Debit	during the year		year	8. Credit	9. Debit
Total								

## SCHEDULE 3 (b) SPONSORED FELLOWSHIPS AND SCHOLARSHIPS

## Amount in Rupees

1.Sr. No.	2 Name of Spangar	Opening	Balance	Transaction (	during the year	Cl	losing Balance
	2. Name of Sponsor	3. Credit	4. Debit	5. Credit	6. Debit	7. Credit	losing Balance  8. Debit
	University Grants						
	Commission						
	Ministry						
	Others (Specify						
	individually						
	Total						

#### **SCHEDULE: 23**

#### SIGNIFICANT ACCOUNTING POLICIES (ILLUSTRATIVE)

#### 1. BASIS FOR PREPAR ATION 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 and Interest on Saving Bank account are 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, through the actual recovery of interest starts after the full repayment of Principal.

#### 3. FIXED ASSETS AND DEPRECIATION

- 3.1 Fixed assets are stated at cost of acquisition including inward fright, duties and taxes and incidental and direct expenses related to acquisition, installation and commissioning.
- 3.2 Gifted/ 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	Building	2%
4	Roads & Bridges	2%
5	Tubes 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	Computer & 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 Re.1 in the Balance Sheet and will not be further depreciated. Therefore, depreciation is calculated on the additions of each year separately at the rate of depreciation application for that asset head.
- 3.7 Assets created out of Earmarked Funds and funds 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 assets.
- **4. INTANGIBLE ASSETS:** Depreciation on E-Journals have been charges separately.
- **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, Medical reimbursement to retired employees and Travel to Home on retirement is accounted on accrual basis (actual payments plus outstanding bills at the end of the year).

#### 7. INVESTMENTS

- a) Long term investments are carried at their cost or face value whichever is lower. However any permanent diminution in their value as on the date of the Balance Sheet is provide for.
- b) Short Term investments are carried at their cost or market value (if quoted) whichever is lower.

#### 8. EARMARKED/ENDOWMENT FUNDS

The Pension fund is earmarked for specific purpose. The fund has a separate bank account

#### 9. GOVERNMENT AND UGC GRANTS

9.1 Government Grant and UGC grants are accounted on realization basis. However, where a sanction for release of grant pertaining to the financial year is received before 31 "March and the grant is actually received in the next financial year, the grant

- accounted on accrual basis and an equal amount is shown as recoverable from the Granter.
- 9.2 To the extent utilized capital expenditure, (on accrual basis) government grants and grants from UGC are transferred to the Capital Fund.
- 9.3 Government and UGC grants for meeting Revenue Expenditure (on accrual basis) are treated, to the extent utilized, as income of the year in which they are realized.
- 9.4 Unutilized grants (including advances paid out of such grants) are carried forward and exhibited as a liability in the Balance Sheet.
- 10. INVESTMENTS OF EARMARKED FUNDS AND INTEREST INCOME ACCRUED ON SUCH INVESTMENTS: To the extent not immediately required for expenditure, the amounts available against such funds are invested in approved Securities & Bonds or deposited for fixed term with Banks, leaving the balance in Saving Bank Accounts.

#### 11. SPONSORED PROJECTS:

- In respect of ongoing Sponsored Projects, the amounts received from sponsors are credited to the head "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 projects account is debited with allocated overhead charges, the liability account is debited.
- 11.2 In addition to the Earmarked Fund for the Junior Research Fellowships funded by the University Grants Commission, Fellowships and Scholarships are also sponsored by various organizations. These are accounted in the same way as Sponsored Projects expect that the expenditure generally is only on disbursement of Fellowships and Scholarships, which may include allowances for contingent expenditure by the Fellows and scholars.
- 11.3 The Institution itself also awards Fellowships and Scholarships, which are accounted as Academic expenses.
- **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.

#### **SCHEDULE: 24**

#### CONTINGENT LIABILITIES AND NOTES TO ACCOUNTS (ILLUSTRATIVE)

#### 1. CONTINGENT LIABILITIES: NIL

#### 2. FIXED ASSETS:

- **2.1** Additions in the year to Fixed Assets in Schedule 4 include Assets purchased out of Plan Funds.
- **2.2** In the Balance Sheet as on 31.3.2019 and the Balance Sheets of earlier years, Fixed Assets created out of plan funds.
- **3. CURRENT ASSETS, LOANS, ADVANCES AND DEPOSITS:** In the opinion of the Management the current assets, Loans, Advances and Deposits have a value on realization in the ordinary course, equal at least to the aggregate amount shown in the Balance Sheet.

- **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.** Previous year's figures have been regrouped wherever necessary.
- **6.** Schedules 1 to 24 are annexed to and from an integral part of the Balance Sheet at 31 "March 2017 and the Income & Expenditure account for the year ended on that date.
- 7. Schedules 1 to 24 are annexed to and form an integral part of the Balance sheet at 31<sup>st</sup> March 2019 and the Income & 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 1/4/2019 TO 31/3/2020

PREVIOUS YEARS (Rs.)	RECEIPTS HEAD OF ACCOUNT	AMOUNT (Rs.)
352,651,295.82	CASH IN BANK	401,269,181.82
61,466,654.00	SUBSCRIPTION	66,700,989.00
2,368,600.00	REFUND OF ADVANCE	2,778,500.00
30,334,658.00	BANK INTEREST	27,614,703.00
446,821,207.82		498,363,373.82
	PAYMENT	
3,049,000.00	TEM. ADVANCE TO STAFF	4,648,000.00
42,503,026.00	WITHDRAWAL	59,157,457.00
0.0	BANK CHARGES	0.00
401,269,181.82	CLOSING BANK BALANCE	434,363,373.82
446,821,207.82		498,363,373.82

ASSISTANT REGISTRAR (A&F) REGISTRAR DIRECTOR
NIT HAMIRPUR (HP) NIT HAMIRPUR (HP) NIT HAMIRPUR (HP)

# NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P) GENERAL PROVIDENT FUND INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 1/4/2019 TO 31/3/2020

PREVIOUS YEARS (Rs.)	RECEIPTS HEAD OF ACCOUNT	AMOUNT (Rs.)
28,062,437.00 0.00	Interest credited to the Subscribers accounts Bank Charges	30,778,968.00 0.00
1,363,130.88	Excess of + Income/-loss	- 860,850.00
<u>29,425,567.88</u>		<u>29,918,118.00</u>
	INCOME	
	Income from Investment	
30,334,658.00	Bank Interest received	27,614,703.00
16,618,703.00	Add: Interest due for 2019-2020	18,922,118.00
17,527,793.12	Less: Due of year 2018-19	<u>16,618,703.00</u> <u>29,918,118.00</u>
29,425,567.88		
29,425,567.88		<u>29,918,118.00</u>

ASSISTANT REGISTRAR (A&F) NIT HAMIRPUR (HP) REGISTRAR NIT HAMIRPUR (HP) DIRECTOR NIT HAMIRPUR (HP)

#### NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P) GENERAL PROVIDENT FUND BALANCE SHEET AS ON 31/3/2019

PREVIOUS YEARS (Rs.)	HEAD OF ACCOUNT		AMOUNT (Rs.)
	LIABILITIES		<del></del>
	Subscription Account (PF Contribution)		
490,161,144.55	Upto 2018	551,627,798.55	
61,466,654.00	1	66,700,989.00	
551,627,798.55		618,328,787.55	
	Add: Interest	, ,	
204,651,917.45	Upot 2019	232,714,354.45	
28,062,437.00	During the year	30,778,968.00	
232,714,354.45	<i>5</i> ,	263,493,322.45	
	Less: Withdrawal	,,-	
337,874,356.00	upto 2018	380,377,382.00	
42,503,026.00	During the year	59,157,457.00	
380,377,382.00	8	439,534,839.00	442,287,271.00
403,964,771.00			
	Income & Expenditure Account		
15,599,697.94	upto 2019	16,962,828.82	
1,363,130.88	During the year	- 860,850.00	16,101,978.82
16,962.828.82	8	,	-, - ,
420,927,599.82			458,389,249.82
	ASSETS		
	Temporary Advance		
35,962,048.00	upto 2019	39,011,048.00	
3,049,000.00	During the year	4,648,000.00	
39,011,048.00	٥	43,659,048.00	
	Less: Refund		
33,602,733.00	upto 2019	35,971,333.00	
2,368,600.00	During the year	2,778,500.00	
35,971,333.00	- ,	38,749,833.00	4,909,215.00
3,039,715.00	Bank Interest Accrued		
17 527 702 12		16 619 702 00	
17,527,793.12	Opening Balance	16,618,703.00	
16,618,703.00	Add: (C-Year accrued)	18,922,118.00 35,540,831,00	
34,146,496.12	Logg : Interest received on Materia	<b>35,540,821.00</b>	10 022 110 00
<u>17,527,793.12</u>	Less: Interest received on Maturity	16,618,703.00	18,922,118.00
16,618,703.00	Clasica Dalam D. 1		42 4 EEE 01 C 02
401,269,181.82	Closing Balance Bank		434,557,916.82
420,927,599.82		450.200	 9,249.82

ASSISTANT REGISTRAR (A&F) NIT HAMIRPUR (HP) REGISTRAR NIT HAMIRPUR (HP) DIRECTOR NIT HAMIRPUR (HP)

#### SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31/03/2020

#### **SCHEDULE-4**

S. No.	Assets Heads		GROSS B	LOCK		DEPREC	IATION FOR THE YE	AR		NET BLOCK (WDV)		
		Opening Balance	Additions	Deductions	Closing Balance	Depreciation Opening Balance	Depreciation for the year	Deductions / Adjustment	Total Depreciation	31/03/2020	31/03/2019	
1	Land	4,420,551.00	0.00	0.00	4,420,551.00	0.00	0.00	0.00	0.00	4,420,551.00	4,420,551.00	
2	Site Development\Road s\other Infrastructure	72,266,508.30	1,234,948.00	0.00	73,501,456.30	55,314,289.00	0.00	0.00	55,314,289.00	18,187,167.30	16,952,219.30	
3	Buildings	2,951,654,374.24	0.00	0.00	2,951,654,374.24	865,568,941.61	59,033,087.48	0.00	924,602,029.10	2,027,052,345.14	2,086,085,432.63	
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	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	162,450.00	0.00	162,450.00	0.00	8,122.50	0.00	8,122.50	154,327.50	0.00	
8	Plant & Machinery	459,527,258.04	0.00	0.00	459,527,258.04	342,444,478.15	22,976,362.90	0.00	365,420,841.05	94,106,416.99	117,082,779.89	
9	Scientific & Laboratory Equipment	0.00	8,147,678.00	0.00	8,147,678.00	0.00	651,814.24	0.00	651,814.24	7,495,863.76	0.00	
10	Office Equipment	18,571,843.85	11,006,165.00	0.00	29,578,008.85	13,233,850.70	2,218,350.66	0.00	15,452,201.36	14,125,807.49	5,337,993.15	
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 Furniture Fixtures	24,740,775.00	0.00	0.00	24,740,775.00	37,611,449.52	0.00	12,870,674.52	24,740,775.00	0.00	-12,870,674.52	
13	& Fittings	110,111,822.04	10,646,460.00	0.00	120,758,282.04	73,371,569.15	9,056,871.15	0.00	82,428,440.31	38,329,841.73	36,740,252.89	
14	Vehicles	8,742,177.00	0.00	0.00	8,742,177.00	7,630,120.42	874,217.70	0.00	8,504,338.12	237,838.88	1,112,056.58	
15	Lib. Books & Scientific Journals	50,557,150.06	11,632,917.00	0.00	62,190,067.06	58,060,060.83	4,130,006.24	0.00	62,190,067.06	0.00	-7,502,910.77	
16	Small Value Assets	103,061.00	0.00	0.00	103,061.00	76,083.00	5,153.05	0.00	81,236.05	21,824.95	26,978.00	
	Total(A)	3,700,695,520.53	42,830,618.00	0.00	3,743,526,138.53	1,453,310,842.38	98,953,985.94	12,870,674.52	1,539,394,153.79	2,204,131,984.73	2,247,384,678.15	
	Capital Work in Progress (B)	1,020,219,895.00	208,073,058.00	0.00	1,228,292,953.00					1,228,292,953.00	1,020,219,895.00	
									TOTAL	3,432,424,937.73	3,267,604,573.15	
S. No.	Intangible Assets	Opening Balance	Additions	Deductions	Closing Balance	Depreciation Opening Balance	Amortization for the year	Deductions / Adjustment	Total Depreciation	31/03/2020	31/03/2019	
	Computer Software	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	E-Journals	17,659,302.00	13,741,953.00		31,401,255.00	7,063,720.80	12,560,502.00	0.00	19,624,222.80	11,777,032.20	10,595,581.20	
	Patent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	TOTAL C	17,659,302.00	13,741,953.00	0.00	31,401,255.00	7,063,720.80	12,560,502.00	0.00	19,624,222.80	11,777,032.20	10,595,581.20	
	Grand Total (A+B+C)		264,645,629.00		5,003,220,346.53	1,460,374,563.18	111,514,487.94	12,870,674.52	1,559,018,376.59	3,444,201,969.93	3,278,200,154.35	

#### SCHEDULE 4A PLAN

					DEPRECIATION FOR THE YEAR				NET BLOCK (WDV)		
S. No.	Assets Heads	Opening Balance	Additions	Deductions	Closing Balance	Depreciation Opening Balance	Depreciation for the year	Deductions / Adjustment	Total Depreciation	31/03/2020	31/03/2019
1	Land	4,420,551.00	0.00	0.00	4,420,551.00	0.00	0.00	0.00	0.00	4,420,551.00	4,420,551.00
2	Site Development	72,266,508.30	1,234,948.00	0.00	73,501,456.30	55,314,289.00	0.00	0.00	55,314,289.00	18,187,167.30	16,952,219.30
3	Buildings	2,951,654,374.24	0.00	0.00	2,951,654,374.24	865,568,941.61	59,033,087.48	0.00	924,602,029.10	2,027,052,345.14	2,086,085,432.63
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	162,450.00	0.00	162,450.00	0.00	8,122.50	0.00	8,122.50	154,327.50	0.00
8	Plant & Machinery	459,527,258.04	0.00	0.00	459,527,258.04	342,444,478.15	22,976,362.90	0.00	365,420,841.05	94,106,416.99	117,082,779.89
9	Scientific & Laboratory Equipment	0.00	8,147,678.00	0.00	8,147,678.00	0.00	651,814.24	0.00	651,814.24	7,495,863.76	0.00
10	Office Equipment	18,571,843.85	11,006,165.00	0.00	29,578,008.85	13,233,850.70	2,218,350.66	0.00	15,452,201.36	14,125,807.49	5,337,993.15
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	24,740,775.00	0.00	0.00	24,740,775.00	37,611,449.52	0.00	12,870,674.52	24,740,775.00	0.00	-12,870,674.52
13	Furniture Fixtures & Fittings	110,111,822.04	10,646,460.00	0.00	120,758,282.04	73,371,569.15	9,056,871.15	0.00	82,428,440.31	38,329,841.73	36,740,252.89
14	Vehicles	8,742,177.00	0.00	0.00	8,742,177.00	7,630,120.42	874,217.70	0.00	8,504,338.12	237,838.88	1,112,056.58
15	Lib. Books & Scientific Journals	50,557,150.06	11,632,917.00	0.00	62,190,067.06	58,060,060.83	4,130,006.24	0.00	62,190,067.06	0.00	-7,502,910.77
16	Small Value Assets	103,061.00	0.00	0.00	103,061.00	76,083.00	5,153.05	0.00	81,236.05	21,824.95	26,978.00
	Total (A)	3,700,695,520.53	42,830,618.00	0.00	3,743,526,138.53	1,453,310,842.38	98,953,985.94	12,870,674.52	1,539,394,153.79	2,204,131,984.73	2,247,384,678.15
	Capital Work in Progress (B)	1,020,219,895.00	208,073,058.00	0.00	1,228,292,953.00					1,228,292,953.00	1,020,219,895.00
									TOTAL	3,432,424,937.73	3,267,604,573.15
S. No.	Intangible Assets	Opening Balance 01/04/2019	Additions	Deductions	Closing Balance	Depreciation Opening Balance	Amortization for the year	Deductions / Adjustment	Total Depreciation	31/03/2020	31/03/2019
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	17,659,302.00	13,741,953.00	0.00	31,401,255.00	7,063,720.80	12,560,502.00	0.00	19,624,222.80	11,777,032.20	10,595,581.20
3	Patent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TOTAL C	17,659,302.00	13,741,953.00	0.00	31,401,255.00	7,063,720.80	12,560,502.00	0.00	19,624,222.80	11,777,032.20	10,595,581.20
	Grand Total (A+B+C)				5,003,220,346.53	1,460,374,563.18	111,514,487.94	12,870,674.52	1,559,018,376.59	3,444,201,969.93	3,278,200,154.35

#### **SCHEDULE 4B NON· PLAN**

		GROSS BLOCK				DEPRI	ECIATION FOR TH		NET BLOCK (WDV)		
S. No.	Assets Heads	Opening Balance 01/04/2019	Additions	Deductions	Closing Balance	Depreciation Opening Balance	Depreciation for the year	Deductions / Adjustment	Total Depreciation	31/03/2020	31/03/2019
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	1.00	0.00	1.00	0.00	0.00	0.00
3	Buildings	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00	0.00	0.00
4	Roads & Bridges	0.00	0.00	0.00	0.00	3.00	0.00	3.00	0.00	0.00	0.00
5	Tube wells & Water Supply I	0.00	0.00	0.00	0.00	4.00	0.00	4.00	0.00	0.00	0.00
6	Sewerage & Drainage Electrical Installation	0.00	0.00	0.00	0.00	5.00	0.00	5.00	0.00	0.00	0.00
7	and equipment	0.00	0.00	0.00	0.00	6.00	0.00	6.00	0.00	0.00	0.00
8	Plant & Machinery	0.00	0.00	0.00	0.00	7.00	0.00	7.00	0.00	0.00	0.00
9	Scientific & Laboratory Equipment	0.00	0.00	0.00	0.00	8.00	0.00	8.00	0.00	0.00	0.00
10	Office Equipment	0.00	0.00	0.00	0.00	9.00	0.00	9.00	0.00	0.00	0.00
11	Audio Visual Equipment	0.00	0.00	0.00	0.00	10.00	0.00	10.00	0.00	0.00	0.00
12	Computers & Peripherals	0.00	0.00	0.00	0.00	11.00	0.00	11.00	0.00	0.00	0.00
13	Furniture Fixtures & Fittings	0.00	0.00	0.00	0.00	12.00	0.00	12.00	0.00	0.00	0.00
14	Vehicles	0.00	0.00	0.00	0.00	13.00	0.00	13.00	0.00	0.00	0.00
15	Lib. Books & Scientific Journals	0.00	0.00	0.00	0.00	14.00	0.00	14.00	0.00	0.00	0.00
16	Small Value Assets	0.00	0.00	0.00	0.00	15.00	0.00	15.00	0.00	0.00	0.00
	Totai(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
									TOTAL	0.00	0.00
S. No.	Intangible Assets	Opening Balance 01/04/2019	Additions	Deductions	Closing Balance	Depreciation Opening Balance	Amortization for the year	Deductions / Adjustment	Total Depreciation	31/03/2020	31/03/2019
_	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
	TOTAL C Grand Total (A+B+C)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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

Particulars	Opening Balance 01/04/2019	Additions	Gross	Amortization	Net Block 31/03/2020	Net Block 31/03/2019
A. Patents Granted						
1 Balance as on 31.03.14 of Patents obtained in 2008- 09	0.00	0.00	0.00	0.00	0.00	0.00
(Original Value - Rs /-)						
2 Balance as on 31.03.14 of Patents obtained in 2010- 11	0.00	0.00	0.00	0.00	0.00	0.00
(Original Value- Rs /-)						
3 Balance as on 31.03.14 of Patents obtained in 2012- 13	0.00	0.00	0.00	0.00	0.00	0.00
(Original Value - Rs /-)						
4 Patents granted during the Current Year	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00
Particulars	Opening Balance 01/04/2019	Additions	Gross	Patents Granted/ rejected	Net Block 31/03/2020	Net Block 31/03/2019
B. Patents Pending in respect of Patents applied for						
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
Total	0.00	0.00	0.00	0.00	0.00	0.00
C. Grand Total (A+B)	0.00	0.00	0.00	0.00	0.00	0.00

#### SCHEDULE 5: INVESTMENTS FROMEARMARKED/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	0.00	0.00
7 Others (to be specified)	0.00	0.00
Total	0.00	0.00

#### Amount in

SCHEDULE 5 A: INVESTMENTS FROMEARMARKED/ENDOWMENT FUNDS (FUND WISE)

Rupees

	<b>Current Year</b>	Previous Year	
1 Endowment Fund Investment	0.00	0.00	
1 Endowment Fund Investment	0.00	0.00	
Total	0.00	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

### NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P) SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31/03/2020

(Amount-Rs)

	Curre	nt Year	Previou	s Year
SCHEDULE 7 - CURRENT ASSETS				
1. Stock:				
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	0.00		0.00	
e) Building Material	0.00		0.00	
f) Electrical Material	0.00		0.00	
g) Stationery	0.00		0.00	
h) Water supply material	0.00	0.00	0.00	0.00
2. Sundry Debtors:				
a) Debts Outstanding for a period exceeding six				
months	0.00		0.00	
b) Others	0.00	0.00	0.00	0.00
3. Cash and Bank Balances				
a) With Scheduled Banks:				
Cash In Hand	412,392.05		407,025.05	
Current Account/Grant in Transit	0.00		0.00	
Fixed Deposit	2,272,275,961.00		1,976,689,045.70	
Saving Account Main Account	73,303,060.56		62,502,265.33	
Saving Account Secrecy Fund	110,469.94		106,817.94	
b) With non-Scheduled Banks:				
In term deposit Accounts	0.00		0.00	
In Savings Accounts	0.00	2,346,101,883.55	0.00	2,039,705,154.02
4. Post Office- Savings Accounts				
ТОТ	AL	2,346,101,883.55		2,039,705,154.02

#### NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P) SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31/03/2020

Amount (Rs.)

SCHEDULE 8- LOANS ADVANCES & DEPOSITS				, ,
	Current	Year	Previous	Year
1. Advances to employees: (Non-interest bearing)				
a) Salary	0.00		0.00	
b) Festival	0.00		0.00	
c) Medical Advance	0.00		0.00	
d) Other (to be specified	0.00	0.00	0.00	0.00
2. Long Term Advances to employees: (Interest bearing)				
a) Vehicle loan	0.00		0.00	
b) Home loan	0.00		0.00	
c) Others (to be specified)	3,929,858.00	3,929,858.00	3,599,298.00	3,599,298.00
3. Advances and other amounts recoverable in cash or in kind or for value to be received:				
a) On Capital Account	163,767,135.24		71,800,490.24	
b) to Suppliers	0.00		0.00	
c) Others	0.00	163,767,135.24	0.00	71,800,490.24
4. Prepaid Expenses				
a) Insurance			0.00	
b) Other expenses		0.00	0.00	0.00
5. Deposits				
a) Telephone '	0.00		0.00	
b) Lease Rent	0.00		0.00	
c) Electricity	0.00		0.00	
d) Al GTE if applicable	0.00		0.00	
e) Others (to be specified)	0.00	0.00	0.00	0.00
6. Income Accrued:				
a) On Investments from Earmarked/ Endowment Funds	0.00		0.00	

TOTAL		201,329,324.24		123,141,246.24
		. 32,	1,002.00	
Rent from Shop	0.00	182,179.00	1,832.00	152,598.00
Rent from Guest House	0.00		2,250.00	
Income receivable from Forest Department	0.00		0.00	
Interest on loan & Advances from Staff	0.00		8,800.00	
Garage Rent	6,320.00		5,320.00	
License Fees	162,910.00		108,970.00	
Misc. Income	12,949.00		25,426.00	
8. Claims Receivable				
d) Other receivables from UGC	0.00	0.00	0.00	0.00
•		0.00		0.00
c) Grants Receivable	0.00		0.00	
b) Debit balances in Sponsored Fillowships & Scholarships	0.00		0.00	
7. Other- Current assets receivable from UGC/sponsored projects a) Debit balances in Sponsored Projects	0.00		0.00	
d) Others (includes income due unrealized) Saving Bank	0.00	33,450,152.00	0.00	47,588,860.00
c) On Loans and Advances	0.00		0.00	
b) On Investments-FDR	33,450,152.00		47,588,860.00	

#### NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR (H.P) SCHEDULE FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31/03/2020

SCHEDULE 9- ACADEMIC RECEIPT		(Amount-Rs)
	Current Year	Previous Year
FEES FROM STUDENTS		
Academic		
1. Tuition fee	208,996,266.00	261,675,185.37
2. Admission fee	599,250.00	749,500.00
3. Enrolment fee	0.00	0.00
4. Library Admission fee	365,400.00	390,500.00
5. Laboratory fee	0.00	0.00
6. Art & Craft fee	0.00	0.00
7. Registration fee	0.00	0.00
8. Syllabus fee	0.00	0.00
Total (A)	209,960,916.00	262,815,185.37
Examinations		
1. Admission test fee	0.00	0.00
2. Annual Examination fee	3,400,100.00	3,659,500.00
3. Mark sheet certificate fee	110,800.00	152,000.00
4. Entrance examination fee	0.00	0.00
5. Supplementary fees	2,601,159.00	2,181,472.95
6. Phd thesis submission	262,500.00	292,500.00
Total (B)	6,374,559.00	6,285,472.95
Other Fees		
1. Identity card fee	59,625.00	76,050.00
2. Fine/ Miscellaneous fee	0.00	0.00
3. Medical fee	1,076,325.00	1,300,425.00
4. Transportation fee	0.00	0.00
5. Hostel fee	0.00	0.00
6. Grade Card Fee	638,020.00	621,662.50
7. Common Facility Fee	1,420,800.00	1,734,100.00
Total(C)	3,194,770.00	3,732,237.50

0.00 0.00 0.00 0.00	0.00 0.00 0.00 <b>0.00</b>
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0.00	
0.00	0.00
0.00	0.00
0.00	0.00
	0.00

#### SCHEDULE 10- GRANTS SUBSIDIES IRREVOCABLE GRANTS RECEIVED)

#### **Amount in Rupees**

	Plan				Non Plan UGC/Govt.	Current year	Previous Year
Particulars		UGC		Total Plan	of India	Total	Total
	Govt. of India		Specific			Total	rotar
		Plan	Schemes				
Balance B/F	7,796,000.00	0.00	0.00	0.00	277,660,222.63	285,456,222.63	3,584,222.63
Add: Receipts during the year	353,700,000.00	0.00	0.00	353,700,000.00	662,200,000.00	1,015,900,000.00	1,436,368,000.00
Total	361,496,000.00	0.00	0.00	361,496,000.00	939,860,222.63	1,301,356,222.63	1,439,952,222.63
Less: Refund to UGC	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Balance	361,496,000.00	0.00	0.00	361,496,000.00	939,860,222.63	1,301,356,222.63	1,439,952,222.63
Less: Utilized for Capital							
expenditure (A)	349,404,184.00	0.00	0.00	349,404,184.00	0.00	349,404,184.00	457,346,000.00
Balance	12,091,816.00	0.00	0.00	12,091,816.00	939,860,222.63	951,952,038.63	982,606,222.63
Less: utilized for Revenue	· · · · · · · · · · · · · · · · · · ·						
Expenditure (B)	0.00	0.00	0.00	0.00	832,179,740.00	832,179,740.00	697,150,000.00
Balance C/F (C)	12,091,816.00	0.00	0.00	12,091,816.00	107,680,482.63	119,772,298.63	285,456,222.63

#### **SCHEDULE 11- INCOME FROM INVESTMENTS**

#### **Amount in Rupees**

	Earmarked/ Endowment Fund			Investments	
Particulars	Current Year	Previous Year	Current Year	Previous Year	
1. Interest					
a. On Government Securities					
b. Other Bonds/Debentures					
2. Interest on Term Deposits	0.00	0.00	45,070,869.00	43,626,779.00	
3. Income accrued but not due on Term Deposits/Interest bearing			0.00		
advances to employees					
4. Interest on Savings Bank Accounts			0.00		
5. Others (On Project Grants)					
TOTAL	0.00	0.00	45,070,869.00	43,626,779.00	
Transferred to Earmarked/Endowment Funds			•	, ,	
Balance					

## NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P) SCHEDULE FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31/03/2020 SCHEDULE 12- INTEREST EARNED (Amount-Rs.)

**Particulars Current Year Previous Year** 1 On Savings Accounts With Schedule Bank 4,028,728.00 3,044,099.00 2 On Loans: a) Employees/Staff 47,879.00 129,888.00 b) Others 0.00 0.00 3. On Debtors and Other Receivables 0.00 0.00 **TOTAL** 4,076,607.00 3,173,987.00

## NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P) SCHEDULE FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31/03/2020

**SCHEDULE 13-OTHER INCOME** 

(Amount-Rs)

3011LDULL 13-0111LK INCOME	(Amount-Ns)				
		Cui	rrent Year	Previous Year	
Hostel Room Rent		11,060,150.00		12,789,250.00	
2. License fee		2,290,998.00		1,965,697.00	
Hire Charges of     Auditorium/Shop/Convention Centre etc.		312,666.00		353,074.00	
Electricity charges recovered		26,012.00		269,261.00	
5. Water charges recovered		10,900.00		280,072.00	
6. Rent from Guest House		824,900.00		544,800.00	
7. Rent from Garage		73,804.00		66,299.00	
	Total	14,599,430.00	14,599,430.00	16,268,453.00	16,268,453.00
B. Sale of Institute's publications			0.00	0.00	0.00
C. Income from holding events					
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					
Gross Receipts for educational tours			0.00	0.00	
Less: Direct expenditure incurred on the tours					
Others (to be specified and separately disclosed)			0.00	0.00	
	Total	0.00	0.00	0.00	0.00
D. Others					

1. Income from consultancy		0.00		0.00	
2. RTI fees		0.00		0.00	
3. Income from Royalty		0.00		0.00	
4. Sale of application form (recruitment)  5. Misc. receipts (Sale of tender form waste		0.00		0.00	
paper Grass tree etc.)		6,675,101.00		10,814,229.00	
6. Profit on Sale/disposal of Assets/Stock		0.00		281,829.00	
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		2,255,728.00		549,000.00	
10. Charges for use of transport		0.00		0.00	
	Total	8,930,829.00	8,930,829.00	11,645,058.00	11,645,058.00
Grand Total (A+B+C+D)			23,530,259.00		27,913,511.00

#### **SCHEDULE 14- PRIOR PERIOD INCOME**

Amount In Rupees

Particulars	Current Years	Previous Year
1. Academic Receipts	0.00	0.00
2. Income from Investments	0.00	0.00
3.1nterest earned	337.00	100.00
4. Other Income	0.00	78,291.00
Total	337.00	78,391.00

## NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P) SCHEDULE FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31/03/2020

#### SCHEDULE 15-STAFF PAYMENTS & BENEFITS (ESTABLISHMENT EXPENSES)

	Current Year			Previous Year		us Year
	Plan	Non-Plan	Total	Plan	Non-Plan	Total
a) Salaries	0.00	404,630,047.00	404,630,047.00	0.00	394,817,799.00	394,817,799.00
b) Allowances and Bonus	0.00	0.00	0.00	0.00	0.00	0.00
c) Contribution to New Pension Fund	0.00	18,317,825.00	18,317,825.00	0.00	11,469,342.00	11,469,342.00
d) Contribution to Other Fund	0.00	0.00	0.00	0.00	0.00	0.00
e) Staff Welfare Expenses	0.00	800,231.00	800,231.00	0.00	582,867.00	582,867.00
D Retirement and Terminal Benefits	0.00	58,482,796.00	58,482,796.00	0.00	84,424,167.00	84,424,167.00
g) LTC facility	0.00	3,782,816.00	3,782,816.00	0.00	2,404,454.00	2,404,454.00
h) Medical facility	0.00	4,734,211.00	4,734,211.00	0.00	3,746,209.00	3,746,209.00
i) Children Education Allowance	0.00	4,968,000.00	4,968,000.00	0.00	5,720,906.00	5,720,906.00
j) Honorarium	0.00	10,807.00	10,807.00	0.00	0.00	0.00
I) Others (specify) Professional development						
allowance	0.00	4,157,890.00	4,157,890.00	0.00	969,352.00	969,352.00
Overtime Drivers	0.00	14,957.00	14,957.00	0.00	0.00	0.00
Leave Encashment	0.00	7,924,163.00	7,924,163.00	0.00	10,856,836.00	10,856,836.00
TOTAL	0.00	507,823,743.00	507,823,743.00	0.00	514,991,932.00	514,991,932.00

#### SCHEDULE 15 A- EMPLOYEES RETIREMENT AND TERMINAL BENEFITS

	Pension	Gratuity	Leave Encashment	Total
Opening Balance as on		. 0	_	
Addition : Capitalized value of Contributions Receiv	rea from otne	r Organizatior	18	
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 Valuati	ion (d)			
Troviolor roquirou en e rice de per ricidanal valual	.ioii (u)			
A. Provision to be made in the Current year (d -c)				
B. Contribution to New Pension Scheme				
2. Gonalization to how I dileion Gonemic				
C. Medical Reimbursement to Retired Employees				
D. Travel to Hometown on Retirement				
b. Haver to Hometown of Retirement				
E. Deposit Linked Insurance Payment				
Total (A+B+C+D+E)				

## NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P) SCHEDULE FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31/03/2020

SCHEDULE 16- ACADEMIC EXPENSES							
		Current Y	ear	Previous Year			
	Plan	Non-Plan	Total	Plan	Non-Plan	Total	
a) Laboratory expenses	0.00	0.00	0.00	0.00	0.00	0.00	
b) Field work/Participation in Conferences	0.00	0.00	0.00	0.00	0.00	0.00	
c) Expenses on Seminars/Workshops	0.00	187,327.00	187,327.00	0.00	36,754.00	36,754.00	
d) Payment to visiting faculty	0.00	43,142.00	43,142.00	0.00	0.00	0.00	
e) Examination	0.00	514,319.00	514,319.00	0.00	992,043.00	992,043.00	
f) Student Welfare expenses	0.00	831,129.00	831,129.00	0.00	581,242.00	581,242.00	
g) Admission expenses	0.00	0.00	0.00	0.00	0.00	0.00	
h) Convocation expenses	0.00	2,399,721.00	2,399,721.00	0.00	1,262,992.00	1,262,992.00	
i) Publications	0.00	377,618.00	377,618.00	0.00	157,364.00	157,364.00	
j) Stipend/means-cum-merit scholarship	0.00	116,565,143.00	116,565,143.00	0.00	80,527,748.00	80,527,748.00	
k) Subscription Expenses	0.00	0.00	0.00	0.00	0.00	0.00	
I) Others (specify) academic expenses	0.00	3,032,700.00	3,032,700.00	0.00	2,318,898.00	2,318,898.00	
m) Accreditation to AICTE Expenses	0.00	150,000.00	150,000.00	0.00	160,000.00	160,000.00	
n) Departmental Operating cost	0.00	6,176,049.00	6,176,049.00	0.00	3,636,556.38	3,636,556.38	
Total	0.00	130,277,148.00	130,277,148.00	0.00	89,673,597.38	89,673,597.38	

## NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P) SCHEDULE FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31/03/2020 SCHEDULE 17- ADMINISTRATIVE AND GENERAL EXPENSES

Particulars		Current Year			Previo	us Year
	Plan	Non-Plan	Total	Plan	Non-Plan	Total
A Infrastructure						
a) Electricity and power	0.00	12,657,662.00	12,657,662.00	0.00	13,312,357.00	
b) Water charges	0.00	5,693,794.00	5,693,794.00	0.00	3,908,870.00	
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	250,000.00	17,471,227.00
B Communication						
e) Postage and Stationery	0.00	228,438.00	228,438.00	0.00	237,701.00	
f) Telephone Fax and Internet Charges	0.00	193,023.00	193,023.00	0.00	142,192.00	379,893.00
C Others						
g) Printing and Stationery (consumption)	0.00	1,145,996.00	1,145,996.00	0.00	1,570,662.00	
h) Travelling and Conveyance Expenses	0.00	5,317,313.00	5,317,313.00	0.00	5,540,183.00	
i) Hospitality	0.00	0.00	0.00	0.00	0.00	
j) Auditors Remuneration	0.00	65,732.00	65,732.00	0.00	300,000.00	
k) Professional Charges	0.00	56,940.00	56,940.00	0.00	170,204.00	
I) Advertisement and Publicity	0.00	1,948,020.00	1,948,020.00	0.00	3,807,270.00	
m) Magazines & Journals	0.00	431,200.00	431,200.00	0.00	0.00	
n) Others Misc. Administrative expenses	0.00	3,438,528.00	3,438,528.00	0.00	11,670,076.00	
o) Security Charges	0.00	38,635,404.00	38,635,404.00	0.00	27,333,140.00	
p) Legal expenses	0.00	1,069,740.00	1,069,740.00	0.00	2,667,035.00	
r) Wages/ Outsourcing	0.00	63,918,270.00	63,918,270.00	0.00	0.00	
s) Salary Contract/ part time staff	0.00	22,075,796.00	22,075,796.00	0.00	0.00	53,058,570.00
Total	0.00	156,875,856.00	156,875,856.00	0.00		70,909,690.00

#### **SCHEDULE 18-TRANSPORTATION EXPENSES**

#### Amount in Rupees

Particulars		Current Year				Previous Year			
		lan	Non-Plan	Total	Plan	Non-Plan	Total		
							0.00		
1 Vehicles (owned by institution)							0.00		
a) Running expenses	0	.00	1,178,976.00	1,178,976.00	0.00	1,593,623.00	1,593,623.00		
b) Repairs & maintenance	0	.00	658,981.00	658,981.00	0.00	1,875,772.00	1,875,772.00		
c) Insurance expenses	0	.00	14,191.00	14,191.00	0.00	129,836.00	129,836.00		
2 Vehicles taken on rent/lease	0	.00	0.00	0.00	0.00	0.00	0.00		
a) Rent/lease expenses	0	.00	0.00	0.00	0.00	0.00	0.00		
3 Vehicle (Taxi) hiring expenses	0	.00	0.00	0.00	0.00	0.00	0.00		
То	tal 0	.00	1,852,148.00	1,852,148.00	0.00	3,599,231.00	3,599,231.00		

## NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P) SCHEDULE FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31/03/2020

**SCHEDULE 19- REPAIR & MAINTENANCE** 

Amount in Rupees

		Current Year				Previous Year		
Particulars	Plan	Non-Plan	Total	Plan	Non- Plan	Total		
a) Buildings	8,263,493.00	0.00	8,263,493.00	15,848,949.00	0.00	15,848,949.00		
b) Furniture & Fixtures	0.00	0.00	0.00	171,685.00	0.00	171,685.00		
c) Plant & Machinery	0.00	0.00	0.00	0.00	0.00	0.00		
d) Office Equipment	4,654,542.00	0.00	4,654,542.00	2,727,893.00	0.00	2,727,893.00		
e) Computers	0.00	0.00	0.00	0.00	0.00	0.00		
f) Laboratory & Scientific equipment	0.00	0.00	0.00	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	17,025,283.00	0.00	17,025,283.00	16,206,595.00	0.00	16,206,595.00		
i) Book binding charges		0.00	0.00	0.00	0.00	0.00		
j) Gardening	0.00	0.00	0.00	6,634,673.00	0.00	6,634,673.00		
k) Estate Maintenance	0.00	0.00	0.00	2,156,693.00	0.00	2,156,693.00		
I) Others Water supply	2,056,230.00	0.00	2,056,230.00	1,938,304.00	0.00	1,938,304.00		
m) Road	34,634.00	0.00	34,634.00	1,056,548.00	0.00	1,056,548.00		
n) Street light/Electric Installation	2,957,692.00	0.00	2,957,692.00	795,800.00	0.00	795,800.00		
o) Oxidation Pond	67,450.00	0.00	67,450.00	2,990,303.00	0.00	2,990,303.00		
p) Maintenance of Entrance Flayer In Admin								
Block	0.00	0.00	0.00	0.00	0.00	0.00		
Total	35,059,324.00	0.00	35,059,324.00	50,527,443.00	0.00	50,527,443.00		

#### **SCHEDULE 20-FINANCE COSTS**

#### **Amount in Rupees**

		Curren	t Year	Previous Year			
Particulars	Plan	Non-Plan	Total	Plan	Non-Plan	Total	
a) Bank charges	0.00	5,886.00	5,886.00	0.00	2,814.42	2,814.42	
b) Others (specify)	0.00	0.00	0.00	0.00	0.00	0.00	
Total	0.00	5,886.00	5,886.00	0.00	2,814.42	2,814.42	

## NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P) SCHEDULE FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31/03/2020 SCHEDULE 21- OTHER EXPENSES

#### **Amount in Rupees**

		Current	Previous Year			
Particulars	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
Total	0.00	0.00	0.00	0.00	0.00	0.00

#### **SCHEDULE 22: PRIOR PERIOD EXPENSES**

#### **Amount in Rupees**

		Current	Year	Previous Year			
Particulars		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	
Total	0.00	0.00	0.00	0.00	0.00	0.00	

### NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR (H.P) RECEIPTS AND PAYMENTS ACCOUNT FOR THE PERIOD/YEAR ENDED 31/03/2020

(Amount-Rs)

	(Alliount-RS)		1	T
CURRENT YEAR	PREVIOUS YEAR	PAYMENTS	CURRENT YEAR	PREVIOUS YEAR
		1. Expenses		
407,025.05	142,434.05	a) Establishment Expenses	511,148,803.00	467,107,237.00
		b) Academic Expenses	114,429,966.00	89,091,325.38
		c) Administrative Expenses	94,240,288.00	98,747,953.42
268,385,815.27	169,930,117.85	d) Transportation Expenses	1,852,148.00	0.00
1,770,805,495.76	1,250,717,976.78	e) Repairs & Maintenance	110,508,595.00	56,664,345.00
		f) Prior period expenses	0.00	0.00
		g) Student curricular Activities		
		II. Payments against Earmarked/Endowment Funds	0.00	0.00
1,015,900,000.00	1,436,368,000.00			
0.00	0.00			
219,470,620.00	272,756,845.82	Ill. Payments against Sponsored Projects/Schemes	0.00	0.00
		IV. Payments against Sponsored		
5,986,038.00	7,501,943.00	Fellowships/Scholarships	2,957,320.00	0.00
13 867 668 01	0.00	V Investments and Denosits made		
13,807,008.91	0.00		0.00	0.00
		a y out of Earmanced Endowments funds	0.00	0.00
3,017,323.00	0.00	b) Out of own funds (Investments- Others	0.00	0.00
		VI. Term Deposits with Scheduled Banks	0.00	0.00
		VII. Expenditure on Fixed Assets and capital WIP		
0.00	0.00	b) Other investments a} Fixed Assets	349,404,184.00	457,346,409.52
0.00	0.00	b) Capital Works- in- Progress	0.00	0.00
		VIII Other Payments including statutory payments	0.00	0.00
59,209,577.00	18,034,039.00			
56,679.00	135,995.00			
4,025,413.00	3,121,356.00			
1,202,576.00	12,596.00			
0.00	0.00	IX. Refunds of Grants	0.00	0.00
0.00	0.00	X. Deposits, Advances and Stock	332,202,296.53	433,260,751.60
	268,385,815.27 1,770,805,495.76 1,015,900,000.00 0.00 219,470,620.00 5,986,038.00 13,867,668.91 3,017,323.00 0.00 0.00 59,209,577.00 56,679.00 4,025,413.00 1,202,576.00 0.00	CURRENT YEAR PREVIOUS YEAR  407,025.05 142,434.05  268,385,815.27 169,930,117.85 1,770,805,495.76 1,250,717,976.78  1,015,900,000.00 1,436,368,000.00  0.00 0.00  219,470,620.00 272,756,845.82  5,986,038.00 7,501,943.00  13,867,668.91 0.00  3,017,323.00 0.00  3,017,323.00 0.00  59,209,577.00 18,034,039.00 56,679.00 135,995.00 4,025,413.00 3,121,356.00 1,202,576.00 12,596.00 0.00 0.00	CURRENT YEAR	CURRENT YEAR

			Student curricular Activities Receipts	3,128,405.00	3,570,577.00
XI. Other income (including Prior Period			Student currental Activities receipts	3,120,403.00	3,370,377.00
Income)	23,491,878.00	28,078,063.00	XI. Other Payments	0.00	0.00
XII. Deposits, Advances and Stock	776,163,948.97	655,370,993.44	XII. Closing balances		
			Tfd to Project Cash book	0.00	1,668,492.00
			Tfd to Corpus fund	303,822,898.82	204,215,057.94
Student Curricular Activities Receipt	7,696,200.00	9,100,125.00	a) Cash in hand	412,392.05	407,025.05
_			b) Bank balances		
			In Current Accounts	0.00	0.00
			In Savings Accounts	73,303,060.56	268,385,815.27
			In Deposit Accounts	2,272,275,961.00	1,770,805,495.76
XIII. Miscellaneous Receipts including	0.00	0.00			
Statutory Receipts					
XIV. Any Other Receipts	0.00	0.00			
TOTAL	4,169,686,257.96	3,851,270,484.94	TOTAL	4,169,686,257.96	3,851,270,484.94

ASSISTANT REGISTRAR (A&F) NIT HAMIRPUR (HP) REGISTRAR NIT HAMIRPUR (HP) DIRECTOR NIT HAMIRPUR (HP)