



# **ANNUAL REPORT & ANNUAL ACCOUNTS 2021-2022**



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**

# **Annual Report & Annual Accounts (2021 – 2022)**



**राष्ट्रीय प्रौद्योगिकी संस्थान दिल्ली**

**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**

(शिक्षा मंत्रालय, भारत सरकार के अधीन एक स्वायत्त संस्थान)

(An Autonomous Institute under the aegis of the Ministry of Education

(Shiksha Mantralaya), Govt. of India)

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## DIRECTOR'S MESSAGE

### From the Director's Desk...



I am contented to be at NIT Delhi again to have my second innings being more zealous and enthusiastic, paving the building blocks of the Institute. It is my honor to be back at NIT Delhi and take it to new heights in achieving the milestones and accomplishing the Vision, Mission, and Quality Policy of the Institute.

I, at this moment, present all the academic, administrative, and financial achievements for 2021-2022, along with audited Annual Accounts by CAG of India. I am convinced that NIT Delhi is mounting in the right direction and inclined toward fulfilling its academic and societal responsibility. It has the potential to become the Gold Standard for education in the coming years.

In the Financial Year 2021-2022, Institute shifted from its Transit campus to Permanent Campus and ran all its academic and administrative activities there. Further, with the implementation of the New Education Policy 2020, the Institute has revised its entire curriculum with more flexibility in exit policy and more hands-on research and industry experience, resulting in widening the scope of knowledge. Institute, because of providing educational support to all category of students in society, have initiated the new UG, PG, and Ph.D. Program.

Since joining NIT Delhi again in the year 2021, I can analyze the growth of the Institute as a seed sown and nurtured with best practice, growing into a sapling and moving towards the development as a Tree of Knowledge. NIT Delhi is flourishing with the efforts of all Faculty Members, Staff, Students, and others associated with the Institute directly and indirectly. I highly appreciate the sincere efforts of all the Faculty and Staff working efficiently with a feeling of belongingness towards the Institute.

I congratulate the efforts made by the Training and Placement cell for placing our students in reputed organizations and industries in a good position and helping them to impart their skills and knowledge towards the holistic solution for society. They are setting the benchmark for research and development with the state of artifacts nationwide and globally.

Ultimately, I express my gratitude to the Ministry of Education for supporting the Institute at all times and believe in having the same support in the future. With recent trends, NIT Delhi is grooming and shaping into one of the best education institutes in the coming times. During my tenure, I will put my best efforts into taking it to new heights of success.

**Prof. (Dr) Ajay K. Sharma**

Director

National Institute of Technology, New Delhi





# **Part – I**

## **Annual Report**

### **(2021 – 2022)**





## FACULTY/STAFF MEMBERS AND ADMINISTRATION

### Members of the Board of Governors (2021-2022)

Prof (Dr.) Ajay K. Sharma Director NIT Delhi	Chairperson
Additional Secretary or Joint Secretary dealing with Technical Education, Department of Higher Education, Ministry of Education or his nominee	Member
Financial Advisor, Department of Higher Education, Ministry of Education or his nominee	Member
Professor M. Balakrishnan, Professor and Former Dy. Director, Strategy & Planning, IIT Delhi	Member
Prof. Vivek Kumar Professor, Centre Rural Development and Technology, IIT Delhi	Member
Dr. Vivek Shrivastava Associate Professor, Department of Electrical and Electronics Engineering	Member
Shri Rajeev Saraf Technopreneur Lepton Software Export & Research Pvt. Ltd Gurugram	Member
Shri Gopal Mohan Advisor, Delhi Dialogue Commission Delhi	Member
Dr. Vivek Shrivastava, Registrar (I/c), NIT Delhi	Member Secretary

### Members of the Finance Committee (2021-2022)

Prof (Dr.) Ajay K. Sharma Director NIT Delhi	Chairperson
Joint Secretary dealing with National Institute of Technology or his nominee	Member
Financial Advisor Department of Higher Education, Ministry of Education or his nominee	Member
Professor M. Balakrishnan Professor and Former Dy. Director, Strategy & Planning, IIT Delhi	Member
Prof. Vivek Kumar Professor, Centre Rural Development and Technology, IIT Delhi	Member
Dr. Vivek Shrivastava Associate Professor, Department of Electrical and Electronics Engineering	Member Secretary

### Members of the Building & Works Committee (2021-22)

Prof (Dr.) Ajay K. Sharma Director NIT Delhi	EX-officio Chairman
One member nominated by the Central Government not below the rank of Director or Deputy Secretary	Member
Prof. Nirendra Dev Professor and Head of the Civil Engineering Department, Delhi Technological University, Delhi	Member
Er. Rajesh Kumar Superintending Engineer (Civil), CPWD	Member
Er. Vivek Gupta Superintending Engineer (Elect.), CPWD	Member
Dr. Gyanendra Sheoran Dean (Planning & Development) I/c	Member
Dr. Vivek Shrivastava, Associate Professor, Department of Electrical and Electronics Engineering	Member Secretary



S. No.	Post Name	Pay Band with AGP as per 6th CPC or Pay Level as per 7th CPC	Sanctioned Strength						Filled Positions						Vacant Position					
			Total	UR	SC	ST	OBC	EWS	Total	UR	SC	ST	OBC	EWS	Total	UR	SC	ST	OBC	EWS
1	Professor	PB-4 (37400-67000) with AGP of Rs. 10500 or Pay Level 14A (159100-220200)	6	4	1	0	1	0	0	0	0	0	0	0	6	4	1	0	1	0
2	Associate Professor	PB-4 (37400-67000) with AGP of Rs. 9500 or Pay Level 13A2 (139600-211300)	12	7	1	1	3	0	2	2	0	0	0	0	10*	5	1	1	3	0
3	Assistant Professor*	PB-3 (15600-39100) with AGP of Rs.6000/7000/8000 or Pay Level 10/11/12	32	17	6	1	8	0	32	17	6	1	8	0	0	0	0	0	0	0
<b>Total</b>			<b>50</b>	<b>28</b>	<b>8</b>	<b>2</b>	<b>12</b>	<b>0</b>	<b>34</b>	<b>19</b>	<b>6</b>	<b>1</b>	<b>8</b>	<b>0</b>	<b>16</b>	<b>9</b>	<b>2</b>	<b>1</b>	<b>4</b>	<b>0</b>

NOTE: \*Post Advertised via Advertisement no. 02/2022 and the advertisement process is completed on 26<sup>th</sup> June, 2022.  
In the year 2022, the following vacant positions have been advertised and the progress is as stated:-

Post	Total	UR	SC	ST	OBC	EWS
<b>Professor*</b>	6	4	1	0	1	0
<b>Associate Professor (Pay Level 13A2)#</b>	10	6	0	1	3	0
<b>Assistant Professor – Grade I (Pay Level – 12)#</b>	06	2	1	0	3	0
<b>Assistant Professor – Grade-II (Pay Level – 11)#</b>	09	4	2	1	2	0

\*Post Advertised via Advertisement no. 01/2022 and the recruitment is under process.

# Process Completed (Advt. No. 02/2022), resulted awaited.

## Details of Non-Teaching Staff for the Period 01<sup>st</sup> April 2021 to 31<sup>st</sup> March 2022.

### (A). Posts Sanctioned & filled

Group A																				
S. No.	Post Name	Pay Band with GP as per 6th CPC or Pay Level as per 7th CPC	Sanctioned Strength						Filled Positions						Vacant Position					
			Total	UR	SC	ST	OBC	EWS	Total	UR	SC	ST	OBC	EWS	Total	UR	SC	ST	OBC	EWS
1	Registrar	PB-4 (37400-67000) with GP of Rs. 10000/- or Pay Level – 14 (144200-218200)	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
2	Executive Engineer	PB-3 (15600-39100) with GP of Rs. 5400/- or Pay Level – 10 (56100-177500)	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
3	Assistant Registrar	PB-3 (15600-39100) with GP of Rs. 5400/- or Pay Level – 10 (56100-177500)	2	2	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0
4	Assistant Librarian	PB-3 (15600-39100) with GP of Rs. 6000/- or Pay Level – 10 (57700-98200)	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
5	SAS Officer	PB-3 (15600-39100) with GP of Rs. 6000/- or Pay Level – 10 (57700-98200)	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
6	Medical Officer	PB-3 (15600-39100) with GP of Rs. 5400/- or Pay Level – 10 (56100-177500)	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
<b>Total</b>			<b>7</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>



Group B																				
S.No.	Post Name	Pay Band with GP as per 6th CPC or Pay Level as per 7th CPC	Sanctioned Strength						Filled Positions						Vacant Position					
			Total	UR	SC	ST	OBC	EWS	Total	UR	SC	ST	OBC	EWS	Total	UR	SC	ST	OBC	EWS
1	Senior Technical Assistant	PB-2 with GP of Rs. 4600/- or Pay Level - 7 (44900-142400)	2	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
2	Technical Assistant	PB-2 with GP of Rs. 4200/- or Pay Level - 6 (35400-112400)	3	2	0	0	1	0	1	1	0	0	0	0	2	1	0	0	1	0
3	Technical Assistant SG-II*	PB-2 with GP of Rs. 4800/- or Pay Level - 8 (47600-151100)	2	2	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0
4	Technical Assistant SG-I*	PB-2 with GP of Rs. 5400/- or Pay Level - 9 (53100-167800)	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
5	Assistant Engineer	PB-2 with GP of Rs. 4600/- or Pay Level - 7 (44900-142400)	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
6	Junior Engineer	PB-2 with GP of Rs. 4200/- or Pay Level - 6 (35400-112400)	2	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
7	Personal Assistant	PB-2 with GP of Rs. 4200/- or Pay Level - 6 (35400-112400)	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
8	Senior Superintendent	PB-2 with GP of Rs. 4600/- or Pay Level - 7 (44900-142400)	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
9	Superintendent SG-II	PB-2 with GP of Rs. 4800/- or Pay Level - 8 (47600-151100)	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
10	Superintendent	PB-2 with GP of Rs. 4200/- or Pay Level - 6 (35400-112400)	2	1	0	0	1	0	1	1	0	0	0	0	1	0	0	0	1	0
Total			16	14	0	0	2	0	6	6	0	0	0	0	10	8	0	0	2	0
Group C																				
S.No.	Post Name	Pay Band with GP as per 6th CPC or Pay Level as per 7th CPC	Sanctioned Strength						Filled Positions						Vacant Position					
			Total	UR	SC	ST	OBC	EWS	Total	UR	SC	ST	OBC	EWS	Total	UR	SC	ST	OBC	EWS
1	Assistant SG-I	PB-2 with GP of Rs. 4200/- or Pay Level - 6 (35400-112400)	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0





2	Assistant SG-II	PB-1 with GP of Rs. 2800/- or Pay Level - 5 (29200-92300)	3	3	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0
3	Senior Assistant	PB-1 with GP of Rs. 2400/- or Pay Level - 4 (25500-81100)	3	3	0	0	0	0	2	2	0	0	0	0	1	1	0	0	0	0
4	Junior Assistant	PB-1 with GP of Rs. 2000/- or Pay Level - 3 (21700-69100)	4	3	0	0	1	0	3	2	0	0	1	0	1	1	0	0	0	0
5	Senior Technician SG-I	PB-2 with GP of Rs. 4200/- or Pay Level - 6 (35400-112400)	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
6	Senior Technician SG-II	PB-1 with GP of Rs. 2800/- or Pay Level - 5 (29200-92300)	3	3	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0
7	Senior Technician	PB-1 with GP of Rs. 2400/- or Pay Level - 4 (25500-81100)	4	3	0	0	1	0	2	2	0	0	0	0	2	1	0	0	1	0
8	Technician	PB-1 with GP of Rs. 2000/- or Pay Level - 3 (21700-69100)	5	4	0	0	1	0	3	2	0	0	1	0	2	2	0	0	0	0
9	Pharmacist	PB-1 with GP of Rs. 2800/- or Pay Level - 5 (29200-92300)	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
10	Senior Office Attendant SG-I / Senior Lab Attendant SG-I	PB-1 with GP of Rs. 2400/- or Pay Level - 4 (25500-81100)	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
11	Senior Office Attendant SG-II / Senior Lab Attendant SG-II	PB-1 with GP of Rs. 2000/- or Pay Level - 3 (21700-69100)	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
12	Senior Office Attendant / Senior Lab Attendant	PB-1 with GP of Rs. 1900/- or Pay Level - 2 (19900-63200)	2	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
13	Office Attendant / Lab Attendant	PB-1 with GP of Rs. 1800/- or Pay Level - 1 (18000-56900)	3	2	1	0	0	0	1	1	0	0	0	0	2	1	1	0	0	0
<b>Total</b>			<b>32</b>	<b>28</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>12</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>20</b>	<b>18</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>
<b>Total (A+B+C)</b>			<b>55</b>	<b>49</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>22</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>33</b>	<b>29</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>0</b>

#### (B). Administrative and Technical Staff

S.No.	Name of Employee	Designation	Department
1.	Dr. Manisha Singh	Assistant Registrar	Administration
2.	Dr. Gareema Sharma	Assistant Librarian	Central Library
3.	Dr. Anidev Singh	SAS Officer	Students Activity & Sports
4.	Sh. Kamal Kumar	Junior Engineer (Civil)	Office of Dean (P&D)



5.	Sh. Harpreet Singh Nanda	Superintendent	Store & Purchase Section
6.	Sh. Sumit Sharma	Senior Technical Assistant (CSE)	ERP Cell
7.	Sh. Surender Kumar	Senior Technical Assistant (ECE)	Electronics Communication & Engineering
8.	Sh. R.V.Bhaskaran	Technical Assistant (EE)	Electrical & Electronics Engineering
9.	Sh. Mukul Nakra	Junior Engineer (Electrical)	Office of Dean (P&D)
10.	Sh. Aadesh Kumar	Senior Technician (Physics)	Applied Sciences (Physics)
11.	Sh. Krishan Pal	Senior Technician (Mechanical)	Mechanical Engineering
12.	Sh. Raushan Kumar	Technician (CSE)	Computer Centre
13.	Sh. Vikas Bhardwaj	Technician (CSE)	Computer Science & Engineering
14.	Sh. Shubham Bhardwaj	Technician (Chemistry)	Applied Sciences (Chemistry)
15.	Sh. Jitender Singh Bisht	Senior Assistant	Director's Office
16.	Sh. Neeraj Kumar	Senior Assistant	Establishment Section
17.	Ms. Aditi Kandari	Junior Assistant	Central Library
18.	Ms. Anupriya Das	Junior Assistant	Office of Applied Science & Humanities, T&P, Office of S/W, Chief Warden & Wardens
19.	Ms. Navisha Sharma	Junior Assistant	Store & Purchase Section
20.	Sh. Lov Kumar Dubey	Senior Office Attendant	Office of CoE
21.	Sh. Bharat Singh	Senior Office Attendant	Office of TnP
22.	Sh. Udit Sharma	Office Attendant	Electronics and Communication Engineering

Details of Faculty for the Period 01<sup>st</sup> April 2020 to 31<sup>st</sup> March 2022.

(A). Total Sanctioned intake of Faculty (category Wise) (Gen, EWS, SC, ST, OBC, PwD, Total)

S. No.	Post Name	Pay Band with AGP as per 6th CPC or Pay Level as per 7th CPC	Sanctioned Strength						Filled Positions						Vacant Position					
			Total	UR	SC	ST	OBC	EWS	Total	UR	SC	ST	OBC	EWS	Total	UR	SC	ST	OBC	EWS
1	Professor	PB-4 (37400-67000) with AGP of Rs. 10500 or Pay Level 14A (159100-220200)	6	4	1	0	1	0	0	0	0	0	0	0	6	4	1	0	1	0
2	Associate Professor	PB-4 (37400-67000) with AGP of Rs. 9500 or Pay Level 13A2 (139600-211300)	12	7	1	1	3	0	2	2	0	0	0	0	10*	5	1	1	3	0
3	Assistant Professor*	PB-3 (15600-39100) with AGP of Rs.6000/7000/8000 or Pay Level 10/11/12	32	17	6	1	8	0	32	17	6	1	8	0	0	0	0	0	0	0
<b>Total</b>			<b>50</b>	<b>28</b>	<b>8</b>	<b>2</b>	<b>12</b>	<b>0</b>	<b>34</b>	<b>19</b>	<b>6</b>	<b>1</b>	<b>8</b>	<b>0</b>	<b>16</b>	<b>9</b>	<b>2</b>	<b>1</b>	<b>4</b>	<b>0</b>

(B). Faculty in Position (Category Wise) Regular (Gen, EWS, SC, ST, OBC, PwD, Total)

Category	Gen	SC	ST	OBC	PWD	EWS	Total
Professor	-	-	-	-	-	-	-
Associate Professor	02	-	-	-	-	-	02
Assistant Professor*	17	06	01	08	-	-	32

Note: \* Assistant Professor (Pay Level-12), Assistant Professor Grade-I (Pay Level-11), Assistant Professor Grade II (Pay Level-10)



**(D). List of Faculty as on 31<sup>st</sup> March 2022 (Regular) (Name, Department, Designation, Category)**

S.No.	Name	Designation	Department
1.	Dr. Vivek Shrivastava	Associate Professor	Electrical & Electronics Engineering
2.	Dr. Shelly Sachdeva	Associate Professor	Computer Science & Engineering
3.	Dr. V.S.Pandey	Assistant Professor Grade I	Applied Sciences (Physics)
4.	Dr. Pankaj Mukhija	Assistant Professor Grade I	Electrical & Electronics Engineering
5.	Dr. Anshul Agarwal	Assistant Professor Grade I	Electrical & Electronics Engineering
6.	Dr. Gyanendra Sheoran	Assistant Professor Grade I	Applied Sciences (Physics)
7.	Dr. Amit Pratap Singh	Assistant Professor Grade I	Applied Sciences (Chemistry)
8.	Dr. Abhishek Mishra	Assistant Professor Grade I	Mechanical Engineering
9.	Dr. Anuj Kumar Sharma	Assistant Professor Grade I	Applied Sciences (Physics)
10.	Dr. Amit Mahajan	Assistant Professor Grade I	Applied Sciences (Mathematics)
11.	Dr. Anmol Ratna Saxena	Assistant Professor Grade I	Electrical & Electronics Engineering
12.	Dr. Anurag Singh	Assistant Professor Grade I	Computer Science & Engineering
13.	Dr. Rikmantra Basu	Assistant Professor Grade I	Electronics Communication & Engineering
14.	Dr. Rajiv Kumar Tripathi (till 21 <sup>st</sup> April, 2021)	Assistant Professor Grade I	Electronics Communication & Engineering
15.	Dr. Tirupathiraju Kanumuri	Assistant Professor Grade I	Electrical & Electronics Engineering
16.	Dr. Prashant Kumar	Assistant Professor Grade I	Applied Sciences (Mathematics)
17.	Dr. Harish Kumar	Assistant Professor Grade I	Mechanical Engineering
18.	Dr. Sushila Vikas Maheshkar	Assistant Professor Grade I	Computer Science & Engineering
19.	Dr. Karan Verma	Assistant Professor Grade I	Computer Science & Engineering
20.	Dr. Manisha Bharti	Assistant Professor Grade I	Electronics Communication & Engineering
21.	Dr. Kapil Kumar	Assistant Professor Grade II	Environmental Sciences
22.	Dr. Sachin Singh	Assistant Professor Grade II	Electrical & Electronics Engineering
23.	Dr. Baljit Kaur	Assistant Professor Grade II	Electronics Communication & Engineering
24.	Dr. D. Vaithiyathan	Assistant Professor Grade II	Electronics Communication & Engineering
25.	Dr. Sandeep Kumar	Assistant Professor Grade II	Electronics Communication & Engineering
26.	Dr. Amit Kumar Singh	Assistant Professor Grade II	Electrical & Electronics Engineering
27.	Dr. Sachin Agrawal	Assistant Professor Grade II	Electronics Communication & Engineering
28.	Dr. Manoj Kumawat	Assistant Professor Grade II	Electrical & Electronics Engineering
29.	Dr. Rishav Singh	Assistant Professor Grade II	Computer Science & Engineering
30.	Dr. Leeladhar Nagdeve	Assistant Professor Grade II	Mechanical Engineering
31.	Dr. Chandra Prakash	Assistant Professor Grade II	Computer Science & Engineering



32.	Dr. Nitin Singh Singha	Assistant Professor Grade II	Electronics Communication & Engineering
33.	Dr. Ashok Kumar Dewangan	Assistant Professor Grade II	Mechanical Engineering
34.	Dr. Dharmendra Kumar Jhariya	Assistant Professor Grade II	Electronics Communication & Engineering
35.	Dr. Mahesh Kumar Singh	Assistant Professor Grade II	Electronics Communication & Engineering
36.	Dr. Nitesh Ahir (till 1 <sup>st</sup> September, 2021)	Assistant Professor Grade II	Civil Engineering
37.	Dr. Sonti Venu (till 6 <sup>th</sup> August, 2021)	Assistant Professor Grade II	Electrical & Electronics Engineering

**(F). Temporary and Guest Faculty as on 31<sup>st</sup> March 2022**

S.No.	Name	Designation	Department
1.	Dr. Vinisha Sumra	Assistant professor	Computer Science and Engineering
2.	Dr. Anchal Thakur	Assistant professor	Electronics and Communication Engineering
3.	Dr. Amit Kumar	Assistant professor	Electronics and Communication Engineering
4.	Dr. Neha Paras	Assistant professor	Electronics and Communication Engineering
5.	Dr. Preeti Verma	Assistant professor	Electronics and Communication Engineering
6.	Dr. Shubhra	Assistant professor	Electrical Engineering
7.	Dr. Rahul	Assistant professor	Electrical Engineering
8.	Dr. Suman Kumari	Assistant professor	Mechanical Engineering
9.	Dr. Kumari Neelu	Assistant professor	Applied Sciences
10.	Dr. Vikram Singh	Assistant professor	Applied Sciences
11.	Dr. Pratibha	Assistant professor	Applied Sciences
12.	Dr. Kritika Aditya	Assistant professor	Electronics and Communication Engineering
13.	Dr. Shikha Gupta	Guest Faculty	Computer Science and Engineering
14.	Dr. Shruti Gupta	Guest Faculty	Computer Science and Engineering
15.	Dr. Shubhra Goel	Guest Faculty	Computer Science and Engineering
16.	Dr. Rohini Mahajan	Guest Faculty	Computer Science and Engineering
17.	Dr. Ravi Kumar Arya	Guest Faculty	Electronics and Communication Engineering
18.	Dr. Jyoti Shukla	Guest Faculty	Electrical Engineering
19.	Dr. Rajesh M. Pindoriya	Guest Faculty	Electrical Engineering
20.	Dr. Amandeep Singh	Guest Faculty	Electrical Engineering



## ACADEMIC ACTIVITY

### 1. Introduction

Admission of students into the undergraduate Programme (B.Tech.) in Computer Science and Engineering (CSE), Electronics and Communication Engineering (ECE), and Electrical & Electronics Engineering (EEE) started from the academic session 2010-11 with the first batch of 30 students in each discipline. The educational activities of NIT Delhi were initiated at NIT Warangal in 2010, which later moved to a temporary campus at Dwarka, New Delhi, in June 2012, and then at NILERD Transit Campus, Narela, Delhi, in February 2014 with limited space of about 17 acres. In January 2022, NIT Delhi commenced its academic and administrative activities from the permanent campus at G T Karnal Road, Delhi. Phase 1A of the construction of the permanent campus is completed. The campus is being built over 51 acres of land strategically located over the intersection of 2 national highways.

From 2013-14, the student's intake in each discipline of the B.Tech program was increased to 60, which further has been enhanced to 75 from the academic year 2021-22. M.Tech programme in Electronics and Communication Engineering with a student intake of 15 students was started in the academic year 2013-14, and Computer Science and Engineering (Analytics) with information of 15 students in the academic year 2014-15. The M.Tech programs were also started in Mechanical Engineering (CAD/CAM) from the academic year 2016-17, while the M.Tech programs in Electronics and Communication Engineering (VLSI Design), Electrical Engineering (Power Electronics and Drives), and Applied Sciences (Smart materials) from started from the academic year 2017-18. Admissions to all the UG programs are through an all-India level competitive exam (JEE-Main) followed by a centralized counseling process of JoSAA, and for all PG programs, based on a valid GATE score followed by a centralized counseling process of CCMT. Intake to M.Tech programs was increased to 18/ 19 in the academic year 2021-22, which further has been increased by 15 additional seats in each program from the academic year 2022-23 for the candidates without GATE Score/ Self-financed/ Sponsored candidates. It is worth mentioning that from the academic year 2022-23, the Institute is starting M.Tech (Part-Time) programs in Mechanical Engineering (CAD/CAM) and Electronics and Communication Engineering with an intake of 30. The students admitted through CCMT for M. Tech. are granted Half-Time Teaching Assistantship (HTTA) as per MoE/ Govt of India norms.

To boost the research activities, the Ph.D. programmes were also started in January 2014. Currently, the Institute offers Ph.D. in various disciplines, including Computer Science and Engineering, Electronics and Communication Engineering, Electrical Engineering, Mechanical Engineering, Environmental Sciences, Chemistry, Physics, Mathematics, Humanities & Management, and Inter-disciplinary.

### 2. Academic Departments with sub-branches:

S. No.	Name of the Department/ Branch	Sub-Branches	Code
1.	Applied Sciences	Environmental Sciences	ENV
		Chemistry	CY
		Mathematics	MA
		Physics	PH
2.	Computer Science and Engineering		CSE
3.	Electrical and Electronics Engineering		EEE
4.	Electronics and Communication Engineering		ECE
5.	Mechanical Engineering		ME
6.	Humanities and Management		HM



### 3. Academic Programmes Offered and Sanctioned Intake

B. Tech. Programmes	M. Tech. Programmes	Ph. D. Programmes
Computer Science and Engineering (CSE) 75 + DASA	Computer Science & Engineering (Specialization in Analytics) 19 + DASA	Computer Science and Engineering (CSE)
Electrical & Electronics Engineering (EEE) 75 + DASA	Electrical and Electronics Engineering (Specialization in Power Electronics and Drives) 19 + DASA	Electrical & Electronics Engineering (EEE)
Electronics and Communication Engineering (ECE) 75 + DASA	Electronics and Communication Engineering 18 + DASA	Electronics and Communication Engineering (ECE)
	Electronics and Communication Engineering (Specialization in VLSI Design) 19 + DASA	Mechanical Engineering
	Mechanical Engineering (Specialization in CAD/CAM) 19 + DASA	Humanities and Management
		Chemistry
		Physics
		Mathematics
		Environmental Science and Engineering (ENVS)

### 4. Student Statistics

Admitted Students at UG & PG Level (2021-2022)						
Course/ Category	Open (including PwD)	SC (including PwD)	ST (including PwD)	OBC (Including PwD)	EWS	Total
UG (3 branches)	62	33	17	59	27	<b>202</b>
PG (5 branches)	34	9	0	21	0	<b>64</b>
Ph. D. (all branches)	30	18	10	5	7	<b>70</b>

Branch-Wise Admission at UG Level (Category Wise) (2021-2022)								
Course	Open	SC	ST	OBC	DASA	EWS	PwD	Total
B. Tech. CSE	18	10	6	21	4	10	2	<b>71</b>
B. Tech. ECE	19	9	5	20	0	8	4	<b>65</b>
B. Tech. EEE	20	12	5	18	0	9	2	<b>66</b>
<b>Total</b>	<b>57</b>	<b>31</b>	<b>16</b>	<b>59</b>	<b>4</b>	<b>27</b>	<b>8</b>	<b>202</b>

Branch-Wise Admission at PG Level (Category Wise) (2021-2022)								
Course	Open	SC	ST	OBC	DASA	EWS	PwD	Total
M.Tech. CSE	8	3	0	5	0	1	1	<b>18</b>
M.Tech. ECE	7	2	0	0	0	0	0	<b>9</b>
M.Tech. EEE	8	2	0	4	0	2	0	<b>16</b>
M.Tech. ECE (VLSI)	8	2	0	5	0	2	0	<b>17</b>
M.Tech. ME	7	1	0	4	0	0	0	<b>12</b>
<b>Total</b>	<b>38</b>	<b>10</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>72</b>



Branch-Wise Admission at Ph. D. Level (Category Wise) (2021-2022)								
Department/ Discipline	Open	SC	ST	OBC	DASA	EWS	PwD	Total
CSE	7	1	0	2	0	0	1	11
ECE	9	2	1	3	0	0	0	15
EEE	6	2	0	2	0	0	0	10
AS	10	0	0	5	0	1	1	17
ME	6	2	0	2	0	0	0	10
<b>Total</b>	<b>38</b>	<b>7</b>	<b>1</b>	<b>14</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>63</b>

## 5. Academic Session and Academic Curriculums

The academic year is divided into two semesters: Autumn (August to December) and spring (January to June). Each semester will generally be of 18 weeks, which includes end semester examination. It may be ensured that the number of effective teaching days in a semester is 72. The Institute's working hours are usually from 9:30 AM to 5:30 AM. However, few academic classes are scheduled from 8:30 AM to arrange an appropriate number of lecture hours/courses.

The courses offered are available on the Institute website:

Website → Academics → Academic System → Course Curriculum → B. Tech Curriculum/ M. Tech Curriculum

## 6. Admission Procedure:

B. Tech Programme
<ul style="list-style-type: none"> <li>Admission to the National Institute of Technology Delhi will be made following the instructions from the Ministry of Education (MOE) Government of India and based on the nation-wise counseling through CSAB. The reservation policy is maintained as per the guidelines issued by MOE, Government of India.</li> <li>Admission to all Undergraduate (UG) courses will be made in the autumn semester of each academic session at the first-year level based on the relative performance in the Joint Entrance Examination (JEE) as per the guidelines issued by the MOE, Government of India. The candidates should have passed the 10+2 examination.</li> <li>A limited number of admissions are offered to Foreign Nationals and Indians living abroad following the rules applicable for such admission issued by MOE, Government of India, under the Direct Admission of Students Abroad (DASA).</li> <li>Suppose any time after admission; it is found that a candidate has not fulfilled all the requirements stipulated in the offer of admission, in any form whatsoever. In that case, the office of Dean Academics shall report the matter to the Senate, recommending canceling the candidate's admission.</li> <li>The institute reserves the right to cancel the admission of any student and ask them to discontinue their studies at any stage of their career on the grounds of indiscipline or any misconduct.</li> <li>The decision of the Senate regarding sections (iv) &amp; (v) above is final and binding. Candidates must fulfill the medical standards required for admission as prescribed in the Institute Information Brochure or the Prospectus.</li> <li>Every Undergraduate (UG) student of the Institute shall be associated with the parent department offering the degree program the student undergoes throughout their study period.</li> <li>All relevant details and admission procedure is available at Institute's website: <a href="http://www.nitdelhi.ac.in">www.nitdelhi.ac.in</a>.</li> </ul>
M. Tech Programme
<ul style="list-style-type: none"> <li>Admission for the M. Tech program in engineering is through the GATE examination. The Graduate Aptitude Test in Engineering (GATE) is an All-India examination administered and conducted in eight zones across the country by the GATE Committee comprising faculty from an organizing Institute and seven Indian Institutes of Technology on behalf of the National Coordinating Board- GATE, Department of Education, Ministry of Education (MOE), Government of India. Further, the counseling is conducted through CCMT.</li> </ul>



### Ph. D. Programme

Advertisement for admission to the Ph.D. program may be published on the website/newspapers (two times a year) depending upon the vacancy in the department/center and the research supervisor(s) availability. The advertisement may/may not include the predetermined number of seats. Reservation is implemented as per Government of India norms. A candidate interested in applying in more than one department/ category shall be required to submit separate application forms along with prescribed fees and documents. The candidate shall be required to submit a write-up (1-2 pages) of their proposed area of research along with the application form. Admission to Ph.D. Program is made in the following categories effective from Academic Year 2021-22:

- Ph. D. (with Institute Fellowship)
- Ph. D. (having own fellowship)
- Ph. D. (Self-Financed)
- Ph. D. (Sponsored)
- Ph. D. (Part-Time)

#### Screening Committee:

The respective Head of Department (HoD) will form a Screening Committee for each department. The committee shall screen all applications for admission to the Ph.D. programme. The committee shall verify the eligibility of the applicant(s) for the program/ entrance test based on the details mentioned in the application(s) and the enclosed documents. The committee will have the right to fix a higher short-listing criterion (in addition to minimum qualification) for short listing. After screening applications, the HoD shall forward the list of candidates eligible for written tests to the Dean (Academic). The Dean (Academic) shall then consolidate the list of all the departments and notify the qualified applicants through appropriate means with the approval of the competent authority.

#### Entrance Test

All the eligible candidates shall be required to appear in a National Level Written Test organized by NIT Delhi. The written test may be in the Multiple Choice Question (MCQ) Mode. A candidate securing at least 40 % marks (UR/ EWS/ OBC) or 35 % (SC/ ST/ PwD) in the Entrance test shall be declared qualified. The syllabus for the written test will be the same as the latest GATE/NET syllabus in the relevant branch of Engineering/Technology/Science/Humanities.

#### Interview

The eligible candidates who have qualified for the written test shall be called for the interview. At the time of the interview, candidates may be asked to discuss their research interest/area in the form of a presentation.

#### Interview Committee:

The Interview Committee may be comprised of the DPGC of the concerned Department.

Considering the available seats, the Interview Committee will prepare and submit a provisional list of candidates recommended for admission to Ph.D. Program for the Director's approval through the Dean's (Academic) office. The Dean's (Academic) office shall notify the list of selected candidates through appropriate means.

## 7. Academic Registration:

Registration is an essential and semester-wise mandatory procedure of the academic system. The registration procedure ensures that the student's name is on the roll list of each course they want to study. No credit is given if the student attends a class they have not registered for.

B. Tech	
i	Every student must be present in person and register at the commencement of each semester on the day(s) fixed for and notified in the Academic Calendar and through proper circulations.
ii	Registration for all courses is online/offline and organized centrally by the academics office/ERP office in coordination with respective academic departments.





iii	After registration in each semester, each student should submit a copy of the registration form (self-attested) along with a copy of the fee receipt (duly verified by the Accounts section) to the concerned office of the Head of the Departments, which indicates the courses registered by them in that semester. Otherwise, registration will not be considered complete.
iv	Registration by a student confirms their status as a student at the Institute. Failure to register before the last date for registration (as indicated in the Academic Calendar) will imply that the student has discontinued studies, and their name will be struck off the rolls for that semester.
v	Every registered student is considered a full-time student of the institute. They are expected to be present at the Institute and devote full time to academics.
vi	A student must register for a new course in study mode only. In case of a backlog course with an F or I grade, the student can register in study or examination mode.
vii	Suppose a student registers for a course in study mode. In that case, they must fulfill all the attendance requirements and be evaluated for continuous evaluation, mid-semester examination, and end-semester examination (as per the assessment of academic performance based on the Institute's rules and regulations).
viii	If a student registers for a course in examination mode, there will be no attendance requirement, and the student is eligible for end semester examination only. In such cases, a student securing 30% or more marks in the end semester examination shall be awarded only a 'D' grade; otherwise 'F' grade will be awarded.

#### M. Tech and Ph. D.

- Every Student of M. Tech. Courses must be present personally and registered for the classes at the commencement of each semester on the day fixed for and notified in the Academic calendar.
- The registration will be organized departmentally under the supervision of the Head of the Department/Coordinator of a respective specialization/ programme.
- Only those students will be permitted to register who have: (a) cleared all Institute and Hostel dues of the previous semesters, including library dues, (b) paid all required fees for the current semester, and (c) not been debarred from registering for a specified period on disciplinary action or any other ground.

### 8. Registration and Fees Payment:

Every registered student must pay the stipulated fees before the specified deadlines. The student must pay the prescribed fee for each course registered in study and examination modes. If a student does not make these payments, they will be de-registered from all courses, and their name will be removed from the roll list. Kindly note that within the registration deadline, students must submit the online generated registration form (Self-attested) along with the fee receipt (verified by the Accounts section in support of their fee submission) to the office of the concerned Head of the department. Otherwise, registration will not be considered complete.

#### Fee Structure for Regular Courses:

Based on the year of first registration/ admission is provided on the Institute website ([www.nitdelhi.ac.in](http://www.nitdelhi.ac.in)) (Website → Academics → Academic Service → Fee Structure).

#### Fee Structure for Backlog Courses:

Mode of Study	Amount (in Rs/)
Study Mode (regular Classes)	1000/ per credit
Exam Mode/Make-up Exam Courses (subject-wise)	1200/ per subject

#### Fee Structure for Backlog Courses:

Mode of Study	Amount (in Rs/)
Study Mode (regular Classes)	1000/ per credit
Exam Mode/Make-up Exam Courses (subject-wise)	1200/ per subject



## 9. Programme Structure

### B. Tech

#### Course Structure

S. No.	Courses	Credits
1.	Basic Science Courses	≥ 24
2.	Departmental Core Courses	≥ 60
3.	Other Engineering Core Courses	≥ 30
4.	Humanities and Social Science Courses	≥ 10
5.	Departmental Elective Courses	≥ 15
6.	Open Elective Courses	≥ 03
7.	Mandatory Courses (Detail in point 8.1.1)	≥ 09
8.	Projects	= = 14 (04: Semester VII and 10: Semester VIII)

#### Mandatory Courses

S. No.	Courses	Credits
1.	Seminar/ Colloquium/ Industrial Lecture	02
2.	Environmental Studies	03
3.	Summer Internship	02
4.	Extra Academic Activity	02

#### Credit System:

Course Code	L (Lecture)	T (Tutorial)	P (Practical)	C (Total Credit)	Tentative No. of class hours/week
XXL (Lecture Course)	3	0	0	3	Theory Class: 3 hours/ Week
					Tutorial Class: 0 hours/ week
					Practical Class: 0 hours/ week
XXL (Lecture Course)	3	1	0	4	Theory Class: 3 hours/ Week
					Tutorial Class: 1 hour/ week
					Practical Class: 0 hours/ week
XXB (Both Lecture and Practical Course)	3	0	2	4	Theory Class: 3 hours/ Week
					Tutorial Class: 0 hour/ week
					Practical Class: 2 hours/ week
XXB (Both Lecture and Practical Course)	3	1	2	4	Theory Class: 3 hours/ Week
					Tutorial Class: 1 hour/ week
					Practical Class: 2 hours/ week
XXP (Practical Course)	0	0	3	2	Theory Class: 0 hour/ Week
					Tutorial Class: 0 hour/ week
					Practical Class: 3 hours/ week

#### Minimum and Maximum Credit in a Semester

Credits to be Registered	Condition	No. of Credits
Minimum Credits	--	<b>16</b>
Maximum Credits	Inclusive of backlog courses registered in study mode.	<b>32</b>
Maximum Credits	Inclusive backlog subject registered in study mode as well as examination mode.	<b>35</b>



### Notes:

Credit requirements: Minimum earned credit requirement for the award of a degree is **175**, with a CGPA of not less than 5.0.

The minimum duration for a student to comply with the degree requirement is four academic years from the date of first registration for their first semester.

The maximum duration for a student to comply with the degree requirement is eight academic years from the date of first registration for their first semester.

### M. Tech

#### Course Structure

S. No.	Courses	Credits
1.	Core Courses (4 Departmental + 2 Laboratory + 2 Mandatory)	≥ 24
2.	Elective Courses (5 Departmental + 1 Open)	≥ 18*
3.	Dissertation ( Sem.III: 8 Credits + Sem. IV: 12 Credits)	=20
4.	Independent Study and Seminar	=06

#### Mandatory Courses

S. No.	Courses	Credits
1.	Departmental Core Courses	12
2.	Mandatory Courses	06
3.	Laboratory Courses	02

#### Credit System:

Course Code	L (Lecture)	T (Tutorial)	P (Practical)	C (Total Credit)	Tentative No. of class hours/week
XXL (Lecture Course)	3	0	0	3	Theory Class: 3 hours/ Week
					Tutorial Class: 0 hours/ week
					Practical Class: 0 hours/ week
XXL (Lecture Course)	3	1	0	4	Theory Class: 3 hours/ Week
					Tutorial Class: 1 hour/ week
					Practical Class: 0 hours/ week
XXB (Both Lecture and Practical Course)	3	0	2	4	Theory Class: 3 hours/ Week
					Tutorial Class: 0 hour/ week
					Practical Class: 2 hours/ week
XXB (Both Lecture and Practical Course)	3	1	2	4	Theory Class: 3 hours/ Week
					Tutorial Class: 1 hour/ week
					Practical Class: 2 hours/ week
XXP (Practical Course)	0	0	3	2	Theory Class: 0 hour/ Week
					Tutorial Class: 0 hour/ week
					Practical Class: 3 hours/ week

#### Minimum and Maximum Credit in a Semester

Credits to be Registered	Condition	No. of Credits
Minimum Credits	--	<b>16</b>
Maximum Credits	Inclusive of backlog courses registered in study mode.	<b>32</b>
Maximum Credits	Inclusive backlog subject registered in study mode as well as examination mode.	<b>35</b>

**Notes:**

- The minimum credits necessary for the award of a PG degree is 68
- Must have completed all the credit requirements for the degree, as the senate prescribes, with at least grade "D" or a higher grade in each of the subjects/ courses for which the student registered in all the semesters.
- Must have obtained a CGPA of at least 6.0/10 at the end of the semester in which the student completes all the requirements (including the dissertation) for the degree.
- A student with a CGPA of 8.0 and above, passing all subjects in the first attempt, is eligible for the First Division with Distinction award.
- A student with a CGPA of 6.5 and above but less than 8.0 is considered eligible for the award of First Division only.
- A student with a CGPA of 6.0 and above but less than 6.5 is considered eligible for the award of Second Division.

\* one of the electives can be replaced by project work with the permission of the Dean (Academic) and HOD with equivalent credits of that particular course.

**PhD**

- Every external/ internal research scholar (Full Time/ Part-time) admitted under Ph.D. Program is required to pass the course work of 14 credits approved by RAC & DPGC within the first two semesters with a minimum of 7.5 CGPA.
- Minimum residential requirement: 36 months from the date of first registration
- Minimum publication requirement: Two publications (published or accepted) from original research (not review articles) in refereed SCI-indexed international journals.

**10. Grading System and Evaluation:**

The grades and their description, along with equivalent numerical points wherever applicable, are listed below:

Grade	Grade Points	Description
A+	10	Outstanding
A	9	Very Good
B+	8	Good
B	7	Average
C	6	Below Average
D	5	Marginal
F	0	Fail
R	0	Insufficient Attendance
NP	-	Audit Pass
NF	-	Audit Fail
I	-	Incomplete
W	-	Withdrawal
S	-	Satisfactory Completion
U	-	Unsatisfactory

The norms for the award of the letter grade are as follows:

- No student can be awarded a D or better grade without securing at least 30% (for B. Tech)/ 40% (for M. Tech and Ph.D.) marks in any course.
- It is also mandatory that the student should secure at least 30% (for B. Tech)/ 40% (for M. Tech and Ph.D.) marks in the End Semester examination for the award of a D or better Grade.
- The Grading shall be a relative grading system.



## Description of Grades:

<p><b>'A+' Grade</b></p> <ul style="list-style-type: none"> <li>The 'A+' grade stands for outstanding achievement. The minimum percentage for the award of an 'A+' grade is 80% at least. However, individual course coordinators may set a higher performance requirement. 'A+' grade may be given to a maximum of 5% of students registered in a course.</li> </ul>	<p><b>'A, B+, B, C, D' Grades</b></p> <ul style="list-style-type: none"> <li>The class average marks (excluding the marks obtained by students with A+ and F grades) should be in the mid-range of B. Other grades (A, B+, C, and D) ranges are to be fixed appropriately so that the distribution of the number of students in the pass grades is a "near normal bell curve."</li> </ul>
<p><b>'F' Grade</b></p> <ul style="list-style-type: none"> <li>The 'F' grade denotes poor performance and indicates failing a course.</li> <li>A student has an option to take the course with an F grade either in study mode or examination mode when offered next.</li> <li>A student with an F grade is also eligible to take the Make-up Examination (see rule for Make-up examination: point no. 13).</li> <li>In the case of the elective courses in which an F grade has been obtained, the student may take the same course or any other course from the same category.</li> <li>When a student gets an F grade in any subject(s) during a semester, the SGPA of that semester and the CGPA at the end of that semester will be tentatively calculated by taking 'zero point' for these subject(s). After these transitional grades have been converted to appropriate grades, the SGPA for the semester and CGPA at the end of the semester will be recalculated after considering the new grades.</li> </ul>	<p><b>'R' Grade</b></p> <ul style="list-style-type: none"> <li>Students not having the mandatory requirement of minimum 75% attendance in any subject(s) shall not be permitted to appear for the end semester examination in that particular subject(s) and be awarded an 'R' Grade in that subject(s). Such student has to register/repeat in study mode for the issue in which they have a shortage of attendance, as and when the course will be offered next.</li> <li>When a student gets an 'R' grade in any subject(s) during a semester, the SGPA of that semester and the CGPA at the end of that semester will be tentatively calculated by taking 'zero point' for these subjects (s). After these transitional grades have been converted to appropriate grades, the SGPA for the semester and CGPA at the end of the semester will be recalculated after considering the new grades.</li> </ul>
<p><b>'NP and NF' grades</b></p> <ul style="list-style-type: none"> <li>The NP Grade denotes completion of the Audit course. The NF grade indicates Audit fail. These grades are awarded in a course that the student opts to audit. Only an elective course can be audited until one week after the mid-semester examination. The Audit Pass (NP) is awarded if the student's attendance is above 75% in the class and they have obtained at least a D grade. The Course Coordinator can specify a higher criterion for audit pass at the beginning of the semester. If either of these requirements is not fulfilled, an audit fail (NF) is awarded. The grades obtained in an audit course are not considered for calculating SGPA or CGPA.</li> </ul>	<p><b>'I' grade</b></p> <ul style="list-style-type: none"> <li>Suppose a student misses the end-semester examinations due to a compelling reason like a severe illness of themselves that necessitates hospitalization or a calamity in the family. In that case, they may appeal to the Dean Academics before the commencement of examination through their Head of the Department and Institute Medical Officer for permitting themselves to appear in the subsequent review (s) when conducted next. After examining the documents and being convinced about the case's merit, a committee consisting of the following members may recommend permitting them to appear in the subsequent re examination(s), when conducted next, condoning their absence. In such cases, transitory grade 'I' is temporarily awarded to the student in the subject.</li> </ul>
<p><b>'W' Grade</b></p> <p>The 'W' grade is awarded in a course where the student has opted to withdraw from the system.</p>	<p><b>S and U grades</b></p> <ul style="list-style-type: none"> <li>The S grade denotes satisfactory performance and completion of a course. The U grade indicates the unsatisfactory performance of a system; if it is a mandatory course, the student will have to register for the course until they obtain the S grade. The procedures in which S/U grades are awarded are NCC/NSO/NSS and Extra-Curricular Activity.</li> </ul>



### Sub-committee:

- Dean-Academic, Chairman.
- Dean- Student welfare, Member.
- Concerned Head of the Department, Member.
- The Institute Medical officer, Member.

The Assistant Registrar (Academic) - will assist the committee.

When a student gets an I Grade for any subject(s) during a semester, the SGPA of that semester and the CGPA at the end of that semester will be tentatively calculated, ignoring this (these) subjects. After these transitional grades have been converted to appropriate grades, the SGPA for the semester and CGPA at the end of the semester will be recalculated after considering the new grades.

### SGPA & CGPA Calculation Methodology:

Semester Grade Point Average (SGPA) will be computed for each semester. The SGPA will be calculated as follows:

$$SGPA = \frac{\sum_{i=1}^n C_i GP_i}{\sum_{i=1}^n C_i}$$

where  $C_i$  = credit for the course.

$GP_i$  = the grade point obtained for the course.

$n$  = number of subject registers for the semester.

Starting from the second semester, a Cumulative Grade Point Average (CGPA) will be computed for every student at the end of every semester. The CGPA would give the Cumulative performance of the student from the first semester up to the end of the semester to which it refers and calculated as follows:

$$CGPA = \frac{\sum_{i=1}^n S_i C_i}{\sum_{i=1}^n C_i}$$

where  $S_i$  = SGPA of the semester.

$C_i$  = total number of credits registered for during a particular semester.

$n$  = number of the semester under consideration.

The CGPA, SGPA, and the grades obtained in all the subjects in a semester will be communicated to every student at the end of every semester except the eighth semester. In its place, a consolidated grade sheet is issued. This consolidated grade sheet supersedes all the earlier grade sheets.

Both SGPA and CGPA will be rounded off to the second place of decimal and recorded as such. Whenever these grade point averages are to be used to determine the inter se merit ranking of a group of students, only the rounded-off values will be used.

### Assessment of Academic Performance:

**Theory Course:** 100 marks with the following weightages:

Examination Component	Maximum Marks	Examination Duration
Continuous Evaluation	20	Distributed over the semester through internal assessments/ tests/ quizzes
Mid Semester Examination	25	1.5 hours
Marks due to Course Attendance	5	Distributed over the semester
End Semester Evaluation	50	03 hours



A maximum of 5 marks for course attendance is distributed as follows, where marks for attendance are rounded off to the nearest integer.

Attendance (in %)	Marks
75% Above	3
80% and Above	4
90% and Above	5

Laboratory Course: 100 marks with the following weightages:

Examination Component	Maximum Marks	Examination Duration
Continuous Evaluation	50	Distributed over the semester through internal assessments/ tests/ quizzes
End Semester Examination	50	03 hours

The components of continuous evaluation may be taken as the following example for evaluation:

- For Every laboratory course, there will be five marks. Suppose several labs conducted is 14 in that semester, then 70 marks will be scaled down to 50 for continuous evaluation, and if several labs conducted is 8, then the 40 marks will be scaled up to 50.
- 5 marks of each laboratory will be given on following breakups by scaling down to a total of 50 effects.
  - Laboratory Report of Previous Experiment – 10 marks
  - Viva-Voce of Present experiment – 20 marks
  - Performance in Present experiment – 20 marks

The mode and nature of the evaluation and the corresponding Weightage for the subcomponent shall be intimated to the students at the beginning of the semester, along with the lecture schedule.

### (c) Theory Course with Laboratory

A course with theory and laboratory components will be evaluated with 60% Weightage to theory and 40 % Weightage to laboratory for overall grading, with an independent marking system given above for theory and laboratory courses.

#### 11. Mid Semester and End Semester Examinations:

The mid-semester examination will usually be conducted after 7 or 8 weeks of course commencement, as notified in the academic calendar. The examination section will conduct the mid-semester and end-semester examinations centrally.

1.	For students registered in a course in study mode, it is mandatory to appear in mid-semester and end semester (depending upon the fulfillment of minimum attendance requirement as pointed out in section 7) examinations. For students registered in a course in examination mode, it is only required to appear at the end semester examination (without attending classes or having a minimum attendance requirement, even if attending classes).
2.	Students cannot leave the examination hall without submitting the answers script. They will not be permitted to enter the examination hall after 30 minutes of commencement of the examination and to leave it half time before the closure.
3.	Students will be permitted to appear in the examinations in only those subjects they have registered for either study or examination mode at the beginning of the semester.
4.	The final grades awarded to the students in a subject must be submitted by the course instructor/coordinator within the dates mentioned in the Academic Calendar or according to the notification by the office of Academics. The DAC-UG will compile all the grades submitted by the faculties of the respective departments and submit the final grades after moderation to the office of the Controller of Examination.



5.	Any change of grade of a student in a subject consequent upon the detection of any genuine error of omission and commission on the part of the concerned instructor must be recommended by the DAC-UG/ DPGC and shall be forwarded by the instructor/coordinator through the Head of concerned Department to the office of Controller of Examination within 10 (Ten) days from the publishing of provisional end semester result of the current semester.
6.	As a process of learning by students and also to ensure transparency, the answer scripts after correction of class tests, mid-semester examination, etc., will be shown to the students within one week from the date of the test / examination.
7.	To ensure transparency in evaluating the scripts for end semester examination, those answer scripts will also be shown to the students upto the dates mentioned in the Academic Calendar before finalizing grades in DAC-UG/ DPGC. Once DAC-UG/ DPGC finalizes the grades, the students will no longer have any right to verify /her answer scripts.
8.	The student can appeal to DAAC for any arbitration within 10 (Ten) days from the date of the official publication of the provisional result on the institute website. Students may appeal through the proper channel only (DAAC ---> Head of the Department ---> Controller of Examination ---> Dean Academic) within the due date.
9.	The evaluation of standard courses taken by multiple faculty members has to be done by the Table corrections method only.
10.	Within 10 days from the last examination, faculty members should finalize the evaluation and grading after showing answer scripts to the students.
11.	After 10 days of publication of the provisional result (if no query arises), the grades will be considered final, and the same will be treated as the last semester's result.
12.	A student of B. Tech. The degree programme must complete the prescribed course work with a minimum requirement of 175 credits within eight years.
13.	A student who has passed all the courses without securing R, X, or F grades during the study period and with a CGPA of 8.0 and above is considered eligible for the award of First division with distinction. A student failing to satisfy the above rule, even if they get a CGPA of 8.0 or more, will be eligible for the award of First division only. A student with a CGPA of 6.5 and above but less than 8.0 is considered eligible for the First Division award. A student with a CGPA of 5.0 and above but less than 6.5 is considered eligible for the award of the second division. The valued scripts shall be preserved for a maximum period of 6 months after the publication of results.
14.	Examination records of all students shall be maintained in soft and hard copy forms in the Examination section.

## 12. Re- Mid Semester Examination

Suppose a student fails to appear for the mid semester examination in any subject(s), under very special circumstances only, due to compelling reasons like serious illness of himself/herself which necessitates hospitalization. In that case, they shall apply to the Dean (Academic) along with relevant certificates/ documents and duly recommended by the respective Head of the departments within the due date as mentioned in the Institute's Academic Calendar. All such cases will be refereed by an institute medical officer and scrutinized by a committee. On the committee's recommendation, the approved list of candidates shall be permitted for a re-mid examination. The re-mid examination of such candidates will cover the course content up to one class day before the date of such re-exam.

## 13. Make-Up Examination

The following rules shall govern students appearing in Make-Up Examination:

1.	Students with an 'R' grade are not eligible for writing the Make-Up examination.
2.	Students with an 'F' or 'I' grade are only eligible to write the Make-Up examination.
3.	The makeup examination is offered only once an academic year, during summer.
4.	The makeup examination will be in examination mode only.





5.	A student who has obtained an 'F' grade in the makeup examination may freshly register in that course in the subsequent semester (when it will be offered) either in study or examination mode.
6.	The schedule for makeup examination and registration for makeup examination is published in the academic calendar.
7.	A student can register for a makeup examination in any number of courses.
8.	A student securing 30% or more marks in a course in the Make-Up examination shall be awarded only a 'D' grade; otherwise 'F' grade will be awarded.

#### 14. Malpractices and Punishment during Examination(s)

S. No.	Nature of the Malpractice	Punishment
1.	Taking out used or unused answer booklets outside the examination room.	Fine of Rs. 2000/- per paper. In the case of used answer booklets, in addition to the above, the candidate shall be awarded an F grade in that subject.
2.	Verbal or oral communication with neighboring students after one warning.	Taking away the answer script and asking the student to leave the hall.
3.	<p>Possession of any incriminating material inside the examination hall (whether used or not), For Example, written or printed materials, bits, writings on a scale, calculator, hand kerchief, dress, part of the body, hall ticket, etc.</p> <p>Possession of cellphones, programmable calculators, recording apparatus, or any unauthorized electronic equipment. Copying from the neighbor.</p> <p>Exchange of question papers and other materials with some answers.</p>	In the case of the Mid/the Sessional examination, award zero marks. In case of End semester examinations, award F Grade. The candidate may be allowed to write a make-up exam.
4.	Possession of answer book of another candidate. Give the answer book to another candidate.	The candidate shall be awarded zero marks in that examination, and they shall be awarded F Grade in that particular subject.
5.	Misbehavior in the examination hall (unruly conduct, threatening the invigilator or other examination officials). Repeated involvement in malpractices 2 to 5 above.	Cancellation of all theory examinations registered in that semester and further debarring from continuing their studies for one year (two subsequent semesters). However, such students may be permitted to appear for makeup examinations of the previous semesters.
6.	Cases of Impersonation	<p>Handing over the impersonator (outsider) to the police with a complaint to take appropriate action.</p> <p>Cancel all examinations (all papers registered) for the bona fide student for whom the impersonation was done. Further, the bonafide student will be debarred from continuing their studies and writing all examinations for two years or expulsion from the institute.</p> <p>Suppose a student of this institute is found to impersonate a bona fide student. In that case, the impersonating student will be debarred from continuing their studies and writing all examinations for two years or expulsion from the institute.</p>
7.	Physical assault on the invigilator or any examination officials.	Rustication from the Institute.



The inquiry committee may recommend appropriate punishment for any other type of malpractices reported. The Malpractice and Disciplinary action committee (Academic) shall award the appropriate punishment. The constitution of the committee is as follows:

1. Dean (Academics)	Chairman
2. Dean (Student Welfare)	Member
3. Concerned Head of the Department	Member
4. Invigilator (s)	Member
5. Controller of Examination (COE)	Convener

## 15. Promotion Rules

There are no restrictions for promotion from odd semester to even semester. However, restrictions are imposed for promotion from even to odd semesters. These restrictions are as follows:

### B. Tech

To register in the third Semester, a student should have completed, with a D or better grade, at least 30 credits at the end of the first year (in first and second semesters and make-up examinations put together).

#### From II Year to III Year

For promotion to the Third year, a student should have (i) Cleared all the Course Work requirements of First-Year and (ii) passed, with a D or better Grade, at least 30 credits at the end of the second year (third Semester, fourth semester and makeup examinations put together).

#### From III Year to IV Year

For promotion to the Fourth year, a student should have (i) Cleared all the Course Work requirements of the first year and second year and (ii) passed, with a D or better Grade, at least 30 credits at the end of the third year (fifth semester, sixth semester and makeup examinations put together).

### M. Tech

- **Stipend-cum-Teaching Assistantship/ Scholarship and Contingency Grant for Post Graduate Programme**
- All students admitted to M. Tech programmes will be eligible for teaching assistantship/stipend in their respective departments.
- Tenure of the teaching assistantship/stipend will be counted from the registration date and will be initially awarded for the first semester.
- The assistanceship will be renewed on a semester-to-semester basis. A student should have a CGPA  $\geq 6.5$  to get the assistantship for the next semester, failing which assistantship/stipend will be stopped. However, the student will be allowed to continue the M.Tech programme without assistanceship/stipend. After attaining the good CGPA (in cases), the stipend of the concerned student may be immediately started from the first day of the following calendar month (not from next semester), subject to fulfillment of all other necessary conditions.
- Typically, the assistantship/stipend's tenure will be terminated from the day following the final thesis/dissertation date or 24 months from the date of first registration, whichever is earlier, provided they have not left the institute earlier or been expelled from the institute.
- Suppose the student is absent due to illness/medical reasons. In that case, the stipend could be extended for the corresponding duration, provided the total stipend duration (during the programme) doesn't exceed 24 months.
- To avail of the teaching assistantship/stipend, an M. Tech student must work full time in the institute and perform a minimum of 8 hours/week of duties. Failing which assistantship/stipend may be stopped.
- The assistantship/stipend for the last month shall be payable subject to foregoing up to the actual date of the student's leaving the institute. The assistantship will be allowed for the previous month to produce proper No Dues certificates.
- Continuation of student's assistantship/stipend from month to month will be subject to the candidate's good conduct and good performance in the assigned work verified by the competent authority of the department.
- Student has to submit a progress report along with the assistantship/ stipend form to the HOD through the DPGC convener on the last working day of each month.
- The sanction of assistantship/ stipend will be as per the guidelines prescribed by AICTE/MOE from time to time



### Stipend-cum-Teaching Assistantship/ Scholarship and Contingency Grant for Ph.D. Programme

- All students admitted to the Ph.D. programme are eligible for an institute teaching assistantship (TA)/assistantship from other funding agencies.
- In case of unavailable hostel accommodation on the campus, the Research Scholar may reside outside. Such candidates are entitled to House Rent Allowance (HRA) per Government of India rules.
- The tenure of an institute assistantship shall be as per MOE guidelines in this regard.
- The assistantship will be counted from the date of first registration. The initial award shall be for two years and then renewed for subsequent years subject to satisfactory progress recommended by the RAC, followed by an approval from Dean (Academic).
- In the final year, however, the extension may be granted by RAC not more than six months at a time subject to the Research Scholar's satisfactory performance at the seminar delivered to RAC embodying the progress of the work during the last six months.
- Grant of a six-monthly installment of the tenure is subject to the actual requirement of the work. He has to be duly certified by the RAC after assessing the progress of the work presented through a written report and seminar.
- The tenure of the assistantship awarded to a Research Scholar will terminate with effect from the day following the thesis submission date, provided they have not left the Institute earlier. They have been working in the Institute to date. However, they may be allowed to draw assistantship for a maximum of three months to complete any unfinished part of study strictly related to their research work on the recommendation of the RAC and approval of the Dean (Academic).
- The last month's assistantship shall be released on production of a "No Dues Certificate."
- Notwithstanding anything contained in the forgoing sub-paragraphs, a continuation of assistance ship from month to month is subject to the Research Scholar's good conduct and continuous progress of research work to the satisfaction of the supervisor(s), HoD, and other concerned authorities.
- Stipend cum Teaching Assistantship/ Scholarship and Contingency grant to the candidate working under the Sponsored Projects coordinated by the institute faculty shall be given per the project's terms and conditions. The research scholar must submit the scholarship form PH.D.-XVI every month through the proper channel.
- No Ph.D. student will get a stipend/assistantship/fellowship for more than two sources, Government or private.

### 16. Provision for Registration of Student (B. Tech/ M. Tech) who did not register in a Semester:

If a student fails to register in a semester within the stipulated time mentioned in the academic calendar and subsequently, they are intended to register in any of the coming semesters, his/ the competent authority subject to the following conditions may consider their registration request:

1.	They will have to pay the registration fee, tuition fee, etc.; in all the previous semesters, they remained absent without proper permission.
2.	In addition to the above, they will have to pay a penalty of Rs. 10 000 per semester in all the previous semesters for which they remained absent without proper permission.
3.	No registration between the semester will be allowed and will only be followed according to the dates mentioned for registration in the Academic calendar.
4.	In case of such absence without prior approval, the rule for the minimum period required (according to regulations) time to confront a student's degree shall not be violated.
5.	No request by the student in such cases for special examinations/ any alternations etc. will be entertained under any circumstances.

### 17. Change of Branch

A student admitted to a particular branch of the B. Tech course will normally continue studying in that branch till completion. However, under exceptional circumstances, the Institute may permit a student admitted through AIEEE to change from one branch to another after the first year only. Such changes will be permitted strictly following the previous laid down hereafter.

The details are provided on the Institute website ([www.nitdelhi.ac.in](http://www.nitdelhi.ac.in)) (Website → Academics → Request Forms → Branch Change Form).



## 18. Attendance Rules:

Following are the mandatory rules relating to attendance requirements:

1.	Every student is expected to have 100% attendance in each course in which they are registered for study mode
2.	All students must attend every lecture, tutorial, and practical class. However, to account for late registration, medical/health reasons, or other such contingencies, the attendance requirement will be a minimum of 75% from the commencement of classes until the last teaching day.
3.	If a student has less than 75% attendance in a course during the semester, the student will not be allowed for the end-semester examination, and an 'R' grade will be given in that course.
4.	To promote extra-academic/ extra-curricular activities, attendance of maximum 5 working days will be relaxed for those students who are officially representing NIT Delhi in cultural/sports/academic events, organized at National and International levels with prior approval of the Institute only [Senate Approval: Agenda Item: Senate/03/2017/07 dated January 14, 2017].
5.	For such above, students have to take prior approval from the concerned section/ competent authority and submit the approval to the office of concerned HoDs/ course instructors to receive such attendance immediately after joining the Institute after availing such leave.
6.	Each course instructor will maintain attendance records in every scheduled lecture, tutorial, and practical class. The programme coordinator will also maintain and consolidate attendance record for the course in hard copy and through the online (ERP) system.
7.	Students' attendance in every course will be visible through the student's IMS (ERP) account. Students are advised to observe the status of their attendance record in every course regularly.
8.	Before the end semester examination, the office of Academics will release the list of students with less than 75 % attendance, based on the data from all the departments in various courses, who will not be allowed to appear in the end semester examination.
9.	Marks will be awarded in subsequent slabs of having attendance (details provided in point 11).

## 19. Absence during Semester

1.	A student must inform the HOD office immediately of any instance of continuous absence from classes.
2.	A student absent from the mid-semester examination due to illness should immediately approach the programme coordinator for a make-up exam on return to class. The request (in a proper format) should be supported with all valid medical documents certified by the institute's medical officer
3.	In case of absence on medical grounds or other exceptional circumstances, the student can apply for I-grade before or during the end semester examination period. 75% attendance in a course is necessary for being eligible for an I-grade in that course. An application requesting I-grade should be made at the earliest but not later than one week before the end semester examinations. The application should be written to the Head of the Department of the student's programme, who will grant approval depending on the case's merit and inform the programme coordinator and Dean Academics office.
4.	If any student is absent for 1 to 15 days without obtaining prior and proper approval/ sanction of leave from the Head of the Department, then it will be treated as an act of indiscipline.
5.	If any student is absent for 16 or more than 16 days without obtaining any prior and proper approval/ sanction of leave from the Head of the Department, then a warning letter (through email and hard copy to be sent to the student's permanent address mentioned in their registration form) shall be issued by the concerned department. Suppose they do not respond in writing to that warning letter within five (5) working days. In that case, the process of cancellation of registration of that student shall be initiated by the office of Academics based on the subsequent recommendations from the office DAC-UG and the office of the Head of that concerned department.
6.	In case the period of absence on medical grounds is more than 20 working days during the semester, a student may apply for withdrawal from the semester, i.e., withdrawal from all courses registered in that semester. Before the last teaching day, such an application must be made as early as possible. No applications for semester withdrawal will be considered after the last teaching day. Depending on the case's merit, the Dean (Academics) will approve such applications. Partial withdrawal from courses registered in a semester is not allowed
7.	Suppose a student is continuously absent from the institute for more than 20 working days without notifying the Dean (Academics) through the concerned Head of the Departments. In that case, their registration will be automatically canceled for that semester.



## 20. Self-Study Course:

A maximum of two courses can be taken as a self-study course, depending on the notification based from the concerned department. The self-study course will be only in study mode, and the student has to go through continuous assessment, mid-semester examination, and end-semester examination of that course. There will be no attendance requirement for the self-study course. The fee for the self-study course will be as per the fee structure defined from time to time.

- A self-study course will be from the regular UG courses listed in the concerned UG curriculum.
- A student may be given a self-study course not exceeding 6 credits in the final semester if they are short by a maximum of 6 earned credits required for graduation, provided that the course is not running in that semester as a regular course.
- A student is permitted to do the above, provided they failed earlier.
- Students should apply for a self-study course with the appropriate recommendation of a course Coordinator and the Head of the Department of the student's programme department. The final sanction of a self-study course for a student is made by the Dean of Academics, on the recommendation of the Head of the Department.
- Normally, no formal classes will be held for a self-study course, but a student may contact concerned course coordinators from time to time.
- The Course Coordinator will hold mid and end-semester examinations besides other tests/quizzes for their assessment. Students will be mandatory to attend all these examinations/ assignments.
- Self-study courses will only be applicable for elective and open elective courses.
- The students must clear fundamental core courses to ensure a primary engineering degree.

## 21. Adding and Dropping/Withdrawal of Course(s)

The addition and dropping/ withdrawal of courses may be accomplished subject to the following conditions:

1.	The choice of elective/ open elective courses will be based on the pre-registration basis, which must be completed well before the semester registration.
2.	There may be a provision for adding/ dropping/ switching elective/ open elective courses within 2 weeks of commencement of the semester only, with the department's concern. After that, no such modification will be entertained.
3.	There may be a minimum of 20% of the total strength of the students in the class required to conduct any elective courses. However, the Head of the Department may be empowered to take the final call based on the need and situation.
4.	A minimum of 20% of the total strength of the students (from another department) is required to conduct any open elective course. However, the Head of the Department may be empowered to take the final call based on the need and situation.
5.	The 'W' grade is awarded in a course where the student has opted to withdraw from the system.
6.	In case of switching of courses, the attendance shall be transferred among the faculty members.

## 22. Temporary and Permanent Withdrawal from Institute:

### Temporary Withdrawal:

Provision of 'temporary withdrawal' from the Institute for the student(s) will be under the following guidelines:

1.	A student admitted to a degree program of the Institute may be permitted to withdraw temporarily for one semester or more from the Institute on the grounds of prolonged illness or acute medical problem in person which compelled them to stay at home.
2.	They apply to the Institute within 3 weeks of the commencement of the semester or from the date they last attended their classes, whichever is later, stating the reasons for such withdrawal fully together with supporting documents and endorsement of the father/guardian mandatorily.



3.	The Institute is satisfied that, inclusive of the period of withdrawal, and the student is likely to complete their requirements for the degree within the time limits as mentioned in the regulations, only the applications may be considered. There are no outstanding dues or demands from the Institute/Hall/Department/ Library/Gymkhana/ NCC.
4.	A student who has been granted a temporary withdrawal from the Institute will be required to pay the tuition fee and other essential fees/charges for the intervening period until their name is on the Roll List.
5.	In such a case student will be fully withdrawn from all semester courses. No part-time basis withdrawal will be allowed.
6.	A student will be granted only one such temporary withdrawal during their tenure as a student of the Institute.
7.	Under no circumstances will an application for semester withdrawal be accepted after the Commencement of significant tests. A student is not permitted to request for semester withdrawal with retrospective effect.
8.	A student who has been granted a temporary withdrawal on medical grounds will be allowed to rejoin and resume their studies only after being declared medically fit by the Institute Medical Officer along with submission of proper medical documents duly verified by the Doctor (With adequate registration number and seal of the organization) from Government Medical Organization only.
9.	A student will be allowed to join in the Autumn/ Spring semester only if they have been withdrawn in any previous Autumn/ Spring semester, i.e., if a student has been withdrawn in the third semester, then they will be allowed to join back in the subsequent third semester only when it will appear next. This way, they will be at least at a loss of one academic year.

#### Permanent Withdrawal:

Once the admission for the year is closed, the following conditions govern for permanent withdrawal of entries:

1.	A student, who wants to leave the Institute for good, will be permitted to do so only after clearing all the dues if any. Also, all the fees already paid will not be refunded on any account.
2.	Those students who have received any scholarship, stipend, or other assistance from the Institute shall repay all such amounts.
3.	The decision of the Director of the institute regarding all aspects of withdrawal of a student shall be final and binding.

#### 23. Students Feedback

Students submit their online feedback at the ERP system regarding every course, they have undergone, at the end of every semester, based on the notification from the office of Dean Academics.

#### 24. Refund Policy

If a student chooses to withdraw from the program of study in which they are enrolled, the Institute (NIT Delhi) will follow the following steps for the refund of fees paid by the student.

- Suppose a student withdraws from the Institute before the Registration/Reporting at Admitted Institute [According to CSAB/CCMT/DASA time schedule available in respective website]. The entire fee will be refunded after deducting Rs 1,000/- towards the Processing Fee.
- Suppose a student withdraws from Institute after the Registration/Reporting at Admitted Institute [According to CSAB/CCMT/DASA time schedule available in respective website]. In that case, they need to submit a withdrawal request through a completely filled-in Application form as prescribed by the Institute (i.e., Annexure i) along with the 'No-Dues' form (available at Institute's website), verified by all the concerned Office/Dept./Section. Only after the approval of the same, the following deposits may be refunded after deduction of dues if any:
  - Institute Caution Money
  - Hostel Security and Mess Security (if applicable).



#### Note:

- The Refund will be made after the completion of the entire admission process and after the receipt of the Admission Fees from the CSAB/CCMT/DASA, respectively (i.e., Fees submitted directly to the CSAB/CCMT/DASA by the student).
- Also, the Institute will follow the Refund rules for Fees as per the MOE guidelines notified from time to time.
- In case of natural or accidental death and significant causalities of the student, the refund rules/clauses shall apply to the extent given above.
- The above rules are applicable for entry-level admissions in UG/PG.

#### 25. Minimum and Maximum Duration for Completion of Degree Requirements

Programme Name	Minimum Number of Registered Semesters	Maximum Number of Registered Semesters Permitted for Completing Degree Requirements
B. Tech	8	16
M. Tech	4	4

#### 26. Measure of Inadequate Academic Performance for Degree Requirements by Students:

A student is expected to maintain at least a minimum level of performance at all times. The Office of Dean Academics will review the academic performance of each UG student at the end of each regular semester. A deficient student may be placed on Warning or Academic Probation, or their educational programme may be terminated per the following rules for that particular batch.

All students falling under all such categories will be treated as Academically Weak Students. A student on Warning or Academic Probation will be under the following conditions:

- They shall register with higher priority for those courses (or their substitute) in which grade F/R/I is obtained.
- They shall not hold any office in the Hall of Residence, Students Gymkhana, or any other organization/body of the Institute.
- Any other special terms and conditions laid down by the Senate from time to time.
- The criteria for placing students on Warning, Academic Probation, and Programme Termination are described in the following sections.

#### Warning:

The following table shows the criteria for being placed on Warning if all the following criteria are fulfilled:

Batch	Undergraduate
2019-2020 onwards	They fail to secure at least 15 credits. Their SGPA is less than 6.0 Their CGPA is less than 6.0

A warning letter will be issued to the student(s) and the guardian/local guardian of those student(s) by the office of Dean Academics.

#### Academic Probation:

The following table shows the criteria for being placed on Academic Probation if all the following criteria are fulfilled:

Batch	Undergraduate
2019-2020 onwards	They fail to secure at least 12 credits. Their SGPA is less than 5.0 Their CGPA is less than 5.0





A student on academic probation may be allowed by the DAC-UG to register for the minimum credits per the Institute's Rules and Regulations in the subsequent semester to promote a slow pace programme to opt for the student. No student's programme may be terminated who is not already on academic probation (or in Warning).

**Programme Termination:**

The following table shows the criteria for programme termination:

Batch	Undergraduate
2019-2020 onwards	They fail to secure at least 10 credits. Their SGPA is less than 4.0 Their CGPA is less than 4.0

**Appeal against Termination:**

A student whose programme is terminated may appeal to the Chairman, Senate, for re-reinstatement in the programme through the proper channel (Head of the Department → Dean Academics → Chairman Senate) only. In cases of termination due to inadequate academic performance, the student should clearly explain the causes for the poor performance, including how those causes will not adversely affect their performance in the future. The Senate shall take a final decision after considering all available inputs. A student will not re-appeal after a previous appeal has been rejected.

**27. Academic Advising for Undergraduate Students:****Academic Advising Scheme for Regular Students:**

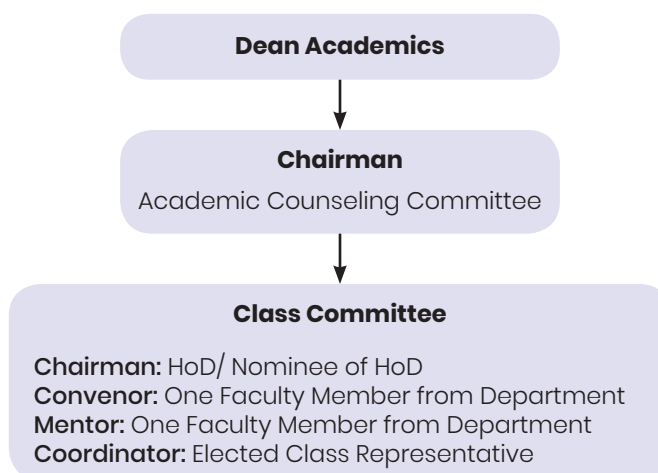
- There may be a class committee for each entry year of all programmes. The class committee is responsible for providing consistent and uniform academic advice to the entire batch of students.
- The class committee shall consist of a Chairman, at least two faculty members of the department (one of them will function as convenor of the class committee), and an elected student representative as a student coordinator. The faculty members in the class committee would be referred to as Faculty Mentors for the batch.
- The Coordinator of a class committee will be appointed in a year-specific fashion, as per the election of the student council of the Institute according to Institute's Rules and Regulations.
- Other Students can approach any class committee member for academic advice before registration or at any time during / her study. In other words, all the four members of the class committee will have the functional role of mentoring all the students of the respective batch within the jurisdiction of the Institute's rules and regulations.
- In consultation with the elected representative/ coordinator of the class, the committee's faculty members will provide academic advice applicable to all the students in general. The class committee is also expected to discharge the following responsibilities:
  - Helping to choose electives for the subsequent semester during the pre-registration session for electives.
  - Addressing issues related to scheduling and categorization of courses.
  - Organizing Student-Teacher interaction events for the batch apart of CRC meetings scheduled in Academic Calendar.
  - Responsible for organizing CRC meetings per the Academic Calendar of the Institute.
  - Constructively helping students in every possible manner for academics under the jurisdiction of the Institute's rules and regulations.





- f. The Chairman, Convener, and the other faculty members of 1st year/ other years class committee would be identified by the Chairman, Academic Counseling Committee in consultation with the Head of the Department before the orientation of new students/ registration of regular students. During orientation, students and their parents will be introduced to these class committee members for first-year students.
- g. The class committee will be directly under the jurisdiction of the Chairman of the Academic Counseling Committee of the Institute.

**Working flow for the advising scheme for regular students:**



**Advising Scheme for Academically Weak Students:**

- (a) The students on probation or academically weak in each batch (if applicable) will be put under a special advisor, identified by the Chairman Academic Counseling Committee in consultation with the Head of the Department, who is expected to monitor the students in a personalized manner. No more than 5-8 students may be assigned to a special advisor. Chairman, Academic Counseling Committee, in consultation with Heads of Departments, will appoint special advisors at the beginning of an academic session. The Special Advisor may be appointed from outside, from any professional organization.
- (b) A meeting of the special advisors with the Chairman, Academic Counseling Committee, and Dean Academics would be held at the beginning of each semester to coordinate the advising process.
- (c) A student on probation/ academically weak is expected to be in close contact with the advisor by meeting them at least once every 2 weeks for the entire period during which the student continues to remain in probation/ weak situation. Special advisors will be invitees to the class committee meetings as well.
- (d) Special advisor, in consultation with the parents and student counselor, will make a student-specific plan if required. The special advisor is expected to:
  - Closely interact with the weak student and their parents.
  - Manage and track the counseling process of the student, if any, in coordination with the Chairman Academic Counseling Committee.
  - Helping their registration by choosing the courses correctly.
  - Manage the recommendation/appeal for termination/continuation process in consultation with the Head of the Department and Dean Academics.
- (e) At the time of registration for a semester, the student meets their advisor, if possible, with parents, to:



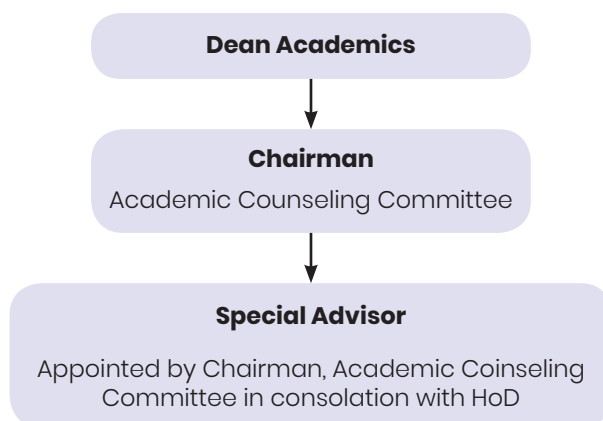
- Identify specific problems and ways to mitigate them same.
  - Helping their registration by choosing the courses correctly.
  - Help the Head of the Department in the processing of the student's appeal against termination, if applicable.
- (f) The student being placed under probation for the 1st time may also meet the special advisor during this period if needed. The advisor can provide professional help in identifying to resolving problems. Advisor's input will be available to the Chairman Academic Counseling Committee. During the add-drop period, the student, preferably along with their parents, should come and meet the special advisor.
- (g) While considering any appeal from an academically weak student for a continuation of his registration, the Dean of Academics would consider the following:
- (i) Whether they have regularly met their Advisor and Counselor at the scheduled times.
  - (ii) Whether they are regular in help sessions. Registration of a student under probation will not be approved for the next semester if they do not comply with meeting the advisor/counselor.

An Institute level committee, Academic Counseling Committee, would monitor the entire operation of academic advising for weak students. Functions of the committee include monitoring the performance of weak students and making recommendations regarding termination/ continuation. This committee would also evaluate the weak students based on the feedback regarding,

- Regularity in meeting the advisor and counselor.
- Student's attendance in help sessions.
- Academic performance.

A summary of the weak student's performance would be made available to the special advisor, Head of the Department, Chairman Academic Counseling Committee, and Course Coordinators of the courses in which the student is currently registered.

#### **Working flow for the advising scheme for academically weak students:**



#### **Student Mentors:**

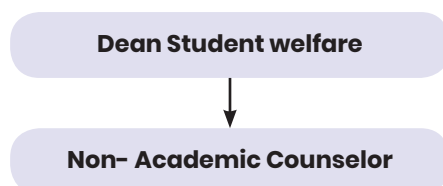
Each student may be assigned a student mentor from the initial senior batch and preferably from the same discipline to mentor students on academic and extra-curricular activities and provide feedback to the special advisor/ class committee/ Chairman, Academic counseling committee in case of weak students or even regular students. The Academic Counseling Committee will decide on the student-mentor under the jurisdiction of the Chairman of the Committee in consultation with the respective HoD. Under a single student mentor, a maximum of 5 junior students may be assigned, however, depending on the number of students registered/ admitted in



a particular academic year. Final year students may not be placed under any student mentorship and may be directly under the mentorship of the Academic Counseling Committee.

**Advising Scheme for Students under Non-Academic Grounds:**

- (a) The students with mental depression or facing other non-academic social/ personal problems will be put under a professional, non-academic counselor appointed by the Institute.
- (b) A counselor may visit fixed twice or thrice a week, where unique interaction with students may be held.
- (c) Appointed Non-Academic Counselor will work under the Office of Dean Student Welfare of the Institute.



**28. Discipline Manual for Students:**

**Grounds of Disciplinary Proceedings:**

**Sexual Harassment/Misconduct:**

Offensive or derogatory comments or conducts reflecting gender bias create intimidating work or living environments and represent substantial violations of the rights or opportunities of the victim(s). Such conducts include but are not limited to:

- 1. Conducts that violate the institute's policies prohibit sexual harassment, such as unwelcome sexual advances, requests for sexual favors, and other unwelcome verbal or written communications of a sexual nature.
- 2. The use of phone, email, or any other method designed to transmit messages or materials of an explicit sexual nature that are unwanted by the recipient.

**Accused/ Arrested on Criminal Grounds:**

- (a) The matter to be immediately reported to the Office of Dean Student Welfare by the student/ department/ guardian or any concerned student.
- (b) The matter will be then placed (after receiving information from the student or the Police or any concerned authority, if not reported by the student) at the Institute's Academic Discipline Committee, where the committee may instruct the student to appear personally in front of the committee for a personal hearing or in writing to provide adequate justification of the matter to the committee, if not able to appear for a personal hearing.
- (c) Based on the gravity of the situation, in situ Academic record, and behavior of the student within the Institute and based on the available records from the Police, the committee is provisionally empowered to provide temporary or permanent expulsion/ rustication/ probation/ warning to the student.
- (d) The committee's decision will be duly submitted to the Senate for its final decision under the jurisdiction of the Senate Chairman.

**Other General Disciplinary Grounds:**

All students are responsible for conducting themselves in a manner that helps enhance the learning environment, wherein the rights, dignity, worth and freedom of each campus member are respected.

A student found responsible for violating any clause outlined in this section is subject to disciplinary sanctions. Dean Student welfare or designee may initiate disciplinary proceedings against a student(s) suspected of violating the



Code of Conduct of the Institute outlined herein and elsewhere within the jurisdiction of the Rules and Regulations of the Institute.

- Any violation of any of the Indian Penal Code.
- Violation of any published NIT Delhi policies, rules, and regulations. It is the responsibility of the student to be familiar with all NIT Delhi policies that refer to appropriate behavior on campus.
- Failing to comply with orders or directives of NIT Delhi officials, Institute hearing bodies, Institute Security Personnel, or any other law enforcement officers acting in their duties.
- Furnishing false or misleading information to a member of the faculty, staff, student, or law enforcement official acting in an official capacity.
- Violation of NIT Delhi policies causes a threat to academic integrity.
- Forgery, alteration, destruction, misuse, or possession of NIT Delhi documents, including but not limited to Institute identification cards or records without authorization. Violations include, but are not limited to, forgery of applications for financial aid, admission, course changes or course credit, copying, misuse or alteration of parking permits, alteration or misuse of transcripts, student identification cards, etc.
- Abuse of the Institute disciplinary system, including but not limited to knowing falsification or misrepresentation of information presented to any judicial authority. Interference with a judicial process through coercion, intimidation, threats, or bribery. Failure to promptly obey any mandate of any NIT Delhi disciplinary authority. Failure to comply with written or oral communications from an authorized NIT Delhi official to appear for a meeting or hearing as part of the Code and Conduct system.
- Damage, defacement, or destruction of any private or Institute property.
- Attempted or actual theft or possession of private or Institute property.
- Unauthorized use of private or institute facilities including, but not limited to telephone, internet, computing equipment, and accessories, and any mode of communication.
- Possession, duplication, or use of keys to any NITD premises without authorization or prior approval; entry or use of Institute premises without permission.
- Violation and sabotage of safety systems, including but not limited to the below-listed behavior and any other behavior prohibited by the Institute authority.
- Unauthorized use, abuse, or interference with fire protection equipment or other safety equipment could result in death, injury, or substantial property damage.
- Intentional setting off of false fire alarms.
- Bomb threats or similar threats involving dangerous devices or substances.
- Behavior that constitutes a significant fire hazard.
- Unauthorized possession or use of any material or substance constitutes a significant health hazard.
- Conducts that endanger the health or safety of members of the NIT Delhi community or other persons.
- Violation of traffic rules, including two, three, and four-wheelers, jeopardizes orderly traffic and safe journey on the road within Institute premises.
- Disorderly conduct includes, but is not limited to, verbal abuse, inappropriate behavior, or any other activities or behavior prohibited by the Institute authority.
- Discriminations against any member of the NIT Delhi community, or a visitor, through discriminatory or prejudicial behavior related to the person's race, color, nationality, sex, religion, disability, age, or sexual orientation.
- Failing to discourage/confront illegal activity and violation of the Code and Conduct of Student by active/passive participation/presence during the activity.



- Hazing is defined as but is not limited to, any act imposed on current or potential members of a group or organization that endangers the mental or physical health or safety of a person, that defaces or destroys public or private property, that is likely to result in humiliation or ridicule, or that is likely to result in interference with academic efforts regardless of the consent of the participants, or any actions or activities prohibited by the NITD authority.
- Physical abuse, including, but is not limited to, inflicting or threatening bodily harm upon any person or acting in a manner that creates a risk of bodily injury to any person. Harassment, abuse, coercion, or threats by means other than the use or threatened use of physical force. These include, but are not limited to, any behavior prohibited by the law.
- Harboring or bringing a pet on NIT Delhi premises violates Institute policy.
- Gambling for money or other valuable items on NIT Delhi premises, including but not limited to playing cards or other games of chance or skill for cash or other valuable items. Use or possession of a controlled substance, narcotic, or drug paraphernalia, including but not limited to any actions or activities deemed prohibited by the Institute authority /Government of India.
- Possession or use of dangerous or prohibited chemicals/weapons/firearms within Institute premises.
- Possession or use of any explosive device or material, including firecrackers, etc., without express authorization by an authorized NITD official.

## 29. Rules for Selection of Academic Excellence Awards:

### Eligibility Criteria:

The medals to the students in the Convocation may be awarded to those who have completed their B. Tech/M. Tech degree requirements and have satisfied the following eligibility criteria:

- (i) The Minimum CGPA required is 8.5 for any medals or prize award.
- (ii) They have not failed in any subject at any stage during their course of study at the Institute till the time of the award.
- (iii) No disciplinary action has been taken against them for any offense during their course of study at the institute before the award.
- (iv) They have not been punished under examination of malpractice and involved in violation of the code of conduct at any stage of the course in the Institute/Hall of Residence/ Department /Club etc.

### Academic Excellence Awards/ Medals:

1. The President's Gold Medal (PGM): This will be given to the student who secures the highest CGPA in the batch of graduating students amongst all the Branches.
2. Director's Gold Medal (DGM): This will be given to the student who secures the highest CGPA in the class of graduating students of a branch except for the branch from which the student will get the President's, Gold Medal. In the branch from which the student has been awarded the President's Gold Medal, the student with the second-highest CGPA will be awarded the Director's, Gold Medal.
3. Institute Silver Medal (ISM): This will be given to the student who secures the 2<sup>nd</sup> highest CGPA in the class of graduating students of a branch except for the branch from which the student will get the President's, Gold Medal. The branch from which the student has been awarded the President's Gold Medal, the student with the third-highest CGPA, will be awarded the Institute Silver Medal.

**Rule to be followed in case of Tie-Breaking:**

1. If two or more students attain an equal CGPA up to two decimal points (in addition to satisfying the eligibility mentioned above criteria), all such students will be eligible for the concerned medal(s), i.e., DGM and ISM only.
2. If there is a tie for PGM, the following tie-breaking rules can be applied:
  - (a) The students who earned more credits will be awarded the PGM.
  - (b) The student with a greater count of topmost grade (i.e., A+ grade in case of 2015 batch onwards and Ex grade in case of the previous batches) will be awarded the PGM.
  - (c) If the count of the top grade is also equal, the student with a greater count of the next topmost grade (i.e., A grade) will be awarded the PGM. The criterion will be applied to count all subsequent top grades until the tie is broken.
  - (d) If there is still a tie, the student with a higher CGPA at the end of the 7<sup>th</sup> semester will be awarded the PGM. The criterion will be applied for CGPA at the end of immediate previous semesters (one by one) until the tie is broken.

**List of Eligible Students Eligible for Academic Excellence Awards in the AY 2020–2021**

BACHELOR OF TECHNOLOGY 2017 – 2021 BATCH					
S. No.	Student ID	Student Name	Branch	CGPA	Medal
1.	171210028	HITENDRA SINGH BHADOURIA	CSE	9.93	PRESIDENT'S GOLD MEDAL
2.	171210047	RAMANPREET KAUR	CSE	8.83	DIRECTOR'S GOLD MEDAL
3.	171220036	PARTH VASHIST	CSE	8.76	INSTITUTE SILVER MEDAL
4.	171220027	KAUSHAL VERMA	ECE	8.59	DIRECTOR'S GOLD MEDAL
5.	171230056	ZUBER KHAN	EEE	9.61	DIRECTOR'S GOLD MEDAL
6.	171230036	RAJDEEP	EEE	8.63	INSTITUTE SILVER MEDAL

MASTER OF TECHNOLOGY 2019–2021 BATCH					
S. No.	Student ID	Student Name	Branch	CGPA	Medal
1.	192231001	ABHRODIP CHAUDHURY	EEE	9.19	PRESIDENT'S GOLD MEDAL
2.	192311002	CHILUMULA SATHYA RAJ	ME	8.69	DIRECTOR'S GOLD MEDAL
3.	192311009	MATTA VENKATA DURGA SAI KALYAN	ME	8.62	INSTITUTE SILVER MEDAL
4.	192220009	SNEHA SINGH	ECE	9.19	DIRECTOR'S GOLD MEDAL
5.	192220006	POONAM RANI VERMA	ECE	8.56	INSTITUTE SILVER MEDAL
6.	192221010	SHUBHAM SINHA	ECE (VLSI)	8.71	DIRECTOR'S GOLD MEDAL
7.	192221012	TWINKLE BHARDWAJ	ECE (VLSI)	8.68	INSTITUTE SILVER MEDAL

Ph. D. Students Defended up to March 31, 2022				
S. No.	Student ID	Student Name	Branch	Date of Defense
1	143401201	PANKAJ DAHIYA	EEE	22 <sup>nd</sup> June, 2021
2	153211102	GUNJAN	CSE	20 <sup>th</sup> April, 2021
3	163231105	VENKATA MADHAVA RAM T	EEE	13 <sup>th</sup> April, 2021
4	163211201	ARSHPREET KAUR	CSE	07 <sup>th</sup> April, 2021
5	173221204	GHANENDRA KUMAR	ECE	26 <sup>th</sup> April, 2021
6	173221209	SHAILZA GOTRA	ECE	8 <sup>th</sup> October, 2021
7	153411201	MONU KUMAR	AS (Chemistry)	14 <sup>th</sup> October, 2021



8	163431102	RUPALI	AS(Mathematics)	27 <sup>th</sup> October, 2021
9	163211103	PRACHI MAHESHWARI	CSE	13 <sup>th</sup> October, 2021
10	163221103	SHIKHA PURWAR	ECE	16 <sup>th</sup> Decemeber, 2021
11	143401202	IRFAN AHMAD KHAN	EEE	2 <sup>nd</sup> Feburary, 2022
12	163431103	SUKWINDER KAUR	AS (Mathematics)	23 <sup>rd</sup> Feburary, 2022

### 30. Scholarship/ Assistance ship:

The students of this institute are awarded various types of scholarships from different schemes of Central Govt., State Governments, and Charitable Trusts/ Organizations. Following are the details of these schemes:

S. No.	Name of the Scholarship	Name of the State/ Jurisdiction	Number of students received scholarship of our Institute
1.	Central Sector Scholarship of Top-Class Education for SC Students (Ministry of Social Justice & Empowerment)	All India	22
2.	Post Matric Scholarship for Students with Disabilities	All India	01
3.	Scholarship for Top Class Education for Students with Disabilities	All India	01
4.	National Fellowship and Scholarship for the higher education of ST students- Scholarship (Formally Top-Class Education for Schedule Tribe Students) Ministry of Tribal Affairs	All India	09
5.	Prime Minister's Scholarship Scheme for Ministry of Railways	All India	
6.	Ishan Uday Special Scholarship Scheme for NER.	All India	01
7.	Merit-Cum-Means Scholarship for Professional and Technical Courses CS	All India	---
8.	Central Sector Scheme of Scholarships for College and University Students	All India	05
9.	Prime Minister's Scholarship Scheme for Central Armed Police Forces and Assam Rifles	All India	02
10.	Financial Assistance for Education to the wards of Beedi/Cine/IOMC/LSDM-Post Matric (Ministry of Labor& Employment)	All India	--
11.	Rajasthan Police Benevolent Fund (RPBF)	Rajasthan	--
12.	Prime Minister Scholarship Scheme	All India	01
13.	Delhi Police Education Fund (DPEF)	Delhi	--
14.	CRPF welfare merit scholarship	All India	01
15.	Bihar Student Credit Card Scheme	Bihar	02



## TRAINING AND PLACEMENT ACTIVITIES

Eligible students have been placed in various organizations through the Training & Placement Cell of the Institute.

### Percentage of Placed Students (Programme Wise) for the year (2021-2022):

Programme	Placed	Eligible	Placement Percentage	Number of Offers	No. of Offers in percentage
<b>B. Tech</b>	142	147	96.59	295	207.74%
<b>M.Tech</b>	33	50	66	41	124.24%

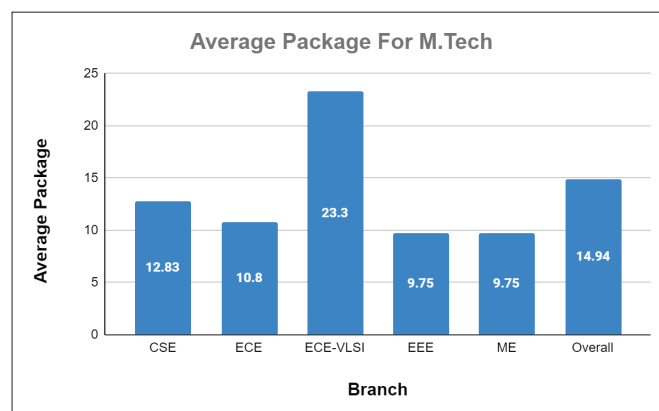
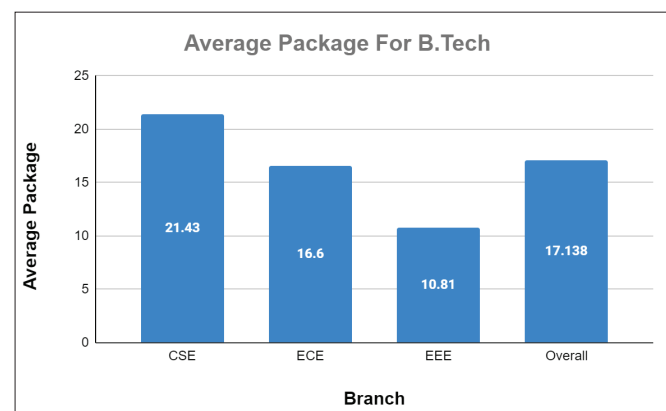
### No. of Students gets more than one offers

No. of Offers	No. of Students
2	47
3	31
4	16
5	0
6	1

### Average CTC in Lakhs for Batch (2017-2021):

Programme	Branch	Average Package	Programme	Branch	Average Package
<b>B. Tech</b>	CSE	21.437	<b>M. Tech</b>	CSE(Analytics)	12.83
<b>B. Tech</b>	ECE	16.60	<b>M. Tech</b>	ECE	10.8
<b>B. Tech</b>	EEE	10.81	<b>M. Tech</b>	ECE-VLSI	23.3
<b>B. Tech</b>	<b>Overall</b>	<b>17.138</b>	<b>M. Tech</b>	EEE	9.75
			<b>M. Tech</b>	ME	9.75
			<b>M. Tech</b>	<b>Overall</b>	<b>14.94</b>

### Placement Statistics:

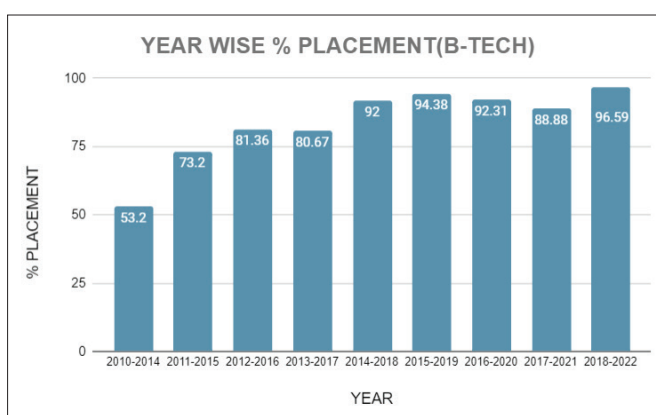
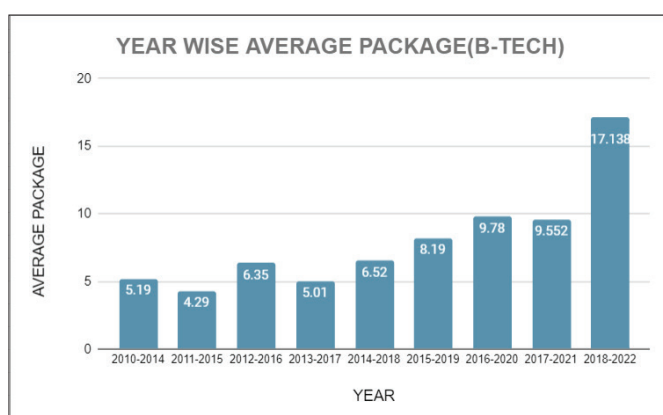






## Year Wise Comparison

Batch	2010-2014	2011-2015	2012-2016	2013-2017	2014-2018	2015-2019	2016-2020	2017-2021	2018-2022
<b>Average Package</b>	5.19	4.29	6.35	5.01	6.52	8.19	9.78	9.552	17.138
<b>No. of offers</b>	46	67	80	149	150	104	97	153	295
<b>No. of offers above &amp; equal 6 LPA</b>	11	5	31	56	53	88	82	137	291
<b>No. of companies visited</b>	17	19	29	31	30	33	29	39	105
<b>% Placement</b>	53.2	73.2	81.36	80.67	92	94.38	92.31	88.88	96.59




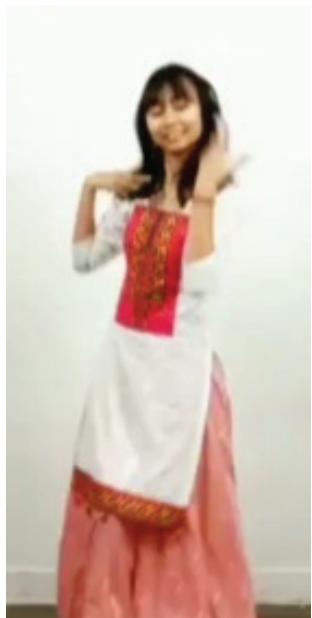


## STUDENT ACTIVITIES

### Cultural Club:

NAME OF THE CLUB	POST	SELECTED STUDENTS
CULTURAL CLUB (Co-Coordinator-Dr. Manoj Kumawat  Coordinator: Dr. Pankaj Mukhija)	General Secretary	Prashant Chouhan
	Dy. General Secretary	Anshul (181220011)
		Palak Agrawal (191210034)
	Executive Member	Atul Mishra (191230017)
		Anavi Somani
		Mohammed Shadab Agwan
		Priyanka Sehra

### Brief Report on the Activities held during 2021-2022

Activity/ Event Report	Pictures
<ol style="list-style-type: none"> <li>The Cultural Club held an online event, 'Showcase Your Talent' on 26.01.2022 to celebrate Republic Day. The theme was patriotic, and students participated in the event with great enthusiasm.</li> <li>The Cultural Club held an online event, 'Skills and Thrills,' in February 2022 for the 1st year UG students to showcase their talent and be the top performers in any category of dance, music, or drama. Some photographs of the event are:</li> <li>Cultural events were organized during the Sentience fest held at NIT Delhi during 30-01 May 2022. Some photographs of the event are:</li> </ol>	     

## Arts Club:

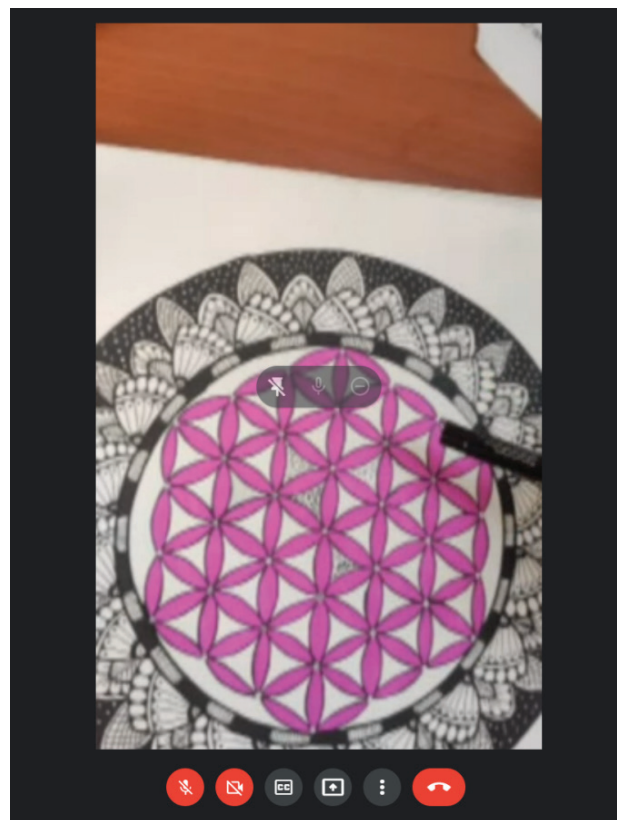
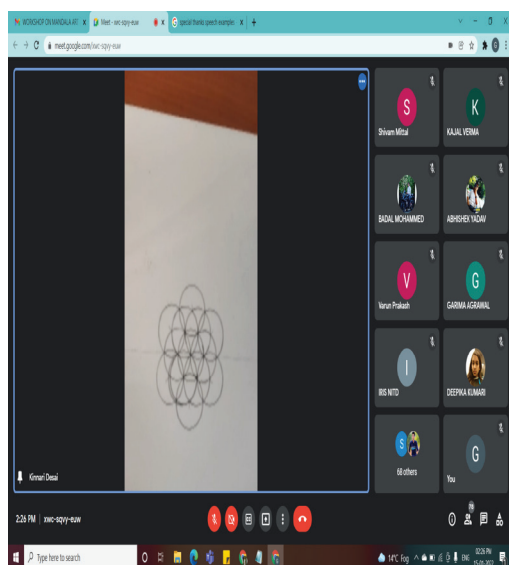
NAME OF THE CLUB	POST	SELECTED STUDENTS
ART CLUB  Co-Coordinator Dr. Ashok Devgan  Coordinator Dr. Sandeep Kumar	General Secretary	Venu Sahu
	Dy. General Secretary	Gurleen Sidhu
		Shruti Gupta
	Executive Members	Vishnu Kumar
		Vinay
		Prakhar Bharadwaj
		Abhishek Yadav
		Swati Gautam
		Tanishq Nirmal

## Brief Report on the Activities held during 2021-2022

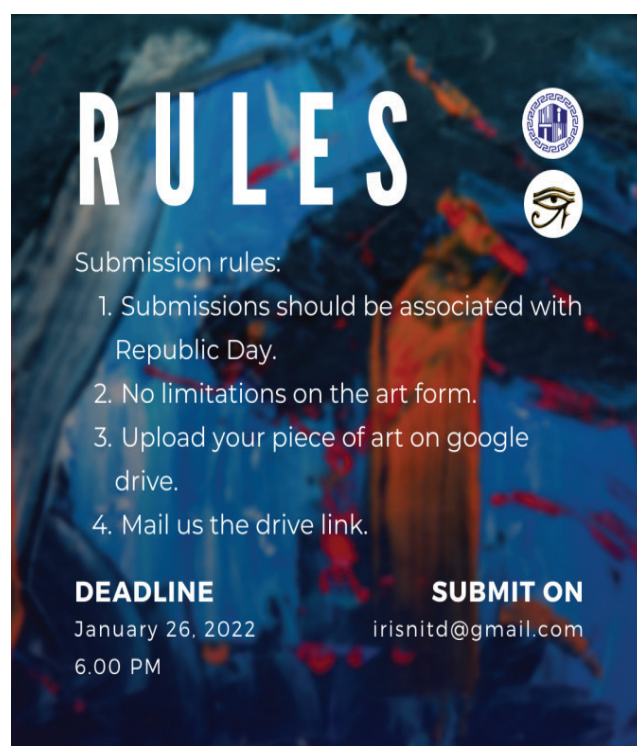
Activity/ Event Report	Pictures
<p>1. Arts Club of NIT Delhi has organized various online competitions on Instagram in collaboration with Loggify India.</p> <p>following are the details:</p> <p>(i) Foodle Doodle- ( 25 August 2021)- a doodling competition of food.</p> <p>(ii) Re-create: (20 June 2021)-A best out of waste competition</p> <p>(iii) The monochrome- (04 June 2021)- a monochrome arts competition</p>	   



2. A **Mandala workshop** was organized via online mode by Iris, Arts Club NIT Delhi, on 15 January 2022. More than 100 students from all four years attended the seminar and made it a successful one. The educator taught the students how to make their first **Mandala art** step by step. The queries of the students were also entertained.



3. Arts-Club NIT Delhi organized an online painting competition on the Instagram page of Arts-Club NIT Delhi on 26 Jan 2022. This competition's theme is **"Be patriotic and creative."** Participants' entries depicting their



- Participants' entries depict their patriotism and enthusiasm through their colorful paintings.
- "Feel the colours of Courage, Peace, and Happiness."
  - "Saluting the glorious years of India being a Republic nation."
  - "We are different in Culture, Rituals, in Religion, But united by a Nation INDIAN."



### Photography Club:

NAME OF THE CLUB	POST	SELECTED STUDENTS
PHOTOGRAPHY CLUB  (Co-Coordinator-Dr. Leeladhar Nagdev  Coordinator: Dr. Nitin Singh Singha)	General Secretary	Vishal Nagargoje (181210059)
	Dy. General Secretary	Eslava th Karthik Naik (181230015)
		Vedant Vasu Gupta (201210054)
	Executive Members	Abhishek Yadav (201210003)
		Vaishnv Raju (201230048)
		Shilpi Kumari (191220043)
		Vishal Nagargoje (181210059)
		Eslava th Karthik Naik (181230015)

### Brief Report on the Activities held during 2021-2022

Activity/ Event Report	Pictures
<b>1. TNP Meetup</b> TNP meet and great happen for all the members of the cell, this event organized from 17-02-2022 to 19-02-2022.	







## 2. YUJ

YUJ sports event took place for two days. This event organized on date 02-04-2022 to 03-04-2022.



### Literature Club:

NAME OF THE CLUB	POST	SELECTED STUDENTS
Literature CLUB  (Co-Coordinator-Dr. Amit Kumar Singh  Coordinator: Dr. Sachin Agarwal)	General Secretary	Bhavishya Yaduvanshi
	Dy. General Secretary	Thakur Aditya Singh (191230049) Ajeya Sharma (191 230005)
	Executive Members	Kaushiki Shukla (201230021)
		Sannad Kaif (191230042)
		Alia Jha (201210002)
		Anjali Jain (201230005)
		Aryan Kash yap (20 1210009)
		Saumya Jha (201230040)

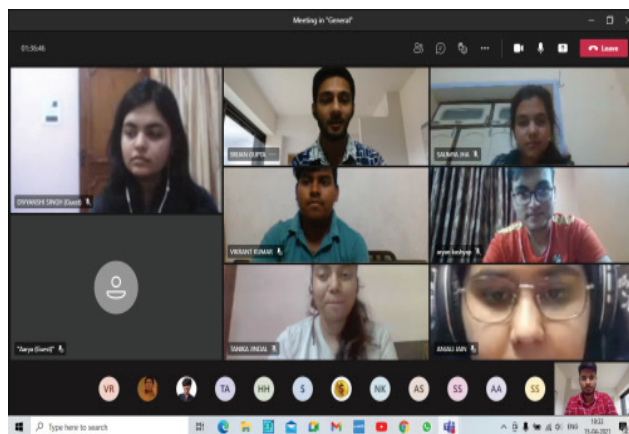
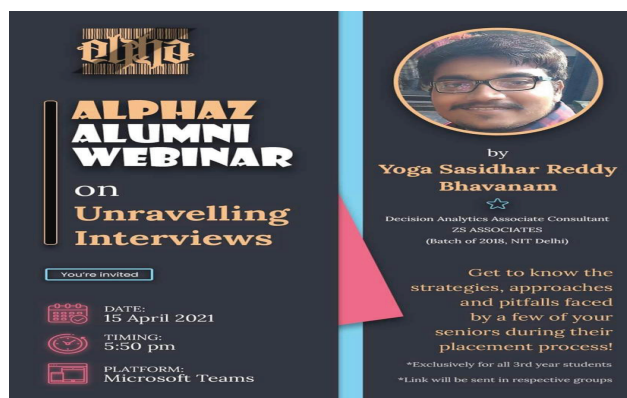
### Brief Report on the Activities held during 2021-2022

Activity/ Event Report	Pictures
<p><b>1. Kalamyudh (a poetry writing competition) from 1st May to 8th May 2021</b></p> <p>It was organized in tandem with Logyify India, IIT Guwahati, and Delhi University. In this event, Saumya Jha of EEE 2nd year bagged the 3rd position and was awarded the winner's certificate and goodies which Logyify India sponsored. Additionally, all the participants were awarded a soft copy of the participation certificate. And the coordinators received individual Certificates as well. Also, there was no entry/participation fee for the event.</p>	

## 2. Alumni Webinar on 'Unraveling Interviews 15th April 2021 Guest speaker:

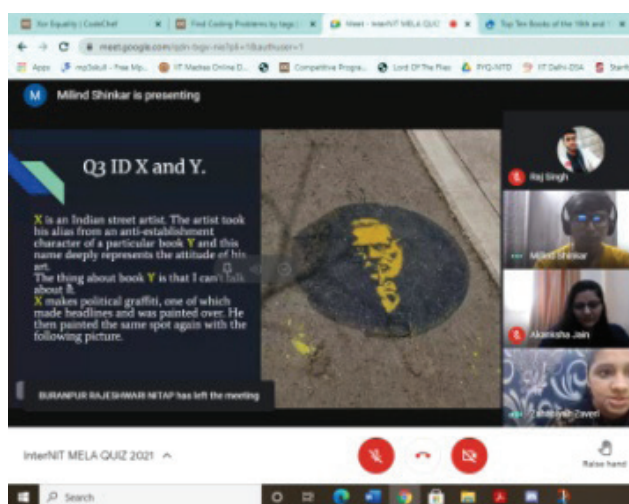
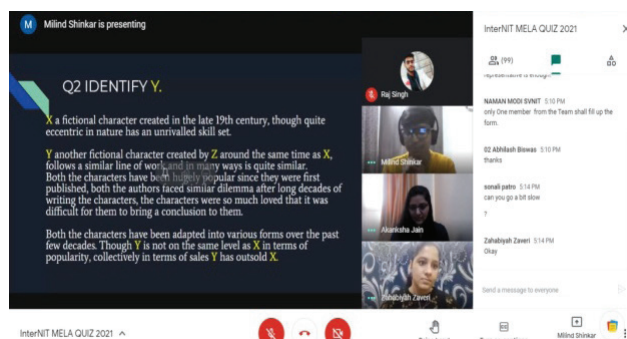
Yoga Sasidhar Reddy Bhavanam

Brief: The session turned out to be an immensely successful one. The attendees got a chance to clarify their queries and took insights on handling interviews.



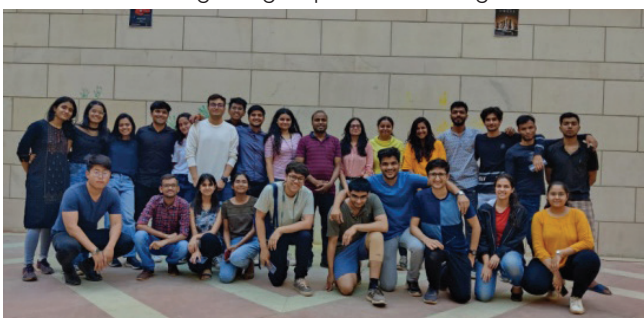
## 3. Inter-NIT Quiz organized by SVNIT Surat 22nd May 2021

Three teams participated from the club in batches of four each. The Participants remarked the experience to be an enthralling one. This became the foundation of an excellent professional relationship between the societies of the two institutes.



## 4. Treasure Hunt 2022 30th March 2022

This was the first offline event at NIT Delhi's permanent campus after the long and excruciating wait for the reopening of the college. A total of 33 teams participated, distributed among five groups, each having 6-7 members.





**Technical Club:**

NAME OF THE CLUB	POST	SELECTED STUDENTS
TECHNICAL CLUB (Co-Coordinator: Dr. Anuj Kumar Sharma, Coordinator: Dr. Rikmantra Basu)	General Secretary	Rahul Sinha
	Dy. General Secretary	Abhishek Kumar Suman
	Executive Members	Vaishnav Raju
		Shrey Kr Prajapati
		Eva Guglani

**Brief Report on the Activities held during 2021-2022**





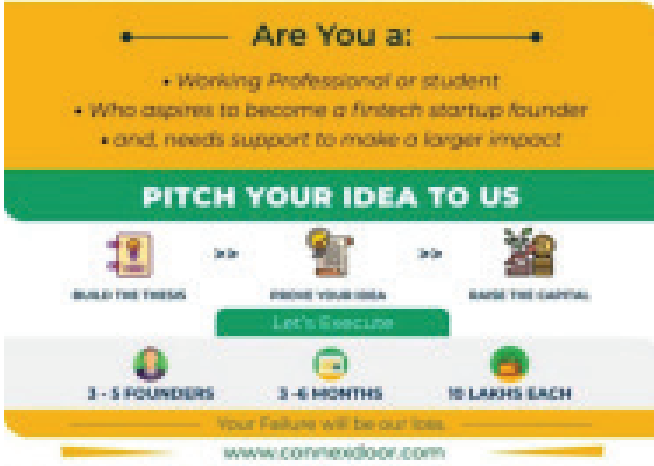
Activity/ Event Report
<p><b>1. Coding Event (DSA Contest):</b></p> <p>DSA Contests were held biweekly according to the standards of the current competitive competition with a few questions based on the criteria of online assessment tests being asked by companies in full-time and internship hiring so that students will be able to practice the set of questions that can be asked to them in interviews or the coding test.</p>
<p><b>2. Interview Experience Sessions:</b></p> <p>Many 4<sup>th</sup>-year students were invited weekly to guide their fellow juniors for the interviews. What should they do and follow to get a rewarding result? In the end, Q&amp;A sessions were conducted wherein the students rectified their doubts (if they had any).</p>
<p><b>3. An interactive session with an industry expert in collaboration with Coding Ninjas:</b></p> <p>The Tech Club conducted an expert talk with an employee of Microsoft in collaboration with Coding Ninjas to guide the students about the importance of Data Structures and Algorithms in the interviews and the guide for preparing them. The students also learned about the current trending tech stacks being used in the industry.</p>
<p><b>4. Expert Talk on the future of the VLSI Industry:</b></p> <p>An expert talk on the future and employment scope of the VLSI Industry was conducted wherein a current employee of Micron Technology was invited to have an interactive session with the students of NIT Delhi. Mr. Bharat versed all the students in the dynamics of the VLSI Industry, the everyday things which are going on, and the future of the VLSI Industry. He also showed some of the projects he handled at Micron Technology.</p>

**Entrepreneurship (E)-Cell**



NAME OF THE CLUB	POST	SELECTED STUDENTS
E-CELL (Chairman:- Anmol Ratna Saxena)	General Secretary	Ritik Ranjan Gupta
	Dy. General Secretary	Govind Varshney
	Executive Members	Dr. Rikmantra Basu
		Dr. Leeladhar Nagdeve
		Dr. Manoj Kumawat
		Mr. Vikas Bhardwaj



## Brief Report on the Activities held during 2021-2022

Activity/ Event Report	Pictures
<p><b>1. Financial Awareness Program for Students Webinar by HerMoneyTalk</b></p> <p><b>Speaker:</b> Mr. Himanth Gorur (Founder HerMoneyTalk)</p> <p><b>Date of Event:</b> 10-April-2021</p> <p><b>About HerMoneyTalk:</b></p> <p>HerMoneyTalks is India's first financial platform for women, founded exclusively for women's economic empowerment.</p> <p><b>The highlights of the workshop will be:</b></p> <ul style="list-style-type: none"> <li>- The importance of efficiently organizing your money and meeting life's demands after college.</li> <li>- A better understanding of student loans and how to build a career plan.</li> <li>- The beneficial impact of financial literacy on our society.</li> </ul> <p><b>No of the Students Registered for the Event:</b> 193</p>	 
<p><b>2. Mini Webinar Series: Get started with Start-up and Presentation</b></p> <p><b>Speaker:</b> Hitendra Singh (NIT Delhi Alumni)</p> <p><b>Date:</b> 17-18 April 2021</p> <p><b>Topics to be covered:</b></p> <ul style="list-style-type: none"> <li>• Start-up-What makes a startup idea great?</li> <li>• Roadmap for a startup: Creating ideas, Making Business Model Canvas, Testing Product-Market Fit.</li> <li>• Presentation skills- It doesn't matter how good you are at something until you can present it well. We will tell you how to make persuasive pitch decks for start-ups and hackathons.</li> </ul>	 <p><b>The AF Model</b></p> <p>7 in 10 competition teams get approval for their ideas using this format.</p> <ol style="list-style-type: none"> <li>1. Explain the SIGNIFICANCE of the Market.</li> <li>2. Make the audience FEEL the pain. The more personal the pain, the better it is.</li> <li>3. Spend 20% of the time describing your solution.</li> </ol> 
<p><b>3. Online Live Project Program in Indian Equity Markets at Finlatics:</b></p> <p>Fanatics Financial Markets Experience Program (FMPE), a live project that helps students gain work experience in financial markets</p> <p><b>CURATORS AND ADVISERS :</b></p> <p>1. Balkishan Mohta, Former Director and Member, Bombay Stock Exchange Ltd. 2. Dr. Rohit Muraleedharan, Ph.D., an alum of IIT Bombay and Cornell University</p> <p><b>STRUCTURE of the project:</b></p> <ol style="list-style-type: none"> <li>1. 2-month equity trading, research, and analysis-based project</li> <li>2. Create, manage and maintain a real-time simulated portfolio on BSE 500 listed companies</li> </ol>	



Activity/ Event Report	Pictures
<p><b>3.</b> The simulated portfolio will be assessed by linking it to the real-time BSE 500 INDEX, akin to an asset management company</p> <p><b>4.</b> Engage in sector-wise and company-specific research on the Indian Economy</p> <p><b>5.</b> Mentor-based guidance to each student by an Equity Advisor</p> <p><b>6.</b> Flexible start-date option, where the student can pick a start date for the project as per their convenience</p> <p><b>7.</b> Case studies covering valuation &amp; stock analysis along with the live experience</p> <p><b>8.</b> Due to its work-from-home, online structure, the project is doable on a standalone basis and without any other commitment.</p> <p><b>Speaker:</b> Hitendra Singh ( NIT Delhi Alumni )</p> <p><b>Date:</b> 17-18 April 2021</p> <p><b>Topics to be covered:</b></p> <ul style="list-style-type: none"> <li>Start up-What makes a startup idea great?</li> <li>Roadmap for a startup: Creating ideas, Making Business Model Canvas, Testing Product-Market Fit.</li> <li>Presentation skills- It doesn't matter how good you are at something until you can present it well. We will tell you how to make persuasive pitch decks for start-ups and hackathons.</li> </ul> <p><b>4.</b> Fintech Startup Support Program: "Back2School Program 2021" with Connexdoor:</p> <p><b>Date:</b> 26-30 April 2021</p> <p><b>About Connexdoor</b></p> <p>Connexdoor is a digital platform provider for early-stage startups. We have started the "Back2School" Program – an initiative in the Fintech Startup ecosystem which aims to provide an anchor to the ideas of students or working professionals who aspire to become fintech startup founders.</p> <p><b>The program intends to provide the selected founders with:</b></p> <ul style="list-style-type: none"> <li>Deep Subject Matter Expertise in Fintech</li> <li>Unparalleled network of BFSI value chain</li> <li>Any other help you will need under the sun</li> <li>Initial support of \$10k- \$15k</li> </ul> <p><b>5.</b> Free Virtual Trading Competition with StockGro</p> <p><b>Details of the competition:</b></p> <p><b>Name of the Event/League:</b> Beat the Street League</p> <p><b>Start Date:</b> 9:35 am June 23, 2021</p> <p><b>End Date:</b> 3:25 pm June 25, 2021 (3 Trading Days)</p> <p><b>About StockGro:</b></p>	 <p>The poster for 'Beat the Street League' is orange and blue. It features a person sitting at a desk with a laptop showing a stock chart. Text includes: 'E-CELL NIT DELHI', 'Beat the Street League', 'Powered by StockGro', 'WIN REAL CASH PRIZE', 'TRADE WITHOUT FEAR', 'BUILD TRADING SKILLS', 'INTERACT WITH BEST MINDS', 'USE SIMPLIFIED TOOLS', '3 DAYS TRADING', 'DATE: 23 JUNE 2021 (9:35 am - 3:25 pm) and 24 JUNE 2021 (9:35 am - 3:25 pm)', 'StockGro', 'Download App', and 'Download App Store'.</p>  <p>The poster for 'GSEA 2021-22' is white with a rainbow arc. Text includes: 'ATTENTION STUDENT ENTREPRENEURS', 'GSEA 2021-22 APPLICATIONS ARE OPEN', 'EO New Delhi presents EO GSEA', 'A premier global competition for students who want to start a business. Participants compete against their peers from around the world in a series of local, national and regional competitions to qualify for the global final.', 'Winners will receive a cash prize package of USD \$40,000 in cash.', 'Get a fully paid trip to Global Finals and represent your country.', 'Additional awards of the Global Finals for Social Impact Innovation and Leaders from the Edge.', 'To apply, visit: <a href="https://eo.gsea.org/GSEA/EOIndia2021">https://eo.gsea.org/GSEA/EOIndia2021</a>', 'APPLICATION DEADLINE: 16TH DECEMBER 2021', and a photo of four students at the bottom. Logos for 'Supported by EO New Delhi', 'EO Global Finals', and 'StockGro' are at the bottom.</p>



Stockgro is India's First & Largest Gamified Social Trading Platform. Users can experience Real Stock market experience and convert their theoretical knowledge into practical learning by building their portfolio with virtual 10 Lakh rupee cash. They can also start interacting with thousands of other expert traders and investors in the app's social section and analyze each other's portfolios.

#### Competition:

Beat the Street League, a 3-day stock broking competition associated with StockGro (India's First Social Investment Platform). Learn trading with real experts and showcase your talent to the world by being the best young trader where each participant is provided with 2,00,000 virtual cash to invest.

**No of the Student Participated:** 190

**6. Case Study Competition:**

**Date:** 10 August 2021

#### About:

In collaboration with 180 Degrees Consulting, NIT Delhi conducted a full-day case study competition among NIT Delhi students.

**No of the Student Participated:** 125

**7. Collaborations with other E-Cell and Clubs:**

- Winner gets \$25,000 in cash. Runner-up and Second runner-up get \$10,000 and \$5,000 respectively
- Mentorship from the best of the startup mentors and investors
- Recognition and opportunity to interact and meet the best of the minds of the startup community
- A one-year subscription to Fiverr.

**8. Collaboration: Prabandhan 21, IIT Kanpur: Karobaar- A Business Plan Competition:**

**Date:** 11 September 2021

#### Highlights of this competition:

1. This year, Karobaar is powered by: Acom Digital - A tech startup that caters to the Medical, Education, and Fashion-Retail industries with innovation-driven products and services coupled with unique business models through MedSoft, Educator, and RobeBox, respectively.
2. No Quiz: if you have a business idea, why go through another tedious online quiz. We understand the pain, and that's why this year, we have a Short Idea Submission as our first Round. Post this; we have a B Plan Canvas Event hosted by Acom Digital.
3. Intriguing Finale: Apart from esteemed academicians of IIT Kanpur, you future entrepreneurs will have the opportunity to present your proposed business in front of the industrial experts

NAME OF THE CLUB	POST	ELECTED STUDENTS
IEEE-NITD STUDENT BRANCH (Faculty Counselor. Rikmantra Basu  Faculty Advisor (WiE): Dr. Baljit Kaur)	Chair	Mr. Himanshu Atri
	Vice-Chair	Mr. Samarpit Karar
	Secretary	Ms. Shubhi (Autumn 21)
		Mr. Aswin Chowdary (Spring 22)
	Treasurer	Mr. Apoorv Kautilya
	Web Master	Mr. Mehul Goel
	Chair (WiE)	Ms. Aarushi Jain
	Vice-Chair (WiE)	Ms. Saumya Jha (Autumn 21), Ms. Devyani Singh (Spring 22)
	Secretary (WiE)	Ms. Devyani Singh (Autumn 21), Mr. Rohit Beniwal (Spring 22)
	PG Coordinator	Mr. Samrat Sagardeep Ghosh
	Sub Committee-Heads	Design Mr. Mehul Goel (Autumn 21), Ms. Supriya Bauddh (Spring 22)
		Logistic Mr. Aditya Joshi (Autumn 21), Mr. Prafful Kumar (Spring 22)
		External Affairs Mr. Anant Atray (Autumn 21), Mr. Abhishek Rathour (Spring 22)



## Brief Report on the Activities held during 2021-2022

Activity/ Event Report/ Pictures	Activity/ Event Report/ Pictures
<p>1. Inauguration of Student Branch did on venue MS Teams on dated 14-08-2021 at 4:00 to 5:30 PM. This event's Speaker Guest is Prof. Perna Gaur, Director NSUT East Campus.</p> 	<p>3. Trivialize your Placement Blues did on Venue Google Meet on dated 08-09-2021 at 6:00 to 7:30 PM. This event's Speaker Guest is Mr. Rajat Garg, SDE at Microsoft.</p> 
<p>2. Getting Started with MATLAB on did Venue Google Meet on dated 28-08-2021 at 4:00 to 5:30 PM. This event's Speaker Guest is Mr. Ayush, Research Scholar at DTU.</p> 	<p>4. Materialise your Study Abroad Dreams on Venue Google Meet dated 19-09-2021 4:00 to 5:30 PM. This event's Speaker Guest is Mr. Suraj Peri, Co-founder of Grapevine.</p> 





### Activity/ Event Report/ Pictures

5. Webinar on CS Fundamentals done on Venue Zoom on 24-09-2021 from 6:30 to 7:30 PM. This event Speaker Guest is Mr. Shantanu S., SDE at Schlumberger.

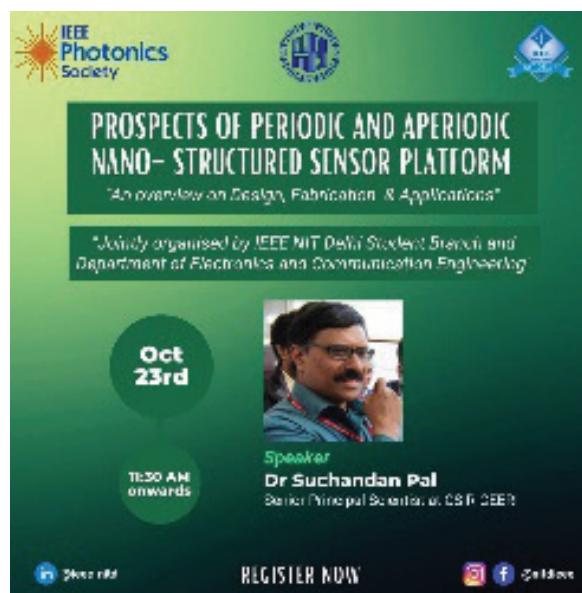


6. Engineering A Lifestyle: Ver 1.0 done on Venue Google Meet on dated 10-10-2021 at 5:00 to 6:00 PM. This event's Speaker Guest is Mr. Mayank Sharma, a Full Stack Software Engineer at CERN.



### Activity/ Event Report/ Pictures

7. Webinar on Prospects of Periodic and Aperiodic Nano-Structured Sensor Platform done on Venue Google Meet on dated 23-10-2021 At 11:30 AM to 1:00 PM. This event's Speaker Guest is Dr. Suchandan Pal (Senior Principal Scientist at CSIR-CEER).



8. Workshop on Data Science done on Venue Google Meet dated 29-10-2021 to 31-10-2021 Daily at 6:00 to 7:30 PM. This event's Speaker Guest is Mr. Anand Abhishek (Data Scientist at KOCH Industries, Ex Walmart).





### Activity/ Event Report/ Pictures

9. **EmpoWer!!** Is did on Venue Google Meet dated 28-11-2021 from 12:00 to 2:00 PM. This event's Speaker Guest is Ms. Sukriti Chaudhary (Software Engineer at Microsoft & Ex-chair IEEE NSUT) and

Dr. Rashmi Agarwal (Secretary WIE AG Delhi Section and Assis. Prof. in J C Bose University of Science and Technology, YMCA).



10. Career Opportunities in the Core VLSI Industry done on Venue Google Meet dated 28-12-2021 at 6:00 to 8:00 PM. This event's Speaker Guest is Mr. Ravi Gupta (Principal Emulation Engineer at Cadence Design Systems).



### Activity/ Event Report/ Pictures

11. CodeFlex is done on Venue Prepbytes dated 26-02-2022 from 6:00 to 9:00 PM. This event's Speaker Guest is Coding Contest.

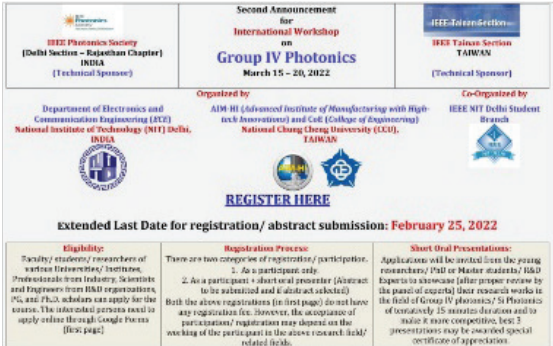



12. WIE-Insight into Mental Health and Entrepreneurship done on Venue Google Meet on dated 06-03-2022 at 2:00 to 3:00 PM. This event's Speaker Guest is Ms. Kunika Rathore, founder and CEO of The Unknown Agency.







Activity/ Event Report/ Pictures	Activity/ Event Report/ Pictures
<p>13. International Workshop on Venue Group IV Photonics was done online from 15-03-2022 to 20-03-2022. This event Speaker Guest is IEEE Taiwan Section, IEEE Photonics Society, ECE Dept. NIT Delhi &amp; IEEE NIT Delhi Student Branch.</p> 	<p>14. PIICON- Power India International Conference will do NIT Delhi in the future. This event Speaker Guest is IEEE PES-IAS Delhi Chapter, IEEE PELS-IES Delhi Chapter &amp; IEEE NIT Delhi Student Branch.</p> 

### Google Developer Student Club:

NAME OF THE CLUB	POST	SELECTED STUDENTS
Google Developer Student Club  (Co-Coordinator: Dr. Rishav Singh,  Coordinator: Dr. Baljit Kaur)	General Secretary	Rishikesh Anand ( 181210041)
		Achanta Pavan Santhosh Manideep (181210004)
		Eslavath Karthik Naik ( 181230015)
		Ritik Mehndiratta (191210043)
		Harshit Mishra (1912300230)
		Navneet Singh (191210032)
		Anil Thori (191230010)
	Dy. General Secretary	Abhinav Sharma (1912100020)
		Abhishek Sharma (181220003)
		Anil Thori (8741017852)
		Jeremy Joseph Abraham ( 191210025)
		Aditya Singh ( 201210004)
		Sanskar Kumar (201220039)
		Aryan Srivastava (201210010)
		Vishal Singh ( 201210055)
		Aditya Raj (201230002)
		Abel Sherin Ukken (191210001)
		Umang Kumar ( 201210051)
		Mohit Kumar Singh ( 181230030)
		Jeremy Joseph Abraham ( 191210025)



	Executive Members	Akshit Aggarwal(201220005)
		Akshit Aggarwal (201220005)
		Monisha Gautam (201210031)
		Kishan Srivastava (191220030)
		Pratichi Vashishtha (201230033)
		Shrey Kumar Prajapati (201210041)
		Ayush Kumar Dokania (201220010)
		Pratik Parihar ( 201220034)
		Vinay ( 191210059)
		Deepak Gupta (201220017)
		Sanskar Kumar (201220039)
		Sidharth Bhatla( 201210045)
		D. Ram Khokhriya( 202311005)
		Supreet Singh ( 201220046)
		Ayushi Arya ( 201210012)

### Brief Report on the Activities held during 2021-2022

Activity/ Event Report	Pictures
<p><b>ANDROID STUDY JAMS 2021-SESSION #1</b></p> <p><b>Android App Development: Introduction</b></p> <p><b>POST EVENT CLOSURE REPORT:</b></p> <p>Android Study Jams are community-organized study groups for people to do hands-on learning for Android app development. Android Basics is a series of sessions focused on learning how to build Android apps without prior experience. By enrolling in the program you get to –</p> <ul style="list-style-type: none"> <li>Learn to build apps from scratch with a self-paced course. Learn/Polish your Kotlin programming skills.</li> <li>Build a great network with peers and mentors Receive an Android certificate from Google Developers</li> <li>Become eligible for an Associate Android Developer certificate</li> </ul> <p>Topics covered in this event: What are Android Study Jams?</p> <p>Intro to Android App Development Basics of Kotlin Language</p> <p><b>EVENT SUMMARY</b></p> <p><b>Event type:</b> New to Programming (Virtual)</p> <p><b>Event Date:</b> 21st December 2021, Tuesday</p> <p><b>Event Time:</b> 6:00 PM (IST)</p> <p><b>Platform:</b> Microsoft Teams</p>	





Activity/ Event Report	Pictures
<p><b>Number of Attendees</b> (Virtual):196</p> <p><b>Speakers</b></p> <p>1. A P S Manideep – B.Tech CSE 4th year – NIT Delhi</p> <p>2. Saurabh Kumar – B.Tech EEE 3rd year – NIT Delhi</p> <p><b>Event Facilitator:</b></p> <p>A P S Manideep, GDSC Lead, Google Developer Student Clubs, National Institute of Technology Delhi</p>	
<p>Recorded Session (available on YouTube):</p> <p><b>ANDROID STUDY JAMS 2021 – SESSION #2</b></p> <p><b>Introduction to Jetpack Compose</b></p> <p><b>POST-EVENT CLOSURE REPORT</b></p> <p>Introducing Shreyas Patil, India's youngest Google Developer Expert for Android, an Android Developer at PayTm Insider, and is proficient with Jetpack Compose. His first Android app, 'C Programming Course', has over half a million downloads on Google Play Store.</p> <p>Jetpack Compose is Android's modern toolkit for building native UI in Kotlin and simplifies UI development on Android. Jetpack Compose is an emerging UI toolkit on which you should keep an eye. If used correctly, it can speed up the development process and reduce the size of the app. Moreover, with Jetpack Compose, you "write less code," potentially meaning "fewer bugs."</p> <p>Topics covered in the session:</p> <ul style="list-style-type: none"><li>• What's jetpack compose</li><li>• Features of Jetpack Compose</li><li>• Before Jetpack Compose</li><li>• Adding jetpack compose in project</li><li>• Introduction to basic components</li><li>• Introduction to layouts</li><li>• Small app in jetpack compose</li><li>• Q'n'A</li></ul> <p><b>EVENT SUMMARY</b></p> <p><b>Event type:</b> New to Programming (Virtual)</p> <p><b>Event Date:</b> 24th December 2021, Friday</p> <p><b>Event Time:</b> 6:00 PM (IST)</p> <p><b>Platform:</b> Microsoft Teams</p> <p><b>Number of Attendees</b> (Virtual): 89</p> <p><b>Speaker:</b></p> <p>1. Shreyas Patil, Google Developer Expert @ Android Event Facilitator:</p> <p>2. A P S Manideep, GDSC Lead, Google Developer Student Clubs, National Institute of Technology Delhi</p>	



Activity/ Event Report	Pictures
<p><b>ANDROID STUDY JAMS 2021 – SESSION #3</b> <b>Roadmap to Android Development</b> <b>POST-EVENT CLOSURE REPORT</b></p> <ul style="list-style-type: none"> <li>• Are you looking for where to start your android development career? · Are you a beginner with zero or significantly less programming experience?</li> <li>• Are you confused with android technologies and need guidance on choosing the right one?</li> <li>• Are you interested in knowing the right path for android development?</li> </ul> <p>This is the session for the aspiring developers who finds the answer to any of the above question is "Yes."</p> <p>An interactive session with Mr. Piyush Maheswari, Android Engineer at Zomato. The event has an interactive Q'n'A session with all the students where they get answers to all the questions they have in starting app development as a beginner.</p> <p>Topics to be covered in the session:</p> <ul style="list-style-type: none"> <li>• Roadmap to android development</li> <li>• QnA session with students</li> </ul> <p><b>EVENT SUMMARY</b> <b>Event type:</b> New to Programming (Virtual) <b>Event Date:</b> 26th December 2021, Sunday <b>Event Time:</b> 02:30 PM (IST) <b>Platform:</b> Microsoft Teams <b>Number of Attendees</b> (Virtual): 62 <b>Speaker:</b></p> <ol style="list-style-type: none"> <li>1. Piyush Maheswari, Android Engineer at Zomato Event Facilitator:</li> <li>2. A P S Manideep, GDSC Lead, Google Developer Student Clubs, National Institute of Technology Delhi</li> </ol>	
<p><b>FLUTTER FESTIVALS – SESSION #1</b> <b>Intro to Flutter &amp; Dart Essentials</b></p> <p>Flutter Festival London is a community-led event series where developers can join to learn the fundamentals of Google technologies featuring Flutter, Firebase, and Google Cloud content. Learn to build apps from scratch with a self-paced course</p> <ul style="list-style-type: none"> <li>• Learn/Polish your Flutter programming skills</li> <li>• Build a great network with peers and mentors</li> <li>• Building cross-platform apps with Flutter</li> </ul> <p>Topics covered in this event:</p> <ol style="list-style-type: none"> <li>1. What is Flutter Festivals?</li> <li>2. Flutter Essentials</li> <li>3. Dart Essentials</li> </ol>	



Activity/ Event Report	Pictures
<p><b>EVENT SUMMARY</b></p> <p><b>Event type:</b> New to Programming (Virtual)</p> <p><b>Event Date:</b> 2nd March 2022, Wednesday</p> <p><b>Event Time:</b> 6:00 PM (IST)</p> <p><b>Platform:</b> Microsoft Teams</p> <p><b>Number of Attendees</b> (Virtual): 70</p> <p><b>Speakers :</b></p> <p>A P S Manideep – B.Tech CSE 4th year – NIT Delhi 4. Siddhardh Bhatla – B.Tech CSE 2nd year – NIT Delhi</p> <p><b>Event Facilitator:</b></p> <p>A P S Manideep, GDSC Lead, Google Developer Student Clubs, National Institute of Technology Delhi.</p>	
<p><b>FLUTTER FESTIVALS – SESSION #2</b></p> <p><b>Intro to Firebase</b></p> <p><b>POST-EVENT CLOSURE REPORT</b></p> <p>Firebase helps you build and run successful apps. Backed by Google and loved by app development teams - from startups to global enterprises.</p> <p>Participate and learn the fundamentals of Firebase through this session.</p> <p>Firebase help you to</p> <ul style="list-style-type: none"><li>- Build databases for powerful apps.</li><li>- Spin up your backend without managing servers.</li><li>- Effortlessly scale to support millions of users with Firebase databases, machine learning infrastructure, hosting and storage solutions, and Cloud Functions.</li></ul> <p>Topics covered in this event:</p> <ol style="list-style-type: none"><li>1. Google Firebase</li><li>2. Live Demonstration of an app run by Firebase</li></ol> <p><b>EVENT SUMMARY</b></p> <p><b>Event type:</b> New to Programming (Virtual)</p> <p><b>Event Date:</b> 27th March 2022, Wednesday</p> <p><b>Event Time:</b> 3:00 PM (IST)</p> <p><b>Platform:</b> Microsoft Teams</p> <p><b>Number of Attendees</b> (Virtual): 50</p> <p><b>Speakers</b></p> <ol style="list-style-type: none"><li>1. A P S Manideep – B.Tech CSE 4th year – NIT Delhi</li><li>2. Kishan Srivastava – B.Tech CSE 3rd year – NIT Delhi</li></ol> <p><b>Event Facilitator:</b></p> <p>A P S Manideep, GDSC Lead, Google Developer Student Clubs, National Institute of Technology Delhi</p>	



Activity/ Event Report	Pictures
<p><b>Guide to Careers in Programming</b></p> <p><b>POST-EVENT CLOSURE REPORT</b></p> <p>Introducing Mr. MAYANK JHA, Product Engineer and Mentor @ Coding blocks, who has been mentoring students to achieve their dream jobs.</p> <p>This session will help you in providing a guided way to start preparing for your interviews and advance your algorithm design skills by mastering data structures and algorithms in <b>C++</b>.</p> <p>This session covers</p> <ul style="list-style-type: none"> <li>- Basics of programming</li> <li>- Basics of data structures and algorithms</li> <li>- Tips and Tricks to master DSA</li> <li>- Guidelines to interview preparation</li> <li>- Opportunities for programmers</li> </ul> <p><b>EVENT SUMMARY</b></p> <p><b>Event type:</b> New to Programming (Virtual)</p> <p><b>Event Date:</b> 27th January 2022, Wednesday</p> <p><b>Event Time:</b> 6:00 PM (IST)</p> <p><b>Platform:</b> Microsoft Teams</p> <p><b>Number of Attendees</b> (Virtual): 95</p> <p><b>Speakers</b></p> <ol style="list-style-type: none"> <li>1. Mayank Jha – Product Engineer and Mentor – Coding Blocks</li> <li>2. A P S Manideep – B.Tech CSE 4th year – NIT Delhi</li> </ol> <p><b>Event Facilitator:</b></p> <p>A P S Manideep, GDSC Lead, Google Developer Student Clubs, National Institute of Technology Delhi</p>	

### Digital India Committee:

Digital India is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy.

S. No.	Name of the Committee	Faculty/ Students Members	Position
1	Digital India Committee	Dr. Chandra Prakash Dr. Sachin Aggarwal Dr Dharmendra Kumar Jhariya Dr. Rishav Singh	Coordinator Co-coordinator Member Member

The vision of the Digital India programme is:

- To transform India into a digitally empowered society and knowledge economy.
- Universal digital literacy.

Under the aegis of **Digital India @NIT Delhi**, we planned to conduct an **Online Peer Learning Sessions (DI-PLS)** towards the core goal of Digital Empowerment of Citizens by Japman Singh Monga and Vartika Chaturvedi.

In this regard, the first Online Peer Learning Sessions (DI-PLS) was scheduled for 02 March 2022 (Wednesday) on Cyber Crimes: Introduction and Prevention.

About 50 participants attended the session, including students, staff, and faculty.

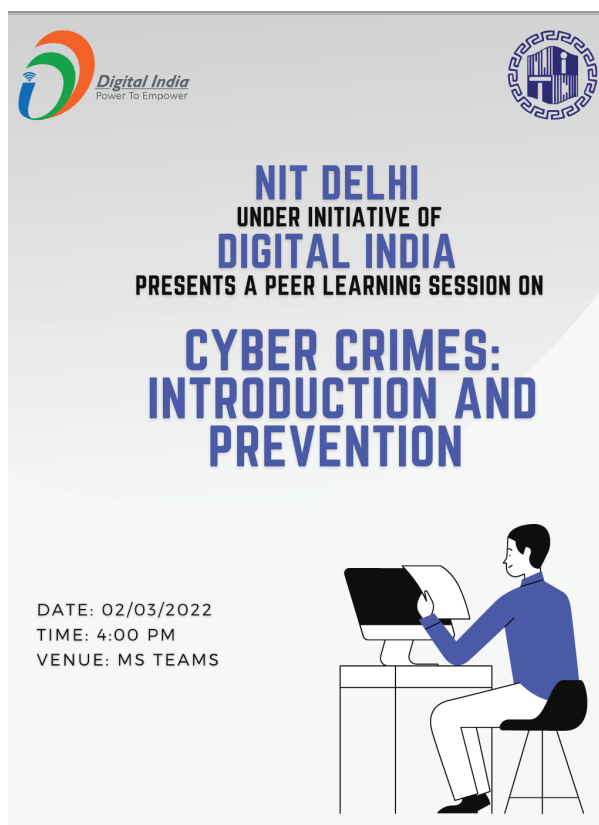
Cybercrime is referred to illegal activities involving a computer, a computer network, or a networked device. Cybercrime may be defined as “Any unlawful act where computer or communication device or computer network is used to commit or facilitate the commission of a crime.”

Cybercriminals are not always financially motivated. They include non-monetary offenses as well. It can consist of frauds such as matrimonial frauds, stealing and misusing sensitive personal information (Aadhaar details, credit/debit card details, bank account credentials, etc.), defamation of an individual on social media, distribution of computer viruses, etc. Cyber crimes can involve traditional criminal activities, such as theft, fraud, forgery, defamation, and mischief, all of which are subject to the Indian penal code.

Cyber crimes can be classified into 4 major categories as the following:

- Cybercrime against Individual: Crimes that cyber criminals commit against an individual or a person.
- Cybercrime against Organization: Crimes done to threaten international governments or any organization by using internet facilities.
- Cybercrime against Property: These crimes include vandalism of computers, Intellectual (Copyright, patented, trademark, etc.), Property Crimes, Online threats, etc.
- Cybercrime against Society: Those cybercrimes which affect society's interest at large are known as cyber crimes against society

8 case study was discussed in the session to enlighten the participants on Cyber Crimes: Introduction and Prevention.







### Skill India Committee:

S. No.	Name of the Committee	Faculty/ Students Members	Position
1.	Dr. Leeladhar Nagdeve	Faculty	Coordinator
2.	Dr. Mahesh K. Singh	Faculty	Co-coordinator
3.	Dr. Ashok K. Dewangan	Faculty	Member
4.	Dr. Manoj Kumawat	Faculty	Member

### Brief Report on the Activities held during 2021-2022

Activity/ Event Report	Pictures
<p>Under the Skill India Mission of the Government of India, NIT Delhi has taken steps to create opportunities and scope of development for children and youth, especially in rural areas. This leads to up-gradation of their skill and standards and increases the productivity of the existing workforce.</p> <p>Under the skill India committee, NIT Delhi facilitated primary education to underprivileged children from the rural areas on the premises of the NIT Delhi campus.</p> <p>Skill India committee, NIT Delhi, aims to create opportunities for talent development within the country and improve the overall scope and space for underdeveloped sectors.</p>	  







### Unnat Bharat Abhiyan (UBA) Committee:

S. No.	Name of the Committee	Faculty/ Students Members	Position
1.	Unnat Bharat Abhiyan	Dr. Amit Kumar Singh	Coordinator

### Brief Report on the Activities held during 2021-2022

#### Cloth Collection Campaign during November 2021







## SPORTS SECTION

### Introduction:

Sports and Games are an integral part in the life of a student. A student should study hard to be successful in competitive examinations. But he should also play games and sports to enjoy the health and vigor of life. A healthy nation is always a wealthy nation. Therefore, it is necessary to put emphasis on sports. One can think of a healthy mind only in a healthy body. Both physical and mental well-being are the prerequisites of great achievements in life. Studies have shown that exercise increases blood flow to the brain and helps the body build more connections between nerves, leading to increased concentration, enhanced memory, stimulated creativity, and better-developed problem solving skills. In short, playing sports helps your brain grow and makes it work better.

An open gym has been installed in the campus to keep students physically fit and healthy.

### The Outdoor Games Facilities:

- Basketball (One Court with flood lights)
- Cricket Cemented pitch with Nets (With flood lights)
- Football Kabaddi Court
- Volleyball (One court with flood lights)
- Badminton (Outdoor court with Flood Light)
- Athletics
- Outdoor open gym

### The Indoor Games provides the following facilities:

- Chess
- Caroms
- Table Tennis
- Indoor Gym in the Boys Hostel

### Activities of the Section include:

- To motivate and encourage students to participate in sports & games to attain good physical state and health.
- To coordinate and monitor the sports and games activities for the students of the institute.
- To take theory as well as practical classes of all B. Tech 1<sup>st</sup> year students focusing on their well-being and health.
- To supervise and monitor regular sports practice for the institute's teams in various sports.
- To arrange and purchase playing equipment/goods for students required for their recreation/play purpose.
- To take measures for most effective utilization of the existing sports facilities.
- Maintenance of play grounds and courts.
- To enable student to participate in various inter NIT's and other sports festivals/tournaments and making all necessary arrangements (such as transportation, sports 'kits etc.) in a timely manner.
- To conduct annual sports fest ZEAL and other sports activities for students.
- To coordinate with IITs, NITs and IIITs and other higher learning institutions for organising activities.
- To maintain the sports infrastructure and facilities available.



## Sports Initiatives at NIT Delhi

To keep the engineering students physically fit, the physical education and sports is introduced as a compulsory subject in form of Extra Academic Activities for the engineering students in the 1st & 2nd Semester of B. Tech with One Credit each.

As a part of this, Yoga and athletics have been introduced for the students.

Athletics helps the students to be physically fit, while on the other hand yoga not only enriches their physical health but also helps the students maintain their mental health. Yoga and athletics together help in the overall development of an individual. Hence, with the view of laying emphasis on health and fitness, regular practice sessions of yoga and athletics are conducted by professional coaches in the college premises after the college hours.

## Events Organized by the Sports Section

International Day of Yoga-21<sup>st</sup> June 2021

As a part of world-wide observation of International Day of Yoga, NIT Delhi celebrates international day of Yoga every year on 21<sup>st</sup> of June in the institute premises. The goal behind the organization of the event was to spread the message of peace, harmony, happiness. The event is attended with full enthusiasm by faculty, staff and students.

## ANNUAL FITNESS ASSESSMENT

Annual Fitness assessment of B. Tech First Year Students comprising of various fitness components such as Speed, Endurance, Strength, Flexibility and agility were conducted in December 2021 via online mode to assess the student's fitness level and to motivate them to lead a healthy life.

- To spread and counsel students to stay mentally and physically fit during COVID-19 pandemic.
- To guide and help students in maintaining a healthy life style and healthy habits during COVID-19 pandemic by sharing information via electronic modes.
- Online classes of B. Tech First year students for the course code EAP 101 & EAP-102.

## Chess Tournament 2.0 Dated 12-13 February 2022

The chess tournament organized by the ALTIUS sports club NIT Delhi witnessed the participation of more than 80 assorted students, ranging from BTech first year to Ph.D. The tournament, spread across two days, welcomed spectators to watch and learn the forethought, strategies, and moves which dictate the game of chess.

Following the preliminary elimination, quarter-final, semi-finals, and final rounds, the following students performed exceptionally well and achieved the following results:

Category	Winner	Runner Up
Boys Category	Dinesh Goswami (ECE, 4th year BTech)	Rahul Dev Kureel (CSE, 4th year BTech)
Girls Category	Sumiti (EEE 2nd year, MTech)	Namrata Prasad (CSE, 4th year BTech)

## PICTURE GALLERY







## PICTURE GALLERY

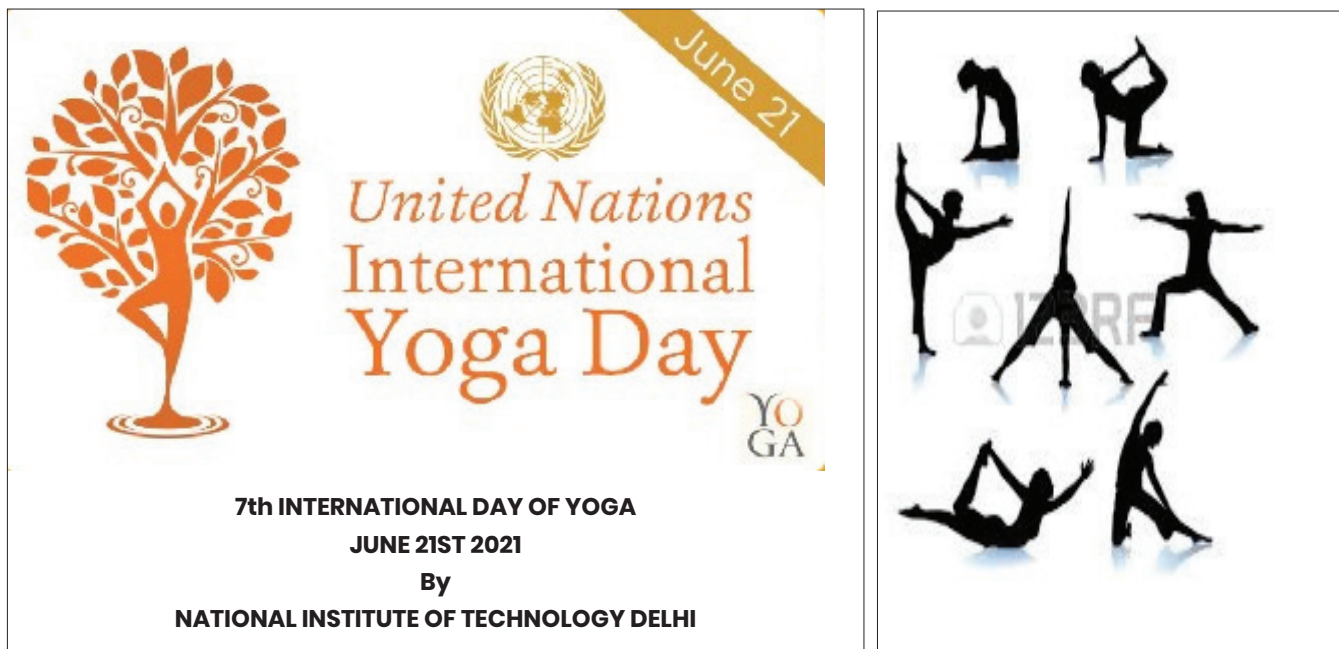






## PICTURE GALLERY





### International Day of Yoga:

The United Nations General Assembly declared June 21st as the International Day of Yoga on Dec 11, 2014. Addressing the UN General Assembly on 27 September 2014, the Prime Minister of India Mr. Narendra Modi had said: "Yoga is an invaluable gift of India's ancient tradition. It embodies unity of mind and body; thought and action; restraint and fulfilment; harmony between man and nature; a holistic approach to health and well-being. It is not about exercise but to discover the sense of oneness with yourself, the world and the nature. By changing our lifestyle and creating consciousness, it can help us deal with climate change. Let us work towards adopting an International Yoga Day." On Dec 11, India's Permanent Representative introduced the draft resolution in UNGA. The draft text received broad support from 177 Member States, including USA, and the draft text was adopted without a vote. Hence, June 21, 2015 is the first International Day of Yoga. Government of India celebrated IDY 2015 in all the countries around the world.

### Activities at NIT Delhi

#### Details of the Institute

<b>Name</b>	:	<b>National Institute of Technology Delhi</b> Delhi-110040, India.
<b>Head of the Institution</b>	:	<b>Professor Ajay Kumar Sharma</b> <b>Director, NIT Delhi.</b> Email: <a href="mailto:director@nitdelhi.ac.in">director@nitdelhi.ac.in</a> Ph: +911133861000-1001
<b>Institute Yoga Coordinator</b>	:	<b>Dr. Anidev Singh</b> <b>Students Activity &amp; Sports Officer</b> National Institute of Technology Delhi. Ph: +91-11-33861070(O) Email: <a href="mailto:saso@nitdelhi.ac.in">saso@nitdelhi.ac.in</a>



The theme of this year's International Day of Yoga is 'Ghar Ghar me Yog' which signifies the importance of staying at home and practicing Yoga with family while observing social distancing. Staying at home would keep you away from contagious Corona virus and Yoga would help keep you and your family in good health.

The corona crisis has offered an opportunity for the people to explore the true benefits of yoga this year. The prime Minister in his 65th Mann ki Baath program on 31st May 2020 said that "Yoga has assumed importance across the world and people who were not aware of it have also started learning it. During the corona crisis, people in Hollywood to Haridwar have become conscious of the benefits of Yoga. Sitting at their homes, people are learning about Yoga". Yoga is good for community, immunity and unity. He further added that in times of corona crisis, its importance has increased as Yoga is mainly about strengthening the respiratory and immune system.

As part of worldwide observation of International day of Yoga, National Institute of Technology Delhi celebrated 7<sup>th</sup> International Day of Yoga on 21<sup>st</sup> June 2021. The goal behind the organization of the event was to spread the message of peace, harmony, happiness and success to every soul in the world. It was a great opportunity to imbibe the value of discipline.

The following assignments were undertaken by the students to mark the celebration of International Day of Yoga 2021:-

1. To perform any asana/**surya namaskar** and send a **2 minute video recording** of it.
2. To make a poster on the theme of **Ghar Ghar Me Yog**.
3. The Students participated in **quiz and other competitions** being organized by Ministry of AYUSH. They also participated in the **online video contest** (My Life- My Yoga) conducted by CCRYN, **Ministry of AYUSH and ICCR**.

The **online event** on **21<sup>st</sup> June 2021 at 07:00 am** was attended by **Director NIT Delhi Professor Praveen Kumar, Faculty and staff members and students (with families)**. The event was supervised by **Dr. Anidev Singh, Students Activity & Sports Officer** of the institute. The online streaming link was shared and everyone participated from their home along with their families and practiced yoga. They also learnt the different types of Yoga including Asanas, Meditation, Brahmari, Kapalbhathi and knowledge attainment which can help individual in their holistic development and healthy lifestyle. The event's main emphasis was to encourage people to adopt yoga as a daily routine activity.

The session followed the protocol for International Yoga Day. It started with the prayer to enhance the benefits of practice followed by loosening practises or warming up exercises such as neck bending, neck rotation, trunk movement & twisting to name a few. The event proceeded with Yogasanas, which were divided into standing, sitting and lying (Prone/supine) postures.

#### Other Yoga Activities at NIT Delhi

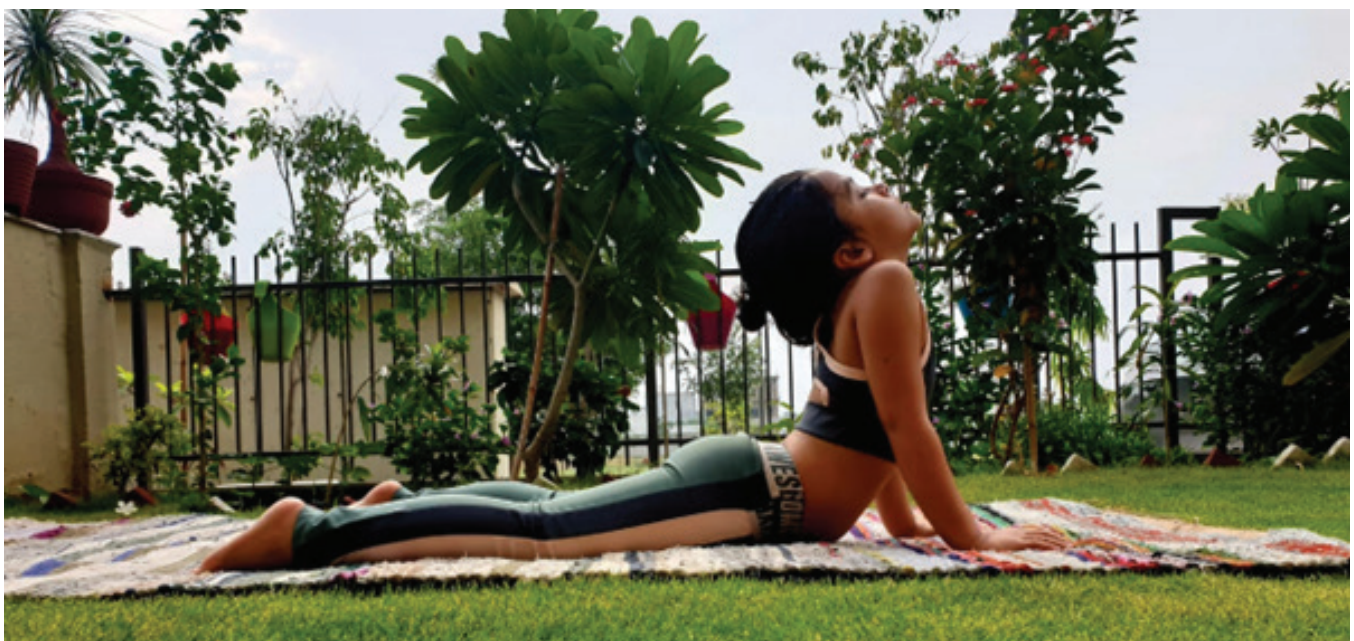
- Weekly Yoga Programmes is constituted for all the students in the institute.
- Yoga Competition are organised for Students/ faculty and Non Faculty.
- The students participated in Yoga competitions and bagged 2<sup>nd</sup> place in both Boys and girls section in October 2019.
- Yoga Talks & Demonstrations are conducted on a regular time period to increase the awareness and to motivate students to participate in large numbers.



## PICTURE GALLERY



**Honourable Director NIT Delhi Professor Praveen Kumar practicing Yoga at home  
Pranayama practice by Professor Praveen Kumar Director NIT Delhi**







**Dr. Anidev Singh Sports Officer NIT Delhi doing Pranayama at home on 21st June 2021**



**Ms. Anupriya (Staff member) NIT Delhi performing Yoga Asanas on International Day of Yoga**



**Students of NIT Delhi practicing Yoga Asanas at their home on IDY 2021**



## LIBRARY FACILITY

### TOTAL LIBRARY COLLECTION:

The library has a total collection of 14756 books (approximately 2165 titles), including 4712 books in the Book Bank category. The collection includes textbooks, reference books, various competitive exams, etc. The Library also has a multimedia collection like CD's/DVD's/NPTEL Videos etc. (approximately 1192 CD's/DVD). Also, Library has around 264 Thesis and Dissertation, which the PhD/M submits.Tech/B.Tech students of the Institute.

### BRIEF INFORMATION ABOUT THE CENTRAL LIBRARY:

The Central Library acts as the primary information resource center and the repository of various printed and electronic resources that supports teaching, research, and all the academic activities of the Institute. The library was established in 2012 (June 2012) in Dwarka to facilitate access to information resources for faculty and students of the Institute. It moved to the NILERD Campus, Narela, on 18th February 2014, and recently, it moved to the Permanent Campus in February 2022 from NILERD Campus, Narela. All the faculty members, students, and staff of the Institute are entitled to access all the library facilities and services.

The Central Library has a rich collection of Books in the area of Science & Technology including Computer Science, Electrical & Electronics Engineering, Mechanical Engineering, Mathematics, Physics, Chemistry, Economics, and Management. Also, the Library has a reference collection including dictionaries, handbooks, and research-related books. The Library also holds a good collection for general reading, including books on sports & yoga, novels, fiction, and books for competitive exams like GATE/IES, magazines on public awareness and current affairs, and specialized subject magazines like Auto Car, Digit, and Electronics for you, etc.

The Central Library follows the 'Open Access System' and Self Check-in/Check-out facility. The separate sections are arranged for the books under Text Books, Book Bank, and Reference categories for easy access to the users.

### INFORMATION TECHNOLOGY: AUTOMATED LIBRARY SYSTEM:

- The library is connected to the campus LAN and Wi-Fi facility. The library server works under Windows 8 environment.
- The Library uses Web-Centric LIBSYS10 software along with LS Remote solution on Cloud package, which is an integrated multi-user library automation management system that supports all in-house activities of the library.
- The Library has RFID (Radio Frequency Identifier) based Automation system and a Circulation system (self Check-in/Check-out).
- The database of the entire library acquisitions is regularly updated along with details of recently acquired books.
- The library has a Web OPAC facility under which all the bibliographic details of the library collection can be accessed from the Internet 24x7 on all weekdays by the users.
- The EAS/RFID Security Gates are installed at the library entrance to prevent Library resources from being theft.
- The RFID smart cards (i.e., Institute ID cum Library Card) are also provided to all the students & faculty/staff members of the Institute.
- The library has recently procured an RFID Portable Handheld reader (Jan. 2022) for easy and quick physical verification of library Books, locating missing books, and security check of checked-out items.

### LIBRARY FACILITIES & SERVICES:

**Library Membership Facility:** All students, faculty, and staff members of the Institute are eligible for the membership of the Institute library for using its facilities and services offered for their academic, research, and administrative work. Using library facilities and services implies acceptance of its rules and procedures.



- **Circulation Facility:** The Library provides circulation (Check-in/Check-out) service to all its members.
- **Book Bank Facility:** The Library provides a Book Bank facility to the B.Tech. and M.Tech. Students. Under the Book Bank facility, the set of textbooks per the prescribed syllabus is issued to the individual student for the entire semester.
- **Reference and Information Service:** The Library also has a collection of General Reference Books, including Dictionaries, Handbooks, Bibliographies, etc., which are available for reference within the library premises and are not for lending.
- **Email Alert Service:** The library provided 'Email Alert Facility' from 2021-22. This facility library sends alerts for the Check-In/Check-Out, overdue, and other alerts to its members.
- **WebOPAC Facility:** The library has a Web OPAC facility under which the user from anywhere and anytime can access all the bibliographic details of the library collection.
- **Current Awareness Service:** The library keeps its users updated about the current collection procured, resources subscribed to, or any other information/updates in the library on a time-to-time basis.
- **Plagiarism Check facility:** The Library provides a plagiarism check facility to the students and faculty members of the Institute.
- **Photocopy Facility:** Users are asked to avail of the photocopy service (on paid basis) for a specific piece of information. Copyright issues and Plagiarism is always taken care of by not allowing the excessive photocopy of a document.
- **Newspaper Clipping Service:** The Library provides Bi-monthly IT-related newspaper clipping services and weekly employment-related newspaper clipping services to library users through email.

#### **E-LIBRARY RESOURCES & FACILITIES:**

1. E-Journals: The Central Library subscribes E-Databases on an annual subscription basis at the rates negotiated by the ESS consortium, which includes 6000+ journals, articles, magazines, conference proceedings, etc. The E-Databases subscribed for the years 2021-2022 are as below:-

##### ➤ **On Self Subscription Basis:-**

- i. Elsevier Science Direct
- ii. IEL Online (IEEE+IET)

##### ➤ **Through ESS Consortium under Centrally Funded Scheme: -**

- iii. ACM Digital Library
- iv. Springer Link (1700+ Journals)
- v. Nature Journals (complimentary access)

ASME (American Society of Mechanical Engineers)

6. Remote Access Facility through INFED Platform: - Central Library has set up the INFED (INFLIBNET Access Management Federation) platform of eShodhSindhu in the Institute from 2021-22. The INFED platform provides access to all the subscribed E-resources of the Institute from anywhere at any time via remote Login Facility. All the Research Students & Faculty Members have been successfully registered in the INFED platform, and the platform has benefited the entire research community of the Institute during the Covid-19 Lockdown situation.
7. OURIGINAL (Former Name URKUND) (Plagiarism Detection Software):- The Central Library is getting access to OURIGINAL (Former Name URKUND) Plagiarism Detection Software through eShodhSindhu under the Centrally Funded Scheme of MHRD. Access to Original Software has been provided to all the Institute faculty members.





8. NPTEL Videos: The Library provides access to NPTEL (National Programme on Technology Enhanced Learning) Video to the various Library users, providing E-learning through online Web and Video courses in Engineering, Science, and humanities streams. It aims to enhance the quality of engineering education in India by providing free online courseware. The Ministry of Human Education funds NPTEL.
9. Database of Previous Year Question Papers: The Central Library has created a database for previous year question papers of NIT Delhi in LIBSYS Software (Library Management Software). Therefore, the Library members can easily access the last year's question papers of NIT Delhi through the Library Web OPAC.
10. Google Drive of Previous Year Question Papers:-Central Library has created a Google Drive of previous year question papers of NIT Delhi so that students can access the question papers for reference from anywhere/anytime.
11. Registration of all Library Members in the National Digital Library: - All the students and faculty/staff members have been registered in the NDLI portal (project under the Ministry of Education). NDLI provides access to around 56,053,815 E-resources, including lecture videos and notes of NPTEL/SWAYAM courses, presentations used by faculties in classes, online class lectures, and questions/solutions of common subjects for students of all engineering disciplines.
12. Access to Ph.D. Theses through Shodhganga Platform: As per MoU with INFLIBNET, the Central Library has uploaded all the Ph.D. thesis of the Research scholars in the Shodhganga (A reservoir of Indian Thesis) Platform so that they may be available to the entire research/scholarly community in the open access.

#### OTHER IMPORTANT ACTIVITIES OF THE LIBRARY:

- **Library Advisory Committee:** The library advisory committee consists of Chairperson and faculty members from each department, including Assistant Librarian. The library committee meets from time to time to frame and upgrade the policies and review the working conditions for the smooth functioning of the library.
- **SC/ST Book Bank Cell:** A number of measures exist for helping students belonging to SC and ST categories. There is an 'SC/ST Book Bank Cell' in the Institute that ensures the distribution of 'Book Bank' by the Library to SC/ST students (on a preference basis) under which the textbooks/course books are issued to the students for the whole semester (i.e., 06 months) as per the prescribed schedule and time.
- **Library Orientation Programme for the Users:** The library conducts an orientation program for the library users from time to time whenever any new software/technology is introduced. The orientation programs are conducted for all the students, faculty, and other staff members of the Institute for the maximum utilization of the varied library resources and services.

## HOSTEL FACILITY FOR STUDENTS

### Hostels

There are 03 boy's and 01 girl's hostels which are looked after by respective wardens. The hostel administration is as under:

S.No	Name	Designation
1.	Dr. Shelly Sachdeva	Dean SW
2.	Dr. Anshul Agarwal	Chief Warden
3.	Dr. Kapil Kumar	Deputy Chief Warden
4.	Dr. Sachin Singh	Warden (SRHC Hostel)
5.	Dr. D Vaithinathan	Warden (Nilerd Hostel)
6.	Dr. Prashant Kumar	Warden (Dhauladhar Hostel)
7.	Dr. Manisha Singh	Warden (Yamuna Girls Hostel)
8.	Mr. Rakesh Kumar Rai	Resident Warden (SRHC Hostel)
9.	Mr. Vikrant Kaushik	Resident Warden (Dhauladhar Hostel)
10.	Kajal Rathi	Resident Warden (Yamuna Girls Hostel)
11.	Vikash Parmar	Resident Warden (Nilerd Hostel)
12.	Mr. Abhishek Sharma	Junior Assistant (Office of Chief Warden)

The hostel should be a comfortable place to stay where the students can feel at home. NIT Delhi has separate hostel facilities for around 500 boys (Satyawadi Raja Harish Chandra Hostel, NILERD Hostel, Dhauladhar Hostel) and 260 girls (Yamuna Hostel). NIT Delhi has three boys' hostels (1 AC hostel and two non-AC hostels) and one girls' hostel (AC/Non-AC Hostel) with all the facilities for boarding and other recreational activities. The hostels have their well-equipped mess along with the night canteen to provide good and hygienic food to the students. Quality purified water is supplied to the students using RO systems. A separate TV room, indoor games room, and reading room are provided in the Girls' and Boys' Hostel. Full-time resident Wardens and caretakers separately are available to take care of hostellers and to maintain discipline under the supervision of a Chief Warden. 24 hours security service with guards and CCTV and power backup are provided for the hostel.

### Boys Hostel (03 Nos.)

- BH1- Satyawadi Raja Harish Chandra Hostel
- BH2- NILERD Hostel
- BH3 – Dhauladhar Hostel
- GIRLS HOSTEL (YAMUNA)



**BH1-Satyawadi Raja Harish Chandra**

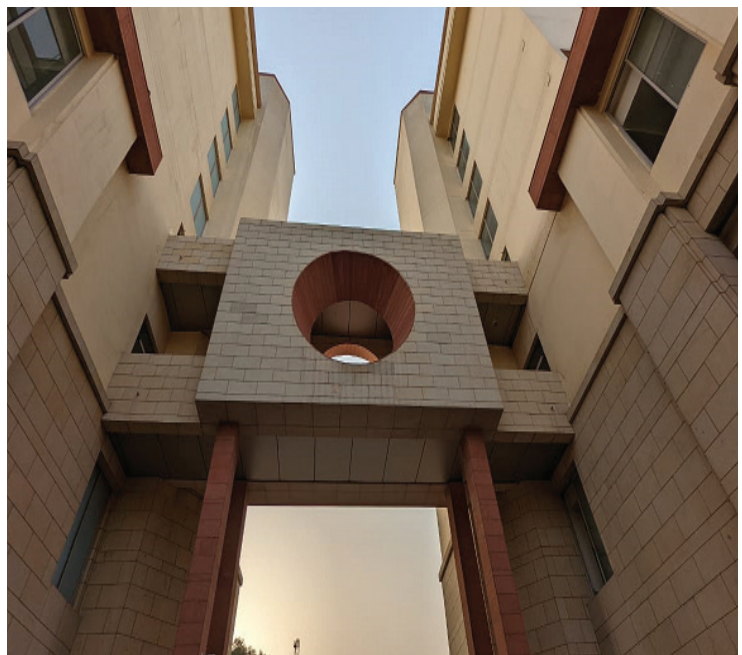




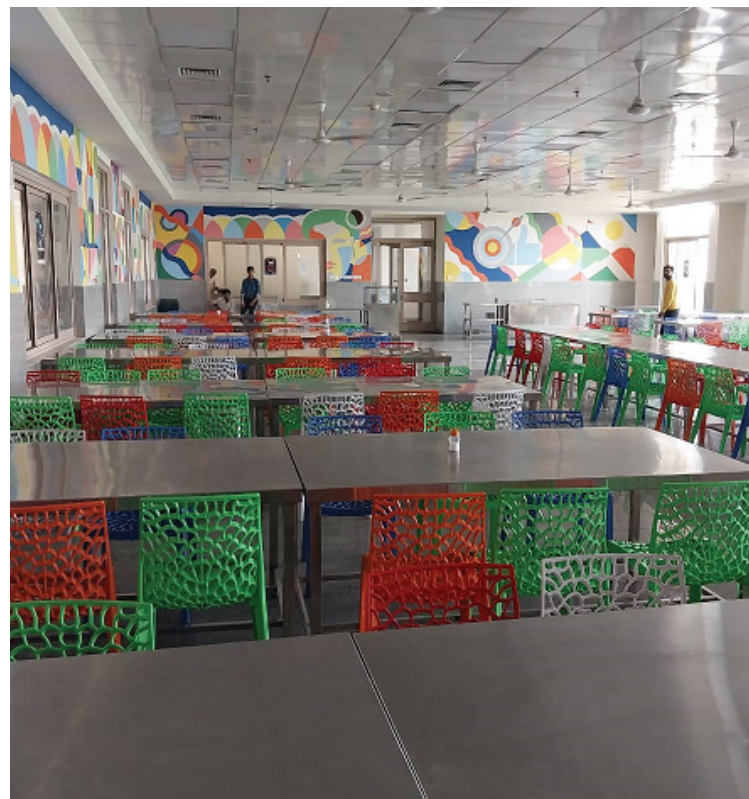
**Hostel Mess (NILERD Hostel)**



**BH-3 (Dhauladhar Hostel)**



**BH3- Hostel entrance (Dhauladhar)**



**Hostel Mess (Dhauladhar Hostel)**

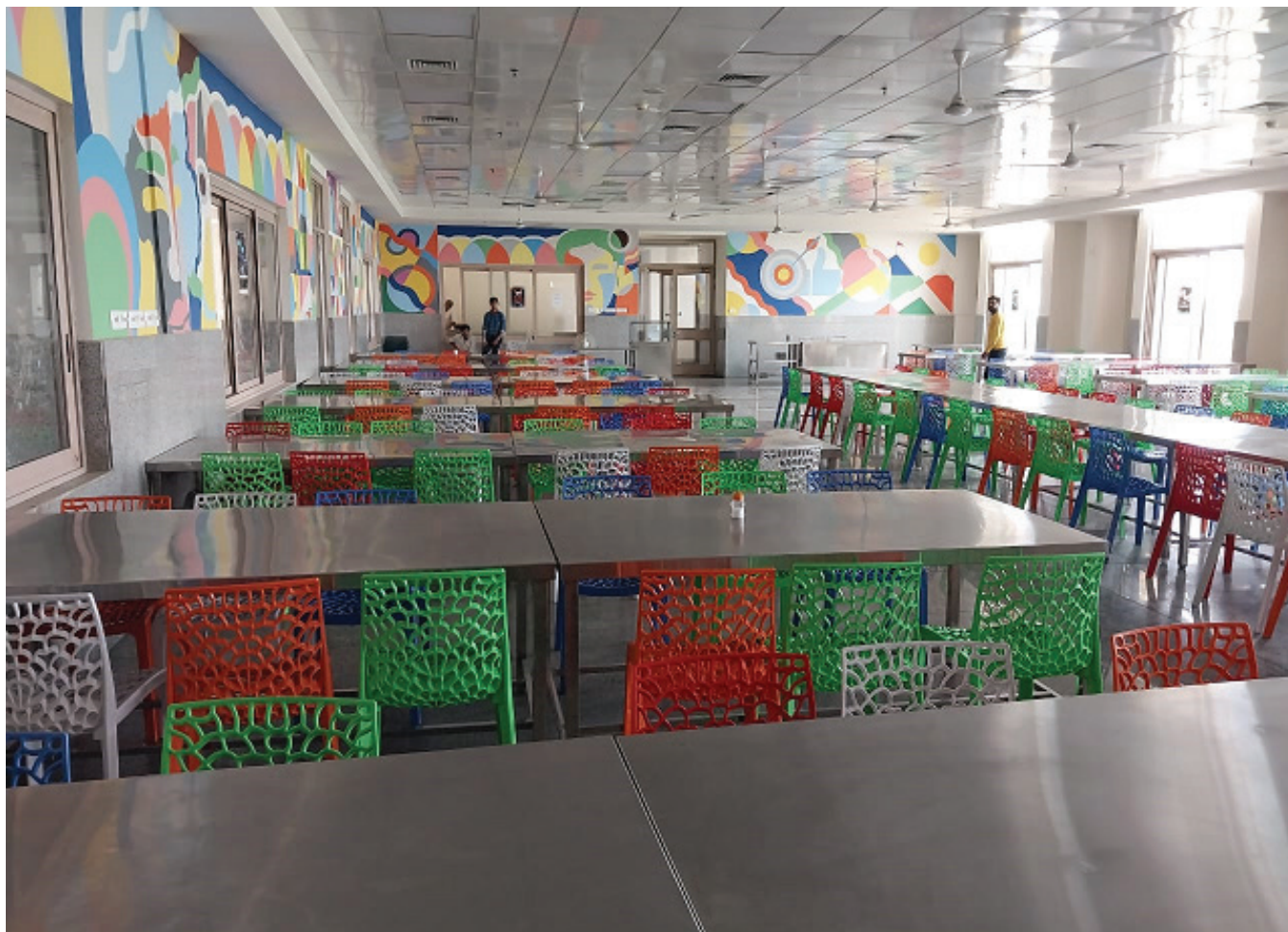


**Nilerd Hostel**



**Girls Hostel (Yamuna)**





**Girls Hostel Mess (Yamuna)**

**Following are the other facilities provided in the hostels –**

- Fully furnished and spacious rooms
- Free Wi-Fi and a computer room
- Visiting room
- Geezers and water coolers
- Playground for outdoor games
- First aid facility
- The Institute vehicle is available 24 hours for medical emergency
- Washing machine facilities and Paid laundry service
- Cafeteria in the academic area as well as in the hostel premises
- Bus facilities from hostels to the Institute
- Availability of Electricians and Plumber Indoor Gym in both Boys' Hostel.
- Indoor Gym in both Boys' Hostel.



## PLANNING & DEVELOPMENT AND ESTATE OFFICE

### Mini Campus Building:

The work of construction of Mini Campus was awarded by NBCC (India) Ltd. dated 23/11/2016. The current Physical and Financial progress is as under:

S.No.	Name of Work	Physical Progress	Financial Progress
1.	MINI CAMPUS BUILDING	About to complete	95%

### Administrative Block Building:

The work of construction of Administrative Block was awarded by NBCC (India) Ltd. dated 07/04/2017. The current Physical and financial progress is as under:

S.No.	Name of Work	Physical Progress	Financial Progress
1.	ADMINISTRATIVE BLOCK BUILDING	About to complete	97%

### Start-Up Centre Building:

The work of construction of StartUp Centre was awarded by NBCC (India) Ltd. dated 25/11/2016. The current Physical and Financial progress is as under:

S.No.	Name of Work	Physical Progress	Financial Progress
1.	START-UP CENTRE BUILDING	About to complete	88%

### Construction of Playground:

The work of construction of Administrative Block was awarded by NBCC (India) Ltd. dated 23/11/2016. The current Physical and Financial progress is as under:

S.No.	Name of Work	Physical Progress	Financial Progress
1.	Playground	About to complete	91%

### External Development Works:

The work of External Development was awarded by NBCC (India) Ltd. dated 13/12/2019. The current Physical and Financial progress is as under:

S.No.	Name of Work	Physical Progress	Financial Progress
1.	External Development Works	About to complete	80%



## ACADEMIC DEPARTMENTS

### Department of Applied Sciences

#### 1. List of Faculty (as of 31 March 2022):

S.No.	Name of Faculty	Designation	Highest Qualification
1	Dr. Prashant Kumar	Assistant Professor	Ph.D.
2	Dr. V S Pandey	Assistant Professor	Ph.D.
3	Dr. Amit Mahajan	Assistant Professor	Ph.D.
4	Dr. Amit Pratap Singh	Assistant Professor	Ph.D.
5	Dr. Gyanendra Sheoran	Assistant Professor	Ph.D.
6	Dr. Anuj Kumar Sharma	Assistant Professor	Ph.D.
7	Dr. Kapil Kumar	Assistant Professor	Ph.D.

#### 2. Projects Completed/On Going/sponsored projects in 2021-2022:

S. No	Title	Start Date & Duration	Funding Agency	PI Name & Co-PI (if any)	Project cost	Whether Ongoing or completed
1.	Influence of natural climate variability over Indian ocean wave climate accessed by re-analysis and CMIP5 model data	2018	Ministry of Earth Sciences (MoES)	Dr. Prashant Kumar	31,26,000	Ongoing
2.	Projection of Wave Power in the Indian Ocean and its Utilization along the Coastal Regions	2022	SERB DST Govt. of India	Dr. Prashant Kumar	INR 24,54,360	Ongoing
3.	Influence of Natural climate Variabilities over the extreme wave climate in the Indian Ocean accessed by the re-analyses and CMIP5 model data	2019	Ministry of Earth Sciences, Government of India	Dr. Vinay Shankar Pandey (Co-PI)	31,26,000	Ongoing
4.	Development of near-infrared spectrometry for plant disease detection	2019	DST	Dr. Gyanendra Sheoran	INR 99,12,855	Ongoing
5.	In situ digital holographic tomography of surface microstructure of artwork	2019	DST	Dr. Gyanendra Sheoran	INR 85,33,905	Completed
6.	Development of nano antenna sensor for infrared detection	2019	DST	Dr. Gyanendra Sheoran	INR 63,08,000	Ongoing
7.	Investigations on surface plasmon resonance (SPR) based optical sensing with an emphasis on the role of spin waves and magnonics in related materials (Grant no: CRG/2019/002636)	27/12/2019 (3 years)	Science and Engineering Research Board (SERB) India	Anuj Kumar Sharma (Co-PI: Dr. Y. K. Prajapati, MNNIT Allahabad)	~21 Lacs	Ongoing





### 3. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Attended in 2021-2022:

S. No.	Workshop/Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Faculty Attended by
1.	FDP	Modern Trends in Manufacturing Processes and Control Techniques in Renewable Energy System	NIT Delhi	16th Nov. to 21st Nov. 2021	Organizing Secretary

### 4. Expert Lecture Delivered by Departmental Faculty in 2021-2022:

S. No.	Title of the Expert Talk	Name of the Event	Organized By	Duration	Faculty Delivered Expert Talk
1	Plasmonic sensors	2nd International Electronic Conference on Applied Sciences (ASEC-2021)	MDPI	October 15-31, 2021	Dr. Anuj K. Sharma
2	Plasmonic sensors and role of 2D materials	ATAL FDP on "Recent advancements in Photonics"	BITS Pilani	November 25-29, 2021	Dr. Anuj K. Sharma
3	Plasmonics-based sensors and photodetectors in a wide spectral range	ATAL FDP on "Photonics and its Applications"	SVNIT Surat	February 14-18, 2022	Dr. Anuj K. Sharma

### 5. Journal Publications by the Departmental Faculty in 2021-2022:

S.No.	Name of the Authors	Title of the paper	Name of the Journal	Volume	Page number	Month and Year of Publication
1	Athira Krishnan <sup>1</sup> & Prasad K. Bhaskaran <sup>1</sup> & Prashant Kumar	CMIP5 model performance of significant wave heights over the Indian Ocean using COWCLIP datasets	Theoretical and Applied Climatology	145	377-392	May-2021
2	Patra A. Min S.K. Kumar P. Wang X.L.	Changes in extreme ocean wave heights under 1.5 °C, 2 °C, and 3 °C global warming	Weather and Climate Extremes	33		September 2021
3	Kaur S.Kumar P. Weller E. Young I.R.	Positive relationship between seasonal Indo-Pacific Ocean wave power and SST	Scientific Reports	11		2021
4	Kaur S.; Kumar P.; Rajni	Mathematical Modelling of Non-Linear Transient Long Waves by using Finite Element Method in an Irregular Shaped Harbour	Mathematical and Computer Modelling of Dynamical Systems	27	411-428	September 2021
5	Kaur S.; Kumar P.; Min S.K.; Patra A.; Wang X.L.	CMIP5 model evaluation for extreme ocean wave height responses to ENSO	Climate Dynamics			November 2021



6	Sardana D.;Kumar P.;Weller E.;Rajni	Seasonal extreme rainfall variability over India and its association with surface air temperature	Theoretical and Applied Climatology			April 2022
7	Krishnan A.;Bhaskaran P.K.;Kumar P.	Extreme wind-wave climate projections for the Indian Ocean under changing climate scenarios	Climate Dynamics			January 22
8	Kaur S. Kumar P. Rajni	Non-linear periodic long waves based on Boussinesq equation for shallow water waves: A coupled FEM modeling	Ocean Engineering	245		February 2022
9	Kumar P.; Sardana D.; Kaur S.; Remya P.G.; Rajni; Weller E.	Influence of climate variability on wind-sea and swell wave height extreme over the Indo-Pacific Ocean	International Journal of Climatolog			February 2022
10	L. Kumar, V. S. Pandey, H. Parthasarathy, V. Shrimali	Estimating the Statistics of Non-Uniform and time-varying distributed parameter fluctuations in a transmission line	Mapan (Springer)			2022/3
11	V. S. Pandey, A. Kumar, M. K. Nayak	Transverse oscillations of the incompressible MHD mode in the visco-resistive plasmas: an explanation of Alfvénic to Landau-type characteristics	Monthly Notices of Royal Astronomical Society	511	1349-1361	2022
12	H. Rout, S. S. Mohapatra, S. Shaw, V. S. Pandey, M.K. Nayak	Entropy optimized electrohydromagnetic rotating flow of non-Newtonian fluid with suspension of SWCNT/ MWCNT nanomaterials: Modified Hamilton Crosser Model	Journal of Nanofluids	11	1-16	2022
13	M. K. Nayak, V. S. Pandey, S. Shaw, O D Makinde, KM Ramadan, M. B. Henda, I. Tlili	Thermo-fluidic significance of non Newtonian fluid with hybrid nanostructures	Case Studies in Thermal Engineering	26	101092	2021/8/1
14	N. Agrawal, V K Pandey, S. K Mishra, V. S. Pandey	Modeling seasonal trends in optimum temperatures over India	Journal of Water and Climate Change	12	1420-1436	2021/8
15	Garima Chaudhary , Amit Pratap Singh	BODIPY immobilized MCM-41 based material: A reusable solid optical sensor for selective detection and removal of Hg(II) in water	Inorganic Chemistry Communications	133	108861	August 2021



16	Garima Chaudhary , Neha Gupta , Amit Pratap Singh	Synthesis and application of Cu(II) immobilized MCM-41 based solid Lewis acid catalyst for aminolysis reaction under solvent-free condition	Polyhedron	207	115348	June 2021
17	Ahmad Husain, Pooja Rani, Kuldeep Kaur Nar, Amit Pratap Singh, Rakesh Kumar, K. K. Bhasinb and Girijesh Kumar	A tryptophan-based copper(II) coordination polymer: catalytic activity towards Suzuki-Miyaura cross-coupling reactions	CrystEngComm	23	7855	October 2021
18	Saurabh Sharma , Udai P. Singh, A.P. Singh	Synthesis of MCM-41 supported cobalt (II) complex for the formation of polyhydroquinoline derivatives	Polyhedron	199	115102	February 2021
19	Vijay Kumar, Devender Singh, Pramod Kumar , Garima Chaudhary, Amit P. Singh , Rajeev Gupta	Turn-on fluorescent detection of nickel and zinc ions by two related chemosensors containing naphthalimide ring(s)	Journal of Molecular Structure	1261	132901	March 2022
20	Aijaz Ahmed, Vineeta Kumari and Gyanendra Sheoran	Miniaturized microstrip circuit board of off-shelf components for microwave holography	Measurement Science and Technology	32		June 2021
21	Kumari V.;Sheoran G.;Kanumuri T.;Barak N.;Koul P.	Statistical Modelling and Mapping of Intensity Spectrum in Breast MR Images	Mapan - Journal of Metrology Society of India	36	859-867	June 2021
22	Neelam Barak and Vineeta Kumari and Gyanendra Sheoran	Simulation and analysis of variable numerical aperture wide-field microscopy for telecentricity with constant resolution	Micron	145		June 2021
23	Vyas R.;Kanumuri T.;Sheoran G.;Dubey P.	Accurate feature extraction for multimodal biometrics combining iris and palmprint	Journal of Ambient Intelligence and Humanized Computing			April 2021
24	Aijaz Ahmed, Vineeta Kumari, Chander Shakher and Gyanendra Sheoran	Miniaturized phase shifting microwave holography: An experimental investigation	International Journal of RF and Microwave Computer-Aided engineering			September 2021



21	V. A. Popescu, Y. K. Prajapati, and Anuj K. Sharma	Graphene-based plasmonic detection of magnetic field and gaseous medium with photonic spin Hall effect in a broad terahertz region	Journal of Electronic Materials	51	2889-99	March 2022
22	Y. K. Prajapati, J. B. Maurya, and Anuj K. Sharma	Tunable and Enhanced Performance of Graphene-Assisted Plasmonic Sensor with Photonic Spin Hall Effect in Near Infrared: Analysis Founded on Graphene's Chemical Potential and Components of Light Polarization	Journal of Physics D: Applied Physics	55	095102	March 2022
23	P. Kumar, Anuj K. Sharma, and Y. K. Prajapati	Graphene-based plasmonic sensor at THz frequency with Photonic spin Hall effect assisted by magneto-optic phenomenon	Plasmonics	17	957-963	January 2022
24	A. K. Pandey and Anuj K. Sharma	On the application of MoS <sub>2</sub> monolayer for enhanced performance in metallic grating based plasmonic sensor structure	Optical and Quantum Electronics	54	66 (1-13)	January 2022
25	S. Singh, Anuj K. Sharma, P. Lohia, D. K. Dwivedi	Ferric Oxide and Heterostructure BlueP/ MoSe <sub>2</sub> Nanostructure Based SPR Sensor Using Magnetic Material Nickel for Sensitivity Enhancements	Micro and Nanostructures	163	107126	December 2021
26	V. A. Popescu, Y. K. Prajapati, and Anuj K. Sharma	Highly sensitive magnetic field detection in infrared region with photonic spin hall effect in silicon waveguide plasmonic sensor	IEEE Transactions on Magnetism	57 (10)	4002210	October 2021
27	A. Verma, Anuj K. Sharma, and Y. K. Prajapati	On the sensing performance enhancement in SPR-based Biosensor using specific two-dimensional materials (Borophene and Antimonene)	Optical Materials	119	111355	September 2021



28	S. Singh, Anuj K. Sharma, P. Lohia, D. K. Dwivedi	Theoretical Analysis of Sensitivity Enhancement of Surface Plasmon Resonance Biosensor with Zinc Oxide and Blue Phosphorus/MoS <sub>2</sub> Heterostructure	Optik	244	167618	July 2021
29	A. Srivastava, Anuj K. Sharma, and Y. K. Prajapati	On the sensitivity-enhancement in plasmonic biosensor with photonic spin Hall effect at visible wavelength	Chemical Physics Letters	774	138613	July 2021
30	B. Kaur, Anuj K. Sharma, and Y.K. Prajapati	Plasmonic sensor for magnetic field detection with chalcogenide glass and ferrofluid materials under thermal variation in near infrared	Optical Materials	117	111175	July 2021
31	S. Singh, P. Lohia, Anuj K. Sharma, D. K. Dwivedi	Sensitivity Evaluation of a Multi-Layered Blue Phosphorene/MoS <sub>2</sub> Surface Plasmon Resonance based Fiber Optic Sensor: A Simulation Study	Transactions on Electrical and Electronic Materials	23	254-261	June 2021
32	A. K. Pandey and Anuj K. Sharma	Advancements in grating nanostructure based plasmonic sensors in last two decades: A Review	IEEE Sensors Journal	21 (11)	12633	June 2021
33	Chand N.;Kumar K.;Suthar S	"Cattle dung biochar-packed vertical flow constructed wetland for nutrient removal": Effect of intermittent aeration and wastewater COD/N loads on the removal process	Journal of Water Process Engineering	43		October 2021
34	Chand N.;Suthar S.;Kumar K.	Wastewater nutrients and coliforms removals in tidal flow constructed wetland: Effect of the plant (Typha) stand and biochar addition	Journal of Water Process Engineering	43		October 2021
35	Chand N.;Suthar S.;Kumar K.;Tyagi V.K.	Enhanced removal of nutrients and coliforms from domestic wastewater in cattle dung biochar-packed Colocasia esculenta-based vertical subsurface flow constructed wetland	Journal of Water Process Engineering	41		June, 2021





36	Muchharla, Baleeswaraiyah and Malali, Praveen and Daniel, Brenna and Kondori, Alireza and Asadi, Mohammad and Cao, Wei and Elsayed-Ali, Hani E and Castro, Micka\ 'el and Elahi, Mehran and Adedeji, Adetayo, Kapli Kumar and others	Tri-molybdenum phosphide (Mo <sub>3</sub> P) and multi-walled carbon nanotube junctions for volatile organic compounds (VOCs) detection	Applied Physics Letters	119		September 2021
37	Hill-Dick, Johvan O and Harmon, Alexis and Cao, Wei and Sadasivuni, Kishor K and Elahi, Mehran and Adedeji, Adetayo and Elsayed-Ali, Hani E and Slaughter, Gymama and Kumar, Kapil and Asadi, Mohammad and others	Nanocoral Ag for nonenzymatic glucose detection at extremely low operational potential	Materials Today Communications	27	102-261	June, 2021
38	Kothari R.; Pandey A.; Ahmad S.; Singh H.M.; Pathak V.V.; Tyagi V.V.; Kumar K.; Sari A	Utilization of Chlorella pyrenoidosa for Remediation of Common Effluent Treatment Plant Wastewater in Coupling with Co-relational Study: An Experimental Approach	Bulletin of Environmental Contamination and Toxicology	108	507-517	July 2021
39	Chand N.; Kumar K.; Suthar S.	Enhanced wastewater nutrients removal in vertical subsurface flow constructed wetland: Effect of biochar addition and tidal flow operation	Chemosphere	286		January 2022
40	Suthar S.; Sharma B.; Kumar K.; Rajesh Banu J.; Tyagi V.K.	Enhanced biogas production in dilute acid-thermal pretreatment and cattle dung biochar mediated biomethanation of water hyacinth	Fuel	307		January 2022



41	Amit Mahajan, Mahesh Kumar Sharma	The onset of magnetic nanofluid convection because of selective absorption of radiation	Journal of Mechanical Engineering and Sciences	15(1)	7918-7935	2021
42	Amit Mahajan, Vinit Kumar Tripathi	Stability of a chemically reacting double - diffusive fluid layer in a porous medium	Heat Transfer - Asian Research	50(6)	6148-6163	2021
43	Amit Mahajan, Vinit Kumar Tripathi	Effect of slip boundary conditions on double diffusive convection in a fluid layer	International Journal of Applied and Computational Mathematics	7(6)	230	2021
44	Vinit Kumar Tripathi, Amit Mahajan	The destabilizing effect of boundary slip on double diffusive convection in a fluid layer with chemical reaction under variable gravity field	Heat Transfer Research	53(3)	47-66	2022
45	Vinit Kumar Tripathi, Amit Mahajan	Nonlinear stability analysis of double diffusive convection in a fluid saturated porous layer with variable gravity and throughflow	Applied Mathematics and Computation	425	127060	2022

#### 6. Conference Papers Presented by the Departmental Faculty in 2021-2022:

S.No.	Name of the Authors	Title of the paper	Name of the Conference	Place and Country where the Conference Held	Organizer of the Conference	Date of Presentation
1	Vinita; Kumar P.	Linear shoaling and linear dispersion using Boussinesq type equations for water wave propagation in nearshore	FIAM-2020	Jamshedpur, India	NIT Jamshedpur	December 21, 2021
2	Kumar P.;Sardana D.;Rajni	Mathematical modeling of long waves in an irregular shaped harbor using boundary element method	FIAM-2020	Jamshedpur, India	NIT Jamshedpur	December 21, 2021
3	R. Vyas, T. Kanumuri, G. Sheoran, and P. Dubey	On Fusion of NIR and VW Information for Cross-Spectral Iris Matching				



## 7. Book Chapters Published by the Departmental Faculty in 2021-2022:

S.No.	Name of the Authors	Title of the Book Chapter	Name/ Details of the Book where the Chapter is Published	Volume	Page number	Publisher
1	V. S. Pandey, A. Kumar, S. Gotra	Transport processes in plasma and its possible role in dissipation of magnetohydrodynamics (MHD) waves	ISBN: 978-93-5457-087-2			ISBN: 978-93-5457-087-2
2	Rajesh Yadav, Shailza Gotra, V. S. Pandey, Brahmjit Singh	Hybrid Material-Based Dual-Band Yagi-Uda Antenna with Enhanced Gain for the Ku-Band Applications	Springer, Singapore		77-85	Springer, Singapore
3	S. Gotra, V. S. Pandey, B. Singh	Bandwidth Enhancement Technique of a Dual-Band Circularly Polarized Dielectric Resonator Antenna	NISCAIR- CSIR, India			NISCAIR- CSIR, India
4	A. K. Pandey and Anuj K. Sharma	Blue Phosphorene/ two dimensional material heterostructure: properties and refractive index sensing perspectives	Handbook of Nanomaterials for Sensing Applications Micro and Nano Technologies	1 <sup>st</sup> Edition	3-14	Elsevier
5	Anuj K. Sharma and A. K. Pandey	Fiber optic Biosensors with Enhanced Performance Assisted by Two-dimensional (2D) materials	Handbook of Nanomaterials for Sensing Applications Micro and Nano Technologies	1 <sup>st</sup> Edition	429-447	Elsevier

## 8. Book Published by the Departmental Faculty in 2021-2022:

S.No.	Name of the Authors	Title of the Book	Name/ Details of the Book	Volume	Page number	Publisher
1.	Singh, S.; Singh, A. P.; Sharma, P.	Quantitative Data Analysis Technique	LAP LAMBERT Academic Publishing GmbH & Co, Germany	(ISBN number: 9786203305616)		
2.	L. Kumar, V. S. Pandey, H. Parthasarathy, V. Shrimali	Quantum, Stochastic and Nonlinear Aspects of transmission lines and wave Guides	ISBN: 9789392062056	1	191	ISBN: 9789392062056

## 9. Student's Thesis/ Project Guidance in 2021-2022:

### Ph.D. Students:

S. No.	Roll No.	Name of Student	Date of Defense	Joint Supervision (if any)	Title of Dissertation
1.	173221209	Shailza Gotra	08-10-2021	Prof. R. S. Yaduvanshi	Advancements in Design and Development of Dielectric Resonator Antennas



## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### 1. List of Faculty (as on 31 March 2022):

S.No.	Name of Faculty	Designation	Highest Qualification
1.	Dr. Shelly Sachdeva	Associate Professor	Ph. D
2.	Dr. Anurag Singh	Assistant Professor	Ph. D
3.	Dr. Sushila Maheshkar	Assistant Professor	Ph. D
4.	Dr. Karan Verma	Assistant Professor	Ph. D
5.	Dr. Chandra Prakash	Assistant Professor	Ph. D
6.	Dr. Rishav Singh	Assistant Professor	Ph. D

### 2. Projects Completed/On Going/sponsored projects in 2021-2022:

S. No	Title	Start Date & Duration	Funding Agency	PI Name & Co-PI (if any)	Project cost (in INR)	Whether Ongoing or completed
1.	TRIP AID – Travel Risk Information in a Pandemic using Artificial Intelligence Development	08/01/2021 – Till Date	DST (NCSTC Division)	Rahul Katarya (PI) Shelly Sachdeva (Co-PI)	1251000	Ongoing
2.	Captioning the Extracted events of the Scene from the Video through Spatio-Temporal Graph Model	Jan. 2022	TIH, IIT Patna	Anurag Singh (PI), Mahesh K Singh (Co-PI)	30,00,000	Ongoing
3.	Development of Dynamic Mathematical Modeling for COVID-19 Spread and Containment	Jul. 2020 and completed in Jul. 2021	MATRICES, SERB	Anurag Singh	5,50,000	Completed

### 3. Consultancy services completed/ongoing in 2021-2022:

S. No	Title	Year	Agency	Coordinator /Dept.	Consultancy cost	By the Faculty
1.	Internet Academy	Dec. 2015 to Dec. 2021	ISOC	INDIAN-Brazil	50,00,000/--	Dr. Karan Verma
2.	Real Time Human Surveillance	2022	Imagenous Private Limited	CSE	3 Lakh	Dr. Rishav Singh

### 4. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Organized in 2021-2022:

S. No.	Workshop/Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Coordinator/ Convener/ Chairman
1.	Conference	International Conference on Big Data Analytics in Astronomy, Science, and Engineering	NIT Delhi and University of Aizu, Japan	7-9 Dec 2021	Dr. Shelly Sachdeva
2.	Faculty development Programme	FDP on Machine Learning Frontiers in Healthcare	ATAL Academy	26 July-30 July 2021	Dr. Shelly Sachdeva



3.	Conference	OWT 2021	MNIT Jaipur, NIT Delhi, Manipal University, Jaipur	09th to 10 <sup>th</sup> , Oct. 2021	Dr. Karan Verma
4.	Workshop	ATAL FDP on Machine Learning Frontiers in Healthcare (MLFH-21),	Dr. Shelly Sachdeva, Dr. Chandra Prakash	26-30 July 2021, NIT Delhi.	Dr. Chandra Prakash
5.	Seminar	Peer Learning Session on CYBER CRIMES: Introduction and Prevention	Dr. Chandra Prakash, Digital India	2 hr	Dr. Chandra Prakash

#### 5. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Attended in 2021-2022:

S. No.	Workshop/Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Faculty Attended by
1.	Technical Event	Empower Women: Emotional Intelligence at Workplace	IEEE- WIE AG UP Section India in association with Kanpur Institute of Technology, Kanpur	4 <sup>th</sup> June 2021	Dr. Shelly Sachdeva
2.	Webinar	Becoming Future Ready in Education	NIT Kurukshetra	10th Jun 2021	Dr. Shelly Sachdeva
3.	Expert Talk	भविष्य में भारत चिकित्सा का स्वरूप	NIT Kurukshetra	28th June, 2021	Dr. Shelly Sachdeva
4.	Program	Cancer Awareness Program	IEEE- WIE AG UP Section India in association with Kanpur Institute of Technology, Kanpur	24th July 2021	Dr. Shelly Sachdeva
5.	Symposium	Women Inspire Women (WIW) Symposium	IEEE- WIE AG UP Section	9th Nov-11 <sup>th</sup> Nov 2021	Dr. Shelly Sachdeva
6.	Conference	The International Conference on Cyber Security and Digital Forensics 2021 (ICCCSDF 2021)	The Northcap University	3April-4April 2021	Dr. Shelly Sachdeva
7.	Conference	25th PAKDD (Pacific-Asia Conference on Knowledge Discovery and Data Mining)	JNU and IIIT Hyderabad	11-14 May 2021	Dr. Shelly Sachdeva
8.	Conference	BDA 2021	University of Aizu, Japan & NIT Delhi	7-9 Dec 2021	Dr. Shelly Sachdeva
9.	Conference	Second International Conference on Sustainable and Innovative Solutions for Current Challenges in Engineering & Technology (ICSISCET- 2020)	Jaypee University of Information Technology, Waknaghat, India		Dr. Anurag Singh





10.	Internet of Things (IOT)	Faculty Development Program	Centre for Electronic Governance, Jaipur	06-10, Dec. 2021	Dr. Karan Verma
11.	OPTIMIZATION TECHNIQUES: THEORY, PRACTICE, AND EMERGING APPLICATIONS	Faculty Development Program	NIT Warangal	22-30, Oct. 2021	Dr. Karan Verma

#### 6. Expert Lecture Delivered by Departmental Faculty in 2021-2022:

S. No.	Title of the Expert Talk	Name of the Event	Organized By	Duration	Faculty Delivered Expert Talk
1.	Blockchain: Innovation to make Cities Smarter	ATAL FDP on Smart City Technologies	Gurukul Kangri Vishwavidyalaya	20 Sept to 24 Sept 2021	Dr. Shelly Sachdeva
2.	Big Data and Science: Challenges and Opportunities	FDP/Short Term Course on "Recent Trends in Computer Science	GL Bajaj Institute of Technology and Management, Noida.	6th Sept to 10th Sept 2021	Dr. Shelly Sachdeva
3.	Machine Learning for Internet of Things	AICTE sponsored Faculty Development Program	GJU Hisar	January 03-08, 2022	Dr. Shelly Sachdeva
4.	Vedic Science to Metaverse	12th International Conference on Cloud Computing, Data Science & Engineering	Amity Noida	27-28 Jan 2022	Dr. Shelly Sachdeva
5.	Information Security in MIS and Cloud Computing	A two week ONLINE International Training Programme (ITP) on 'Manpower Information System (MIS)'	NILERD, Delhi	Nov. 29-Dec. 10, 2021	Anurag Singh
6.	Federated Learning	ATAL Faculty Development	CDAC Noida	Nov. 29, 2021, Dec. 3, 2022	Anurag Singh
7.	Community detection and Assortativity	One-week online Faculty Development Programme (FDP) on 'Network Science: Theory, Challenges and Applications' under the ATAL AICTE FDP programme	Amity University Rajasthan, Jaipur, India	Aug. 23-27, 2021	Anurag Singh
8.	Mathematical Optimization in Healthcare	ATAL FDP on Machine Learning Frontiers in Healthcare ( MLFH-21)	NIT Delhi	Jul. 26-30, 2021	Anurag Singh
9.	The Social Internet of Things	Two weeks Faculty Development Program cum Workshop on "Internet of Things & its related Areas"	MAIT Delhi in association with IEEE ComSoc Delhi Chapter	Aug. 16-27, 2021	Anurag Singh
10.	Spectral Analysis in q-triangulation Networks for Calculating Hitting times	Recent Advances in Mathematics & Computational Optimizations (RAMCO-2021)	School of Computational and Integrative Sciences Jawaharlal Nehru University; New Delhi; India	Oct. 26-28, 2021	Anurag Singh



11.	Introduction to Information retrieval	ATAL Academy lecture	Centre for Electronic Governance, Jaipur	06-10, Dec. 2021	Dr. Karan Verma
12.	Security Issues with Mobile IP	ATAL Academy lecture	Graphic Era University, Dehradun	22-26, Nov. 2021	Dr. Karan Verma
13.	Emerging Technologies in Engineering	TEQIP-3 lecture	Government Women Engineering College, Ajmer	15-19 March 2021	Dr. Karan Verma
14.	Train Neural Network Using Back Propagation	TEQIP-3 lecture	Aryabhatta College of Engineering & Research Center Ajmer	02-06 March 2021	Dr. Karan Verma
15.	Deep Reinforcement Learning- Learning in human way	FDP on Applied AI and Natural Language Processing	Bennett University, Greater Noida	10 March 2022	Dr. Chandra Prakash
16.	Reinforcement Learning Based Text Summarization Techniques	Current Trends and Future Prospects in Data Science" (Sponsored by AICTE Training And Learning (ATAL) Academy)	Central University of Rajasthan	10th to 14th, January 2022	Dr. Chandra Prakash
17.	CNN and Computer vision	AICTE ISTE Sponsored one week Induction/ Refresher program on "Artificial intelligence and Deep Learning"	Rajasthan Institute of Engineering and Technology,	5/01/2022 to 11/01/2022	Dr. Chandra Prakash
18.	Reinforcement learning and Motion Analysis	Modern Applications of Artificial Intelligence and Machine Learning in Hardware and Software"	Dr. B. C. Roy Engineering College, Durgapur, India	14th to 18th September 2021	Dr. Chandra Prakash
19.	Reinforcement Learning for UAV Path Planning	ATAL sponsored FDP on Intelligent and Collaborative Robotics	BITS Pilani	13-17 Sept 2021.	Dr. Chandra Prakash
20.	Reinforcement Learning and Healthcare systems	ATAL FDP on Machine Learning Frontiers in Healthcare ( MLFH-21)	NIT Delhi	26-30 July 2021	Dr. Chandra Prakash

#### 7. Journal Publications by the Departmental Faculty in 2021-2022:

S. No.	Name of the Authors	Title of the paper	Name of the Journal	Volume	Page number	Month and Year of Publication
1.	Sachdeva S, Bhalla S.	Using Knowledge Graph Structures for Semantic Interoperability in Electronic Health Records Data Exchanges	Information	13 (2)	52	Jan 2022
2.	Shelly Sachdeva, Monika Singh, Neeraj Kumar, PuneetGoswami	Personalized E-Learning Based on Ant Colony Optimization	International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems	30	115-134	Mar 2022



3.	Puri, Vartika and Parmeet Kaur, and Shelly Sachdeva	ADT: Anonymization of Diverse Transactional Data	International Journal of Information Security and Privacy	15	83-105	Sep 2021
4.	Arquam, M., Singh, A.& Sharma	A blockchain-based secured and trusted framework for information propagation on online social networks	Soc. Netw. Anal. Min	11	1-16	01-Dec-2021
5.	Kumar, Rajesh, Anurag Singh, and Manju Bal	A secure and robust multilayer network with optimum inter layer links under budget constraints	Multimedia Tools and Applications	2021	1-27	May 2021
6.	MohitSajwan, Ajay K Sharma, Karan Verma	IPRA: Iterative Parent-Based Routing Algorithm for Wireless Sensor Networks	Wireless Personal Communications	<a href="https://doi.org/10.1007/s11277-022-09515-2">https://doi.org/10.1007/s11277-022-09515-2</a>	--	Jan 2022
7.	Aman Swaraj, Karan Verma, Arshpreet Kaur, Ghanshyam Singh, Ashok Kumar, Leandro Melo de Sales	Implementation of stacking based ARIMA model for prediction of Covid-19 cases in India	Journal of Biomedical Informatics	121	103887	Oct. 2021
8.	Arshpreet Kaur, Vinod Puri, Karan Verma, Amol P Bhondekar, Kumar Shashvat	Identification of inter-ictal activity in novel data by bagged prediction method using beta and gamma waves	Multimedia Tools and Applications		1-17	May 2021
9.	A Kumar, V Purohit, V Bharti, R Singh, SK Singh	MediSecFed: Private and Secure Medical Image Classification in the Presence of Malicious Clients	IEEE Transactions on Industrial Informatics			12/2021
10.	Anugrah Srivastava, Tapas Badal, Apar Garg, Ankit Vidyarthi, Rishav Singh	Recognizing human violent action using drone surveillance within real-time proximity	Journal of Real-Time Image Processing	18	1851-1863	10/2021



### 8. Conference Papers Presented by the Departmental Faculty in 2021-2022:

S.No.	Name of the Authors	Title of the paper	Name of the Conference	Place and Country where the Conference Held	Organizer of the Conference	Date of Presentation
1.	Khare, M.D., Sagar, K.S., Sachdeva, S., Prakash, C.	Forecasting AQI Data with IoT Enabled Indoor Air Quality Monitoring System	Big-Data-Analytics in Astronomy, Science, and Engineering	NIT Delhi (Online Mode)	NIT Delhi and University of Aizu Japan	07 Dec 2021
2.	Bansal, N., Soni, K., Sachdeva, S.	Journey of Database Migration from RDBMS to NoSQL Data Stores	Big-Data-Analytics in Astronomy, Science, and Engineering	NIT Delhi (Online Mode)	NIT Delhi and University of Aizu Japan	07 Dec 2021
3.	Pawar, V., Patel, A.K., Sachdeva, S.	Blockchain-Enabled System for Interoperable Healthcare	Big-Data-Analytics in Astronomy, Science, and Engineering	NIT Delhi (Online Mode)	NIT Delhi and University of Aizu Japan	07 Dec 2021
4.	Bhatia, Shailee; Sachdeva, Shelly; Goswami, Puneet	Integrating IoT with Vedic Technology to Purify Atmosphere	3rd International Conference on Advances in Computing, Communication Control and Networking	Galgotias College of Engineering and Technology, Greater Noida, India (Online Mode)	Galgotias College of Engineering and Technology, Greater Noida	17 Dec 2021
5.	Puri V., Kaur P., Sachdeva S.	Efficient Clustering of Transactional Data for Privacy-Preserving Data Publishing	Cyber Security and Digital Forensics	Northcap University (Online Mode)	The Northcap University	April 2021
6.	VartikaPuri and Shelly Sachdeva	Examining Security for Different Data Models	Thirteenth International Conference on Contemporary Computing (IC3-2021)	Jaypee Institute of Information Technology, India (Online Mode)	Jaypee Institute of Information Technology, India and University of Florida, USA	06 Aug 2021
7.	Anurag Singh, BinshumeshSachan	A Quantum Approach to Walk on Networks	2021 6th International Conference on Signal Processing, Computing and Control (ISPPC)	Jaypee University of Information Technology, Wazirpur, India	Jaypee University of Information Technology, Wazirpur, India	Oct. 7, 2021
8.	Nehul Singh, Karan Verma	Overview of Some Computational Techniques for Bioinformatics Applications	2022 IEEE Delhi Section Conference (DELCON)	Netaji Subhas University of Technology, Dwarka, New Delhi, India	Netaji Subhas University of Technology, Dwarka, New Delhi	12th Feb. 2022



9.	Karan Verma, Hemant Kumar Saini, Ajay K Sharma	Preventing DoS Attack in VANET by Novel RBS-IP- CHOCK Model	Optical and Wireless Technologies 2021	MNIT Jaipur, India	MNIT Jaipur	02th Sept. 2021
10.	Nehul Singh, Satyendra Singh Chouhan, Karan Verma	Object oriented programming: Concepts, limitations, and application trends	5th International Conference on Information Systems and Computer Networks (ISCON)	GLA University Mathura, India	GLA University Mathura	22th Oct. 2021
11.	AnilkumarGoudar, Karan Verma, PranayRanjan	Software Defined Network: A Clustering Approach Using Delay and Flow to the Controller Placement Problem	International Conference on Paradigms of Computing, Communication, and Data Sciences	NIT KURUKSHETRA, India	NIT KURUKSHETRA	08th May, 2021
12.	Arshpreet Kaur, Karan Verma, Amol P Bhondekar, Kumar Shashvat	Automated Identification of Interictal Activity from EEG Signal Using Non-linear Features	International Conference on Recent Trends in Machine Learning, IoT, Smart Cities, and Applications	CMR Institute of Technology Kandlakoya, Medchal Road, Hyderabad, India	CMR Institute of Technology Kandlakoya, Medchal Road, Hyderabad	28th March 2022
13.	Y. Champawat, Shagun and C. Prakash	Literature Review for Automatic Detection and Classification of Intracranial Brain Hemorrhage Using Computed Tomography Scans	International Conference on Robotics, Control and Computer Vision (ICRCCV-22)	Uttarakhand	National Institute of Technology, Uttarakhand	Feb. 19 – 20, 2022
14.	I. Tigga, C. Prakash and D. Sangwan	A Pilot study for Profiling diabetic foot ulceration Using Machine Learning Techniques	International Conference on Robotics, Control and Computer Vision (ICRCCV-22)	Uttarakhand	National Institute of Technology, Uttarakhand	Feb. 19 – 20, 2022
15.	R. Sachdeva, I. Maheshwari, V. Maan, K.S Sangwan, C. Prakash and D. Sangwan;	A computer vision assisted yoga trainer for a naive performer by using human joint detection	International Conference on Robotics, Control and Computer Vision (ICRCCV-22)	Uttarakhand	National Institute of Technology, Uttarakhand	Feb. 19 – 20, 2022
16.	M.D Khare, K. S Sagar, S. Sachdeva and C. Prakash,	Forecasting AQI data with IoT Enabled Indoor Air Quality Monitoring System	9th International Conference Data Models and New Query Languages in Big Data Analytics	Delhi	NIT Delhi	7-9 Dec 2021.





17.	K. Kharbanda and C. Prakash	A Pilot study on FoG prediction using Machine Learning for Rehabilitation	International Conference on Artificial Intelligence and Speech Technology (AIST21)	Delhi	IGDTUW	12-13 Nov 2021.
18.	Ankur Raj, D. Singh and C. Prakash	Active Human Pose Estimation for Assisted Living	Thirteenth International Conference on Contemporary Computing (IC3-2021)	Nodia	JIIT	
19.	Ankit, Bharti and C. Prakash	try it out: Machine Learning-Based Virtual Fashion Assistant	Thirteenth International Conference on Contemporary Computing (IC3-2021)	Nodia	JIIT	
20.	Pranshu Sharma, Bishesh Bikram Shah and C. Prakash	Pilot study on Human Pose Estimation for Sports Analysis	3rd International Conference on Machine Intelligence and Signal Processing (MISP 2021)	Arunachal Pradesh	NIT Arunachal Pradesh	September 23 – 25, 2021
21.	Anugrah Srivastava, Tapas Badal, Rishav Singh	Real Life Violence Detection in Surveillance Videos using Spatiotemporal Features	2021 Thirteenth International Conference on Contemporary Computing (IC3-2021)	Noida India	JUIT	5/8/2021

#### 9. Book Chapters Published by the Departmental Faculty in 2021-2022:

S.No.	Name of the Authors	Title of the Book Chapter	Name/ Details of the Book where the Chapter is Published	Volume	Page number	Publisher
1.	Anurag Singh, SamridhiBhasin, BhanuGakhar, Md Arqam	Modeling the Effect of Quarantine and Isolation for COVID-19 Spreading	Artificial Intelligence and Sustainable Computing	Doi. org/10.1007/978-981-16-1220-6_37	437-450	Springer, Singapore
2.	Karan Verma, Prashant Kumar, Ajay K. Sharma and Ashok Kumar	Fog Computing Concepts, Frameworks, and Applications	A Single-Point Control System for Consumer Devices Using Edge-Fog Computing	Accepted	9781003188230	taylor & francis
3.	Sethi, D., Prakash, C., Bharti, S	Latest Trends in Gait Analysis Using Deep Learning Techniques: A Systematic Review	Artificial Intelligence and Speech Technology. AIST 2021. Communications in Computer and Information Science	vol 1546		Springer



#### 10. Book Published by the Departmental Faculty in 2021-2022:

S.No.	Name of the Authors	Title of the Book	Name/ Details of the Book	Volume	Page number	Publisher
1.	Shelly Sachdeva, Yutaka Watanabe, Subhash Bhalla	Big-Data-Analytics in Astronomy, Science, and Engineering	ISSN No: 978-3-030-96599-0	13167	1-279	Springer-Verlag Berlin, Heidelberg
2.	Manish Tiwari, Yaseera Ismail, Karan Verma, Amit Kumar Garg	Optical and Wireless Technologies, 2021	Optical and Wireless Technologies	-	-	Springer Singapore

#### 11. Student's Thesis/ Project Guidance in 2021-2022:

##### Ph.D. Students:

S. No.	Roll No.	Name of Student	Date of Defense	Joint Supervision (if any)	Title of Dissertation	Name of Supervisor
1.	163211103	Ms. Prachi Maheshwari	12/01/2022	Prof. Ajay K Sharma	Energy Efficient Routing Protocols in Wireless Sensor Networks	Dr. Karan Verma
2.	153211102	Ms. Gunjan	14/12/2021	Prof. Ajay K Sharma	Energy Efficient Techniques in Wireless Sensor Networks	Dr. Karan Verma
3.	163211201	Arshpreet Kaur	09/11/2021	Dr. Amol P Bhondekar, Dr. Vinod Puri	APPLICATION OF MACHINE LEARNING METHODS FOR IDENTIFICATION OF EPILEPTIFORM PATTERNS	Dr. Karan Verma

##### M. Tech Students:

S. No.	Roll No.	Name of Student	Date of Defense	Joint Supervision (if any)	Title of Dissertation	Name of Supervisor
1.	192211013	Vandna Kumari	25-05-2021	No	Migration from Relational Database (SQL) to NoSQL Database	Dr. Shelly Sachdeva
2.	192211012	Sahil Kumar	25-05-2021	No	An IOT-based Complete System for Air-Pollution Monitoring and Forecasting	Dr. Shelly Sachdeva
3.	192211003	Ch Chaitanya	June 2021	NA	Intelligent Transport System for Buses	Dr. Anurag Singh
4.	192211009	Moh Khalid	June 2021	NA	Federated Learning Based Traffic Flow Prediction Using GCN	Dr. Anurag Singh



5.	192211004	DAMODAR RAO	May 2021	-	Real-Time Workload Computation in Fog based Ubicomp	Dr. Karan Verma
6.	192211011	PRASHANT KUMAR	May 2021	-	A Single Point Control System for Consumer Devices Using Edge-Fog Computing	Dr. Karan Verma
7.	192211001	Arvind	May 2021	-	The impact of body parameters over Gait	Dr. Chandra Prakash
8.	192211006	Jasmine	May 2021	-	Pose Estimation for Gait Analysis	Dr. Chandra Prakash
9.	192211007	Kumar Gaurav	24 May 2021	-	Efficient kNN Classification with Different Numbers of Nearest Neighbors	Dr. Rishav Singh
10.	192211010	Naveen Chandra Bhatt	24 May 2021	-	Classification of Costly features using deep reinforcement learning	Dr. Rishav Singh

#### B. Tech Students:

S. No.	Roll No.	Name of Student	Date of Defense	Joint Supervision (if any)	Topic of Project	Name of Supervisor
1.	171210008, 171210011, 171230055	Aniket, Ankit Sinha, Yogesh,	2021	No	Blockchain in Healthcare	Dr. Shelly Sachdeva
2.	171210014, 171210015	Arshdeep, Arun	2021	No	One-Stop Solution for All Placement Needs	Dr. Shelly Sachdeva
3.	171210028, 171210031	Hitendra, Kaushal	2021	No	Location-Based AQI Prediction and Pollution Hotspot Source Detection	Dr. Shelly Sachdeva
4.	171210034, 171210047	Ramanpreet, Kimmi	2021	Yes	Air Pollution Predictor and Hotspot Detector System	Dr. Shelly Sachdeva
5.	171210041, 17121007	Omprakash Gupta and Aman Yadav	June 2021	NA	Web based online Student-Teacher Portal	Dr. Anurag Singh
6.	17121005, 171210048	AkhilNarwal , RonakLalwani	June 2021	NA	Modelling And Simulating Medical Diseases Using Multiple Models	Dr. Anurag Singh
7.	171210055, 171210023	T J VamsiKesav, G.D.V. SujithSagar	June 2021	NA	Epidemic Modelling and Visualization	Dr. Anurag Singh



8.	171210049, 171210030 171210040	Saurabh Patel, Nandan Kumar, Jay Prakash Kumar	June 2021	NA	Road Route Optimization and Vehicle Routing Problem	Dr. Anurag Singh
9.	171210021	Binshumesh Sachan	June 2021	NA	Quantum Computing in Complex and Multilayer Network	Dr. Anurag Singh
10.	171210032, 171210037	Kaushalkishore, Sarfrazalam	May, 2021	--	A SUPERVISED APPROACH-BASED JOB SCHEDULING TECHNIQUE FOR DISTRIBUTED REAL- TIME SYSTEMS	Dr. Karan Verma
11.	171210045, 171210028	Pushpankar Anupam, Krishan Kumar	May 2021	--	Incremental Learning Based Gesture Recognition System using edge-fog computing	Dr. Karan Verma
12.	171210046, 171210054	Rahul Kumar, Sumit Kumar Nimesh	May 2021	--	A Writing Activities Monitoring System for Preschoolers Using a Layered Computing Infrastructure	Dr. Karan Verma
13.	171210001, 171210003	Abhimanyu kumar Trigun, Akash Kapoor	May 2021	--	Abhimanyu kumar Trigun, Akash Kapoor	Dr. Karan Verma
14.	171210022, 171210012	Divyanshi Singh Ankur Raj	May 2021		Active Human Pose Estimation for Assisted Learning	Dr. Chandra Prakash
15.	171210009, 171210018	Ankit, Bharti	May 2021		Machine Learning Based Personalised Fashion Assistant	Dr. Chandra Prakash
16.	171210016, 171210036	Ayush Sharma, Mahendra Soni	May 2021		Devanagari (Hindi / Sanskrit Scripts) OCR	Dr. Chandra Prakash
17.	171210043, 171210060	Pranshu Sharma, Bishesh Bikram Shah	May 2021		Human Pose Estimation and Sports Analysis using AI	Dr. Chandra Prakash



18.	171210057	VikasDhurwey	25th May 2021		RESPIRATORY SOUND CLASSIFICATION	Dr. Rishav Singh
19.	171210038	Mehra Sanjay Singh	25th May 2021			Dr. Rishav Singh
20.	171210044	PRITAM SARKAR	25th May 2021		Classification of EEG Signals into Normal and Abnormal	Dr. Rishav Singh
21.	171210050	SHUBHAM MUSALE	25th May 2021			Dr. Rishav Singh
22.	171210010	Ankit Agrawal	25th May 2021		Respiratory Disease Detection and Report Generation Using Deep Learning Techniques	Dr. Rishav Singh
23.	171210033	Keya Shukla	25th May 2021			Dr. Rishav Singh
24.	171210024	Gaurav Kumar	25th May 2021		Urban Sound Classification	Dr. Rishav Singh
25.	171210013	Arjun Prasad	25th May 2021			Dr. Rishav Singh

**12. Any other significant achievement by the department for the annual report in 2021-2022:**

Dr. Chandra Prakash: Best Paper in International Conference on Robotics, Control and Computer Vision (ICRCCV-22) at National Institute of Technology, Uttarakhand, Feb. 19 – 20, 2022. (BEST PAPER)





## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### 1. List of Faculty (as on 31 March 2022):

S.No.	Name of Faculty	Designation	Highest Qualification
1.	Dr. Vivek Shrivastava	Associate Professor	Ph.D.
2.	Dr. Pankaj Mukhija	Assistant Professor	Ph.D.
3.	Dr. Anshul Agrawal	Assistant Professor	Ph.D.
4.	Dr. Anmol Ratan Saxena	Assistant Professor	Ph.D.
5.	Dr. K.T. Raju,	Assistant Professor	Ph.D.
6.	Dr. Sachin Singh	Assistant Professor	Ph.D.
7.	Dr. Amit k. Singh	Assistant Professor	Ph.D.
8.	Dr. Manoj Kumawat	Assistant Professor	Ph.D.

### 2. Projects Completed/On Going/sponsored projects in 2021-2022:

S. No	Title	Start Date & Duration	Funding Agency	PI Name & Co-PI (if any)	Project cost	Whether Ongoing or completed
1.	Mitigation of Smart Home Challenges with Integration of Hybrid Renewable Energy Sources, Vehicle to Home (V2H): Mission 2022	18 <sup>th</sup> June 2019 & Two year	AICTE	Dr. Manoj Kumawat, Dr. Sriparna Saha, Dr. Naveen Jain, Dr. Nandkishor Meena, Mr. Utkarsh Raj	Rs. 11.11 Lakhs	Completed
2.	Design and Development of Detection and Extinguishing Systems for Forest Fire using Sensor Networks, Aerial and Ground Robots	23.01.2018 (Completed in June 2021)	DST	Dr. Paramita Guha, Senior Scientist, CSIR-CSIO Delhi Centre (PI) Dr. Pankaj Mukhija, NIT Delhi (Co-Investigator) Mr. Kailash Chand, CSIR-CSIO (Co-Investigator)	Rs. 29,68,000/-	Completed
3.	Development of Non-contact type method for heart vibration parameters estimation	July 2019, 2 Years	DST DAAD	Dr. Sachin Singh	245000/-	COMPLETED
4.	Cross layer optimization with QOS for NGN	20 <sup>th</sup> August 2019, one year	TEQIP -III	Dr. Sandip Vijay, Dr. Sachin Singh	300000/-	COMPLETED

### 3. Consultancy services completed/ongoing in 2021-2022:

S. No	Title	Year	Agency	Coordinator /Dept.	Consultancy cost
1.	Fire Alarm System	2021	Prasur Electricals & Engg. Co	Dr. Manoj Kumawat, Dept of EE	Rs. 59000.00/-



#### 4. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Organized in 2021-2022:

S.No.	Workshop/Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Coordinator/ Convener/ Chairman
1.	FDP	Nature Inspired Optimization Techniques	Dept. of EE	5 Days	Dr. Manoj Kumawat
2.	Conference	3 <sup>rd</sup> International Conference on Communication and Computational Technologies ICCIS 2021	Dept. of EE	2 Days	Dr. Manoj Kumawat
3.	FDP on Modern Trends in Manufacturing Process and Control Techniques in Renewable Energy System	Faculty Development Programme	Department of Mechanical Engineering, NIT Delhi	November 16-21, 2021	Dr. Manoj Kumawat
4.	FDP on Nature Inspired Optimization Techniques	Faculty Development Programme	Department of Electrical Engineering, NIT Delhi	July 19-23, 2021.	Dr. Manoj Kumawat

#### 5. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Attended in 2021-2022:

S. No.	Workshop/Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Faculty Attended by
1.	Online Elementary FDP	Nature Inspired Optimization Techniques	NIT Delhi	19.07.2021-23.07.2021	Dr. Pankaj Mukhija
2.	Online FDP	Robotics & Automation	Jamia Millia Islamia, New Delhi	16.06.2021-30.06.2021	Dr. Pankaj Mukhija

#### 6. Expert Lecture Delivered by Departmental Faculty in 2021-2022:

S. No.	Title of the Expert Talk	Name of the Event	Organized By	Duration	Faculty Delivered Expert Talk
1.	Grid Infrastructure and Demand Based Response in Smart City	IOT for Smart city	Government Polytechnic College, Daman	13th -17th September 2021	Dr. Manoj Kumawat
2.	Performance Analysis of Distributed Energy Resources in Harmonics Polluted	Recent Research in Power Converter and Control	REC Ambedkar Nagar	Feb 21 – Feb 26, 2022	Dr. Manoj Kumawat



3.	AI based Penetration of the DER In the Active distribution System using Matlab simulation	Intelligent Technologies for Autonomous Vehicle System	Rajarambapu Institute of Technology, Sakharale.	January 14 ~ 20, 2022.	Dr. Manoj Kumawat
4.	Optimized the penetration of the DERs in the Distribution System	Machine Learning and optimization techniques : Applications and recent innovations	Dr. B R Ambedkar National Institute of Technology Jalandhar	December 21- 25, 2021	Dr. Manoj Kumawat
5.	Modeling of Unbalanced Distribution System with RES	Recent Innovation in Science and Engineering	MCE Motihari	22-23, December 2021	Dr. Manoj Kumawat
6.	Power System Deregulation	Trends and Challenges in Power Converters and Control	AICTE Sponsored Two Weeks Online Faculty Development Programme	May 04 - May 18, 2021	
7.	Power Electronics Converter Modeling for Green Energy System	3 <sup>rd</sup> one week self-financed short term training course on "Advances in Power Technologies (APT-2021)"	Department of Electrical Engineering, MNNIT Allahabad, Prayagraj-211004, Uttar Pradesh	December 20- 24, 2021	
8.	Control Techniques of AC/AC Power Converter & its Application in Clean Energy Systems	one week short term training programme on "Modern Trends in Manufacturing Processes and Control Techniques in Renewable Energy System"	Department of Mechanical Engineering, NIT Delhi, New Delhi.	November 16- 21, 2021	
9.	Recent Advancements in AC/DC Power Converter for Renewable Energy System	one week faculty development programme on "Recent Advancements and Future Scope of Research in Electrical & Electronics Engineering"	Department of Electrical & Electronics Engineering, Raj Kumar Goel Institute of Technology, Ghaziabad	September 6-10, 2021	Dr. Anshul Agarwal
10.	Applications of Image Processing for Improving Power output of Partial shaded PV Arrays	Ten-Day Online Faculty Development Programme(FDP)on Advanced Power Electronics, Drives & Storage Systems for E-Transportation in India	The Department of Electrical Engineering, NIT Warangal	27/04/2022 2 hours	Dr. Tirupathiraju Kanumuri



11.	Applications of Image Processing for Improving Power output of Partial shaded PV Arrays	Online Faculty Development Programme (FDP) on Modelling, Simulation and Control of Advanced Power Converters during 28th March – 6th April 2022	E&ICT Academy & Department of Electrical Engineering, NIT Warangal in association with GokarajuRangaraju Institute of Engineering and Technology, Hyderabad	01.04.2022 2 Hours	Dr. Tirupathiraju Kanumuri
12.	Condition Monitoring of Machines Using AI	FDP	B.T KUMAON INSTITUTE OF TECHNOLOGY, DWARAHAT	25th - 30th Sep. 2020	
13.	Application of Biomedical Signal Processing in one week	ATAL FDP	Electrical Dept. of Faculty of Engineering and Technology (FET), Gurukul Kangri Vishwavidyalaya Haridwar,	19th Oct. 2020	

#### 7. Journal Publications by the Departmental Faculty in 2021-2022:

S.No.	Name of the Authors	Title of the paper	Name of the Journal	Volume	Page number	Month and Year of Publication
1.	Kritika Bansal and Pankaj Mukhija	Event-triggered control of vehicle platoon under deception attacks	Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering	236	1401-1413	August 2021
2.	M. Bajaj, Amit Kumar Singh	Increasing renewable energy penetration in harmonically polluted distribution grids using passive filtering: A comparative assessment of common filter types	Electrical Engineering, Springer Nature			2021
3.	A. Mahapatra and Amit Kumar Singh	Model Predictive Control using Hybrid Renewable Energy System for Efficient Load Management: A Review	JuniKhyat, Journal	Vol. 11, 12	17-22	2021
4.	M. Bajaj, Amit Kumar Singh	Optimal design of passive power filter for enhancing the harmonic-constrained hosting capacity of renewable DG systems	Computers & Electrical Engineering, ELSEVIER			2021
5.	Mohit Bajaj, Amit Kumar Singh	Hosting capacity enhancement of renewable-based distributed generation in harmonically polluted distribution systems using passive harmonic filtering	Sustain. Energy Technol. Assessments, ELSEVIER	Volume 44		2021



6.	M. Bajaj and Amit Kumar Singh	Performance assessment of hybrid active filtering technique to enhance the hosting capacity of distorted grids for renewable energy systems	International Journal of Energy Research, Wiley			October 2021
7.	M. Bajaj and Amit Kumar Singh	A global power quality index for assessment in distributed energy systems connected to a harmonically polluted network	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, Taylor and Francis			Apr. 2021
8.	M. Bajaj and Amit Kumar Singh	A single-index for voltage quality ranking in the distribution power networks using multiple-criteria decision-making	International Transactions on Electrical Energy Systems, Wiley			June 2021
9.	S. Aggarwal and Amit Kumar Singh	Impact analysis of electric vehicle charging station integration with distributed generators on power systems	International Journal of Circuit Theory and Applications, WILEY	49(6)		March 2021
10.	S. Aggarwal and Amit Kumar Singh	Electric vehicles the future of transportation sector: a review	Energy Sources, Part A: Recovery, Utilization, And Environmental Effects, Taylor and Francis			2021
11.	Mohit Bajaj, Amit Kumar Singh	Design and analysis of optimal passive filters for increasing the harmonic-constrained hosting capacity of inverter-based DG systems in non-sinusoidal grids	Electrical Engineering, SPRINGER NATURE			2021
12.	Neetu Sehrawat, Anshul Agarwal & B.K. Kanaujia	Effect of Cylindrical Shaped Material Perturbation on Resonance of Dielectric Resonator Antenna	Journal of Engineering Research (JER), Kuwait	Vol. 2	72-81	15-Mar-2022
13.	Shubham Kumar, Anshul Agarwal and Tirupathiraju Kanumuri	A Generalized WECS System with Single Phase Multilevel Inverter having MPPT control with Neural Network	Journal of Engineering Research (JER), Kuwait	Vol. 2	1-7	15-Mar-2022
14.	Jaynendra, Anshul Agarwal and Nitin Singh	A Decentralized Power Management strategy in Hybrid Energy Storage Supported Islanded Residential Sustainable DC Microgrid System	International Journal of Energy Technology and Policy, Inderscience	Vol. 18, No. 1	1-31	14-Mar-2022
15.	Anshul Agarwal, Nitesh Kumar Singh and Tirupathiraju Kanumuri	Device Modelling of CdTe Photovoltaic Cell using V2O5/Cu2O/NiO as a Back Surface Field Layer through Numerical Simulation	MAPAN, Springer	Vol. 10	1-12	03-Mar-2022





16.	Nitesh Kumar Singh, Anshul Agarwal and Tirupathiraju Kanumuri	Performance Enhancement of Environmental Friendly Ge Based Perovskite Solar Cell with Zn3P2 and SnS2 as Charge Transport Layer Materials	Energy Technology, Wiley	Vol. 10	1-13	08-Feb-2022
17.	Nitesh Kumar Singh, Anshul Agarwal and Tirupathiraju Kanumuri	Investigation of Electrical Parameters of CdTe Photovoltaic Devices by Computational Analysis	Physica Status Solidi (A) Applications and Materials Science, Wiley	Vol. 219	1-12	05-Feb-2022
18.	Nitish Kumar, Venkata Madhava Ram Tatabhatla & Anshul Agarwal	Design of Novel Universal Converter for Integration of Solar and Wind Energy for AC and DC Load	International Journal of Circuit Theory and Applications, Wiley	Vol. 49	4088-4119	14-Dec-2021
19.	Jaynendra, Anshul Agarwal and Nitin Singh	MULTI-PURPOSE WATER STORAGE TANK BASED DC MICROGRID SYSTEM FOR ISOLATED COMMUNITIES	Energy Storage, Wiley	Vol. 30	1-20	29-Nov-2021
20.	Venkata Madhava Ram Tatabhatla, Anshul Agarwal and Tirupathiraju Kanumuri	A Chaos Map based Reconfiguration of Solar Array to Mitigate the Effects of Partial Shading	IEEE Transactions on Energy Conversion	Vol. 37	1-12	26-Oct-2021
21.	Neetu Sehrawat, B.K. Kanaujia, Anshul Agarwal & Gaurav Varshney	Analysis of Inhomogeneous Circularly Polarized Hollow Dielectric Resonator Antenna using Perturbation Theory	MDPI, Electronics	Vol. 10	1-10	16-Sep-2021
22.	Nitesh Kumar Singh, Anshul Agarwal and Tirupathiraju Kanumuri	Effect of MoS2 as a Buffer Layer on CdTe Photovoltaic Cell through Numerical Simulation	Journal of Engineering Research (JER), Kuwait	-----	89-98	20-Aug-2021
23.	Rahul Jaiswal, Anshul Agarwal, Richa Negi & Abhishek Vikram	Design and Development of Experimental Based Phase Modulated Model Predictive Control for Torque Ripple Reduction of MMC fed BLDC Motor	Journal of Engineering Research (JER), Kuwait	---	70-78	20-Aug-2021
24.	Megha Bansal, Meena Pant, Anshul Agarwal & Harish Kumar	Challenges and Opportunities in Energy Transformation during COVID-19	EVERGREEN - Joint Journal of Novel Carbon Resource Sciences & Green Asia Strategy, Japan	Vol. 8, issue 2	1-7	23-Jun-2021



25.	Rahul Jaiswal, Anshul Agarwal and Richa Negi	A Phase Shifted Modular Multilevel Converter with Variable Arm Inductance	International Journal of Energy Technology and Policy, Inderscience	Vol.17	204-226	14-Apr-2021
26.	V. M. R. Tatabhatla, A. Agarwal and T. Kanumuri	A Chaos Map based Reconfiguration of Solar Array to Mitigate the Effects of Partial Shading	IEEE Transactions on Energy Conversion	vol. 37, no. 2, ,	811-823	26 October 2021
27.	N. K. Singh, A. Agarwal, and T. Kanumuri	Investigation of Electrical Parameters of CdTe Photovoltaic Devices by Computational Analysis	Physica status solidi (A)	vol. 219, no. 3,	1-12	18 November 2021
28.	N. K. Singh, A. Agarwal, and T. Kanumuri	Performance Enhancement of Environmental Friendly Ge-Based Perovskite Solar Cell with Zn3P2 and SnS2 as Charge Transport Layer Materials	Energy Technology	vol. 10, no.2	pp. 1-13	29 November 2021
29.	Agarwal, A., Singh, N.K. & Kanumuri, T.	Device Modelling of CdTe Photovoltaic Cell Using V2O5/Cu2O/NiO as a Back-Surface Field Layer Through Numerical Simulation	MAPAN (2022).	<a href="https://doi.org/10.1007/s12647-021-00524-3">https://doi.org/10.1007/s12647-021-00524-3</a>		03, March, 2022
30.	Pawan Dubey, Tirupathiraju Kanumuri, R. Vyas	Optimal directional texture codes using multiscale bit crossover count planes for palmprint recognition	Multimedia Tools and Applications, <a href="https://doi.org/10.1007/s11042-022-12580-1">https://doi.org/10.1007/s11042-022-12580-1</a>	81	20291-20310	11 March 2022
31.	S. K. Singh, A. Agarwal, and T. Kanumuri	A generalized WECS System with Single Phase Multilevel Inverter having MPPT control with Neural Network	Journal of Engineering Research (JER), Kuwait.	DOI: 10.36909 / jer.ICAPIE.15041		16 March 2022

#### 8. Conference Papers Presented by the Departmental Faculty in 2021-2022:

S.No.	Name of the Authors	Title of the paper	Name of the Conference	Place and Country where the Conference Held	Organizer of the Conference	Date of Presentation
1.	Manoj Kumawat	Applicability of ANN for Reliability Analysis of Distribution Network	IEEE Delhi Section Conference (DELCON), 2022	NSUT Delhi India	NSUT Delhi	11th-13th February 2022
2.	Manoj Kumawat	An Assessment Procedure for Distribution Network Reliability Considering Load Growth	EPREC 2021 (2nd International Conference)	National Institute of Technology, Jamshedpur India	National Institute of Technology, Jamshedpur	May 28-30, 2021
3.	Manoj Kumawat	An Economic Evaluation of Fuse Placement Strategy in Distribution Network for Reliability	1st International Conference on Smart Energy and Advancement in Power Technologies (ICSEAPT 2021).	National Institute of Technology, Jamshedpur India	National Institute of Technology, Jamshedpur India	September 6 <sup>th</sup> - 8 <sup>th</sup> , 2021.



### 9. Book Chapters Published by the Departmental Faculty in 2021-2022:

S.No.	Name of the Authors	Title of the Book Chapter	Name/ Details of the Book where the Chapter is Published	Volume	Page number	Publisher
1.	Manoj Kumawat	Metaheuristic and Evolutionary Computation:	Algorithms and Applications. Studies in Computational Intelligence	916	253-282	Springer, Singapore
2.	Manoj Kumawat	Solar Photovoltaic (PV) Generation	Fundamentals and Innovations in Solar Energy	01	11-33	Springer Nature
3.	Manoj Kumawat	Ocean Energy: An Endless Source of Renewable Energy	Optimal Planning of Smart Grid With Renewable Energy Resources	01	01-24	IGI Global
4.	Rinku Kumar, Pankaj Mukhija & Manish Kumar Saini	Consensus-Based Distributed Control in Microgrid Under Switching Topology	Emergent Converging Technologies and Biomedical Systems . Lecture Notes in Electrical Engineering.	841	615-624	Springer, Singapore.
5.	Jayendra, Anshul Agrawal, Nitin Singh & Anuradha Tomar	A Robust DC Microgrid for Residential Building	Control of Standalone Microgrid	-----	85-110	Elsevier
6.	Piyush Jha, Nipun Sharma, Vinay Kumar Jadoun, Anshul Agarwal and Anuradha Tomar	Optimal Scheduling of Microgrid using AI Technique	Control of Standalone Microgrid	-----	297-334	Elsevier
7.	Ujjawal Prakash, R. K. Jarial, Vinay Kumar Jadoun and Anshul Agarwal	On Condition Monitoring Aspects of In-Service Power Transformers Using Computational Techniques	Advances in Electromechanical Technologies	-----	343-356	Springer
8.	Rishab Kumar Bhardwaj, Sudhir Ranwa, Ranjan Kumar, Lokesh Meena, Anshul Agarwal and Vinay Kumar Jadoun	Automatic Land Defense System for Borders Using Radar, Laser Gun and Related Tools	Advances in Electromechanical Technologies	-----	145-162	Springer
9.	Abhinav Gola, Animesh, Ravi Kumar Arya, Sachin Singh	A Novel and Efficient CNN Architecture for Detection and Classification of ECG Arrhythmia	ICCTA 2021: Topical Drifts in Intelligent Computing		pp 217-225	Springer, Cham, LNNS, volume 426



10.	R Jigyasu, V Shrivastava, S Singh	Prognostics and health management of induction motor by supervised learning classifiers	IOP Conference Series: Materials Science and Engineering		pp- 112-130	IOP Publishing
11.	Rajvardhan Jigyasu, Vivek Shrivastava, Sachin Singh	Smart classifier-based prognostics and health management of induction motor	Materials Today: Proceedings		pp -317-328	Elsevier

#### 10. Book Published by the Departmental Faculty in 2021-2022:

S.No.	Name of the Authors	Title of the Book	Name/ Details of the Book	Volume	Page number	Publisher
1.	Ramesh C. Bansal, Anshul Agarwal & Vinay Kumar Jadoun	Advances in Energy Technology	Select Proceedings of EMSME 2020	766	XV,803	Springer

#### 11. Student's Thesis/ Project Guidance in 2021-2022:

##### Ph.D. Students:

S. No.	Roll No.	Name of Student	Date of Defense	Joint Supervision (if any)	Title of Dissertation
1.	143401201	Pankaj Dahiya	June 22, 2021	Dr. Anmol RatnaSaxena	Analysis and Design of Load Frequency Controller for Power System Under Communication Constraints
2.	143401202	Irfan Ahmad Khan	2/Feb/2022	Nil	Design and Analysis of Digitally Controlled Modulated Matrix Converter and its Applications
3.	133302201	Ms. Neetu	10/May/2022	Prof. B K Kanaujia, Director, NIT Jalandhar	Analysis & Design of Dielectric Resonator Antennas using Perturbation Technique
4.	163231105	Venkata Madhava Ram Tatabhatla	13/4/2021	Dr. KT Raju	Enhancement of output parameters in solar Photo-Voltaic's under shading conditions

##### M. Tech Students:

S. No.	Roll No.	Name of Student	Date of Defense	Joint Supervision (if any)	Title of Dissertation
1.		Mr. Yatish Raj	June 2021	Dr. Vivek Shrivastava	Dissolved Gas Analysis-An Early Identification of Faults in Transformer using AI Techniques
2.	192231002	Aishwarya Mahapatra	02/12/2021	NA	Optimal Design of Standalone HRES with Model Predictive Control for Residential Group Load Management



3.	192231010	Rahul Kumar	May 2021	NA	Analysis of Nine Switch Converter and its Application in Renewable Energy System
4.	192231007	Kothapalli Vijay Kumar	May, 2021	-	Wind Energy Conversion using PI and Fuzzy Control and THD Reduction
5.	182231002	Ammu Susan Kurian	May 2021	-	Acoustic signature based online condition monitoring of induction motor

**B. Tech Students:**

S. No.	Roll No.	Name of Student	Date of Defense	Joint Supervision (if any)	Topic of Project
1.	(171230004) (171230011) (171230011) (171230024)	Aditya Kumar Sharma Ambuj Kumar Aniket Pathak Jayant Jangra	June 2021	NO	IoT-Based Advanced Metering Infrastructure on Cloud: User-Centered Design for Smart Home Management
2.	-171230029 171230037 171230038 -171230039	Megha Bansal Rishabh Rakesh – Rushikesh Suresh Nile – Saloni Bansal	June 2021	NO	Smart Energy Management System using Renewable Energy Resources
3.	171230033, 171230026, 171230027	Pooja, KartikayJeph, Maayank Saraswat	May 2021	NA	Automatic Water Supply Control System
4.	171230022, 171230031, 171230049	Harshit Mani Tripathi, Pawan Kumar, Vaibhav Kumar	19/05/2021	NA	MPPT of Solar PV using Conventional and Improved TeamGame Optimization Algorithm
5.	171230056, 171230036, 171230030, 171230048	Zuber Khan, Rajdeep, NavedRehman, TanayShubham	19/05/2021	NA	Coronavirus Detection using Computer Vision
6.	(171230020) (171230021)	Deepak Garg & Dinesh Nandan Yadav	May 2021	Dr. Sachin Singh	Diagnosis of Sleep Apnea Hypopnea Syndrome (SAHS)
7.	(171230010) (171230028) (171230040) (171230043)	Aman Jain, Mallika Goel, Shamyak Jain & Shubhjay Kumar	May 2021	NA	Design and Implementation of Security Based ATM Theft Monitoring System
8.	171230023, 171230009, 171230008, 171230032	Harshit Verma, Aman, Akshit Upadhyay, Pawan Kumar Saini	May 2021		Smart Automatic Rover for Crop Management
9.	171230020 171230021	Deepak Garg, Dinesh Nandan Yadav	May 2021		Diagnosis of Sleep Apnea Hypopnea Syndrome (SAHS)
10.	171230044	Abhinav Gola, Animesh	May 2021		A novel and efficient CNN architecture for detection and classification of ECG Arrhythmia





## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### 1. List of Faculty (as of 31 March 2022)

S. No.	Name of Faculty	Designation	Highest Qualification
1.	Dr. Manisha Bharti	Assistant Professor	Ph.D.
2.	Dr. Rikmantra Basu	Assistant Professor	Ph.D.
3.	Dr. D. Vaithiyathan	Assistant Professor	Ph.D.
4.	Dr. Sandeep Kumar	Assistant Professor	Ph.D.
5.	Dr. Baljit Kaur	Assistant Professor	Ph.D.
6.	Dr. Sachin Agrawal	Assistant Professor	Ph.D.
7.	Dr. Nitin Singh Singha	Assistant Professor	Ph.D.
8.	Dr. Dharmendra Kumar Jhariya	Assistant Professor	Ph.D.
9.	Dr. Mahesh Kumar Singh	Assistant Professor	Ph.D.

### 2. Projects Completed/On Going/sponsored projects in 2021-2022:

S. No.	Title	Start Date & Duration	Funding Agency	PI Name & Co-PI (if any)	Project cost	Whether Ongoing or completed
1.	Design of Electronic and Photonic Devices using $\text{Ge}_{1-x}\text{Sn}_x$ Alloy: An emerging Group IV Semiconductor Material and Investigation of Physical Processes of the Devices	Start Date: May 01, 2017 Duration: 3 Years	DST – SERB under Early Career Research (ECR) Award Scheme	PI: Dr. Rikmantra Basu	25,68,480/-	Completed
2.	Investigation of Group IV Semiconductor Alloy ( $\text{Ge}/\text{Ge}_{1-x}\text{Sn}_x$ )/ Graphene based Detector Devices for Bio Medical and Defense Applications	Start Date: June 30, 2021 Duration: 3 Years	DST – SERB under Core Research Grant (CRG) Scheme.	PI: Dr. Rikmantra Basu	23,10,332/-	Ongoing
3.	Speech Biometric Based Student Authentication System	18 June 2019 (1 Year)	TEQIP-III	Dr. BHANU PRIYA (PI) Dr. Sandeep Kumar (Co-PI) Mr. SATISH SINGH (Co-PI) Mr. DINESH SRIVASTAVA (Co-PI) Ms. JULIE DEVI (Co-PI)	Rs 843000.00/-	Completed
4.	Captioning the Extracted events of the Scene from the Video through Spatio-Temporal Graph Model	2022-2025	Technical Innovation Hub, Indian Institute of Technology Patna	Dr. Anurag Singh & Dr. Mahesh Kumar Singh		Ongoing



### 3. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Organized in 2021-2022:

S. No.	Workshop/Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Coordinator/ Convener/ Chairman
1.	Short Term Course	One Week Online Self-Sponsored Short-Term (STC) Course on "Emerging Trends and Challenges in Communication Systems"	ECE Department, NIT Delhi	October 18-22, 2021	Coordinator: Dr. Rikmantra Basu, Dr. Nitin Singh Singha
2.	Short Term Course	One Week Online Self-Sponsored Short-Term (STC) Course on "Emerging Trends in Antenna Design for RF Energy Harvesting Circuit (ETAD- RFEHC)"	ECE Department, NIT Delhi	January 03-07, 2022	Coordinator: Dr. Rikmantra Basu, Dr. D. Vaithiyanathan and Dr. Sachin Agrawal
3.	Workshop	6- Days Online International workshop on "Group IV Photonics"	ECE Department, NIT Delhi	March 15-20, 2022.	Coordinator: Dr. Rikmantra Basu
4.	Expert Talk by Dr. Santosh Kumar (Associate Professor) Liaocheng University, China School of Physics Science and Information Technology, Shandong Key Laboratory of Optical Communication Science and Technology, Liaocheng, Shandong, China	Optical Fiber-based Plasmonics Sensors for Biomedical Applications	ECE Department, NIT Delhi	November 17, 2021	Coordinator: Dr. Sandeep Kumar & Dr. Manisha Bharti
5.	Short Term Course	VLSI Devices and Communication Systems (VDCS)	ECE Department, NIT Delhi	06 days	Coordinator: Dr. Sachin Agrawal

### 4. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Attended in 2021-2022:

S. No.	Workshop/Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Faculty Attended by
1.	Workshop	Two days Workshop on NIRF India Rankings 2022	Institute for Academic Excellence (IAE)	January 5-6, 2022	Dr. Rikmantra Basu, Member, NIRF Committee
2.	Short-term Course	One Week Online Short Term Course In "Emerging Trends in Antenna Design for RF-Energy Harvesting Circuit"	Department Of ECE, NIT Delhi	January 03-08, 2022	Dr. Sandeep Kumar
3.	Faculty Development Programme	Microwave and Photonics devices and Modelling	IIT Bhubaneswar	05 days	Dr. Sachin Agrawal



4.	One week online Short Term Course(STC)	Emerging Trends and Challenges in Communication	ECE Department, NIT Delhi	October 18 – 22, 2021	Dr. Dharmendra Kumar Jhariya
5.	One week online Short Term Course(STC)	Emerging Trends in Antenna Design for RF-Energy Harvesting Circuit	ECE Department, NIT Delhi	January 03-08, 2022	Dr. Dharmendra Kumar Jhariya
6.	International Conference	International Conference on Technology, Research & Innovation for Betterment of Society (TRIBES-2021)	IIIT Naya Raipur(C.G.) India	October 17 – 19, 2021	Dr. Dharmendra Kumar Jhariya

#### 5. Expert Lecture Delivered by Departmental Faculty in 2021-2022:

S. No.	Title of the Expert Talk	Name of the Event	Organized By	Duration	Faculty Delivered Expert Talk
1.	An Overview: Tera Hertz Communication	Short Term Course on Advances in Communication & Signal Processing	Dr. B R Ambedkar National Institute of Technology, Jalandhar	April 7, 2021.	Dr. Manisha Bharti
2.	Optical Networks: An Introduction & Future Trends	Short Term Course on Research Trends in VLSI for Communication Systems	Dr. B R Ambedkar National Institute of Technology, Jalandhar	November 27, 2021.	Dr. Manisha Bharti
3.	Pre-Qualifier & Preparation of an Effective SAR-I (Criterion 1 to 3)	Two-week faculty development program on An Insight into NBA Accreditation Program from 6 – 18 <sup>th</sup> December 2021	ABES Engineering College, Ghaziabad	December 13, 2021.	Dr. Manisha Bharti
4.	Next-Generation Photonic Devices Using Direct Gap Group IV Alloys as a Replacement for Contemporary III-V Compound Semiconductor Based Devices	AICTE ATAL FDP on High-Speed Optical Links and Photonic Devices for Next-Generation Data Transmission	ECE Department of IIIT Kota	October 12, 2021	Dr. Rikmantra Basu
5.	VLSI architecture for Medical Image Processing	AICTE – ISTE Sponsored Induction / Refresher Programme	Rajiv Gandhi College of Engineering and Technology	1.5 Hrs	Dr. D. Vaithiyanathan
6.	VLSI architecture for Image Processing	FDP on Real Time FPGA Interfacing for Signal and Image Processing Applications Using HDL	Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology	2 Hrs	Dr. D. Vaithiyanathan



7.	Recent Trends in VLSI System Design	Expert Lecture	Mahendra Institute of Technology (Autonomous), Namakkal	2 Hrs	Dr. D. Vaithiyanathan
8.	Advancement in Microprocessor and Microcontroller	Expert Lecture	Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College (Autonomous), Chennai	2 Hrs	Dr. D. Vaithiyanathan
9.	Hardware and Software Co-design	AICTE Training and Learning (ATAL) Academy Sponsored Online FDP on "System on Chip Design and Testing"	Indian Institute of Information Technology Tiruchirappalli	2 Hrs	Dr. D. Vaithiyanathan
10.	Cryptographic Primitives and Distributed Databases	AICTE- ATAL FDP on BLOCKCHAIN	KCG College of Technology	5 days	Dr. Nitin Singh Singha
11.	Blockchain Technology	One Week Online Self-Sponsored Short Term Course On Emerging Trends and Challenges in Communication Systems	NIT Jalandhar	5 days	Dr. Nitin Singh Singha

#### 6. Journal Publications by the Departmental Faculty in 2021-2022:

S.No.	Name of the Authors	Title of the paper	Name of the Journal	Volume	Page number	Month and Year of Publication
1.	Sharma, A., Bahubalindruni, P. G., Manisha Bharti, & Barquinha, P.	Physical parameters based Analytical I-V model of $\alpha$ -IGZO TFTs.	Solid State Electronics, Elsevier.	NA	1-8.	March 04, 2022.
2.	Manisha Bharti	Performance Improvement using DCSRZ at 10GHz OCDMA Transmission Link.	Journal of Engineering Research (JER).	NA	177-184.	March 16, 2022.
3.	Sakshi, Manisha Bharti	A New $\beta$ -shaped Micro strip Patch for Bluetooth	Journal of Engineering Research (JER).	NA	1-6.	August 20, 2021.
4.	Manisha Bharti	Simulative Analysis of Robustness of Various Modulation Formats for Optical CDMA using 2D Codes for Different Encoders at 10Gbps	Indian Journal of Pure & Applied Physics (IJPAP)	59(11)	768-774.	November 30, 2021.



5.	Pal, A., Kar, S. & Manisha Bharti	Algorithm for Distracted Driver Detection and Alert Using Deep Learning.	Optical. Memory and Neural Networks	30(3)	257-265	October 5, 2021.
6.	Manisha Bharti Chattopadhyay, D.	Simulative analysis of Manchester coded DPSK FSO in diverse weather conditions.	International Journal of Information Technology	13(4)	1-7	October 3, 2021.
7.	Manisha Bharti	Impact and Mitigation of Noise in Optical 2D Techniques Using $(n, w, \lambda, \alpha, \lambda, c)$ Optical Orthogonal Codes for Optical CDMA	Indian Journal of Pure & Applied Physics (IJPAP)	59(8)	586-594.	August 31, 2021.
8.	Manisha Bharti	Analysis of PAPR suppression scheme for next generation wireless system	International Journal of System Assurance Engineering and Management	12	1-9.	May 7, 2021.
9.	Sharma, A., Bahubalindrani, P. G., Manisha Bharti & Barquinha, P.	On-chip power supply generation for self-contained electronics using oxide thin-film transistors	International Journal of Circuit Theory and Applications.	49 (4)	2112-2121	April 8, 2021.
10.	Kumar, S., Verma, P. R., Manisha Bharti & Agarwal, P.	A CNN based graphical user interface controlled by imagined movements.	International Journal of System Assurance Engineering and Management	12	1-11.	April 10, 2021
11.	Suruchi Sharma, Rikmantra Basu, Baljit Kaur, (IF: 1.290). [Digital Object Identifier: 10.1049/cds2.12037] ISSN: 1751-858X	Interface trap charges associated reliability analysis of Si/Ge heterojunction doping less TFET	IET Circuits, Devices & Systems.,	5(5)	424-433	May 2021
12.	Suruchi Sharma, Rikmantra Basu, Baljit Kaur, (IF: 1.810) [DOI: 10.1007/s00339-021-04541-6]. ISSN: 0947-8396	Insights into temperature influence on Analog/RF and linearity performance of a Si/Ge heterojunction Asymmetric Double gate doping less TFET	Applied Physics A: Material Science and Processing, Springer	127(5)	1-9	August 2021
13.	Suruchi Sharma, Rikmantra Basu, Baljit Kaur, [Digital Object Identifier: 10.1007/s12633-021-01514-5] (IF: 2.670) ISSN: 1876-990X	Investigation of Charge-plasma Based Doping less Tunnel FET for Analog/RF and Linear Applications	Silicon, Springer			November 2021
14.	Alok Kumar Mishra, Urvasi Chopra and D. Vaithiyanathan	A Partially Static High Frequency 18T Hybrid Topological Flip-Flop Design for Low Power Application	IEEE Transactions on Circuits and Systems II: Express Briefs	69	1592-1596	March 2022





15.	Ashish Mishra, Vaithiyanathan Dhandapani, Sachin Singh, Sanket Sonar and Alok Kumar Mishra	Comparative Analysis of Preamplifiers for Comparators	Journal of Engineering Research (JER)	ICAPIE Special Issue	50-5	March 2022
16.	Vaithiyanathan Dhandapani, Ashish Mishra, Ankit Kumar, Alok Kumar Mishra, Sachin Singh, Baljit Kaur	Performance Analysis of a High-Speed High-Precision Dynamic Comparator	Indian Journal of Pure & Applied Physics (IJPAP)	60	238-245	March 2022
17.	Bharathi Raj Muthu, Ewins Pon Pushpa, Vaithiyanathan Dhandapani, Kamala Jayaraman, Hemalatha Vasanthakumar, Won-Chun Oh, Suresh Sagadevan	Design and Analysis of Soft Error Rate in FET/ CNTFET based Radiation hardened SRAM Cell	Sensors	22	1-19	January 2022
18.	A.Shankar, S.Muttan, and D.Vaithiyanathan	Signal Processing and Classification for Electroencephalography Based Motor Imagery Brain Computer Interface	Journal of Medical Imaging and Health Informatics	11	2918-2927	December 2021
19.	Alok Kumar Mishra, Dhandapani Vaithiyanathan, and Urvashi Chopra	Design and Analysis of Ultra-Low Power 18T ADT Flip-Flop for High-Speed Application	International Journal of Circuit Theory and Applications	49	3733-3747	November 2021
20.	K. Mariammal, M. Hajira Banu, J. Britto Pari and Vaithiyanathan Dhandapani	Decisive Structures for Multirate FIR filter Incorporating Retiming and Pipelining Schemes	Circuit World	47	427-444	October 2021
21.	Manigandan Muniraj and Vaithiyanathan Dhandapani	Underwater Image Enhancement by Combining Color Constancy and Dehazing Based on Depth Estimation	Neurocomputing	460	211-230	October 2021
22.	Alok Kumar Mishra, Urvashi Chopra, and D. Vaithiyanathan	Comparative Analysis in Terms of Power and Delay of the Different Sense Amplifier Topologies	Journal of Engineering Research (JER)	EMSME Special Issue	47-57	August 2021
23.	Ashima, Vaithiyanathan D., and Balwinder Raj	Performance Analysis of Charge Plasma induced Graded Channel Si Nanotube	Journal of Engineering Research (JER)	EMSME Special Issue	146-154	August 2021
24.	Gunasekaran Prabakaran, Dhandapani Vaithiyanathan and Madhavi Ganesan	Soil Fertility Review using Fuzzy Logic	Journal of Engineering Research (JER)	EMSME Special Issue	192-202	August 2021



25.	G.Prabakaran, D. Vaithyanathan, Madhavi Ganesan	FPGA based Effective Agriculture Productivity Prediction System Using Fuzzy Support Vector Machine	Mathematics and Computers in Simulation	185	1-16	July 2021
26.	Ashima, D. Vaithyanathan, Balwinder Raj	Performance Analysis of Channel and Inner Gate Engineered GAA Nanowire FET	Silicon, Springer	13	1863-1869	June 2021
27.	Harshvardhan Choudhary, D. Vaithyanathan, Harish Kumar	A Review on Additive Manufactured Sensors	MAPAN – Journal of Metrology Society of India	36	405-422	June 2021
28.	P. Agarwal and Sandeep Kumar	Electroencephalography based imagined alphabets classification using spatial and time-domain features	International Journal of Imaging Systems and Technology (Wiley)	Vol. 32, Issue 1	111-122	23-Sep-2021
29.	UK Acharya and Sandeep Kumar	Swarm intelligence based adaptive gamma corrected (SIAGC) retinal image enhancement technique for early detection of Diabetic Retinopathy	Optik, Elsevier	Vol. 247	167904 (1-16)	09-Sep-2021
30.	P. Agarwal and Sandeep Kumar	Imagined word pairs recognition from non-invasive brain signals using Hilbert transform	International Journal of System Assurance Engineering and Management (Springer)	Vol. 13, Issue 1	385-394	16-Aug-2021
31.	Sachin Agrawal, Manoj Singh Parihar	Performance Evaluation of RF Energy Harvesting Circuit with DRA and Planar Antennas	Wireless Personal Communications Springer	120	343-352	April 2021
32.	Sachin Agrawal, Zamir Wani and Manoj Singh Parihar	A rectangular patch loaded circular monopole super wideband antenna with triple-band notch characteristic	IETE Technical Review	10	1-12	August 2021
33.	Sachin Agrawal, Zamir Wani and Manoj Singh Parihar	Patch Loaded Slot Antenna for Super Wideband Applications with Dual-Band Notch Characteristic	Wireless Personal Communications Springer	123		September 2021
34.	Sachin Agrawal, Akshat Gururani	Rectangular Slot Super Wideband Antennas with Band Notch Characteristic Fed by CPW and Microstrip Line	Microwave review	27	29-35	December 2021



35.	Dharmendra Kumar Jhariya and Akhilesh Mohan	Compact Ultrawideband Filter with Reconfigurable Band Notch Characteristics	International Journal of Electronics Letters		1-11	April 17, 2022
36.	Singh, Mahesh K., and Nitin Singh Singha	A relaxed Gaussian mixture model framework for terrain classification based on distinct range datasets	Remote Sensing Letters	13(5)	470-479	February 19, 2022
37.	Preeti Mehta, Mahesh K. Singh, and Nitin Singha	Near-duplicate image detection based on wavelet decomposition with modified deep learning model	Journal of Electronic Imaging	31(2)	023017	March 28, 2022
38.	Preeti Mehta, Mahesh K Singh, Nitin Singha	Near-duplicate Image Detection Based on Wavelet Decomposition with Modified Deep Learning Model	Journal of Electronic Imaging	31	2-17	March 28, 2022
39.	Mahesh K. Singh, Nitin S Singha	A relaxed Gaussian mixture model framework for terrain classification based on distinct range datasets	Remote Sensing Letters (TRSL)	13	470-479	February 09, 2022
40.	Nitin Singha, S. S. Kalamkar and Y. N. Singh	Maximum Utility-Aware Capacity Partitioning in Cooperative Computing	EEE Communications Letters	25	3360-3364	October 01, 2021

#### 7. Conference Papers Presented by the Departmental Faculty in 2021-2022:

S.No.	Name of the Authors	Title of the paper	Name of the Conference	Place and Country where the Conference Held	The organizer of the Conference	Date of Presentation
1.	Manish, Manisha Bharti	True Random Number Generation Using Programmable Delays	International Conference on Science, Engineering, and Technology - ( ICSTE-21)	Vadodara, India	Vadodara	December 18, 2021
2.	Abhyuday, Manisha Bharti	Study of Dynamic Comparators on the basis of Energy Consumption	International Conference on Science, Engineering, and Technology - ( ICSTE-21)	Vadodara, India	Vadodara	December 19, 2021
3.	Agrawal, A. K., Manisha Bharti	A Step Towards Next-Generation Mobile Communication: 5G Cellular Mobile Communication	International Conference on Advanced Production and Industrial Engineering (ICAPIE-2021)	New Delhi, India	Delhi Technological University	June 18, 2021



4.	Agrawal, A. K., Pidge, P., Manisha Bharti, Dev, M. P., & Kedare, P. K	Innovations and Future of Robotics.	International Conference on Advanced Production and Industrial Engineering (ICAPIE-2021)	New Delhi, India	Delhi Technological University	June 19, 2021
5.	Suruchi Sharma, Rikmantra Basu, and Baljit Kaur	Performance investigation of a Si/Ge Heterojunction Asymmetric Double Gate DLTFT considering Temperature and ITC variations	22 <sup>nd</sup> International Symposium on Quality Electronic Design (ISQED) 2021	Santa Clara, CA, USA		April 08, 2021
6.	Suruchi Sharma, Rikmantra Basu, and Baljit Kaur	Temperature associated reliability analysis of a Si/Ge Heterojunction Dopingless Tunnel FET considering Interface Trap Charges	2021 Devices for Integrated Circuit (DevIC)	Kalyani, India		May 19, 2021
7.	M. Kanthimathi, S. Surya, S. Usha, and D. Vaithyanathan	Energy-Efficient spatial modulation in wireless sensor networks	2022 International Conference on Communication, Computing, and Internet of Things (IC3IoT)	Chennai, India	Sri Sairam Engineering College	March 10, 2022
8.	Alok Kumar Mishra, Vaithyanathan Dhandapani, Ajit Kumar, and Baljit Kaur	Analysis and Modification of Low Power and High Speed 9T SRAM Cell	Proc. 2 <sup>nd</sup> International Conference on Advances in VLSI and Embedded Systems (AVES 2021)	Gujarat, India	Sardar Vallabhbhai National Institute of Technology Surat	December 19, 2021
9.	Venkata Nikitha Machineni, Korada Sri Vardhana and Vaithyanathan Dhandapani	Data Driven approach to achieve coordinated charging among electric vehicles	Third International Conference on Advances in Electrical and Computer Technologies 2021 (ICAECT 2021)	Tamil Nadu, India	PSR Engineering College	December 30, 2021
10.	Vaithyanathan Dhandapani, Joel Jacob Thomas, and Y. Durga Sravanthi	Integrated Smart Alert System for Industrial Applications using Transceiver Module Analysis	Third International Conference on Advances in Electrical and Computer Technologies 2021 (ICAECT 2021)	Tamil Nadu, India	PSR Engineering College	December 30, 2021



11.	Alok Kumar Mishra, Shubham Sinha, Subbarao D.D.V, D. Vaithiyanathan, and Baljit Kaur	Study and Implementation of Low Power Decoder using DVL and TGL Logic	IEEE Madras Section International Conference (MASCON 2021)	Chennai, India	IEEE Madras Section	August 28, 2021
12.	Alok Kumar Mishra, Shubham Sinha, Subbarao D.D.V, D. Vaithiyanathan, and Baljit Kaur	Implementation and Investigation of Different SRAM Cells using DLTFT Device	IEEE Madras Section International Conference (MASCON 2021)	Chennai, India	IEEE Madras Section	August 28, 2021
13.	D. Vaithiyanathan, Sanket Mukund Sonar, J Britto Pari, K.Mariammal and K Kunaraj	Performance Analysis of Full Adder Circuit Using Conventional and Hybrid Techniques	IEEE Madras Section International Conference (MASCON 2021)	Chennai, India	IEEE Madras Section	August 28, 2021
14.	D. Vaithiyanathan, Alok Kumar Mishra, Twinkle Bhardwaj, Vipul Jee Verma, Baljit Kaur	Power Consumption and Delay Comparison of a Modified TCFF with Existing FF Implemented using FinFET and Load Test Circuit Analysis	IEEE Madras Section International Conference (MASCON 2021)	Chennai, India	IEEE Madras Section	August 28, 2021
15.	Vaithiyanathan Dhandapani, Kaushal Verma and Prabakaran G	Hardware Implemented of Smart Sanitization and Alert System using Embedded IOT	6th International Conference on Advanced Production and Industrial Engineering (ICAPIE-2021)	New Delhi, India	Delhi Technical University	June 19, 2021
16.	P. Agarwal and Sandeep Kumar	EEG based Motor Imagery Classification using CNN	7th International Conference on Computing in Engineering & Technology (ICCET 2022)	Dr. Babasaheb Ambedkar Technological University, Lonere-India	Dr. Babasaheb Ambedkar Technological University, Lonere-India	February 12, 2021
17.	Jyoti Krayla, Upendra Kumar Acharya and Sandeep Kumar	Performance analysis of image enhancement techniques for MRI Brain images	International Conference on Emerging Electronics and Automation (E2A)	NIT Silchar, India	NIT Silchar	December 17, 2021
18.	Ayush Kanojia Sachin Agrawal	Design Implementation of a Low-Power 16T 1-bit Hybrid Full Adder	2021 International Conference on Control, Automation, Power, and Signal Processing (CAPS)	IIITDM Jabalpur, India	IIITDM Jabalpur	





19.	Komal Kumari and Dharmendra Kumar Jhariya	Implementation of Decision Tree Classifier on FPGA DOI: 10.1109/CAPS52117.2021.9730693.	International Conference on Control, Automation, Power and Signal Processing (CAPS), 2021	PDPM IITDM Jabalpur India	PDPM IITDM Jabalpur, India	December 11, 2021
20.	Raghvendra Singh, Mahesh K. Singh, and Dharmendra Kumar Jhariya	New Framework for Implementation of Decision Tree Classifier DOI: <a href="https://siet.in/icissi2022/">https://siet.in/icissi2022/</a>	International Conference On Intelligent Systems and Smart Infrastructure,	SIET, Prayagraj, India	SIET, Prayagraj, India	April 04, 2022
21.	Kushwaha, Deepak K., and Mahesh K. Singh	A Wide-Range Low Voltage Wilson Current Mirror based Reflected-Output for Swift and Cost-effective Level Shifter	2021 International Conference on Control, Automation, Power, and Signal Processing (CAPS)	Pandit Dwarka Prasad Mishra Indian Institute of Information Technology, Design and Manufacturing Jabalpur, India	Pandit Dwarka Prasad Mishra Indian Institute of Information Technology, Design and Manufacturing Jabalpur, India	December 10, 2021

#### 8. Book Chapters Published by the Departmental Faculty in 2021-2022:

S.No.	Name of the Authors	Title of the Book Chapter	Name/ Details of the Book where the Chapter is Published	Volume	Page number	Publisher
1.	Tulika Garg, Manisha Bharti, Tanvika Garg	Wireless Underground Sensor Networks	Internet of Underground Things (IoUT)	-	-	CRC Press
2.	Ayush Agarwal, Manisha Bharti,	Aspects and Use of Diggital Agriculture Using IoT	Internet of Underground Things (IoUT)	-	-	CRC Press
3.	Yuvaraj S, Manigandan M, Vaithyanathan Dhandapani, Saajid R and Nikhilesh S	Internet of Things Integrated with Multi-level Authentication for Secured IoT Data Stream through TLS/SSL Layer	Big-Data-Analytics in Astronomy, Science, and Engineering. BDA 2021. Lecture Notes in Computer Science	13167	245-258	Springer
4.	Kunaraj Kumarasamy, Maria Wenisch Sebastian, Robert Rajkumar Sakkariyas and Vaithyanathan Dhandapani	Sleep Quality Assessment Using Ensembles of Machine Learning and Deep Learning Models	Advancing the Investigation and Treatment of Sleep Disorders Using AI	--	204-213	Springer
5.	Britto Pari J, Mariammal Karuthapandian, Vaithyanathan Dhandapani	An Optimized FPGA Architecture for Sleep Level Categorization Using Fuzzed Utilized Machine Learning Approach	Advancing the Investigation and Treatment of Sleep Disorders Using AI	--	214-224	Springer



6.	Vaithiyanathan Dhandapani, Swathi Majji, Kishore Udata, and Manigandan Muniraj	Implementation of Attendance Management System Based on Text and Face Recognition	Lecture Notes in Electrical Engineering, Advances in Energy Technology Select Proceedings of EMSME 2020	766	55-68	Springer
7.	Karan Kumar and D. Vaithiyanathan	Power-Efficient Bidirectional Shift Register using Conditional Bidirectional Pulsed-Latch circuit	Lecture Notes in Electrical Engineering, Advances in Energy Technology Select Proceedings of EMSME 2020	766	123-130	Springer
8.	K. Kumar, Sandeep Kumar and U.K. Acharya	Implementation and performance measurement of Q-varying and r-varying IIR Notch filter for Bio-medical application	Springer DOI- <a href="https://doi.org/10.1007/978-981-16-1476-7_41">https://doi.org/10.1007/978-981-16-1476-7_41</a>  Print ISBN: 978-981-16-1475-0, Electronic ISBN: 978-981-16-1476-7			Springer (28-Jul-2021)
9.	UK Acharya and Sandeep Kumar	Image Enhancement using Exposure and Standard Deviation based sub-image Histogram Equalization for night-time images	DOI- <a href="https://doi.org/10.1007/978-981-15-4992-2_57">https://doi.org/10.1007/978-981-15-4992-2_57</a>  Print ISBN 978-981-15-4991-5 Online ISBN 978-981-15-4992-2			Springer (02-Jul-2020)

#### 9. Book Published by the Departmental Faculty in 2021-2022:

S.No.	Name of the Authors	Title of the Book	Name/ Details of the Book	Volume	Page number	Publisher
1.	Rajesh Kumar Muthu, Ranjeet Kumar, Vaithiyanathan Dhandapani	Advancing the Investigation and Treatment of Sleep Disorders Using AI	Advancing the Investigation and Treatment of Sleep Disorders Using AI	--	1-291	IGI Global
2.	Dharmendra Kumar Jhariya, Manoj Gupta, Krishna Kumar, and Prashant Ranjan [DOI: 10.1002/9781119792765]	Next-Generation Antennas: Advances and Challenges	Next-Generation Antennas: Advances and Challenges (Wiley) ISBN: 978-1-119-79186-7	-	-	Scrivener Publishing Wiley [DOP:08-Aug-2021]



## 10. Student's Thesis/ Project Guidance in 2021-2022:

### Ph.D. Students:

S. No.	Roll No.	Name of Student	Date of Defense	Joint Supervision (if any)	Title of Dissertation
1.	173221204	Ghanendra Kumar	26 April 2021	Dr. Sandeep Kumar (Sole Supervisor)	Performance Analysis and Simulation of Dense Wavelength Division Multiplexing System in the Presence of Optical Amplifiers

### M. Tech Students:

S. No.	Roll No.	Name of Student	Date of Defense	Joint Supervision (if any)	Title of Dissertation
1.	192220010	Tanvika Garg	15.05.2021	NA	FPGA Based Implementation of Low Latency SRAM-based TCAM for Group Update
2.	192221004	Nagma Sahi	15.05.2021	NA	Implementation of Memory Cell Design to Mitigate the Effect of Soft Errors
3.	192221006	Prashant Raghuvanshi	15.05.2021	Yes	Design and Analysis of Low Power Half Select Free Write Assist SRAM Cell
4.	192220003	Mr. Dheeraj Upadhyay	15.05.2021	NA	Band Gap Narrowing Effects on various Semiconductor Alloy based Devices
5.	192221011	Sudipta Pal	15.05.2021	NA	Current Sense Amplifier modification for coupling Suppression
6.	192221010	Shubham Sinha	15.05.2021	NA	Study and Implementation of Low Power Decoder using DVL and TGL Logic
7.	192221008	Shail Anand	15.05.2021	NA	Study and Implementation of High Performance Priority Encoder using Array Conversion Technique
8.	192221012	Twinkle Bhardwaj	15.05.2021	NA	Design and Implementation of Modified Topologically Compressed Flip-Flops
9.	192221001	Ankit Kumar	15.05.2021	NA	Design And Implementation Of Low Power High Speed Comparator Circuits
10.	192221013	Yash Mittal	15.05.2021	Dr. Mahesh Kumar Singh	Mesochronous FIFO Design in High Speed System on Chip
11.	192220009	Sneha Singh	May 2021	NA	Implementation of accent conversion algorithm for Native and Non- Native speakers
12.	192220006	Poonam Rani	May 2021	NA	Study and implementation of brain-machine interfacing system



13.	192220004	Jallu Sai Sagar	15.05.2021	No	Performance Analysis of Antenna Array using Deep learning Neural Network
14.	192220008	Sachin Kumar	15.05.2021	Dr. Dharmendra Jhariya	Design and Analysis of Compact Ultra Wide Band Filtenna
15.	202220006	Ayush	03.05.2022	NA	Design and Analysis of an Energy and Area Efficient Hybrid Full Adder Cell
16.	202220007	Bendi Madhuri	03.05.2022	Dr. Dharmendra Jhariya	Deep Learning Based Models for OFDM channel Estimation
17.	202221006	Gopesh Singh	04.05.2022	Dr. Nitin Singh Singha	Pin Placement Analysis for Server System on Chip
18.	192220002	Mr. Ayush	20.05.2021	NA	Low-Noise Amplifier Design: An Open-Source Perspective
19.	192220008	Mr. Sachin Kumar	20.05.2021	Dr. Sachin Agrawal	Design and Analysis of Compact Ultra Wideband Filtenna
20.	202221011	Mr. Raghvendra Singh	04.05.2022	Dr. Mahesh Kr Singh	New Framework for Hardware Implementation of Machine Learning Classifiers
21.	202220011	Mr. Komal Kumari	04.05.2022	NA	DECISION TREE IMPLEMENTATION ON FPGA
22.	202220007	Bendi Madhuri	04.05.2022	Dr. Sachin Agrawal	Deep Learning Based Models for OFDM Channel Estimation
23.	192220005	Kumar Vasu	15.05.2021	NA	Abatement Of Fake News On Social Media
24.	192220002	Akshayraj M R	15.05.2021	NA	Image Contrast Enhancement Using Adaptive Unsharp Masking

#### B. Tech Students:

S. No.	Roll No.	Name of Student	Date of Defense	Joint Supervision (if any)	Topic of Project
1.	171220002	Abhishek Ranjan	29.04.2021	NA	YOLO Object Detection
2.	171220048	Sohan Singh	29.04.2021	NA	Analysis of OCDM for Underwater Communication
3.	171220024	Jobanpreet Singh	29.04.2021	NA	Analysis of OCDM for Underwater Communication
4.	171220029	Manish Kumar	29.04.2021	NA	Vehicle Number Plate Detection using MATLAB Image Processing
5.	171220031	Mohit Kumar	29.04.2021	NA	Vehicle Number Plate Detection using MATLAB Image Processing
6.	171220023	Jatin Kumar	29.04.2021	NA	Smart Dustbin using IoT and Machine Learning
7.	171220050	Tantreswar Kumar	29.04.2021	NA	Smart Dustbin using IoT and Machine Learning



8.	171220021	Dilsher Singh Saini	29.04.2021	NA	Performance Analysis of AlGaAs/ AlGaIn/ InAlGaIn HEMTs for High Frequency and High Power Application using SILVACO TCAD
9.	171220051	Uditanshu Yadav	29.04.2021	NA	Performance Analysis of AlGaAs/ AlGaIn/ InAlGaIn HEMTs for High Frequency and High Power Application using SILVACO TCAD
10.	171220033	Nitesh Mani Tripathi	14.05.2021	NA	Face Recognition using MATLAB
11.	171220027	Kaushal Verma	29.04.2021	NA	Safety Watch Based on Embedded Systems and IoT
12.	171220015	Ashutosh Kumar	29.04.2021	NA	Arduino Based Drip Irrigation System
13.	171220037	P.Shiva Raghu Teja	29.04.2021	NA	Smart Gesture Device with Semantic Recognition
14.	171220025 171220054	Joel Jacob Thomas Durga Sravanthi Yarlagadda	29.04.2021	NA	Smart Alert System for Industrial Applications
15.	171220042, 171220032	Sandeep Kumar, Nikhilesh Kashyap	05.05.2021	NA	Text-to-speech synthesizer
16.	171220018	Bhawna	05.05.2021	NA	Epilepsy seizure detection using EEG signals
17.	171220016	Atul Kumar	05.05.2021	NA	Speech enhancement using neural network
18.	171220008	Amulya Sharma	05.05.2021	NA	Covid-19 face mask detection
19.	171220004	Akshat Gurunani	29.04.2021	NA	Performance analysis of Ultra wideband monopole antenna
20.	171220005	Alok kr. Chaudhary	29.04.2021	NA	Performance analysis of Ultra wideband monopole antenna
21.	171220055	Yasvi Goyal	29.04.2021	NA	Cognitive Radar Antenna Selection via Deep Learning Technique CNN
22.	171220016	Harish Kr. Gupta	29.04.2021	NA	Performance enhancement of monopole antenna
23.	181220043	Pratham Agrasen	29.04.2021	NA	Deep Learning Based Channel Estimation
24.	181220044	Praveen Kr. Shah	24.05.2022	NA	Deep Learning Based Channel Estimation
25.	181220032	Khushboo	24.05.2022	NA	Channel Estimation in OFDM Systems using BiLSTM Deep Learning Method
26.	181220038	Muddssir Raza	24.05.2022	NA	Channel Estimation in OFDM Systems using BiLSTM Deep Learning Method
27.	181220037	Moh. Humaid	24.05.2022	NA	Improvisation in Channel Estimation and Signal Detection in OFDM System
28.	181220017	Ashutosh Tripathi	24.05.2022	NA	Improvisation in Channel Estimation and Signal Detection in OFDM System
29.	171220043	Mr. Sarthak Pandey	29.04.2021	NA	Comparative Analysis of BER performance of M-ary QAM based OFDM Systems in different channel conditions
30.	171220030	Mr. Mohit Kumar	29.04.2021	NA	Image Segmentation
31.	171220039	Ms. Sadhna	29.04.2021	NA	Image Segmentation





32.	171220044	Mr. Saurav Suman	29.04.2021	NA	Image Processing and Face Detection Using Machine Learning Algorithms
33.	171220001	Mr. Abhishek	29.04.2021	NA	Development of an efficient and optimized algorithm for the validity of fingerprints matching
34.	161220027	Mr. Prince Sehwat	29.04.2021	NA	Development of an efficient and optimized algorithm for the validity of fingerprints matching
35.	171220038	P.V. Durga Prasad	30.05.2022	NA	Augmented Reality Chatbot using Cloud and AI
36.	171220026	K. Uday Kiran	30.05.2022	NA	Augmented Reality Chatbot using Cloud and AI
37.	181220003	ABHISHEK SHARMA	30.05.2022	NA	Restaurant Management System
38.	181220046	RAHUL KUMAR VERMA	30.05.2022	NA	Restaurant Management System
39.	171220003	Adarsh Pathak	30.05.2022	NA	Metamaterial used Highly Isolated MIMO Antenna for Wireless Applications
40.	181220022	Bhukya Surya Kiran	30.05.2022	NA	Multifactor Authentication System
41.	181220026	Gade Naveen Kumar	30.05.2022	NA	Multifactor Authentication System
42.	171220004	Akshat Gurunani	29.04.2021	NA	Performance analysis of Ultra wideband monopole antenna
43.	171220005	Alok kr. Chaudhary	29.04.2021	NA	Performance analysis of Ultra wideband monopole antenna
44.	171220055	Yasvi Goyal	29.04.2021	NA	Cognitive Radar Antenna Selection via Deep Learning Technique CNN
45.	171220016	Harish Kr. Gupta	29.04.2021	NA	Performance Enhancement of Monopole Antenna

#### 11. Any other significant achievement by the department for the annual report in 2021-2022:

1.	<b>Senior Member IEEE</b> (Membership number: 95702019) Grade: Senior Member Membership status: Active IEEE Region: R10 - Asia and Pacific IEEE Section: Delhi Section	Dr. Dharmendra K Jhariya
2.	<b>Senior Member IEEE</b> (Membership number: 85017785) Grade: Senior Member Membership status: Active IEEE Region: R10 - Asia and Pacific IEEE Section: Delhi Section	Dr. Rikmantra Basu



## DEPARTMENT OF MECHANICAL ENGINEERING

### 1. List of Faculty (as of 31 March 2022):

S.No.	Name of Faculty	Designation	Highest Qualification
1.	Dr. Harish Kumar	Assistant Professor	PhD
2.	Dr. Abhishek Mishra	Assistant Professor	PhD
3.	Dr. Leeladhar Nagdeve	Assistant Professor	PhD
4.	Dr. Ashok Kumar Dewangan	Assistant Professor	PhD

### 2. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Organized in 2021-2022:

S. No.	Workshop/Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Coordinator/ Convener/ Chairman
1.	FDP	"Modern Trends in Manufacturing Processes and Control Techniques in Renewable Energy System"	NIT Delhi	November 16-21, 2021.	Dr. Harish Kumar, Chairman
2.	FDP	Modern Trends in Manufacturing and Thermal Sciences (MMTSc-2022)	Mechanical Engg. NIT Delhi	April 5-10, 2022	Dr. Harish Kumar, Chairman
3.	FDP	"Modern Trends in Manufacturing Processes and Control Techniques in Renewable Energy System"	NIT Delhi	November 16-21, 2021.	Dr. Leeladhar Nagdeve, Coordinator
4.	Conference	6 <sup>th</sup> International Conference on Advanced Production and Industrial Engineering (ICAPIE-2021)	CAPIER Delhi	June 18-19, 2021	Dr. Leeladhar Nagdeve, Organizing Secretary
5.	Conference	1 <sup>th</sup> International Conference on Design and Materials (ICDM-2022)	CIDE & DTU Delhi	January 27-30, 2022	Dr. Leeladhar Nagdeve, Organizing Secretary
6.	FDP	Modern Trends in Manufacturing and Thermal Sciences (MMTSc-2022)	Mechanical Engg. NIT Delhi	April 5-10, 2022	Dr. Ashok Kumar Dewangan, Coordinator

### 3. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Attended in 2021-2022:

S. No.	Workshop/Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Faculty Attended by
1.	Conference	6 <sup>th</sup> International Conference on Advanced Production and Industrial Engineering (ICAPIE-2021)	CAPIER Delhi	June 18-19, 2021	Dr. Harish Kumar, Chairman
2.	Conference	1 <sup>th</sup> International Conference on Design and Materials (ICDM-2022)	CIDE & DTU Delhi	January 27-30, 2022	Dr. Harish Kumar, Chairman



3.	International Conference	INCOME 2021	Department of Mechanical Engineering, NSUT Delhi	November 25-26, 2021	Technical Session Chair
4.	Online QIP	Advancement in Manufacturing Processes and Techniques	IIT Bhubaneswar	July 12-16, 2021	Dr. Leeladhar Nagdeve
5.	One Week ATAL-FDP	"Manufacturing: Hindsight to Foresight"	BITS Pilani	July 16-21, 2021	Dr. Leeladhar Nagdeve
6.	One Week ATAL-FDP	Artificial Intelligence in Design and Manufacturing	SGSITS Indore	July 26-30, 2021	Dr. Leeladhar Nagdeve
7.	FDP	Artificial Intelligence in Design and Manufacturing	SGSITS Indore	July 26-30, 2021	Dr. Ashok Kumar Dewangan
8.	FDP	Digital Additive Manufacturing (3D Printing)	Mechatronics Engineering, ICFAI Foundation for Higher Education Hyderabad	Sept, 6-10, 2021	Dr. Ashok Kumar Dewangan
9.	FDP	Modern Trends in Manufacturing Processes and Control Techniques in Renewable Energy System	Mechanical Engineering, NIT Delhi	Nov, 16-21, 2021	Dr. Ashok Kumar Dewangan
10.	FDP	Current Field Practices for Energy and Utility Systems	Mechanical Engineering, Govt. Engg. college Dahod	Dec 6-12, 2021	Dr. Ashok Kumar Dewangan

#### 4. Expert Lecture Delivered by Departmental Faculty in 2021-2022:

S. No.	Title of the Expert Talk	Name of the Event	Organized By	Duration	Faculty Delivered Expert Talk
1.	Nano-Finishing Techniques for Bio-Materials	Modern Trends in Manufacturing Processes and Control Techniques in Renewable Energy System"	NIT Delhi	November 16-21, 2021	Dr. Leeladhar Nagdeve
2.	Sustainable Alternative Fuels for Internal Combustion Engines	FDP on Modern Trends in Manufacturing Processes and Control Techniques in Renewable Energy System	Mechanical Engg., NIT Delhi	Nov, 16-21, 2021	Dr. Ashok Kumar Dewangan
3.	Energy Efficiency and R&D Opportunities in Vapor Compression Refrigeration System	FDP on Green Technologies & Sustainable Development	Civil Engineering, Raj Kumar Goel Institute of Technology, Ghaziabad.	July 19-23, 2021	Dr. Ashok Kumar Dewangan
4.	A Route towards Hybridized Vapor Compression Refrigeration System	Webinar in association with ADIT ISHRAE Student Chapter	Mechanical Engineering, ADITNew Vallabh Vidyanagar, Gujarat	July 26 <sup>th</sup> , 2021	Dr. Ashok Kumar Dewangan



## 5. Journal Publications by the Departmental Faculty in 2021-2022:

S.No.	Name of the Authors	Title of the paper	Name of the Journal	Volume	Page number	Month and Year of Publication
1.	Meena Pant, Leeladhar Nagdeve, Harish Kumar, Girija Moona	A contemporary investigation of metal additive manufacturing techniques	Sādhanā	47	1-19	March, 2022
2.	Jagannath Verma, Leeladhar Nagdeve, Harish Kumar	Tribological investigations into pin-on-disc tribometer under dry sliding conditions at various temperature ranges	Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering	236	178-186	February 2022
3.	Girija Moona, Vinod Kumar, Mukesh Jewariya, Harish Kumar, Rina Sharma	Measurement uncertainty assessment of articulated arm coordinate measuring machine for length measurement errors using Monte Carlo simulation	The International Journal of Advanced Manufacturing Technology	-	1-14	January 2022
4.	Kannan Govindan, Harish Kumar, Sanjay Yadav	Advances in Mechanical and Materials Technology: Select Proceedings of EMSME 2020	Springer Singapore	-	-	2022
5.	Harish Kumar, Richa Saxena, Sanjoy K Ghoshal	Design, Development, and Metrological Investigation of a Trapezoidal-shaped Force Transducer	Indian Journal of Pure & Applied Physics (IJPAP)	59	835-844	December 2021
6.	Harish Kumar, Anuj Sharma, Yogesh Shrivastava, Shahroz Akhtar Khan, Pawan K Arora	Optimization of Process Parameters of Pin on Disc Wear Set up for 3D Printed Specimens	Journal of Engg. Research EMSME Special Issue pp	133	145	November, 2021
7.	H Kumar Pant M, P Pidge, L Nagdeve	A review of additive manufacturing in aerospace application	Revue des Composites et des Matériaux Advances	31	109-115	May 2021
8.	Pant, Meena Pidge, Pritam Kumar, Harish Nagdeve, Leeladhar Moona, Girija	Additive manufacturing: The significant role in biomedical and aerospace applications	Additive manufacturing; 3D printing; Biomedical implants; Aerospace industry	28	330-342	August 2021



9.	Neeraj Kumar, Abhishek Mishra	EEDLNN Algorithm for Assessing the Vulnerability in Railway Network with Respect to Passengers and Trains	Wireless Personal Communications	<a href="https://doi.org/10.1007/s11277-021-09080-0">https://doi.org/10.1007/s11277-021-09080-0</a>	1-18	September 2021
10.	P Yadav, A Ranjan, H Kumar, A Mishra, J Yoon	A Contemporary Review of Aluminium MMC Developed through Stir-Casting Route	Materials	14(21)	1-30	October 2021
11.	Jagannath Verma, Leeladhar N and Harish Kumar	Tribological investigations into Pin-on-Disc Tribometer under dry sliding condition at various temperature range	Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering,	236	178-186	2022
12.	Meena Pant, Leeladhar Nagdeve, Harish Kumar and Girija Moona	A Contemporary investigation of additive manufacturing: Techniques, Applications, and Challenges	SADHANA	47(1)	1-19	2022
13.	Meena Pant, Pritam Pidge, Harish Kumar, Leeladhar Nagdeve, Girija Moona	Additive manufacturing: The significant role in biomedical and aerospace applications	Indian Journal of Engineering & Materials Sciences	28	1-17	2021
14.	T. N. Verma, P. K. Chaurasiya, U. Rajak, K. K. Dhakar, Leeladhar Nagdeve	A numerical study on the effect of engine characteristics by using Ethanol- Moringa-Diesel Fuel"	Journal of Engineering Research (JER)	-	7-11	2021
15.	Ashok K. Dewangan, Anil Kumar and Ravi Kumar	Experimental Study of Bubble Behaviors during Boiling of a Hydrocarbon Refrigerant	International Journal of Thermal Sciences	166	1-10	2021
16.	Sanjeev K Sajjan, Ashok K. Dewangan, Ravi Kumar and Akhilesh Gupta	Experimental Investigation and Non-dimensional Regression Analysis of Condensation Heat Transfer of R-600a over Finned Tubes	International Journal of Thermal Sciences	170	1-10	2021





## 6. Conference Papers Presented by the Departmental Faculty in 2021-2022:

S. No.	Name of the Authors	Title of the paper	Name of the Conference	Place and Country where the Conference Held	Organizer of the Conference	Date of Presentation
1.	Meena Pant, Leeladhar Nagdeve, Girija Moona, Harish Kumar, Anuj Sharma	"Tribological assessment of 316L stainless steel fabricated by selective laser melting process"	2nd Virtual International Tribology Research Symposium (ITRS-2)	SRM Institute of Science & Technology, Nami Nadu		December 8-10, 2021
2.	Meena Pant, Leeladhar Nagdeve, Girija Moona, Harish Kumar, Jitendra Kumar Katiyar	"Influence of process variables on tensile behaviour of 316L stainless steel samples fabricated via selective laser melting process",	2nd Virtual International Tribology Research Symposium (ITRS-2)	SRM Institute of Science & Technology, Nami Nadu, during		December 8-10, 2021
3.	Vivek Joshi, Leeladhar Nagdeve, Harish Kumar, J K Katiyar	"Investigation of Wear behaviour of Hybrid LM30 Metal Matrix Composites (MMCs) Fabricated through Stir Casting Rout"	2nd Virtual International Tribology Research Symposium (ITRS-2)	SRM Institute of Science & Technology, Nami Nadu		December 8-10, 2021
4.	Akash Gupta, Leeladhar Nagdeve, Harish Kumar*	"Performance Evaluation of Wire-EDM process of EN-31 using multiple electrode material"	2nd Virtual International Tribology Research Symposium (ITRS-2)	SRM Institute of Science & Technology, Nami Nadu		December 8-10, 2021
5.	Hansdev Paswan, Harish Kumar and Leeladhar Nagdeve (2021)	Review on Recent Trend in Aluminum Composite	6 <sup>th</sup> International Conference on Advanced Production and Industrial Engineering (ICAPIE - 2021)	Delhi Technological University (DTU), Delhi, INDIA.	CAPIER	June 18-19, 2021
6.	Shubham Singh, Leeladhar Nagdeve, Harish Kumar and Krishnakant Dhakar	Rice Straw Based Natural Fiber Reinforced Polymer for Sustainable Bio-Composites: A Critical Review"	6 <sup>th</sup> International Conference on Advanced Production and Industrial Engineering (ICAPIE - 2021)	Delhi Technological University (DTU), Delhi, INDIA.	CAPIER	June 18-19, 2021
7	Sudhir Kumar, S. K. Ghoshal, P. K. Arora, Leeladhar Nagdeve	Optimization of Process Variables in Sinking EDM using Artificial Neural Network (ANN) Method	8 International & 29 All India Manufacturing Technology, Design and Research Conference	Department of Mechanical Engineering PSG College of Technology during December 9-11, 2021.		December 9-11, 2021



8	Meena Pant, Leeladhar Nagdeve, Girija Moona, Harish, Kumar, Anuj Sharma	"Tribological assessment of 316L stainless steel fabricated by selective laser melting process"	2nd Virtual International Tribology Research Symposium (ITRS-2)	SRM Institute of Science & Technology, Nami Nadu		December 8-10, 2021
9	Meena Pant, Leeladhar Nagdeve, Girija Moona, Harish, Kumar, Jitendra Kumar Katiyar	"Influence of process variables on tensile behaviour of 316L stainless steel samples fabricated via selective laser melting process",	2nd Virtual International Tribology Research Symposium (ITRS-2)	SRM Institute of Science & Technology, Nami Nadu		December 8-10, 2021
10	Vivek Joshi, Leeladhar Nagdeve, Harish Kumar, J K Katiyar	"Investigation of Wear behaviour of Hybrid LM30 Metal Matrix Composites (MMCs) Fabricated through Stir Casting Route"	2nd Virtual International Tribology Research Symposium (ITRS-2)	SRM Institute of Science & Technology, Nami Nadu		December 8-10, 2021
11	Akash Gupta, Leeladhar Nagdeve, Harish Kumar	"Performance Evaluation of Wire-EDM process of EN-31 using multiple electrode material"	2nd Virtual International Tribology Research Symposium (ITRS-2)	SRM Institute of Science & Technology, Nami Nadu		December 8-10, 2021
12	Navita, Leeladhar Nagdeve, Harish Kumar	"Use of Algae in Several Fields"	2nd Virtual International Tribology Research Symposium (ITRS-2)	SRM Institute of Science & Technology, Nami Nadu		December 8-10, 2021
13	Mahesh Patel, S. Sangral, M. Jayaprakash, R. S. Yadav, K. Dhakar, and Leeladhar Nagdeve	Mechanical Behavior of Titanium Foam Fabricated Using $\text{NH}_3\text{HCO}_3$ Space Holder through Powder Metallurgy Route",	6 <sup>th</sup> International Conference on Advanced Production and Industrial Engineering (ICAPIE - 2021)	Delhi Technological University (DTU), Delhi, INDIA	CAPIER	June 18-19, 2021
14	Hansdev Paswan, Harish Kumar and Leeladhar Nagdeve (2021)	Review on Recent Trend in Aluminum Composite	6 <sup>th</sup> International Conference on Advanced Production and Industrial Engineering (ICAPIE - 2021)	Delhi Technological University (DTU), Delhi, INDIA.	CAPIER	June 18-19, 2021



15	Shubham Sungh, Leeladhar Nagdeve, Harish Kumar and Krishnakant Dhakar	Rice Straw Based Natural Fiber Reinforced Polymer for Sustainable Bio-Composites: A Critical Review"	6 <sup>th</sup> International Conference on Advanced Production and Industrial Engineering (ICAPIE - 2021)	Delhi Technological University (DTU), Delhi, INDIA.	CAPIER	June 18-19, 2021
16	Sanjeev K. Sajjan and Ashok K. Dewangan	Vapor Condensation of Iso-Butane over Plain Tube and 24 fpi finned tube placed horizontally	Proceedings of the 26 <sup>th</sup> National and 4th International ISHMT-ASTFE Heat and Mass Transfer Conference	Chennai, India	IIT Madras	2021

#### 7. Book Chapters Published by the Departmental Faculty in 2021-2022:

S.No.	Name of the Authors	Title of the Book Chapter	Name/ Details of the Book where the Chapter is Published	Volume	Page number	Publisher
1.	Meena Pant, Leeladhar Nagdeve, VC Pandey, Harish Kumar	Review of Recent Trends in Additive Manufacturing	Innovations in Cyber Physical Systems	978-981-16-4149-7	641-650	Springer, Singapore
2.	Abhishek, Abhishek Mishra	Numerical Analysis of Artificial Hip Joints for Standing and Sit-to-Stand Positions	Lecture Notes in Mechanical Engineering	Advances in Engineering Design	623-632	Springer
4.	Ashwini Shrivastava, Devendra Singh, Ajay Kumar Sharma, Ashok K. Dewangan	Design and Performance Analysis of a Wick-Type Solar Distillation Unit	Advances in Mechanical and Materials Technology	978-981-16-2794-1	-	Springer
5.	Ashok K. Dewangan, and Sanjeev K. Sajjan	Boiling Behavior of Iso-Butane on a Horizontal Plain Tube	Advances in Thermal Engineering, Manufacturing, and Production Management	978-981-16-2346-2	23-32	Springer
6.	Syed Q. Moinuddin, Ashok K. Dewangan, and Suuraj Roshan	Direct Metal Laser Sintering Process	Advances in Additive Manufacturing Processes	978-981-5036-34-3	55-79	Bentham Science



## 8. Book Published by the Departmental Faculty in 2021-2022:

S.No.	Name of the Authors	Title of the Book	Name/ Details of the Book	Volume	Page number	Publisher
1.	Kaliyan Mathiyazhagan, K. E. K. Vimal, Harish Kumar, Anbanandam Ramesh, Vernika Agarwal	Lean and Green Manufacturing	Towards Eco-Efficiency and Business Performance	978-981-16-5551-7	XIV, 189	Springer Singapore
2.	Kannan Govindan, Harish Kumar, Sanjay Yadav	Advances in Mechanical and Materials Technology	Select Proceedings of EMSME 2020	978-981-16-2794-1	XX, 1467	Springer Singapore
3.	Ranganath M. Singari, Prashant Kumar Jain, Harish Kumar	Advances in Manufacturing Technology and Management	Proceedings of 6th International Conference on Advanced Production and Industrial Engineering (ICAPIE)—2021	9789811695223	XII, 794	Springer Singapore
4.	Ranganath M. Singari, Kaliyan Mathiyazhagan, Harish Kumar	Advances in Manufacturing and Industrial Engineering	Select Proceedings of ICAPIE 2019	978-981-15-8544-9	XVI, 1211	Springer Singapore
5.	Sanjay Yadav, Abid Haleem, P. K. Arora, Harish Kumar	Proceedings of Second International Conference in Mechanical and Energy Technology	ICMET 2021, India	9789811901072	X, 582	Springer Singapore

## 9. Student's Thesis/ Project Guidance in 2021-2022:


### M. Tech Students:

S. No.	Roll No.	Name of Student	Date of Defense	Main Supervisor	Joint Supervision (if any)	Title of Dissertation
1.	192311002	Chilumula Sathya Raj	2021	Ashok Kumar Dewangan	-	Failure mode investigation of Aluminum Alloy 6061-T6 single lap bolt joints
2.	192311003	Deepak Kumar	2021	Ashok Kumar Dewangan	-	Modeling and analysis of Rotary lime kiln
3.	192311004	Devendra Nagpure	2021	Ashok Kumar Dewangan	-	Modeling and simulation of twin wire arc additive manufacturing
4.	192311005	Hansdev Paswan	2021	Dr. Harish Kumar	Dr. Leeladhar Nagdeve	Fabrication and Tribological study of Al6061 reinforcement composites



5.	192311006	Roopesh K	2021	Dr. Abhishek Mishra	Ashok Kumar Dewangan	Vibration investigation and solution of flue gas mixing chamber
6.	192311009	Matta Venkata Durga Sai Kalyan	2021	Dr. Harish Kumar	Dr. Leeladhar Nagdeve	Parameter Optimization Of Wear And Friction Of Metal Additive Manufactured Aluminum AISi7Mg Specimen And Validation With Artificial Neural Network And Tensor Flow Architecture
7.	192311010	Rahul Kumar	2021	Dr. Leeladhar Nagdeve	Dr. Harish Kumar	Design Analysis Of Tool Head & Experimental Investigation Into 5-Axis Near Dry EDM
8.	192311011	Rahul K Bind	2021	Ashok Kumar Dewangan	-	Modelling And Simulation of Heat Source in Selective Laser Melting of $Ti_6Al_4V$
9.	192311012	Shubham Singh	2021	Dr. Leeladhar Nagdeve	Dr. Harish Kumar	Strategies For The Production Of Low Sulphur Hot Metal At AM/ NS India





# **Part – II**

## **Audit Report and Annual Accounts (2021 – 2022)**





सत्यमेव जयते

**कार्यालय महानिदेशक लेखा परीक्षा (केन्द्रीय व्यय)**  
**Office of the Director General of Audit, (Central Expenditure)**  
**इन्द्रप्रस्थ इस्टेट, नई दिल्ली-110 002**  
**Indraprastha Estate, New Delhi -110 002**

ए.एम.जी.-III/एस.ए.आर/एन.आई.टी./9-42/2022-23/

दिनांक: 01.10.2022

सेवा में,

सचिव, भारत सरकार,  
उच्चतर शिक्षा विभाग,  
शिक्षा मंत्रालय,  
शास्त्री भवन, नई दिल्ली-110001

**विषय : वर्ष 2021-22 के लिए राष्ट्रीय तकनीकी संस्थान, दिल्ली के लेखाओं पर पृथक लेखापरीक्षा प्रतिवेदन**

महोदया/महोदय,

मैं राष्ट्रीय तकनीकी संस्थान, दिल्ली के वर्ष 2021-22 के प्रमाणित वार्षिक लेखे की प्रति उसके प्रतिवेदन तथा लेखापरीक्षा प्रमाणपत्र की प्रति सहित संसद के पटल पर रखने के लिए संलग्न करती हूँ।

संसद को प्रस्तुत कर दस्तावेज की दो प्रतियाँ उस तिथि को दर्शाते हुए, जब वे संसद को प्रस्तुत किये गए थे, इस कार्यालय को तथा भारत के नियंत्रक एवं महालेखापरीक्षक के कार्यालय को भेजी जाए।

कृपया यह सुनिश्चित किया जाये कि पृथक लेखापरीक्षा प्रतिवेदन को संसद के दोनों सदनों के समक्ष प्रस्तुत करने से पहले वार्षिक लेखाओं को शासी निकाय (Governing Body) द्वारा अनुमोदित अवश्य करा लिया जाये तथा यह भी सुनिश्चित करें कि 2021-22 के लेखापरीक्षा प्रतिवेदन एवं लेखापरीक्षा प्रमाणपत्र को संसद के पटल पर रखने से पहले सभी पूर्व वर्षों के लेखापरीक्षा प्रतिवेदन एवं लेखापरीक्षा प्रमाणपत्र संसद के पटल पर प्रस्तुत किये जा चुके हों।

लेखापरीक्षा प्रतिवेदन का हिंदी अनुवाद एवं इसे जारी करने से सम्बन्धित सभी कार्यों को आपके निकाय द्वारा किया जाना ही अपेक्षित है। पृथक लेखापरीक्षा प्रतिवेदन का हिंदी अनुवाद जारी करते समय निम्नलिखित अस्वीकरण (disclaimer) अंकित करें।

“प्रस्तुत प्रतिवेदन मूल रूप से अंग्रेजी में लिखित पृथक लेखापरीक्षा प्रतिवेदन का हिंदी अनुवाद है। यदि इसमें कोई विसंगति परिलक्षित होती है तो अंग्रेजी में लिखित प्रतिवेदन मान्य होगा।”

भवदीया,

संलग्नक: यथोपरि

**निदेशक (ए.एम.जी.-III)**



ए.एम.जी.-III/एस.ए.आर/एन.आई.टी./9-42/2022-23/1113

दिनांक: 21.10.2022

प्रति, प्रमाणित वार्षिक लेखे कि प्रति, उसके लेखापरीक्षा प्रतिवेदन तथा लेखापरीक्षा प्रमाणपत्र की प्रति सहित निदेशक, राष्ट्रीय तकनीकी संस्थान, प्लॉट नं एफए 7, ज़ोन पी.1, जीटी करनाल रोड, दिल्ली- 110036 को आवश्यक कार्यवाही हेतु अग्रेषित की जाती है। वार्षिक लेखाओं की हिंदी प्रति की 1 प्रति आवश्यक कार्यवाही हेतु इस कार्यालय को भेजी जाए।

संसद को प्रस्तुत कर दस्तावेज की दो प्रतियाँ उस तिथि को दर्शाते हुए, जब ये संसद को प्रस्तुत किये गए थे, इस कार्यालय को तथा भारत के नियंत्रक एवं महालेखापरीक्षक के कार्यालय को भेजी जाए।

संलग्नक: यथोपरि

निदेशक (ए.एम.जी.-III)

ए.एम.जी.-III/एस.ए.आर/एन.आई.टी./9-42/2022-23/

दिनांक: 10.10.2022

प्रति, प्रमाणित वार्षिक लेखे कि प्रति, उसके लेखापरीक्षा प्रतिवेदन तथा लेखापरीक्षा प्रमाणपत्र की प्रति सहित महानिदेशक (स्वायत्त निकाय), भारत के नियंत्रक एवं महालेखापरीक्षक का कार्यालय, 9, दीन दयाल उपाध्याय मार्ग, नई दिल्ली-110124 को अग्रेषित की जाती है।

यह महानिदेशक लेखापरीक्षा (केंद्रीय व्यय) के अनुमोदन से जारी किया जा रहा है।

संलग्नक: यथोपरि

निदेशक (ए.एम.जी.-III)





## Separate Audit Report of the Comptroller & Auditor General of India on the Accounts of National Institute of Technology, Delhi for the year ended 31<sup>st</sup> March 2022

We have audited the attached Balance Sheet of the National Institute of Technology, Delhi (NITD) as at 31st March 2022, the Income & Expenditure Account and Receipts & Payment Account for the year ended on that date under Section 19(2) of the Comptroller & Auditor General's (Duties, Powers & Conditions of Service) Act, 1971 read with section 22(2) of NIT Act 2007. These financial statements are the responsibility of the NITD's Management. Our responsibility is to express an opinion on these financial statements based on our audit.

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

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

4. Based on our audit, we report that:

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

ii The Balance Sheet and Income & Expenditure Account and Receipts & Payments Account dealt with by this report have been drawn up in the format prescribed by the Ministry of Education, Government of India.

iii In our opinion, proper books of accounts and other relevant records have been maintained by the Institute in so far as it appears from our examination of such books.

iv We further report that:

### A. Grants-in-aid

During the year 2021-22, the National Institute of Technology (NIT), Delhi received grants-in-aid of Rs. 24.09 crore. It had an opening balance of Rs. 72.76 crore (previous year SAR) and amount of Rs. 3.72 crore was transferred from Capital Fund. Out of the total Grants-in-aid of Rs. 100.57 crore, it utilized Rs. 41.75 crore and grant-in-aid of Rs. 5.96 crore was lapsed leaving unutilized grant-in-aid of Rs. 52.86 crore as on 31 March 2022.

The difference of Rs. 67 lakh between the above figure of unutilized grant-in-aid as on 31 March 2022 (Rs. 52.86 crore) and the figures of the accounts (Rs. 52.19 crore) is due to booking of expenditure of provisions of retirement benefits of Rs. 67 lakh against grant-in-aid in the year 2019-20 which needs to be rectified in the accounts.

### B. Management Letter





Deficiencies which have not been included in the Audit Report have been brought to the notice of the Director, National Institute of Technology, Delhi through a management letter issued separately for remedial/corrective action.

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

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

(a) in so far as it relate to the Balance Sheet of the state of affairs of the National Institute of Technology, Delhi as at 31 March 2022; and

(b) in so far as it relate to the Income and Expenditure Account of the surplus for the year ended on that date.

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

**Director General of Audit  
(Central Expenditure)**

**Place: New Delhi**

**Date:**



### Annexure to report

#### 1. Adequacy of internal audit system

- Internal Audit wing has been established in NIT Delhi in Jan 2022 to conduct pre-audit. Internal audit for the year 2021-22 has been done by CA firm.
- No internal audit was conducted by the Pr. Pay & Accounts Office of the Ministry of Education.

#### 2. Adequacy of internal control system

##### Control Environment

The internal control of the NITD needs to be strengthened in the following area:

- As per the provisions of General Financial Rules 2017, adjustment bill for Advances for contingent & miscellaneous purpose are to be submitted within 15 days of the drawal of Advance. However advances amounting to Rs. 18000 pertaining to the period 2016-17 were outstanding as on 31 March 2022.

#### 3. System of physical verification of Assets

- The physical verification of Fixed Assets except Library books was conducted up to 2019-20 and thereafter no physical verification was conducted.
- Physical verification of Library books was conducted up to 2021-22 and no major deficiency was found.

#### 4. System of physical verification of inventory

- Physical verification of Stationery and Consumables were conducted up to 2021-22 and no major deficiency was found.

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

- As per accounts, no payments in respect of statutory dues were outstanding for more than six months as on 31.3.2022.



सत्यमेव जयते

सौम्या परिहार  
निदेशक (ए.एम.जी-III)

ए.एम.जी.-III/एस.ए.आर./एन.आई.टी./9-42/2022-23/115

कार्यालय महानिदेशक लेखा परीक्षा  
(केन्द्रीय व्यय), नई दिल्ली

Office of the Director General of Audit  
(Central Expenditure), New Delhi

दिनांक: .10.2022

प्रबंधन पत्र

प्रिय महोदय

राष्ट्रीय तकनीकी संस्थान दिल्ली, के वर्ष 2021-22 के लेखों की लेखापरीक्षा कर ली गयी है और मेरे कार्यालय के पत्र संख्या ए.एम.जी.-III/एस.ए.आर./एन.आई.टी./9-42/2022-23/113 दिनांक: 2.10.22 के द्वारा लेखापरीक्षा प्रतिवेदन जारी कर दिया गया है। लेखापरीक्षा के दौरान यह देखा गया है कि पिछले प्रतिवेदनों में इंगित किए जाने के बावजूद कुछ अनियमितताओं एवं कमियों पर कोई कार्रवाई नहीं की गई है। इन कमियों को संलग्न अनुबन्ध के भाग-ए में दर्शाया गया है। अन्य अनियमितताओं एवं कमियों को अनुबन्ध के भाग-बी में दर्शाया गया है, जिन्हें लेखापरीक्षा प्रतिवेदन में शामिल नहीं किया गया है।

अतः इस पर आपका ध्यान आकर्षित करते हुए मेरा अनुरोध है कि इन अनियमितताओं एवं कमियों पर उचित कार्रवाई की जाए।

सविनय,

भवदीया,  
सौम्या

डॉ अजय कुमार शर्मा जी  
निदेशक,  
राष्ट्रीय तकनीकी संस्थान,  
एफ.ए. 7, ज़ोन, पी-1,  
जी.टी. करनाल रोड,

2022





## Annexure to Management letter

### Part-A Persistent Irregularities

#### 1. Current Liabilities and Provisions (Schedule 3)- 62.76 crore

In the SAR for the year 2019-20 and 2020-21 comment has been raised regarding incorrect depiction of unutilised grant-in-aid due to booking of expenditure of provisions of retirement benefits of Rs. 70 lakh against grant-in-aid in the year 2019-20.

NIT has now replied that out of Rs. 70 lakh, Rs. 13.43 lakh is the actual expenditure on retirement benefits and not provisions. The provision for gratuity amounting to Rs. 35.34 lakh has been reversed back during 2021-22. The Balance amount of Rs. 21.23 lakh which is provision for leave encashment (for the year 2019-20) shall be reversed in the year 2022-23.

However it has been noticed that further provision for leave encashment of Rs. 45.76 lakh (for the year prior to 2019-20) was also claimed as expenditure from grant in the year 2019-20 by booking under prior period expenses. The same also needs to be added back to the unutilised grant-in-aid.

The failure to add back to the unutilised grant-in-aid, the provision for leave encashment of Rs. 66.99 lakh (2019-20: Rs 21.23 lakh and for years prior to 2019-20: Rs. 45.76 lakh) incorrectly claimed as expenditure against grant in the year 2019-20 has resulted in understatement of Current Liabilities & Provisions –unutilised grant-in-aid and overstatement of Capital Fund by Rs. 66.99 lakh.

2. 56 employees of NIT, Delhi are covered under NPS but separate accounts of NPS was not maintained by the Institute. This is contravention of the format of accounts prescribed by the Ministry of Education. This is being pointed out since 2019-20 but no remedial action has been taken by NIT, Delhi.

### Part-B Other Irregularities

1. In the Balance Sheet under the head of Current Liabilities and Provisions an amount of Rs. 62,75,56,534/- has been shown, whereas in the Schedule 3 of Current Liabilities and Provisions amount of Rs. 58,72,05,850/- has been shown. The difference of Rs. 4,03,50,684 is due to unutilised grant-in-aid taken as Rs. 48,15,81,301 in the Schedule 3 whereas as per the Schedule 10 (Grants/Subsidies) of the Accounts the unutilised grant-in-aid is Rs. 52,19,31,984.

Schedule 3 of the Accounts may be rectified.

2. The nomenclature of Plan and Non-Plan Grant had been discontinued by the Govt. of India w.e.f financial year 2017-18. However, in the Schedule 10 and Schedule 15 to Schedule 22, this nomenclature has been followed. This may be rectified as per the guidelines of Ministry in this regard.







**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Balance Sheet as at 31.03.2022**

**Amount in Rs.**

<b>Sources of Funds</b>	<b>Schedule</b>	<b>Current Year</b>	<b>Previous Year</b>
Corpus/Capital Fund	1	2,780,550,070	2,546,489,515
Designated/Earmarked/Endowment Funds	2	91,812,472	70,493,093
Current Liabilities And Provisions	3	627,556,534	802,853,133
<b>Total</b>		<b>3,499,919,075</b>	<b>3,419,835,740</b>
<b>Application of Funds</b>	<b>Schedule</b>	<b>Current Year</b>	<b>Previous Year</b>
Fixed Assets			
Tangible Assets 66,340,138			
Intangible Assets 2,139,783			
Capital Works-In -Progress 2,305,501,113	4	2,373,981,034	2,185,853,753
Investments - From Earmarked/Endowment Funds	5	-	-
Long Term		-	-
Short Term		-	-
Investments - Others	6	-	-
Current Assets	7	947,460,977	1,050,350,724
Loans, Advances & Deposits	8	178,477,064	183,631,263
<b>Total</b>		<b>3,499,919,075</b>	<b>3,419,835,740</b>
Significant Accounting Policies	23		
Notes On Accounts and Contingent Liabilities	24		

Accountant  
NIT Delhi

Asstt.Registrar  
NIT Delhi

Registrar  
NIT Delhi

Director  
NIT Delhi

Date: 04/08/2022  
Place: Delhi



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Income And Expenditure Account For The Year Ended On 31.03.2022**

**Amount in Rs.**

<b>Income</b>	<b>Schedule</b>	<b>Current Year</b>	<b>Previous Year</b>
Academic Receipts	9	64,585,594	51,335,086
Grants/Subsidies/IRG	3c	217,254,486	232,192,141
Income from Investments	11	26,509,100	28,052,526
Interest Earned	12	356,213	5,884,948
Other Income	13	2,660,531	9,003,045
Prior Period Income	14	37,154,620	1,635,240
<b>Total</b>		<b>348,520,545</b>	<b>328,102,986</b>
<b>Expenditure</b>	<b>Schedule</b>	<b>Current Year</b>	<b>Previous Year</b>
Staff payments & benefit(Establishments Expenses)	15	111,860,542	104,235,579
Academic Expenses	16	826,975	609,690
Administrative and General Expenses	17	136,412,501	131,962,146
Transportation Expenses	18	1,169,430	821,671
Repair and Maintenance	19	2,856,899	3,552,609
Finance Cost	20	37,668	21,194
Depreciation	4	13,037,523	13,149,312
Prior Period Depreciation		939,285	-
Other Expenses	21	-	-
Interest on Term Deposit/Saving Bank transfer to Ministry (FY 2020-21)		9,222,797	-
Prior Period Expenses	22	1,201,760	718,468
<b>Total</b>		<b>277,565,381</b>	<b>255,070,669</b>
Balance being excess of Income over Expenditure		70,955,164	73,032,317
<b>Balance Being Surplus/Deficits Carried To Capital/Corpus Fund</b>		<b>70,955,164</b>	<b>73,032,317</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Receipt & Payment Account For The Year Ended On 31.03.2022**

Receipts					Payments					Amount in Rs.	
Receipts		Current Year	Previous Year		Current Year	Previous Year					
I Opening Balance					I. Expenses						
(1) Cash Balance (Include Imprest)		820,169	789,742		--- Establishment Expenses		96,850,413	95,603,798			
(2) Bank Accounts					--- Academic Expenses		776,975	629,694			
In Schedule Banks		542,660,356	867,301,412		--- Administration Expenses		132,228,263	126,141,944			
In Deposit Accounts		506,257,518	194,592,008		--- Transportation Expenses		1,169,430	821,671			
II Grant Received (Sch-3(c))					--- Repair & Maintenance Expenses		2,856,899	3,552,609			
--- Grant From Central Government		181,374,606	422,641,317		--- Finance Cost		37,668	21,194			
III Academic Receipts		64,585,594	51,335,086		--- Interest on Term Deposit/Saving Bank transfer to Ministry (FY 2020-21)		9,222,797	-			
					--- Prior Period Expenses		1,201,760	718,468			
IV Security Deposit from Students											
--- Increase in Hostel Security Deposit		380,000	480,000		II. Payment Against Earmarked/Endowment Fund		164,486	712,228			
--- Increase in Mess Security Deposit		380,000	480,000		III. Payment Against Sponsored Projects		9,082,794	22,128,257			
--- Increase in Caution Money		3,980,000	3,700,000		IV. Payment Against Sponsored Fellowship and Scholarship						
V Receipts Against Earmarked/Endowment Fund					V. Investments and Deposit made						
--- Institute Development Funds		7,438,500	5,754,000		--- Out of Earmarked/Endowments Funds						
--- Games Fund, Sports and Culture Funds		4,506,500	4,131,500		--- Out of Own Funds						
--- Students Aid and Welfare Funds		1,353,500	1,031,500		VI. Term Deposit with Schedule						
--- Students Club		-	-								
--- Medical Funds		935,000	976,915		VII. Expenditure On Fixed Asssts and Capital						
--- Library and Books Bank		2,498,866	2,121,000		--- Fixed Assets		7,962,257	289,081			
--- Industrial Training & Placement		2,034,500	1,725,500		--- Capital Works In Progress		192,381,178	321,013,061			
--- Allumimi Association		339,000	230,000		VIII. Other Payment Inculde Statutory Payment						
--- Examination Funds		2,378,000	1,907,000		IX. Refund Of Grants		-	-			
--- Startup Fund			-		X. Deposites & Advance		-	-			
--- Faculty Dev. Prog.		-	-		XI. Other Payments						
--- Tech Fest		-	-								
--- Dasa Students Fund		-	-		--- Payments of EMD		108,163	1,280,000			
VI. Receipts Against Sponsored Projects		7,352,614	8,696,392		--- Payable to Students		-	-			
VII. Receipts Against Sponsored Fellowship and					--- Other Payments			-			
Scholarship					--- Payment of Security Deposits			30,000			
VIII. Income On Investments					--- Increase in Debtor		5,201,182				



---Earmarked/Endowments Funds			--- TDS receivable	403,956	
---Other Investments		-	--- Statutory Duty payable paid	365,220	
	26,220,136	25,249,675	--- Excess fee payable to Students	3,415,790	
<b>IX. Interest Received on</b>			--- Scholarship payable	947,579	
--- Bank Deposit		-			
--- Loan & Advance		-			-
--- Saving Bank Accounts	356,213	5,884,948	--- Preproject expense	-	372,540
<b>X. Investments encashed</b>			<b>XII. Closing Balance</b>		
<b>XI. Term Deposits with Scheduled Banks encashed</b>			(1) Cash Balance (Include Imprest)	174,932	820,169
<b>XII. Other Income (including Prior Period Income)</b>	38,875,869	9,420,095	(2) Bank Accounts		
<b>XIII. Deposits and Advances</b>	5,757,113	11,128,704	In Schedule Banks	420,858,697	542,660,356
<b>XIV. Miscellaneous Receipts</b>	354,666	996,595	In Deposit Accounts	520,607,433	506,257,518
<b>XV. Any Other Receipts</b>					
--- Excess received from Students		1,263,664			
--- Scholarship payable					
--- Received of EMD and security deposit		567,150			
--- Increase in Time Barred Cheque	57,779	415,025			
--- Interest payable to Ministry (FY 2021-22)	5,121,373	233,358			
<b>Total</b>	<b>1,406,017,872</b>	<b>1,623,052,588</b>	<b>Total</b>	<b>1,406,017,872</b>	<b>1,623,052,588</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Annexure to Receipt & Payment Account For The Year Ended On 31.03.2022**

S.No.	Particulars	Amount in Rs.
<b>1</b>	<b>Academic Receipts</b>	
	As per Income & Exp. A/c	64,585,594
	Add: Fee Outstanding during last year	-
	Add-Excess Fee Received	-
	Add: Advance Received during the year	-
		<u>64,585,594</u>
	<b>Less-Excess Fee Received</b>	
	Less: Advance received during previous year	-
	Less: Fee Outstanding during the year	-
	<b>Balance To Receipts &amp; Payments A/c</b>	<u><b>64,585,594</b></u>
<b>2</b>	<b>Other Income</b>	
	As per Income & Exp. A/c	39,815,154
	Add: Advance Received during the year	-
		<u>39,815,154</u>
	Depreciation Written Back Retrospectively	-
	Less: Advance received during previous year	-
	<b>Balance To Receipts &amp; Payments A/c</b>	<u><b>39,815,154</b></u>
<b>3</b>	<b>Receipts Against Sponsored Projects</b>	
	As per Sch-3(A)	<u>7,352,614</u>
	<b>Balance To Receipts &amp; Payments A/c</b>	<u><b>7,352,614</b></u>
	Payments Against Sponsored Projects	<u>9,082,794</u>
	<b>Balance To Receipts &amp; Payments A/c</b>	<u><b>9,082,794</b></u>
<b>4</b>	<b>EMD</b>	
	Add: Recd. During the year	-
	Less: Refunded during the year	-
<b>5</b>	<b>Establishment Expenses</b>	
	As per Income & Exp. A/c	111,860,542
	Add:- Provision for the year 2019-20	26,028,222
	Add:- Festival Advance 19-20	-
		<u>137,888,764</u>
	Less:- Festival Advance 19-20	-
	Less:- Provision for the year 2020-21	41,038,351
	<b>Balance To Receipts &amp; Payments A/c</b>	<u><b>96,850,413</b></u>





## 6 Academic Expenses

As per Income & Exp. A/c	826,975
Add:- Provision for the year 2019-20	182,551
Less:- Payment Yet to be made to Creditors	-
Add:- Prepaid Expenses 2019-20	-
	<hr/> 1,009,526
Less- Prepaid Expenses 2020-21	-
Less:- Provision for the year 2020-21	232,551
<b>Balance To Receipts &amp; Payments A/c</b>	<hr/> <b>776,975</b> <hr/>

## 7 Administration Expenses

As per Income & Exp. A/c	136,418,557
Add:- Provision for the year 2019-20	11,546,201
Add:- Payment made to Opening Creditors	196,594
Add:- Prepaid Expenses 2019-20	731,363
Add:- Closing Stock	-
	<hr/> 148,892,715
Less:- Provision for the year 2020-21	14,801,620
Less:- Payment Yet to be made to Creditors	1,862,832
Less:- Opening Stock	-
<b>Balance To Receipts &amp; Payments A/c</b>	<hr/> <b>132,228,263</b> <hr/>

## 8 Intt. Recd. On Deposits

As per Income & Exp. A/c	356,213
Add: Accrued of Last Year 2019-20	-
	<hr/> 356,213
Less: Accrued during the year 2020-21	-
<b>Balance To Receipts &amp; Payments A/c</b>	<hr/> <b>356,213</b> <hr/>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Fund/Corpus Fund**

**Schedule 1**

**Amount in Rs.**

S.No.	Particulars	Current Year	Previous Year
<b>A</b>	Balance at the beginning of the year	2,184,338,804	1,876,185,974
	Add: Contributions towards Corpus/Capital Fund	-	-
	Add: Grants from UGC, Government of India and State Government to the extent utilized for capital expenditure	200,306,633	321,302,142
	Add: Assets Purchased out of Earmarked Funds	-	-
	Add: Assets Purchased out of Sponsored Projects, where ownership vests in the institution		
	Add: Assets Donated/Gifts Received	-	-
	Less: Accumulated Depreciation upto 31.03.20 (trf from S.No. B below)	-	-
	Less: Depreciation for the FY 2020-21	13,976,808	(13,149,312)
	Less: Loss on fixed asset	-	-
	Add: Other Additions	-	-
	<b>Total (A)</b>	<b>2,398,622,245</b>	<b>2,184,338,804</b>
<b>B</b>	Suplus/(Deficifit) Opening Balance	362,150,711	275,969,082
	(Less): Excess of Expenditure over Income trasferred from the Income & Expenditure Account	-	-
	<b>Add: Excess of Income over Expenditure trasferred from the Income &amp; Expenditure Account</b>	-	-
	Excess of Academic Income over Academic Expenditure	63,758,619	-
	Others	7,196,545	73,032,317
	Add: Grants from UGC, Government of India and State Government to the extent utilized for Revenue Expenditure		-
	Add: Accumulated Depreciation upto 31.03.2020 trf to S.No. A above)	-	-
	Add: Depreciation for the FY 2020-21	(13,976,808)	13,149,312
	Less-Amount Transferred for Development for Novel Metal Project		
	Less-Amount Transferred to Unutilized Grant (For FY 2020-21)	(33,171,675)	-
	Less-Amount Transferred to Unutilized Grant (For FY 2021-22)	(4,029,568)	
	<b>Total (B)</b>	<b>381,927,824</b>	<b>362,150,711</b>
	<b>Total (A+B)</b>	<b>2,780,550,070</b>	<b>2,546,489,515</b>



Schedule 2

NATIONAL INSTITUTE OF TECHNOLOGY DELHI  
Earmarked/Endowment Fund

Amount in Rs.

Schedule - 2 Earmarked/ Endowment Fund	Alumni Association	Industrial Training & Placement	Institute Dev. Fund	Library & Book Bank	Games, Sports and Culture Funds	Students Aid and Welfare Funds	Examination Funds	DASA Students funds	Students Club	Medical Fund	Tech Fest	Startup Fund	Current Year	Previous Year	Total
<b>A.</b>															
a.) Opening Balance	1,81,6,300	6,340,722	28,887,000	6,242,741	13,763,974	2,979,079	7,229,363	150,000	122,138	2,752,799	208,976	-	70,493,092	53,327,905	
b.) Received During the Year	339,000	2,034,500	7,438,500	2,498,866	4,506,500	1,353,500	2,378,000	-	-	935,000	-	-	21,483,866	17,877,415	
c.) Income from Investments made of the Funds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d.) Accrued Interest on the Investments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.) Interest on Saving Bank a/c	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total (A)</b>	<b>2,155,300</b>	<b>8,375,222</b>	<b>36,325,500</b>	<b>8,741,607</b>	<b>18,270,474</b>	<b>4,332,579</b>	<b>9,607,363</b>	<b>150,000</b>	<b>122,138</b>	<b>3,687,799</b>	<b>208,976</b>	<b>-</b>	<b>91,976,958</b>	<b>71,205,320</b>	
<b>B.</b>															
Utilisation/Exp. Towards objects of the Funds															
i) Capital Expenditure	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ii) Revenue Expenditure	-	30,389	-	-	11,739	3,000	119,358	-	-	-	-	-	164,486	712,228	
<b>Total (B)</b>	<b>-</b>	<b>30,389</b>	<b>-</b>	<b>-</b>	<b>11,739</b>	<b>3,000</b>	<b>119,358</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>164,486</b>	<b>712,228</b>	
<b>Closing balance at the year end (A-B)</b>	<b>2,155,300</b>	<b>8,344,833</b>	<b>36,325,500</b>	<b>8,741,607</b>	<b>18,258,735</b>	<b>4,329,579</b>	<b>9,488,005</b>	<b>150,000</b>	<b>122,138</b>	<b>3,687,799</b>	<b>208,976</b>	<b>-</b>	<b>91,812,472</b>	<b>70,493,092</b>	



NATIONAL INSTITUTE OF TECHNOLOGY DELHI  
Endowment Funds

Schedule 2(A)

1. Sr. No.	2. Name of the Endowment	Opening Balance as on 01.04.2021		Additions during the Year		Total		Expenditure on the object during the year	Closing Balance as on 31.03.2022		Total (10+11)
		3. Endowment	4. Accumulated Interest	5. Endowment	6. Interest	7. Endowment (3+5)	8. Accumulated Interest (4+6)	9.	10. Endowment	11. Accumulated Interest	
		-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Current Liabilities and Provisions**

**Schedule 3**

Amount in Rs.

S.No.	Particulars	Current Year		Previous Year	
<b>A</b>	<b>Current Liabilities</b>				
<b>1</b>	<b>Deposits From Staff</b>	-	-	-	-
<b>2</b>	<b>Deposits from Students</b>				
a)	Hostel Security	6,950,500		6,570,500	
b)	Mess Security	6,940,000		6,560,000	
c)	Library & Lab Security	122,000		122,000	
d)	Students Co-op. Security	39,050		39,050	
e)	Security Deposit Students (Caution Money)	16,697,419		12,717,419	
f)	Tuition Fee Received in advance	-		-	
g)	Hostel Rent from Students (Advance)	-		-	
h)	Admin Processing Fees (Advance)	-		-	
i)	Computer/Internet Fees Received (Advance)	-		-	
j)	Scholarship Payable	143,621		1,091,200	
k)	Excess Fee Received	111,209		3,526,999	
l)	Other payable to Students	784,171	31,787,970	784,171	31,411,340
<b>3</b>	<b>Sundry Creditors:</b>				
a)	For Goods (Annexure 'A')	121,070		121,070	
b)	Others (Annexure 'A')	1,741,762	1,862,832	75,524	196,594
<b>4</b>	<b>Deposit-others (Including, EMD, Security Deposit) Annexure 'D'</b>	955,902	955,902	1,064,065	1,064,065
<b>5</b>	<b>Statutory Liabilities:(TDS,GPF,WC Tax, CPF,GIS,NPS)</b>				
a)	Overdue	-		-	
b)	Others Annexure 'B'	3,038,704	3,038,704	3,403,924	3,403,924
<b>6</b>	<b>Other current Liabilities</b>				
a)	Salary				
b)	Receipts against Sponsored Projects ( <b>Schedule 3A(i)</b> )	4,270,927		6,443,088	
c)	Receipts against Sponsored Fellowships & Scholarships (Sch-3A(ii))	170,291		-	
d)	Unutilised Grants ( <b>Sch-3C</b> )	521,931,984		720,917,255	
e)	Grants In Advance	-		-	





f)	Time Barred Cheques	1,358,697		1,300,918	
g)	Interest payable to Ministry (FY 2021-22)	5,121,373			
h)	Overhead Charges	-			
i)	Outstanding Exp Annexure 'C'	23,079,993	555,933,265	17,292,627	745,953,888
	<b>Total (A)</b>		<b>593,578,673</b>		<b>782,029,811</b>
<b>B</b>	<b>Provisions</b>				
1	For Taxation	-		-	
2	Gratuity	-		9,121,459	
3	Superannuation Pension	-		-	
4	Accumulated Leave/Encashment	33,977,861		11,701,864	
5	Trade Warranties/Claims	-		-	
6	Others (Specify)	-	33,977,861	-	20,823,323
	<b>Total (B)</b>		<b>33,977,861</b>		<b>20,823,323</b>
	<b>Total (A+B)</b>		<b>627,556,534</b>		<b>802,853,134</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Sponsored Projects**

**Schedule 3(A)(i)**

S.No.	Name of the Project	Opening Balance as on 01.04.2021		Receipts/ Interest Recoveries during the year	Total	Expenditure/ transfer during the year	Closing Balance as on 31.03.2022	
		Credit	Debit				Credit	Debit
1.	NMEICT Awareness	720,000	-	-	720,000	720,000	-	-
2.	DST Project Inspire Faculty (Dr. Suman Srivastava)	125.831	-	-	125.831	-	125,831	-
3.	DST Project NITD/DST/ASCH/02 (Dr. AP Singh)	-	-	-	-	-	-	-
4.	DST-TDT/DDP-09/2018-G (Dr. Gyanendra Sheoran)	871,463	-	1,525,147	2,396,610	1,547,048	849,562	-
5.	DST-TDT/SHRI-07/2018 (Dr. Gyanendra Sheoran)	1,279,538	-	25,583	1,305,121	1,184,727	120,394	-
6.	DST/INT/DAAA/P-20/2019 Dr. Sachin Singh	123,500	-	3,458	126,958	27,020	99,938	-
7.	SERB Project - AS-CH03 (Dr. AP Singh)	-	-	-	-	-	-	-
8.	Seed Grant (Dr. AP Singh)	-	-	-	-	-	-	-
9.	Linear and Non Linear Stability Analysis	144,264	-	-	144,264	144,264	-	-
10.	MHRD Project	11,180	-	-	11,180	11,180	-	-
11.	Project for development of Noval Metal	-	-	-	-	-	-	-
12.	CSIR-Anuj Kumar Sharma	77,797	-	225,534	303,331	313,032	(9,701)	-
13.	CSIR- Amit Mahajan	(46,800)	-	-	(46,800)	-	(46,800)	-
14.	CSIR (Ms Vinita )	27,482	-	-	27,482	-	27,482	-
15.	SERB/ECR/2016/1141 (Dr. Anmol Ratna Saxena)	320,477	-	-	320,477	-	320,477	-
16.	SERB DST - Dr. Prashant Kumar	48,149	-	-	48,149	48,149	(0)	-
17.	SERB DST - Dr. Prashant Kumar (CRG/2021/003654)	-	-	1,100,000	1,100,000	-	1,100,000	-
18.	SERB DST - Dr. Rikmantra Basu	163,917	-	-	163,917	-	163,917	-
19.	SERB DST - Dr. Rikmantra Basu (CRG/2020/002966)	-	-	1,015,169	1,015,169	322,894	692,275	-
20.	SERB - Anurag Singh	33,707	-	182,365	216,072	211,236	4,836	-
21.	SERB - Dr. Anuj Sharma	180,833	-	506,389	687,222	479,297	207,925	-
22.	Special Man Power Development Project fund	1,181,945	-	1,955,919	3,137,864	3,137,864	-	-
23.	BRNS - (Dr. Vivek Shrivastava)	-	-	-	-	-	-	-
24.	LASTEC-LP/BU/REV (Dr. Gyanendra Sheoran)	-	-	-	-	-	-	-
25.	MOES-36/OOIS (Dr. Prashant Kumar)	286,068	-	504,213	790,281	223,947	566,334	-
26.	Unnat Bharat Project (Dr. Parveen Kumar)	-	-	-	-	-	-	-



27.	Seed Grant (Dr. Gyanendra Sheoran)	-	-	-	-	-	-
28.	Seed Grant (Dr. Sachin Singh)	-	-	-	-	-	-
29.	Seed Grant (Dr. Tirupathiraju Kanumri)	-	-	-	-	-	-
30.	Project Stability and Convention In Magnetic Nanofluid-Dr. Amit Mahajan	-	-	-	-	-	-
30.	Unnat Bharat Project (Dr. Kapil Kumar)	25,520	-	-	25,520	-	25,520
31.	Anurag Singh Matrix Spl	93,878	-	441	94,319	71,383	22,936
	<b>Total</b>	<b>5,668,751</b>	<b>-</b>	<b>7,044,218</b>	<b>12,712,968</b>	<b>8,442,041</b>	<b>4,270,927</b>

## Sponsored Programmes

## Schedule 3(A)(ii)

S.No.	Name of the Programme	Opening Balance as on 01.04.2021		Receipts/ Recoveries during the year	Total	Expenditure during the year	Closing Balance as on 31.03.2022	
		Credit	Debit				Credit	Debit
1.	DST Brainstorming Committee Fund	376,112	-	-	376,112	376,112	-	-
2.	FDP Programme	10,975	-	99,931	110,906	110,906	-	-
3.	Research Scholar Day 2017	8,758	-	-	8,758	8,758	-	-
4.	Faculty Development Programme	102,020	-	-	102,020	-	102,020	-
5.	Sentience 2019	24,335	-	-	24,335	-	24,335.22	-
6.	AICTE Exam	-	-	-	-	-	-	-
7.	NCAME 2018	172,351	-	8,785	181,136	172,351	8,785	-
8.	Red cross society	10,550	-	-	10,550	-	10,550	-
9.	STC Nampet 2020	-	-	-	-	-	-	-
10.	STTP Conferece	63,200	-	3,500	66,700	62,500	4,200.00	-
11.	IEEE NITD Student Branch	-	-	10,000	10,000	-	10,000.00	-
12.	AICTEL ATAL FDP	6,036	-	186,181	192,217	181,816	10,401	-
	<b>Total</b>	<b>774,337</b>	<b>-</b>	<b>308,397</b>	<b>1,082,734</b>	<b>912,443</b>	<b>170,291</b>	<b>-</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Sponsored Fellowships and Scholarships**

**Schedule 3(B)**

Amount in Rs.

S.No.	Name of Sponsor	Opening Balance As On 01.04.2021		Transactions During the year		Closing Balance as On 31.03.2022	
		3	4	5	6	7	8
		CR.	DR.	CR.	DR.	CR.	DR.
1.	University Grants Commission	-	-	-	-	-	-
2.	Ministry	-	-	-	-	-	-
3.	Grant Received CISR	-	-	-	-	-	-
4.	Grant Received (Mumbai)	-	-	-	-	-	-
	<b>Total</b>	-	-	-	-	-	-



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Unutilised Grants From Government of India**

**Schedule 3 (C.)**

**Amount in Rs.**

<b>Particulars</b>	<b>Current Year</b>	<b>Previous Year</b>
<b>A. Plan grants:</b>		
Balance B/F	720,917,255	879,611,538
Add: Receipts during the year		-
:Received during the year	240,975,000	394,800,000
:Less RBI TSA Balance lapse on 31.03.2022	(59,600,394)	-
:Accrued but Not received	-	-
:Seed Money transferred back to Unutilized Grant	-	-
:Transferred from Corpus Fund (For FY 2020-21)	33,171,675	-
:Transferred from Corpus Fund (For FY 2021-22)	4,029,568	-
<b>Total (a)</b>	<b>939,493,103</b>	<b>1,274,411,538</b>
Less Refunds		
Less: Utilized for Revenue Expenditure	217,254,486	232,192,141
Less: Utilized for Capital expenditure	200,306,633	321,302,142
Less: Transferred to projects		-
<b>Total (b)</b>	<b>417,561,119</b>	<b>553,494,283</b>
<b>Unutilized carried forward (a-b)</b>	<b>521,931,984</b>	<b>720,917,255</b>
<b>B. UGC grants</b>		
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)	-	-
<b>C. UGC Grants Non Plan Balance B/F Receipts during the year</b>		
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)	-	-
<b>D. Grants from State Govt.</b>		
Balance B/F	-	-
Add: Receipts during the year	-	-
Total(g)	-	-
Less Refunds	-	-
Less: Utilized for Revenue Expenditure	-	-
Less: Utilized for Capital expenditure	-	-
<b>Total (h)</b>	<b>-</b>	<b>-</b>
<b>Unutilized carried forward (g-h)</b>	<b>-</b>	<b>-</b>
<b>Grand Total (A+B+C+D)</b>	<b>521,931,984</b>	<b>720,917,255</b>



NATIONAL INSTITUTE OF TECHNOLOGY DELHI  
Fixed Assets

Schedule 4

S.No.	Assets	Gross Block			Depreciation Block			Net Block				
		Cost as on 01.04.2021	Addition	Deductions	Total	Dep. Upto 31.03.2021	Depreciation Adjustment	Add. During the Year	Rate of Dep	Total Depreciation	Balance as on 31.03.2022	Balance as on 31.03.2021
1	2	3	4	5	6	7	8	10	11	12	13	
A	Tangible Assets (A)											
a	Equipments											
1	Lab Equipments	36,534,183	-	-	36,534,183	15,420,988	-	2,922,735	8.0%	18,343,723	18,190,460	21,113,195
2	Lab Equipments for Dept of ECE	9,982,481	-	-	9,982,481	3,825,304	-	798,598	8.0%	4,623,902	5,358,579	6,157,177
3	Lab Equipments for Dept of EEE	7,197,893	-	-	7,197,893	2,603,725	-	575,831	8.0%	3,179,556	4,018,337	4,594,168
4	Equipments	4,570,974	247,800	-	4,818,774	2,105,093	-	385,502	8.0%	2,490,595	2,328,179	2,465,881
5	Lab Equipments for Dept of AS	1,011,428	-	-	1,011,428	242,742	-	80,914	8.0%	323,656	687,772	768,686
b	Office & Office Equipments											
1	Air Conditions	6,226,850	-	-	6,226,850	3,081,875	-	467,014	7.5%	3,548,889	2,677,961	3,144,975
2	Biometric Machine	87,283	-	-	87,283	41,887	-	6,546	7.5%	48,433	38,850	45,396
3	Blade Server	2,961,185	-	-	2,961,185	1,776,712	-	222,089	7.5%	1,998,801	962,384	1,184,473
4	CCTV Camara	1,021,965	23,599	-	1,045,564	438,457	-	78,417	7.5%	516,874	528,690	583,508
5	Camara	74,853	-	-	74,853	33,684	-	5,614	7.5%	39,298	35,555	41,169
6	Coffee Machine	98,438	-	-	98,438	51,681	-	7,383	7.5%	59,064	39,374	46,757
7	Digital Copier Machine	2,380,572	-	-	2,380,572	1,140,196	-	178,543	7.5%	1,318,739	1,061,833	1,240,376
8	Fogging Machine	31,500	-	-	31,500	18,904	-	2,363	7.5%	21,267	10,233	12,597
9	Franking Machine	95,000	-	-	95,000	35,625	-	7,125	7.5%	42,750	52,250	59,375
10	Gyser	807,477	-	-	807,477	344,535	-	60,561	7.5%	405,096	402,381	462,942
11	Grass Cutting Machine	54,450	-	-	54,450	23,491	-	4,084	7.5%	27,575	26,875	30,959
12	Kitchen Appliance	2,057,986	-	-	2,057,986	1,218,257	-	154,349	7.5%	1,372,606	685,380	839,729
13	Lawn Remover	14,175	-	-	14,175	4,963	-	709	5.0%	5,672	8,503	9,212
14	Library Books	7,724,769	21,973	-	7,746,742	5,405,023	-	774,674	10.0%	6,179,697	1,567,045	2,319,746
15	Library Equipments	2,816,778	-	-	2,816,778	1,577,394	-	225,342	8.0%	1,802,736	1,014,042	1,239,384
16	Media Player	269,250	-	-	269,250	135,470	-	20,194	7.5%	155,664	113,586	133,780
17	Microwaves	21,131	13,171.00	-	34,302	7,011	-	1,715	5.0%	8,726	25,576	14,120
18	Mobile Phone & Telephone Set	581,699	440,640	-	1,022,339	197,245	-	76,675	7.5%	273,920	748,419	384,454
19	Motorised Screen	88,000	-	-	88,000	52,800	-	6,600	7.5%	59,400	28,600	35,200
20	Musical Instruments	100,000	-	-	100,000	35,000	-	5,000	5.0%	40,000	60,000	65,000
21	Office Equipments	3,014,661	229,118	-	3,243,779	1,671,462	-	243,283	7.5%	1,914,745	1,329,034	1,343,199
22	Refrigerator	124,500	-	-	124,500	65,606	-	9,338	7.5%	74,944	49,556	58,895
23	RO System	275,110	-	-	275,110	136,304	-	20,633	7.5%	156,937	118,173	138,806
24	Room Heaters	192,756	-	-	192,756	85,968	-	14,457	7.5%	100,425	92,331	106,788
25	Shredder Machine	332,209	-	-	332,209	156,541	-	24,916	7.5%	181,457	150,752	175,668
26	Television & LED	1,291,256	-	-	1,291,256	665,759	-	96,844	7.5%	762,603	528,653	625,497
27	Telephone Sets	2,099,654	-	-	2,099,654	787,370	-	157,474	7.5%	944,844	1,154,810	1,312,284
28	Water Cooler	702,814	-	-	702,814	413,284	-	52,711	7.5%	465,995	236,819	289,530
29	Web Camera	19,265	-	-	19,265	11,721	-	1,445	7.5%	13,166	6,099	7,544
30	Sports Equipments	1,024,965	-	-	1,024,965	385,462	-	76,872	7.5%	462,334	562,631	639,503





31	Inverter	640,484	-	-	640,484	269,656	-	48,036	7.5%	317,692	322,792	370,828
32	Air Purifier	112,004	-	-	112,004	33,600	-	8,400	7.5%	42,000	70,004	78,404
33	Flood Light LED	28,600	-	-	28,600	6,435	-	2,145	7.5%	8,580	20,020	22,165
34	Inverter battery	324,863	-	-	324,863	48,730	-	24,365	7.5%	73,095	251,768	276,133
35	Speaker	-	18,028	-	18,028	-	-	1,352	7.5%	1,352	16,676	-
36	Sanitizer Machine	28,670	-	-	28,670	2,150	-	2,150	7.5%	4,300	24,370	26,520
<b>c</b>	<b>Furniture, Fixture &amp; Fittings</b>											
1	Cooler	38,100	-	-	38,100	17,148	-	2,858	7.5%	20,006	18,094	20,952
2	Electric Installation	895,311	-	-	895,311	405,239	-	67,148	7.5%	472,387	422,924	490,072
3	Exhaust Fan	98,852	-	-	98,852	56,071	-	7,414	7.5%	63,485	35,367	42,781
4	Fire Extinguisher	179,190	-	-	179,190	64,691	-	13,439	7.5%	78,130	101,060	114,499
5	Furniture, Fixture & Fittings	35,326,611	516,020	-	35,842,631	18,127,742	-	2,688,197	7.5%	20,815,939	15,026,692	17,198,869
6	LED Light	660,132	-	-	660,132	269,363	-	49,510	7.5%	318,873	341,259	390,769
7	Porta Cabins	3,520,831	-	-	3,520,831	1,296,185	-	264,062	7.5%	1,560,247	1,960,584	2,224,646
8	Sign Board	553,971	-	-	553,971	204,172	-	41,548	7.5%	245,720	308,251	349,799
9	Tanker	131,682	-	-	131,682	49,380	-	9,876	7.5%	59,256	72,426	82,302
<b>d</b>	<b>Computer Peripherals</b>											
1	Computer	27,883,998	1,734,908	-	29,618,906	27,709,444	-	381,892	20.0%	28,091,336	1,527,570	174,554
2	Printers	1,994,493	-	-	1,994,493	1,994,492	-	-	20.0%	1,994,492	-	-
3	Projectors	1,361,501	-	-	1,361,501	1,361,501	-	-	20.0%	1,361,501	-	-
4	Network Equipments	13,036,126	-	-	13,036,126	13,036,125	-	-	20.0%	13,036,125	-	-
5	UPS Battery	645,928	-	-	645,928	644,007	-	1,921	20.0%	645,928	(0)	1,921
6	Server	8,214,695	-	-	8,214,695	8,214,695	-	-	20.0%	8,214,695	-	-
<b>d</b>	<b>Vehicle</b>	-	1,150,697	-	1,150,697	-	-	230,139	20.0%	230,139	920,558	-
<b>Total (A)</b>		<b>191,563,552</b>	<b>4,395,954</b>	-	<b>195,959,506</b>	<b>118,008,365</b>	-	<b>11,611,002</b>		<b>129,619,368</b>	<b>66,340,138</b>	<b>73,555,187</b>
<b>B</b>	<b>Capital Works In Progress(B)</b>	<b>2,112,298,565</b>	<b>193,202,548</b>	-	<b>2,305,501,113</b>	-	-	-	-	-	<b>2,305,501,113</b>	<b>2,112,298,565</b>
<b>C</b>	<b>Intangible Assets (C)</b>											
1	Software	43,527,475	3,566,303	-	47,093,778	43,527,474	-	1,426,521	40%	44,953,995	2,139,783	-
2	E-Journals	19,962,880	-	-	19,962,880	19,962,880	-	-	40%	19,962,880	-	-
3	E-Office	2,022,128	-	-	2,022,128	2,022,128	-	-	40%	2,022,128	-	-
4	Patents	-	-	-	-	-	-	-	0%	-	-	-
5	License Fee Agreement	28,500	-	-	28,500	28,500	-	-	20%	28,500	-	-
6	Web Media Player	103,950	-	-	103,950	103,950	-	-	20%	103,950	-	-
<b>Total (C)</b>		<b>65,644,933</b>	<b>3,566,303</b>	-	<b>69,211,236</b>	<b>65,644,932</b>	-	<b>1,426,521</b>		<b>67,071,453</b>	<b>2,139,783</b>	<b>1</b>
<b>Grand Total (A+B+C)</b>		<b>2,369,507,050</b>	<b>201,164,805</b>	-	<b>2,570,671,855</b>	<b>183,653,297</b>	-	<b>13,037,523</b>		<b>196,690,821</b>	<b>2,373,981,034</b>	<b>2,185,853,753</b>



NATIONAL INSTITUTE OF TECHNOLOGY DELHI  
Fixed Assets

Schedule 4A

S.No.	Assets	Gross Block			Depreciation Block				Amount in Rs.			
		Cost as on 01.04.2021	Addition	Deductions	Total	Dep. Up to 31.03.2021	Depreciation Adjustment	Add. During the Year	Rate of Dep	Total Depreciation	Balance as on 31.03.2022	Balance as on 31.03.2021
1	2	3	4	5	6	7	8	10	11	12	13	
A	Tangible Assets (A)											
a	Equipments											
1	Lab Equipments	36,534,183	-	-	36,534,183	15,420,988	-	2,922,735	8.0%	18,343,723	18,190,460	21,113,195
2	Lab Equipments for Dept of ECE	9,982,481	-	-	9,982,481	3,825,304	-	798,598	8.0%	4,623,902	5,358,579	6,157,177
3	Lab Equipments for Dept of EEE	7,197,893	-	-	7,197,893	2,603,725	-	575,831	8.0%	3,179,556	4,018,337	4,594,168
4	Equipments	4,570,974	247,800	-	4,818,774	2,105,093	-	385,502	8.0%	2,490,595	2,328,179	2,465,881
5	Lab Equipments for Dept of AS	1,011,428	-	-	1,011,428	242,742	-	80,914	8.0%	323,656	687,772	768,686
b	Office & Office Equipments											
1	Air Conditions	6,226,850	-	-	6,226,850	3,081,875	-	467,014	7.5%	3,548,889	2,677,961	3,144,975
2	Biometric Machine	87,283	-	-	87,283	41,887	-	6,546	7.5%	48,433	38,850	45,396
3	Blade Server	2,961,185	-	-	2,961,185	1,776,712	-	222,089	7.5%	1,998,801	962,384	1,184,473
4	CCTV Camara	1,021,965	23,599	-	1,045,564	438,457	-	78,417	7.5%	516,874	528,690	583,508
5	Camara	74,853	-	-	74,853	33,684	-	5,614	7.5%	39,298	35,555	41,169
6	Coffee Machine	98,438	-	-	98,438	51,681	-	7,383	7.5%	59,064	39,374	46,757
7	Digital Copier Machine	2,380,572	-	-	2,380,572	1,140,196	-	178,543	7.5%	1,318,739	1,061,833	1,240,376
8	Fogging Machine	31,500	-	-	31,500	18,904	-	2,363	7.5%	21,267	10,233	12,597
9	Franking Machine	95,000	-	-	95,000	35,625	-	7,125	7.5%	42,750	52,250	59,375
10	Gyser	807,477	-	-	807,477	344,535	-	60,561	7.5%	405,096	402,381	462,942
11	Grass Cutting Machine	54,450	-	-	54,450	23,491	-	4,084	7.5%	27,575	26,875	30,959
12	Kitchen Appliance	2,057,986	-	-	2,057,986	1,218,257	-	154,349	7.5%	1,372,606	685,380	839,729
13	Lawn Remover	14,175	-	-	14,175	4,963	-	709	5.0%	5,672	8,503	9,212
14	Library Books	7,724,769	21,973	-	7,746,742	5,405,023	-	774,674	10.0%	6,179,697	1,567,045	2,319,746
15	Library Equipments	2,816,778	-	-	2,816,778	1,577,394	-	225,342	8.0%	1,802,736	1,014,042	1,239,384
16	Media Player	269,250	-	-	269,250	135,470	-	20,194	7.5%	155,664	113,586	133,780
17	Microwaves	21,131	13,171.00	-	34,302	7,011	-	1,715	5.0%	8,726	25,576	14,120
18	Mobile Phone & Telephone Set	581,699	440,640	-	1,022,339	197,245	-	76,675	7.5%	273,920	748,419	384,454
19	Motorised Screen	88,000	-	-	88,000	52,800	-	6,600	7.5%	59,400	28,600	35,200
20	Musical Instruments	100,000	-	-	100,000	35,000	-	5,000	5.0%	40,000	60,000	65,000
21	Office Equipments	3,014,661	229,118	-	3,243,779	1,671,462	-	243,283	7.5%	1,914,745	1,329,034	1,343,199
22	Refrigerator	124,500	-	-	124,500	65,606	-	9,338	7.5%	74,944	49,556	58,895
23	RO System	275,110	-	-	275,110	136,304	-	20,633	7.5%	156,937	118,173	138,806
24	Room Heaters	192,756	-	-	192,756	85,968	-	14,457	7.5%	100,425	92,331	106,788
25	Shredder Machine	332,209	-	-	332,209	156,541	-	24,916	7.5%	181,457	150,752	175,668
26	Television & LED	1,291,256	-	-	1,291,256	665,759	-	96,844	7.5%	762,603	528,653	625,497
27	Telephone Sets	2,099,654	-	-	2,099,654	787,370	-	157,474	7.5%	944,844	1,154,810	1,312,284
28	Water Cooler	702,814	-	-	702,814	413,284	-	52,711	7.5%	465,995	236,819	289,530
29	Web Camera	19,265	-	-	19,265	11,721	-	1,445	7.5%	13,166	6,099	7,544
30	Sports Equipments	1,024,965	-	-	1,024,965	385,462	-	76,872	7.5%	462,334	562,631	639,503
31	Inverter	640,484	-	-	640,484	269,656	-	48,036	7.5%	317,692	322,792	370,828



32	Air Purifier	112,004	-	-	112,004	33,600	-	8,400	7.5%	42,000	70,004	78,404
33	Flood Light LED	28,600	-	-	28,600	6,435	-	2,145	7.5%	8,580	20,020	22,165
34	Inverter battery	324,863	-	-	324,863	48,730	-	24,365	7.5%	73,095	251,768	276,133
35	Speaker	-	18,028	-	18,028	-	-	1,352	7.5%	1,352	16,676	-
36	Sanitizer Machine	28,670	-	-	28,670	2,150	-	2,150	7.5%	4,300	24,370	26,520
<b>c</b>	<b>Furniture, Fixture &amp; Fittings</b>											
1	Cooler	38,100	-	-	38,100	17,148	-	2,858	7.5%	20,006	18,094	20,952
2	Electric Installation	895,311	-	-	895,311	405,239	-	67,148	7.5%	472,387	422,924	490,072
3	Exhaust Fan	98,852	-	-	98,852	56,071	-	7,414	7.5%	63,485	35,367	42,781
4	Fire Extinguisher	179,190	-	-	179,190	64,691	-	13,439	7.5%	78,130	101,060	114,499
5	Furniture, Fixture & Fittings	35,326,611	516,020	-	35,842,631	18,127,742	-	2,688,197	7.5%	20,815,939	15,026,692	17,198,869
6	LED Light	660,132	-	-	660,132	269,363	-	49,510	7.5%	318,873	341,259	390,769
7	Porta Cabins	3,520,831	-	-	3,520,831	1,296,185	-	264,062	7.5%	1,560,247	1,960,584	2,224,646
8	Sign Board	553,971	-	-	553,971	204,172	-	41,548	7.5%	245,720	308,251	349,799
9	Tanker	131,682	-	-	131,682	49,380	-	9,876	7.5%	59,256	72,426	82,302
<b>d</b>	<b>Computer Peripherals</b>											
1	Computer	27,883,998	1,734,908	-	29,618,906	27,709,444	-	381,892	20.0%	28,091,336	1,527,570	174,554
2	Printers	1,994,493	-	-	1,994,493	1,994,492	-	-	20.0%	1,994,492	1	1
3	Projectors	1,361,501	-	-	1,361,501	1,361,501	-	-	20.0%	1,361,501	-	-
4	Network Equipments	13,036,126	-	-	13,036,126	13,036,125	-	-	20.0%	13,036,125	1	1
5	UPS Battery	645,928	-	-	645,928	644,007	-	1,921	20.0%	645,928	(0)	1,921
6	Server	8,214,695	-	-	8,214,695	8,214,695	-	-	20.0%	8,214,695	-	-
<b>d</b>	<b>Vehicle</b>	-	1,150,697	-	1,150,697	-	-	230,139	20.0%	230,139	920,558	-
	<b>Total (A)</b>	<b>191,563,552</b>	<b>4,395,954</b>	-	<b>195,959,506</b>	<b>118,008,365</b>	-	<b>11,611,002</b>		<b>129,619,368</b>	<b>66,340,138</b>	<b>73,555,187</b>
<b>B</b>	<b>Capital Works In Proress(B)</b>	<b>2,112,298,565</b>	<b>193,202,548</b>	-	<b>2,305,501,113</b>	-	-	-	-	-	<b>2,305,501,113</b>	<b>2,112,298,565</b>
<b>C</b>	<b>Intangible Assets (C)</b>											
1	Software	43,527,475	3,566,303	-	47,093,778	43,527,474	-	1,426,521	40%	44,953,995	2,139,783	1
2	E-Journals	19,962,880	-	-	19,962,880	19,962,880	-	-	40%	19,962,880	-	-
3	E-Office	2,022,128	-	-	2,022,128	2,022,128	-	-	40%	2,022,128	-	-
4	Patents	-	-	-	-	-	-	-	0%	-	-	-
5	License Fee Agreement	28,500	-	-	28,500	28,500	-	-	20%	28,500	-	-
6	Web Media Player	103,950	-	-	103,950	103,950	-	-	20%	103,950	-	-
	<b>Total (C)</b>	<b>65,644,933</b>	<b>3,566,303</b>	-	<b>69,211,236</b>	<b>65,644,932</b>	-	<b>1,426,521</b>		<b>67,071,453</b>	<b>2,139,783</b>	<b>1</b>
	<b>Grand Total (A+B+C)</b>	<b>2,369,507,050</b>	<b>201,164,805</b>	-	<b>2,570,671,855</b>	<b>183,653,297</b>	-	<b>13,037,523</b>		<b>196,690,821</b>	<b>2,373,981,034</b>	<b>2,185,853,753</b>



NATIONAL INSTITUTE OF TECHNOLOGY DELHI  
Non Plan (Fixed Assets)

Schedule 4B

S.No.	Assets	Gross Block				Depreciation Block				Net Block		Amount in Rs.
		Cost as on 01.04.2021	Addition	Deductions	Total	Dep. Up to 31.03.2021	Add. During the Year	Deductions/ Adjustments	Rate of Dep	Total Depreciation	Balance as on 31.03.2022	
1	2	3	4	5	6	9	10	12	11	13	14	
A	Tangible Assets (A)	-	-	-	-	-	-	-	-	-	-	-
a	Equipments	-	-	-	-	-	-	-	-	-	-	-
1	Lab Equipments	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-
b	Office & Office Equipments	-	-	-	-	-	-	-	-	-	-	-
1	Air Conditions	-	-	-	-	-	-	-	-	-	-	-
2	Biometric Machine	-	-	-	-	-	-	-	-	-	-	-
3	Blade Server	-	-	-	-	-	-	-	-	-	-	-
4	CCTV Camara	-	-	-	-	-	-	-	-	-	-	-
5	Coffee Machine	-	-	-	-	-	-	-	-	-	-	-
6	Digital Copier Machine	-	-	-	-	-	-	-	-	-	-	-
7	Forging Machine	-	-	-	-	-	-	-	-	-	-	-
8	Gyser	-	-	-	-	-	-	-	-	-	-	-
9	Kitchen Appliance	-	-	-	-	-	-	-	-	-	-	-
10	Lawn Remover	-	-	-	-	-	-	-	-	-	-	-
11	Library Books	-	-	-	-	-	-	-	-	-	-	-
12	Library Equipments	-	-	-	-	-	-	-	-	-	-	-
13	Media Player	-	-	-	-	-	-	-	-	-	-	-
14	Microwaves	-	-	-	-	-	-	-	-	-	-	-
15	Mobile Phone & Telephone Set	-	-	-	-	-	-	-	-	-	-	-
16	Motorised Screen	-	-	-	-	-	-	-	-	-	-	-
17	Musical Instruments	-	-	-	-	-	-	-	-	-	-	-
18	Office Equipments	-	-	-	-	-	-	-	-	-	-	-
19	Refrigerator	-	-	-	-	-	-	-	-	-	-	-
20	RO System	-	-	-	-	-	-	-	-	-	-	-
21	Room Heaters	-	-	-	-	-	-	-	-	-	-	-
22	Shredder Machine	-	-	-	-	-	-	-	-	-	-	-
23	Television & LED	-	-	-	-	-	-	-	-	-	-	-
24	Water Cooler	-	-	-	-	-	-	-	-	-	-	-

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NATIONAL INSTITUTE OF TECHNOLOGY DELHI  
Intangible Assets

Schedule 4C

S. No.	Asset Heads	Gross Block			Depreciation Block				Net Block		
		Op. Balance	Additions	Deductions	Cl. Balance	Depreciations/ Amortizations Opening Balance	Depreciation/ Amortization for the year	Deductions/ Adjustment	Total Depreciation/ Amortization	31.03.2022	31.03.2021
1.	Software	43,527,475	3,566,303	-	47,093,778	43,527,474	1,426,521	-	44,953,995	2,139,783	1
2.	E-Journals	19,962,880	-	-	19,962,880	19,962,880	-	-	19,962,880	-	-
3.	E-Office	2,022,128	-	-	2,022,128	2,022,128	-	-	2,022,128	-	-
4.	Patents	-	-	-	-	-	-	-	-	-	-
5.	License Fee Agreement	28,500	-	-	28,500	28,500	-	-	28,500	-	-
6.	Web Media Player	103,950	-	-	103,950	103,950	-	-	103,950	-	-
	<b>Total</b>	<b>65,644,933</b>	<b>3,566,303</b>	<b>-</b>	<b>69,211,236</b>	<b>65,644,932</b>	<b>1,426,521</b>	<b>-</b>	<b>67,071,453</b>	<b>2,139,783</b>	<b>1</b>





**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Investments From Earmarked/Endowment Funds**

**Schedule 5**

**Amount in Rs.**

S.No.	Particulars	Current Year		Previous Year	
1.	In Centre Government Securities		-		-
2.	In State Government Securities		-		-
3.	Other approved Securities		-		-
4.	Shares		-		-
5.	Debentures and Bonds		-		-
6.	Term Deposits with Banks		-		-
7.	Others (to be specified)		-		-
	<b>Total</b>		-		-



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Investment Others**

**Schedule 6**

**Amount in Rs.**

<b>S.No.</b>	<b>Particulars</b>	<b>Current Year</b>		<b>Previous Year</b>	
1.	In Centre Government Securities		-		-
2.	In State Government Securites		-		-
3.	Other approved Securities		-		-
4.	Shares		-		-
5.	Debentures and Bonds		-		-
6.	Others (to be specified)		-		-
	<b>Total</b>		-		-



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Current Assets**

Schedule 7

Amount in Rs.

S.No.	Particulars		Current Year		Previous Year	
<b>1</b>	<b>Inventories:</b>					
a)	Stores and Spares		-		-	
b)	Loose Tools		-		-	
c)	Publication		-		-	
d)	Laboratory Chemicals, Consumable and Glass ware		-		-	
e)	Building Material		-		-	
f)	Electrical Material		-		-	
g)	Stationery		503,998		497,944	
h)	Water supply material		-		-	
i)	Stock-in-trade		-		-	
j)	Building Material (Others)		-	503,998	-	497,944
<b>2</b>	<b>Sundry Debtors:</b>					
a)	Debts Outstanding for a period exceeding six months		4,546,024		71,749	
b)	Others		769,895	5,315,919	42,988	114,737
<b>3</b>	<b>Cash balances in hand</b>					
a)	Imprest given to staff	Annexure 'E'	112,637		777,030	
b)	Cash in hand		47,858		19,501	
c)	Franking Machine Balance		14,437	174,932	23,638	820,169
<b>4</b>	<b>4. Bank Balances:</b>					
<b>a)</b>	<b>With Scheduled Banks:</b>					
i)	Canara Bank Acc. No. 7559		41,555		1,289,900	
ii)	Canara Bank Acc. No. 8009		3,298,765		3,333,024	
iii)	Canara Bank Acc. No. 8010		497,738		643,942	
iv)	Canara Bank Acc. No. 4075		64,962,366		145,928,385	
v)	Canara Bank Dir. NIT Delhi 4080		-		-	
vi)	Canara Bank Dir. NIT Delhi DASA 4078		-		-	
vii)	Canara Bank Dir. NIT Fee 4077		243,645,692		167,429,490	
viii)	Canara Bank Acc. No. 8131		819,057		796,375	
ix)	Canara Bank Dir. NIT Hostel Fee 4076				-	
x)	Canara Bank Dir. NIT BRNS PROJECT				-	
xi)	Canara Bank Acc. No. 9851		26,582		26,404	
xii)	Canara Bank 0108		44,941,018		203,491,064	
xiii)	Canara Bank 0109		8,573,818		16,626,247	
xiv)	SBI Acc. No. 4566		3,010,229		2,930,306	
xv)	ICICI bank A/c no. 1801		50,937,171		-	
xvi)	RBI A/C 1001(object head -31)		-		-	
xvii)	RBI A/C 1001(object head -36)		-		-	
xviii)	Canara Bank Acc. No. 6538		104,705	420,858,697	165,220	542,660,356
<b>b)</b>	<b>Term Deposits</b>					
i)	With Canara bank	Annexure to Sch'7'	520,607,432			506,257,518
	<b>Total</b>		<b>947,460,977</b>			<b>1,050,350,724</b>



NATIONAL INSTITUTE OF TECHNOLOGY DELHI  
Statements showing Investment details as on 31.03.2022

Annexure to Schedule 7

S.No.	FD No.	Bank Name	Date of FDR Made	Opening Balance	Accrued Interest as on 01.04.2021	Date of Addition	Addition	Interest Earned on FDR's During the year 2021-22	TDS Deduction on Interest Earned on FDR	Interest Earned (Net of TDS) on FDR's During the year 2021-22	Matured	Date of Maturity	Maturity Amount	Intl. accrued as on 31st March 2022	FDRs Balance as on 31.03.2022	Accrued Interest as on 01.04.2021
1	2983301000119	Canara	24.01.2022	7,177,441	35,278	-	-	285,493	-	285,493	-	20.04.2022	7,513,326	53,297	7,444,915	23,598
2	2983301000120	Canara	24.01.2022	5,741,955	28,222	-	-	228,395	-	228,395	-	20.04.2022	6,010,644	42,638	5,955,934	18,878
3	2983301000130	Canara	26.01.2022	11,549,878	81,007	-	-	469,701	-	469,701	-	27.04.2022	12,134,396	84,524	12,016,062	104,705
4	2983301000131	Canara	26.01.2022	11,549,878	81,007	-	-	469,701	-	469,701	-	27.04.2022	12,134,396	84,524	12,016,062	104,705
5	2983301000132	Canara	26.01.2022	11,549,878	81,007	-	-	469,701	-	469,701	-	27.04.2022	12,134,396	84,524	12,016,062	104,705
6	2983301000133	Canara	26.01.2022	11,549,878	81,007	-	-	469,701	-	469,701	-	27.04.2022	12,134,396	84,524	12,016,062	104,705
7	2983301000136	Canara	26.01.2022	11,549,878	81,007	-	-	469,701	-	469,701	-	27.04.2022	12,134,396	84,524	12,016,062	104,705
8	2983301000142	Canara	22.01.2022	7,197,491	53,636	-	-	292,788	-	292,788	-	23.04.2022	7,561,743	55,914	7,488,001	69,391
9	2876413000042	Canara	01.10.2021	849,454	977	-	-	48,196	-	48,196	-	09.04.2023	946,398	22,423	876,204	921
10	2983301000200	Canara	31.01.2022	33,887,882	174,589	-	-	1,163,592	-	1,163,592	-	02.04.2022	11,856,809	194,011	35,032,052	4,347
11	2983301000204	Canara	18.03.2022	6,823,886	-	-	-	270,546	-	270,546	-	18.05.2022	7,130,006	10,597	7,083,835	14,337
12	2983466000001	Canara	03.03.2022	80,421,152	-	-	80,000,000	3,453,164	-	3,453,164	-	03.05.2022	80,000,000	197,040	80,000,000	73,644
13	2983401001884	Canara	15.12.2021	306,408,867	2,980,980	-	-	10,290,177	-	10,290,177	-	15.06.2022	321,821,584	3,033,843	316,646,181	-
Total				506,257,518	3,678,718		80,000,000	18,380,856	-	18,380,856	-		503,512,510	4,032,383	520,607,432	728,641



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Loans, Advances and Deposits**

**Schedule 8**

**Amount in Rs.**

S.No.	Particulars	Current Year		Previous Year	
<b>1</b>	<b>Advances to Employee:( Non Interest Bearing)</b>				
a)	Salary	-			
b)	Festival	1,800		1,800	
c)	For Expenses <b>(Annexure 'F') Annexure 'E'</b>	385,672	387,472	775,947	777,747
<b>2</b>	<b>Long Term Advances to Employee: ( Interest Bearing)</b>				
a)	Vehical Loan			-	
b)	Home Loan			-	
c)	Other to be Specified		-	-	-
<b>3</b>	<b>Advances and other amounts recoverable in cash or in kind or for value to be received:</b>				
a)	On Capital Accounts				
b)	NICSI				
c)	Interest Free Mobilization Advance to NBCC	168,823,626		172,846,517	
d)	Interest Free Secured Advance Mini Campus			-	
e)	Delhi GOVT	40,320		40,320	
f)	Fee Receivable from CSAB			-	
g)	Fee Receivable from Students			1,265,160	
h)	Secured Advance Administration Block	-		-	
i)	Employment News	22,752		-	
j)	CCMT 2018	-		-	
k)	Other Advances & Receivables			-	
l)	NBCC				
m)	NHAI Advance	100,000	168,986,698		174,151,997
<b>4</b>	<b>Prepaid Expenses</b>				
a)	Computer Repair & Maintenance	-			
b)	E- Journals prepaid	-			
c)	Equipment Repair & Maintenance	-			
d)	Subscription Charges	49,993			
e)	Ground Rent	-		140,000	
f)	Prepaid Tds	-			
g)	Library Expenses	-	49,993	-	140,000
<b>5</b>	<b>Deposits</b>				
a)	Telephone (MTNL)	10,000		10,000	
b)	Lease Rent (IAMR)	3,348,900		3,348,900	
c)	Lease Rent (YWCA)	-		-	
d)	Security Deposit -Sandvic	-		-	
e)	Security Deposit - TPDDL	638,331		839,870	
f)	Security Deposit - Vigyan Bhawan	60,762	4,057,993	60,762	4,259,532



<b>6</b>	<b>Accrued Income :</b>				
a)	On Investments from Earmarked/Endowment Funds	-		-	
b)	On Investments-Others	-		-	
c)	On Loan and Advance	-		-	
d)	On Term Deposits	4,100,909		3,811,945	
e)	On saving Account	-	4,100,909	-	3,811,945
<b>7</b>	<b>Other - Current assets receivable from UGC/ Sponsored Projects</b>				
a)	Debit balance in Sponsored Projects			-	
b)	Debit balance in Sponsored fellowship & Scholarships			-	
c)	Grant Receivable from Govt. of India (MHRD)	-			
d)	Other Receivable from UGC		-		-
<b>8</b>	<b>Claims Receivable</b>				
a)	TDS Receivable	893,999		490,043	-
b)	Others (suspense)	-	893,999	-	490,043
<b>9</b>	<b>Other Advances</b>	-	-	-	-
	<b>Total</b>		<b>178,477,064</b>		<b>183,631,264</b>





**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Fee From Students**

**Schedule 9**

**Amount in Rs.**

<b>S.No.</b>	<b>Particulars</b>	<b>Current Year</b>	<b>Previous Year</b>
1	Academic		
a)	Tuition Fee	48,200,872	47,758,636
b)	Admission Processing Fee	2,557,000	2,001,500
c)	Computer and Internet Fee	2,382,000	-
d)	Enrolments Fee	-	-
e)	Library Admission Fee	-	-
f)	Laboratory Fee	-	-
g)	Art and craft Fee	-	-
h)	Registration Fee	-	-
i)	Syllabus Fee	-	-
j)	Fee Received From Unregistered Students	-	1,055,000
<b>Total (A)</b>		<b>53,139,872</b>	<b>50,815,136</b>
2	Examinations		
a)	Admission Test Fee	-	-
b)	Annual Exam Fee	-	-
c)	Mark Sheet, Certificate Fee & Transcripts	-	126,701
d)	Transcript & Transcript Certificate Charges	40,583	-
e)	Duplicate Marksheet Charges	2,700	-
f)	Make Up Exam Fee and Exam Mode Fee	85,200	241,200
<b>Total (B)</b>		<b>128,483</b>	<b>367,901</b>
3	Other Fees/Charges		
a)	Identity Cards Fee	68,600	-
b)	Fine/Late fees/Miscellaneous Fee	14,961	29,589
c)	Students Certificate Charges	79,750	-
d)	Contingency Fees	40,000	-
e)	Original Degree Charges	33,721	-
f)	Processing charges (on security deposit refund to students)	295,000	-
g)	Postage charges from students	45,883	-
h)	Academic Verification Charges	16,000	-
i)	Study Mode Fees	4,000	-
j)	PHD Thesis Fees	450,000	-
k)	Hostel Fee	10,269,325	-
<b>Total (C)</b>		<b>11,317,239</b>	<b>29,589</b>



4	Sale of Publication		
a)	Sale of Admission forms	-	-
b)	Sale of Syllabus and Question Paper etc	-	-
c)	Sale of prostectus including admission forms	-	-
	<b>Total (D)</b>	-	-
5	Other Acedimic Receipts		
a)	Registration Fee for WorkShop, Programme & Seminar & Verification charges	-	122,460
b)	Registration Fee(Academic Staff College)	-	-
	<b>Total (E)</b>	-	<b>122,460</b>
	<b>Grand Total (A+B+C+D+E)</b>	<b>64,585,594</b>	<b>51,335,086</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Grants / Subsidies (Irrevocable Grants Received)**

**Schedule 10**

**Amount in Rs.**

Particulars	Plan			Total Plan	Non Plan UGC	Current Year Total	Previous Year Total
	Govt, of India	UGC					
		Plan	Specific Schemes				
Balance B/F	720,917,255	-	-	720,917,255	-	720,917,255	879,611,538
Add: Sanction during the year	240,975,000	-	-	240,975,000	-	240,975,000	394,800,000
Less: RBI TSA balance lapse as on 31.03.2022	(59,600,394)	-	-	(59,600,394)	-	(59,600,394)	-
Add: Transferred from Corpus Fund	37,201,243			37,201,243		37,201,243	-
<b>Total</b>	<b>939,493,103</b>	<b>-</b>	<b>-</b>	<b>939,493,103</b>	<b>-</b>	<b>939,493,103</b>	<b>1,274,411,538</b>
Less: Refund to UGC	-	-	-	-	-	-	-
Balance	939,493,103	-	-	939,493,103	-	939,493,103	1,274,411,538
Less: Utilised for Capital expenditure (A)	200,306,633	-	-	200,306,633	-	200,306,633	321,302,142
Balance	739,186,470	-	-	739,186,470	-	739,186,470	953,109,396
Less: utilized for Revenue Expenditure (B)	217,254,486	-	-	217,254,486	-	217,254,486	232,192,141
<b>Balance C/F (C)</b>	<b>521,931,984</b>	<b>-</b>	<b>-</b>	<b>521,931,984</b>	<b>-</b>	<b>521,931,984</b>	<b>720,917,255</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Income from Investments**

**Schedule 11**

**Amount in Rs.**

S.No.	Particulars	Earmarked Fund/ Endownments Funds		Other Investments	
		Currents year	Previous year	Currents year	Previous year
1	Interest				
a)	On Govt. Securities	-	-	-	-
b)	Other Bonds/Debentures	-	-	-	-
2	Interest on Term Deposits (Incl. Auto Sweep)	-	-	27,266,690	24,208,141
	Less: Interest transfer to Ministry (FY 2021-22)			(4,858,499)	-
3	Income Accrued but not received on term deposits (Incl. Auto Sweep)	-	-	4,100,909	3,811,945
4	Interest on Saving bank Accounts	-	-	-	-
5	Others (Specify) - Interest On Income Tax Refund	-	-	-	32,440
	<b>Total</b>	-	-	<b>26,509,100</b>	<b>28,052,526</b>
	Transferred To Earmarked/Endowment Funds	-	-	-	-
	<b>Balance</b>	-	-	<b>26,509,100</b>	<b>28,052,526</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Interest Earned**

**Schedule 12**

**Amount in Rs.**

<b>S.No.</b>	<b>Particulars</b>	<b>Current Year</b>	<b>Previous Year</b>
<b>1</b>	<b>On Savings Accounts:</b>		
a)	With Scheduled Banks	1,063,913	5,884,948
	Less: Transferred to Projects/scholarship amount	(444,826)	-
	Less: Interest transfer to Ministry (FY 2021-22)	(262,874)	-
<b>2</b>	<b>On Loans:</b>		
a)	Employees/Staff	-	-
b)	Others	-	-
<b>3</b>	<b>Interest on Debtors and Other Receivables</b>		
a)	With Non-Scheduled Banks	-	-
b)	Post Office Savings Accounts	-	-
c)	Others	-	-
	<b>Total</b>	<b>356,213</b>	<b>5,884,948</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Other Income**

**Schedule 13**

**Amount in Rs.**

<b>S.No.</b>	<b>Particulars</b>	<b>Current Year</b>	<b>Previous Year</b>
<b>A</b>	<b>Income from Land &amp; Buildings</b>		
1	Hostel Room Rent	-	5,928,000
2	License fee	35,469	-
3	Hire Charges of Auditorium/Play ground/Convention Centre, etc	-	-
4	Electricity charges recovered	-	-
5	Water charges recovered.	-	-
	<b>Total A</b>	<b>35,469</b>	<b>5,928,000</b>
<b>B</b>	<b>Sale of Institute's publications</b>	-	-
<b>C</b>	<b>Income from holding events</b>		
1	Gross Receipts from annual function/ sports carnival	-	-
	Less: Direct expenditure incurred on the annual function/ sports carnival	-	-
2	Gross Receipts from fetes	-	-
	Less: Direct expenditure incurred on the fetes	-	-
3	Gross Receipts for educational tours	-	-
	Less: Direct expenditure incurred on the tours	-	-
4	Others (to be specified and separately disclosed)	-	-
	<b>Total C</b>	<b>-</b>	<b>-</b>
<b>D</b>	<b>Others</b>		
1	Income from consultancy	-	82,600
2	RTI fees	-	500
3	Income from Royalty	-	-
4	Application Fees	-	-
5	Misc. receipts (Sale of tender form, waste paper, etc.)	74,987	-
6	Other receipts from students	-	-
a)	Late fees and Licence fees	-	-
b)	Assets received free of cost	-	-
7	Grants/Donations from Institutions, Welfare Bodies and International Organizations	-	-
8	Institute overhead	-	864,787
a)	Computer and Internet Fee	-	1,907,000





b)	ID card Charges (Other than from students)	-	46,000
c)	Income from Guest House	44,000	25,000
d)	Income from Bus	-	-
e)	Other Income	19,379	758
f)	PHD Application Fees	105,500	-
g)	Income from Certificates (Other than issued to students)	-	-
h)	Tender Fees	55,000	-
i)	Study Mode Fee	-	56,400
j)	Institute overhead charges from various project/programmes	893,531	-
k)	Unclaimed balance under various project/programmes	1,432,665	-
l)	Sponsorship Received	-	-
m)	Processing Fee	-	92,000
	<b>Total D</b>	<b>2,625,062</b>	<b>3,075,045</b>
	<b>Grand Total (A+B+C+D)</b>	<b>2,660,531</b>	<b>9,003,045</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Prior Period Income**

**Schedule 14**

**Amount in Rs.**

<b>S.No.</b>	<b>Particulars</b>	<b>Current Year</b>	<b>Previous Year</b>
1.	Academic Receipts	(2,000)	417,050
2.	Income from Investments	-	-
3.	Income from CCMT 2018	37,089,410	-
4.	Institute overhead charges from various project/programmes	67,210	-
5.	Interest earned	-	-
6.	Deperciation Written Back Retrospectively	-	1,218,190
	<b>Total</b>	<b>37,154,620</b>	<b>1,635,240</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Staff Payments & Benefits (Establishment Expenses)**

**Schedule 15**

**Amount in Rs.**

S.No.	Particulars	Current Year			Previous Year		
		Plan	Non Plan	Total	Plan	Non Plan	Total
1.	Salaries and Wages	84,802,362	-	84,802,362	82,521,843	-	82,521,843
2.	Allowances and Bonus	-	-	-	-	-	-
3.	Employer Contribution to CPF	39,920	-	39,920	237,780	-	237,780
4.	Contribution to Other Fund (NPS Employer Share)	9,052,910	-	9,052,910	8,546,784	-	8,546,784
5.	Staff Welfare Expenses	-	-	-	-	-	-
6.	Retirement and Terminal Benefits	13,544,351	-	13,544,351	10,602,352	-	10,602,352
7.	LTC	1,788,350	-	1,788,350	523,963	-	523,963
8.	Medical facility	258,602	-	258,602	732,624	-	732,624
9.	Children Education Allowance	756,000	-	756,000	776,250	-	776,250
10.	Honorarium	25,000	-	25,000	7,500	-	7,500
11.	CPDA	536,650	-	536,650	278,884	-	278,884
12.	Composite Transfer Grant and Relocation Expenses	179,280	-	179,280	-	-	-
13.	Contribution to New Pension Scheme	-	-	-	-	-	-
14.	NSDL	7,236	-	7,236	7,599	-	7,599
15.	Pension Contribution Dr. Ajay Kumar Sharma	334,269	-	334,269			
16.	Leave salary Contribution Dr. Ajay kumar Sharma	156,123	-	156,123			
17.	Earned Leave Encashment	357,533	-	357,533			
18.	Leave salary & Pension Contribution	21,956	-	21,956			
	<b>Total</b>	<b>111,860,542</b>	<b>-</b>	<b>111,860,542</b>	<b>104,235,579</b>	<b>-</b>	<b>104,235,579</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Employees' Retirement And Terminal Benefits**

**Schedule 15A**

Amount in Rs.

S.No.	Particular	Pension	Gratuity	Leave Encashment	Total
1.	Opening Balance as on 01.04.2021	-	9,121,459	11,701,864	20,823,323
2.	Addition: Capitalized value of Contributions Received from other Organizations	-	-	-	-
3.	Less: Actual Payment during the Year (b)	-	-	389,813	389,813
4.	Balance Available on 31.03.2022 [c = (a-b)]	-	9,121,459	11,312,051	20,433,510
5.	Provision required on 31.03.2022 (d)	-	-	33,977,861	33,977,861
6.	Provision to be made in the Current year [A = (d-c)]	-	(9,121,459)	22,665,810	13,544,351
7.	Contribution to New Pension Scheme & CPF (B)	-	-	-	-
8.	Medical Reimbursement to Retired Employees (C.)	-	-	-	-
9.	Travel to Hometown on Retirement (D)	-	-	-	-
10.	Deposit Linked Insurance Payment (E)	-	-	-	-
					-
	<b>Total (A+B+C+D+E)</b>	<b>-</b>	<b>(9,121,459)</b>	<b>22,665,810</b>	<b>13,544,351</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Academic Expenses**

**Schedule 16**

Amount in Rs.

S.No.	Particulars	Current Year				Previous Year			
		Plan	Non Plan	Academic	Total	Plan	Non Plan	Academic	Total
1.	Laboratory expenses	-	-	11,301	11,301	-	-	8,101	8,101
2.	Field work/Participation in Conferences	-	-	-	-	-	-	-	-
3.	Expenses on Seminars/ Workshops	-	-	-	-	-	-	-	-
4.	Payment to visiting faculty	-	-	703,548	703,548	-	-	484,047	484,047
5.	Printing and stationary	-	-	-	-	-	-	-	-
6.	Academic Refreshment expenses	-	-	-	-	-	-	-	-
7.	Admission expenses	-	-	-	-	-	-	-	-
8.	Convocation expenses	-	-	-	-	-	-	(117,469)	(117,469)
9.	Hostel Expenses	-	-	-	-	-	-	-	-
10.	Subscription Expenses	-	-	-	-	-	-	-	-
11.	ID Card Charges	-	-	-	-	-	-	-	-
12.	Culture Expenses	-	-	-	-	-	-	-	-
13.	Secret Funds	-	-	-	-	-	-	-	-
14.	DMC Security Expenses	-	-	-	-	-	-	-	-
15.	Sports Expenses	-	-	-	-	-	-	-	-
16.	Training and Placement Expenditure	-	-	-	-	-	-	-	-
		-	-	-	-			-	
	<b>Others (specify)</b>	-	-	-	-	-	-	-	-
17.	Library Expenses	-	-	-	-	-	-	199,908	199,908
18.	TA to Students	-	-	-	-	-	-	-	-
19.	Academic Expenses	-	-	-	-	-	-	-	-
20.	Literary Club Expenses	-	-	-	-	-	-	-	-
21.	Interest on TDS	-	-	112,126	112,126			35,103	35,103
22.	License Fee- Admin	-	-	-	-				
23.	Travelling Fee	-	-	-	-				
	<b>Total</b>	-	-	<b>826,975</b>	<b>826,975</b>	-	-	<b>609,690</b>	<b>609,690</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Administrative and General Expenses**

**Schedule 17**

**Amount in Rs.**

S.No.	Particulars	Current Year			Previous Year		
		Plan	Non Plan	Total	Plan	Non Plan	Total
<b>1</b>	<b>Infrastructure</b>						
a)	Electricity and power	5,354,789	-	5,354,789	3,910,517	-	3,910,517
b)	Water charges	74,370	-	74,370	-	-	-
c)	Insurance	-	-	-	-	-	-
d)	Rent, Rates and Taxes (including property tax)	47,445,847	-	47,445,847	46,468,226	-	46,468,226
<b>2</b>	<b>Communication</b>						
a)	Postage, Telephone, Fax and Internet Charges	3,374,607	-	3,374,607	3,053,987	-	3,053,987
<b>3</b>	<b>Expenses on Contractual &amp; Outsourced Employees</b>						
a)	Salary to Contractual Staff	4,671,365	-	4,671,365	4,561,139	-	4,561,139
b)	Outsourced Employees Expenses	20,178,835	-	20,178,835	19,223,149	-	19,223,149
<b>4</b>	<b>Fest Expenses</b>						
a)	Saptrang	-	-	-	-	-	-
b)	Terra Technica 2018	-	-	-	-	-	-
c)	Terra Technica 2017	-	-	-	-	-	-
d)	Other Conference and Workshop Expenses	11,800	-	11,800	-	-	-
<b>5</b>	<b>Others</b>						
a)	NIT Transit House Contribution	-	-	-	700,000	-	700,000
b)	Professional Charges	1,752,768	-	1,752,768	588,555	-	588,555
c)	Printing and Stationery	655,432	-	655,432	812,322	-	812,322
d)	Travelling and Conveyance Expenses	20,942	-	20,942	21,217	-	21,217
e)	Stipend/means-cum-merit scholarship	27,483,706	-	27,483,706	33,175,328	-	33,175,328
f)	Auditors Remuneration	102,465	-	102,465	132,120	-	132,120
g)	Statutory Bodies Meeting and Various Meeting	122,274	-	122,274	138,600	-	138,600
h)	Security Expenses	11,183,809	-	11,183,809	9,484,710	-	9,484,710
i)	E- Journals & Periodical Subscription Fee	11,008,690	-	11,008,690	9,386,670	-	9,386,670
j)	Misc Exp	123,738	-	123,738	11,368	-	11,368
k)	Advertisement and Publicity	699,137	-	699,137	188,194	-	188,194
l)	News Paper, Magazines etc	8,736	-	8,736	34,664	-	34,664
m)	Boarding & Lodging and Guest House Expenses	36,286	-	36,286	-	-	-





n)	Laboratory Expenses	88,796	-	88,796	-	-	-
o)	Website related expenses	-	-	-	-	-	-
p)	AMC Charges	1,409,369	-	1,409,369	-	-	-
q)	DSC Expenses	2,000	-	2,000	-	-	-
r)	Housekeeping Expenses	169,487	-	169,487	50,683	-	50,683
s)	Refreshment	160,397	-	160,397	20,697	-	20,697
u)	Horticulture Expense	272,856	-	272,856	-	-	-
v)	Horticulture Expense	-	-	-	-	-	-
w)	Legal Charges	-	-	-	-	-	-
x)	Other Expenses ( Admin)	-	-	-	-	-	-
y)	Pantry Expenses	-	-	-	-	-	-
z)	Honorarium -Admin	-	-	-	-	-	-
	<b>Total</b>	<b>136,412,501</b>	<b>-</b>	<b>136,412,501</b>	<b>131,962,146</b>	<b>-</b>	<b>131,962,146</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Transportation Expenses**

**Schedule 18**

Amount in Rs.

S.No.	Particulars	Current Year			Previous Year		
		Plan	Non Plan	Total	Plan	Non Plan	Total
<b>1</b>	<b>Vehicles (owned by institution)</b>						
a)	Running expenses	-	-	-	-	-	-
b)	Repairs & maintenance	-	-	-	-	-	-
c)	Insurance expenses	-	-	-	-	-	-
<b>2</b>	<b>Vehicles taken on rent/lease/Hiring</b>						
a)	Rent/lease expenses/Hiring	876,228	-	876,228	762,762	-	762,762
b)	Running expenses	293,202	-	293,202	58,909	-	58,909
	<b>Total</b>	<b>1,169,430</b>	<b>-</b>	<b>1,169,430</b>	<b>821,671</b>	<b>-</b>	<b>821,671</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Repairs & Maintenance**

**Schedule 19**

**Amount in Rs.**

S.No.	Particulars	Current Year			Previous Year		
		Plan	Non Plan	Total	Plan	Non Plan	Total
1.	Estate & Building Maintenance	1,448,024	-	1,448,024	331,840	-	331,840
2.	Furniture & Fixture	79,983	-	79,983		-	-
3.	Plant & Machinery	-	-	-	-	-	-
4.	Office Equipments	764,208	-	764,208	732,557	-	732,557
5.	Computer	454,380	-	454,380	2,386,163	-	2,386,163
6.	Laboratory & Scientific Equipments	-	-	-	-	-	-
7.	Audio Visual Equipments	-	-	-	-	-	-
8.	Cleaning Material & Services	-	-	-	-	-	-
9.	Books Binding Charges	-	-	-	-	-	-
10.	Gardening	-	-	-	-	-	-
11.	Electricity and Electric Repair	110,304	-	110,304	102,049	-	102,049
	<b>Total</b>	<b>2,856,899</b>	<b>-</b>	<b>2,856,899</b>	<b>3,552,609</b>	<b>-</b>	<b>3,552,609</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Finance Costs**

**Schedule 20**

**Amount in Rs.**

S.No.	Particulars	Current Year			Previous Year		
		Plan	Non Plan	Total	Plan	Non Plan	Total
1.	Bank Charges	37,668	-	37,668	21,194	-	21,194
	<b>Total</b>	<b>37,668</b>	<b>-</b>	<b>37,668</b>	<b>21,194</b>	<b>-</b>	<b>21,194</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Other Expenses**

**Schedule 21**

**Amount in Rs.**

S.No.	Particulars	Current Year			Previous Year		
		Plan	Non Plan	Total	Plan	Non Plan	Total
1.	Provision for Bad and Doubtful Debts/Advances	-	-	-	-	-	-
2.	Irrecoverable Balances Written - off	-	-	-	-	-	-
3.	Grants/Subsidies to other institutions/organizations	-	-	-	-	-	-
4.	Others (specify)						
	Blood Donation Camp Expenses	-	-	-	-	-	-
	<b>Total</b>	-	-	-	-	-	-



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Prior Period Expenses**

**Schedule 22**

**Amount in Rs.**

S.No.	Particulars	Current Year			Previous Year		
		Plan	Non Plan	Total	Plan	Non Plan	Total
1.	Establishment expenses	-	-	-	207,687	-	207,687
2.	Academic expenses	-	-	-	-	-	-
3.	Administrative expenses	1,201,760	-	1,201,760	510,781	-	510,781
	<b>Total</b>	<b>1,201,760</b>	<b>-</b>	<b>1,201,760</b>	<b>718,468</b>	<b>-</b>	<b>718,468</b>





**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**List of Creditors as on 31.03.2022**

**Annexure 'A'**

**Creditors For Goods**

S.No.	Particulars		Amount in Rs.	Amount in Rs. (P.Y)
1.	Jain Furniture Supplier		8,220	8,220
2.	Kamal Enterprises		99,358	99,358
3.	Saini Refrigeration Works		4,692	4,692
4.	VSM Enterprises		8,800	8,800
	<b>Total</b>		<b>121,070</b>	<b>121,070</b>

**Creditors-Others**

S.No.	Particulars		Amount in Rs.	Amount in Rs.(P.Y)
1.	NBCC Payable		1,669,408	-
2.	Citilert Security Services Pvt Ltd		72,117	72,117
3.	NSDL		-	2,764
4.	Manish Dhiman		277	277
5.	Hemant Kumar		-	6
6.	Sanko Network		360	360
7.	Reliance Communication Ltd		(400)	-
	<b>Total</b>		<b>1,741,762</b>	<b>75,524</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**List of Statutory Dues as on 31.03.2022**

**Annexure 'B'**

S.No.	Particulars		Amount in Rs. (C.Y)	Amount in Rs. (P.Y)
1.	CGST TDS		53,876	58,070
2.	IGST TDS		44,782	12,524
3.	SGST TDS		53,876	58,070
4.	TDS 192 B 109		52,206	1,081,347
5.	TDS Salary 192B		-	-
6.	TDS 194 C 4077		16	-
7.	TDS on Contract 194 C 4075		108,505	77,752
8.	TDS on Rent 194 I		654,071	678,737
9.	Tds Payable on Salary 192		-	140,238
10.	TDS 194 J (4077)		3,000	18,260
11.	Tds 194 C 10108		635,386	
12.	TDS Deductible		-	-
13.	TDS Professional 194J		118,300	-
14.	NPS Payable (Both Employer & Employee)		1,314,686	1,263,193
15.	GIS Payable		-	15,735
	<b>Total</b>		<b>3,038,704</b>	<b>3,403,924</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Detail Of Outstanding as on 31.03.2022**

**Annexure 'C'**

S.No.	Particulars		Amount in Rs.	P.Y	Amount in Rs. (P.Y)
1.	AMC Charges Payable	-		-	
2.	Advertisement Expense payable	25,202		-	
3.	Bus Hiring Charges	38,387		-	
4.	Campus Maintenance	4,600		4,600	
5.	CPF Contribution	-		100,000	
6.	E-Journal Expense	2,253,830		2,202,171	
7.	Electricity Exp	319,806		707,082	
8.	Equipment Repair Maintenance	382,505		207,880	
9.	GPF	-		-	
10.	Computer Repair Maintenance	14,957		293,029	
11.	Internet Charges	1,237,376		649,000	
12.	Legal Charges	31,800		12,000	
13.	Newspaper & Periodicals	2,233		1,146	
14.	Other Payable	275,827		43,091	
15.	Professional Charges	138,501		123,751	
16.	Rent	3,457,168		1,108,406	
17.	Salary Outsourcing Staff	2,140,246		1,522,009	
18.	Salary and Wages Contractual	1,099,868		212,435	
19.	Security Exp.	947,670		1,800,926	
20.	Vehicle Hiring & Running Expenses	47,210		-	
21.	Stipend Of Phd	1,161,880		1,373,746	
22.	Stipend Of Mtech	1,206,194		1,171,795	
23.	Travelling Expenses	4,560		-	
24.	Telephone Exp	11,800	14,801,620	13,134	11,546,201
	<b>Establishment Expenses Payable</b>				
25.	Medical Reimbursement Payable	81,976		-	
26.	Salary Payable	6,669,799		5,182,943	
27.	Leave Salary & Pension Contribution	77,494		21,956	
28.	Dr. Ajay K. Sharma Deductions Payable	21,439		-	
29.	Dr. Chandra Prakash, CPF Contribution	210,388		-	
30.	GIS Deduction Refundable	(606)		-	
31.	Gratuity Expense payable	-	7,060,490	-	5,204,899
		6,637,580,110			
	<b>Unspent balance of Counsellings</b>				
32.	CCMT 2017	227		227	
33.	CCMT 2019	110,880		110,880	
34.	CSAB 2016	47,932		47,932	



35.	CSAB 2019	-		-	
36.	CSAB 2020	-		-	
37.	DASA 2019	23,512		23,512	
38.	CSAB 2021	50,000	232,551	-	182,551
	<b>Project Expenses Payable</b>				
39.	CSIR Project	-		1	
40.	DST Project	-		-	
41.	DST Shri Project	-		-	
42.	STC	-		-	
43.	SERB	-		-	
44.	SMPD	-		-	
45.	SERD Dr Rikmantra Basu Payable (CRG/2020/002966)	38,440		-	
46.	SERB Expense payable	233,251	271,691	-	1
	<b>Other Payable</b>				
47.	TDS Amount Reimbursable	-			
48.	Amount un-identified	713,641	713,641	358,975	358,975
	<b>Total</b>		<b>23,079,993</b>		<b>17,292,627</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**Details of Earnest Money Deposit and Other Security Deposits**

Annexure 'D'

**A) Details of Earnest Money Deposit**

S.No.	Particulars		Amount in Rs.	Amount in Rs.(P.Y)
1.	Ashok Kumar EMD		10,000	10,000
2.	Balka Furnishaers EMD		4,000	4,000
3.	Ergo Dyanamix EMD		10,000	10,000
4.	Frank Copier Private Limited		15,000	15,000
5.	Galaxy Enterprises EMD		3,000	3,000
6.	Jain Furniture EMD		2,100	2,100
7.	Neotel EMD		10,000	10,000
8.	NET PRO INDIA		10,000	10,000
9.	Net Web Technologies		11,000	11,000
10.	NIT Delhi Mess EMD		50,000	50,000
11.	Sahni Associates EMD		4,000	4,000
12.	Shree Balaji Furnishers EMD		3,100	3,100
13.	Star Fabricator		36,565	36,565
14.	Sulabh International Social Service Org. EMD		33,496	33,496
15.	T K Meena EMD		6,000	6,000
16.	Top Land EMD		16,000	16,000
	<b>Total (A)</b>		<b>224,261</b>	<b>224,261</b>

**B) Details of Other Security Deposit**

S.No.	Particulars		Amount in Rs.	Amount in Rs.(P.Y)
1.	JILT Ltd		202,248	202,248
2.	Bengal Battery Co. Performance Security		40,496	40,496
3.	Bridge People Technology P Ltd ( Perfo. Security)		40,437	-
4.	Sahni Associates		16,238	16,238
5.	Frank Copier Private Limited		254,597	43,672
6.	New Yadav Tourist		25,000	25,000
7.	Relaince Internet Security		110,000	110,000
8.	Research India		2,820	-
9.	Sandvic Components Security		-	402,150
10.	Mikroz Info Security P. Ltd.		39,805	-
	<b>Total (B)</b>		<b>731,641</b>	<b>839,804</b>
	<b>Grand Total (A+B)</b>		<b>955,902</b>	<b>1,064,065</b>



**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**List of Imprest Money given to Staff**

**Annexure 'E'**

S.No.	Particulars		Amount in Rs.	P.Y	Amount in Rs. P.Y
	<b>Cash Imprest</b>				
1.	Anmol Ratna	705		705	
2.	Rikamntra Basu	3,937	4,642	3,937	4,642
	<b>Imprest Card</b>				
1.	Manisha Singh	-		29,352	
2.	Krishan Pal	-		45,857	
3.	Dr. Gareema	(2,896)		47,104	
4.	Dr. VS Pandey	-		25,000	
5.	Sh Raushan	30,080		30,080	
6.	Dr. Rikmantra	-		119	
7.	Dr. Rajiv	-		47,080	
8.	Dr. Gyanendra	24,966		24,966	
9.	Dr. Vivek (Dean R&C)	-		50,000	
10.	Dr. Vivek (Dean SW)	(9,469)		43,000	
11.	Sh. Jitender	(2,218)		22,999	
12.	Sh Rajesh -8092	-		16,829	
13.	Sh Rajesh-8461	-		23,955	
14.	Krishan Pal guest house	-		37,643	
15.	Amit Mahajan	25,000		43,000	
16.	Shelly	(2,056)		44,685	
17.	Dr. Vaithyanathan(8167)	(2,387)		25,000	
18.	Dr. Vaithyanathan(New Card 5077)	-		19,473	
19.	Dr. Anmol	19,928		19,928	
20.	Harish Kumar	-		40,784	
21.	Sh. Kamal	-		25,207	
22.	Sh. Mukul	(17,489)		5,464	
23.	Sh. Anidev Singh	-		40,321	
24.	Dr. Kapil	25,000		45,006	
25.	Imprest Card - 5234	19,536	107,995	19,536	772,388
	<b>Total</b>		<b>112,637</b>		<b>777,030</b>





**NATIONAL INSTITUTE OF TECHNOLOGY DELHI**  
**List of Advances given to Staff**

**Annexure 'F'**

S.No.	Particular		Amount in Rs.	Amount in Rs .(P.Y)
1.	Anidev Singh		50,000	(59)
2.	Aditi Kandari		4,812	-
3.	Anuj Kumar Sharma		15,000	15,000
4.	Anurag Singh		31,300	21,935
5.	Anupriya Das		10,000	-
6.	Jitender Singh Bisht		15,000	-
7.	Harish Kumar		-	108,000
8.	Sachin Singh		-	108,856
9.	Kamal Kumar		50,000	-
10.	Karan Verma		24,544	
11.	Kapil Kumar		-	12,000
12.	Lov Kumar Dubey		73,272	
13.	Manisha Bharti		14,385	
14.	Mukul Nakra		74,359	
15.	Raushan Kumar		-	6,500
16.	Rikmantra Basu		-	3,151
17.	Satyender Singh		3,000	3,000
18.	Vikrant Kaushik		20,000	
19.	Vinay Shankar Pandey		-	-
20.	LTC Advance		-	497,564
	<b>Total</b>		<b>385,672</b>	<b>775,947</b>

