



Annual Report & Annual Accounts 2022-23



National Institute of Technology Delhi



National Institute of Technology Delhi



Papers to be laid on the
Table of Lok/Rajya Sabha

Annual Report & Annual Accounts (2022-2023)

AUTHENTICATED

शिक्षा मंत्रालय में राज्य मंत्री
Minister of State in the
Ministry of Education



राष्ट्रीय प्रौद्योगिकी संस्थान दिल्ली
NATIONAL INSTITUTE OF TECHNOLOGY DELHI

(An autonomous Institute under the aegis of the Ministry of Education
Shiksha Mantralaya, Govt. of India)

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National Institute of Technology Delhi



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National Institute of Technology Delhi



Director's Message



It gives me immense pleasure to present the Annual Report and the Audited statement of Accounts of National Institute of Technology Delhi for the year 2022-23 with the noteworthy achievements of the Institute during the year. This year holds special significance in the history of the Institute due to multifarious activities, initiatives and accomplishments in academics, teaching, research and other activities of the Institute. During the year, the Institute achieved remarkable figure of 836 undergraduates, 159 postgraduates and 123 Ph.D. scholars. The Institute has 38 regular faculty members, 11 contractual faculty and 30 regular non-teaching staff, 02 contractual and 53 outsourced staff members. This year, the Institute has recruited 23 faculty & 10 non faculty members. 'The Institute has shifted to its permanent campus' during the year and has procured two buses and two electric vehicles to provide the better transport facilities to the students and one Tractor has been procured to perform various for miscellaneous work in the Institute.

The faculty members of the Institute have participated in 27 STCs, 09 FDPs, 51 Conferences and 16 workshops during the year held across India and abroad. The faculty members have filed 07 patents. At present, sixteen research projects are undergoing at NIT Delhi under the mentorship of various faculty members of the Institute. It is very encouraging that 170 research papers have been published in SCIE/SCOPUS, National/International Conferences by various faculty members. The faculty member of the Institute have published various books with renowned publisher like Oxford University Press, UK (2022) and Springer (2022) etc. The works of faculties have been awarded as the best paper award in many International Conferences such as 2nd International Conferences (IEEE IConSIP-II-2022).

With all humility and pride, I would like to say that the Institute has notable placements during the year. One of our students has been selected through Campus Placement Drive with the highest package of 82 lakh per annum (LPA). The average package was of Rs. 17.3386 LPA this year. A total of 132 students got placed. NIT Delhi takes great pride in its vibrant alumni community, and regularly organizes alumni meets to celebrate their achievements and foster strong relationships. The 'MILAP'; alumni meet held in 2022 was a highlight, bringing together alumni from different programs in a memorable celebration. The "MILAP"; alumni meet featured a range of activities, including interactive sessions, performances,



and informal gatherings, creating a festive and nostalgic atmosphere. The Institute provides various sports facilities. NIT Delhi participated in the various Inter Technology Sports Tournament (ITUSA) held at NIT Kurukshetra, All India Inter NIT Basketball, Athletics and Lawn Tennis tournament and men's Basketball team. NIT Delhi participated in the All India Inter NIT Volleyball and Kabaddi tournament held at NIT Rourkela. NIT Delhi participated in All India Inter NIT Power sports 2023. The Institute bagged various Medals.

As the Institute is dedicated to achieve higher goals in the up-gradation of education, teaching, research and consultancy, it looks forward to achieving various targets from activities which are being initiated. The Department of Mechanical Engineering is in the process to collaborate with IIT Gandhinagar and IIT Kanpur to facilitate the students of NIT Delhi for higher study program/research work. Also, the Mechanical Engineering Department is in the process to collaborate with Wipro Enterprises Pvt. Ltd. to provide hands-on-training on 3D Metal Printer, we are also developing an Additive Manufacturing Centre at NIT Delhi. A total of 180 Purchase/Work/Contract Order of worth Rs. 22,66,84,968/- were issued and a total of 149 Purchase/Work/Contract Order of worth Rs. 11,39,15,649/- have been completed. The Institute majorly focuses on the development of laboratories and state of the art infrastructure. In this context, the Institute has recently completed the purchase of various machines (Stir Casting, CNC, EDM etc.) in the Department of Mechanical Engineering, Opal RT and other machines & equipments in the Department of Electrical Engineering.

The Institute is focused towards excellent teaching and research activities. To fulfill the desired outcomes, the Institute always encourages the faculty & researcher to upgrade themselves & to do cutting edge research. Apart from this, the Institute is always keen to collaborate with the Industries & research organisations at National and International level.

On this note, I acknowledge and thank the active support and encouragement the Institute has received from students, members of NITD family, Board of Governors, Senate, Members of various committees and from the State administration and the Ministry of Education from time to time. We, as an Institution, aspire collectively to achieve higher growth in the coming years. I, along with members of the NIT Delhi, hereby, assure that we will put all our energies to excel at par with the established NITs/IITs.

Prof. (Dr.) Ajay K. Sharma
Director



Part-I

(Annual Report)

2022-2023



National Institute of Technology Delhi



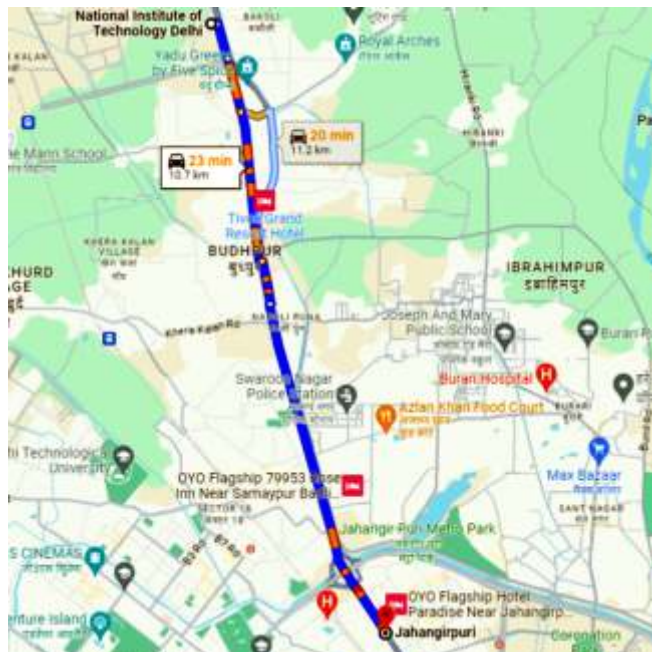
About National Institute of Technology Delhi

Introduction

- National Institute of Technology Delhi (NITD) is one of the thirty one NIT (s) established in the year 2010 by an act of parliament and has been declared as an Institute of National importance.
- NIT Delhi is an autonomous Institute which functions under the aegis of Ministry of Education, Government of India. It aims to provide instructions and research facilities in various disciplines of Engineering, Science and Technology, Management, Social Sciences and Humanities for advance learning and dissemination of knowledge.

Location

- National Institute of Technology Delhi previously running its academic and administrative activities from transit campus (NILRD) has now shifted to its permanent campus at GT Karnal Road and the transit campus is used for Hostel and Residence purposes.
- The nearest Metro Station is Jahangirpuri on Yellow line of Delhi Metro Rail Corporation which is about 11.2 Kms from NIT, Delhi Permanent Campus, whereas the airport is located at a distance of 36.3 Kms.





Vision

- Committed to holistic development of lives and society by imparting knowledge of Science and Technology and crystallizing the future.

Mission

- The mission of NIT Delhi is to produce human resource who are creative, competitive and innovative with high intellect and ethical values. The Institute is imparting holistic education, along with inculcating high moral values in its students.
- Application of Knowledge through learning and inculcating Research Oriented mindset towards Design and Innovative Development for realistic societal solutions.

Quality Policy

- To create an environment for holistic learning and development.
- To provide academic excellence, good governance, team work, spirit towards the development of responsible citizen.
- To provide opportunities for Research, Innovation, Creativity initiatives to reflect high level of Intellectual Professionalism towards achieving Excellence.
- To provide infrastructure and facilities benchmarked to reflect the High Standard and latest Technology.
- To provide state-of-the-art laboratories with latest Equipment & Instruments.
- To provide the highest level of cleanliness, hygiene, safety, discipline environmental consciousness in the Institute.

Education System

- National Institute of Technology Delhi has adopted the New Education Policy (NEP), 2020 from Academic year 2022-23
- Institute is working on improving education in several ways as outlined by the National Education Policy 2020. Firstly, curriculum has been upgraded for both bachelor's and master's degrees to match the new guidelines. Secondly, the facility for students to move their academic credits between different colleges and universities through the Academic Bank of Credit (ABC). Additionally, introduction of minor degree options for undergraduate students, has allowed them to study a secondary subject of interest alongside their major. Under NEP, Institute has ensured that students are gaining practical experience through mandatory internships lasting six months for undergraduates and one year for postgraduates.

Students receive guidance and support not only from their professors but also from industry and research experts when working on their academic projects and research papers.

Institute has started Post-Doctoral Fellowship Program to encourage advanced research. To inspire both students and faculty to engage in meaningful research and innovation, Institute is providing incentives for publishing research papers, creating patents, and completing impactful projects. Collaboration with industry and research organizations will give students real-world exposure to current challenges.



Lastly, the Institute is fostering partnerships with well-regarded foreign universities for student and faculty exchange programs to encourage global learning and collaboration. These changes are aimed at enhancing the overall education experience and preparing students for a successful future.

Course Offered

- **Bachelor of Technology (B.Tech.)**

- o Electrical Engineering
- o Electronics and Communication Engineering
- o Computer Science and Engineering
- o Civil Engineering
- o Mechanical Engineering

- **Master of Technology (M.Tech.)**

- o Computer Science and Engineering
- o Computer Science and Engineering (Specialization in Analytics)
- o Electronics and Communication Engineering
- o Electrical Engineering (Specialization in Power Electronics and Drives)
- o Electronics and Communication Engineering (VLSI)
- o Mechanical Engineering (Specialization in Computer-aided Design/Computer-aided Manufacturing)

- **Doctorate of Philosophy (PhD)**

- o Physics
- o Chemistry
- o Mathematics
- o Environmental Science and Engineering
- o Civil Engineering
- o Computer Science and Engineering
- o Electronic and Communication Engineering
- o Electrical Engineering
- o Mechanical Engineering

- **Academic Session(s)**

- o Autumn Semester: August, 2022 – December, 2022
- o Spring Semester: January, 2023 – May, 2023

Campus Details

- NIT Delhi started its academic session in 2010 with three undergraduate B.Tech degree programmes in Computer Science and Engineering, Electronics and Communication Engineering and Electrical and Electronics Engineering. The academic activities of NIT Delhi were initiated at NIT Warangal in year 2010 which later moved to a temporary campus at Dwarka, New Delhi in June 2012 and after that, since 2014 upto Feb. 2022 it was running at NILERD Campus, Narela and since Feb. 2022, the Institute is running all the activities from its permanent Campus located at Karnal



National Institute of Technology Delhi

R o a d ,
Delhi - 110036.

- At present, more than 1100 students are studying at NIT Delhi in different branches at UG, PG & Ph D. level.

Status of Permanent Campus

- Possession of fifty one acre land has been allotted for permanent campus of NIT Delhi on NH-1, Narela sub city, New Delhi. Phase IA construction of the permanent campus has been completed which includes Admin Block, Mini Campus, Start-up Center Building and Play Ground and Phase IB of the permanent campus (includes Academic Blocks, Sports Complex, Hostels, Residential Blocks, Director residence etc.) which is under construction through executing agency TCIL, the prime engineering and consultancy company.

- In addition to that a Football Ground, Athletic Track, Badminton Court, Basketball Court, Swimming Pool etc. are also under construction at different location of the campus.

Contact: National Institute of Technology Delhi

- National Institute of Technology Delhi
Plot No. FA7, Zone P1, GT Karnal Road,
Delhi-110036
- Tel: 011 – 33861000-1006
- Email: director@nitdelhi.ac.in (Director)
- Website: www.nitdelhi.ac.in
- Working Hours: 09:00 AM to 05:30 PM
(Monday to Friday)



Faculty/Staff Members and Administration

Members of the Board of Governors (2022-2023)

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 T R Sreekrishnan, Professor Dept. of Biochemical Engineering and Biotechnology, IIT Delhi	Member
Prof. Vivek Kumar Professor, Centre Rural Development and Technology, IIT Delhi	Member
Dr. Vivek Shrivastava, Associate Professor, Department of Electrical Engineering	Member
Shri Rajeev Saraf, Technopreneur Lepton Software Export & Research Pvt. Ltd Gurugram	Member
Shri Gopal Mohan, Advisor, Delhi Dialogue Commission Delhi	Member
Sh. Ravinder Kumar, Registrar, NIT Delhi	Secretary

Members of the Finance Committee (2022-2023)

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
Prof. Vivek Kumar Professor, Centre Rural Development and Technology, IIT Delhi	Member
Dr. Vivek Shrivastava, Associate Professor, Department of Electrical Engineering	Member
Sh. Ravinder Kumar, Registrar, NIT Delhi	Member Secretary

Members of the Building & Works Committee (2022-23)

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
Dean (Planning & Development)	Member



(A). Details of Teaching Staff as on 31st March 2023 (Posts Sanctioned & Filled)

Details of Faculty (Vacant and Filled in Position as on 31st March, 2023)																				
S. No.	Post Name	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	Pay Level 14A	6	5	0	0	1	0	2	2	0	0	0	0	4	3	0	0	1	0
2	Associate Professor	Pay Level 13A2	15	8	2	1	3	1	15	13	1	0	1	0	0*	0*	0	0	0	0
3	Assistant Professor	Pay Level 10/11/12	29	14	4	2	7	2	21	9	5	1	6	0	8	04	0*	1	3	0
Total			50	27	6	3	11	3	38	24	6	1	7	0	12	3	0	2	4	3

1. *One (01) Post against Professor utilized against Associate Professor filled in access
2. *Five (05) post filled in excess in Associate Professor under UR Category adjusted against Assistant Professor
3. *One (01) Post in SC Category already filled in excess in Assistant Professor (Grade-II) will be adjusted in future.

In the year 2023, the following vacant positions were advertised and the progress is as stated:-						
Post	Total	UR	SC	ST	OBC	EWS
Professor*	02	1	0	0	1	0
Assistant Professor - Grade-I (Pay Level - 10)*	01	0	0	1	0	0

*Post Advertised via Advertisement no. 06/2023.

(B) Deans during 2022-23

S. No.	Name	Designation	From	To
1.	Dr. Gyanendra Sheoran	Dean (Planning and Development)	02.10.2021	11.08.2022
	Dr. Amit Mahajan		11.08.2022	31.03.2023
2.	Dr. Tirupathiraju Kanumuri	Dean (Faculty Welfare)	02.10.2021	11.08.2022
	Dr. V.S. Pandey		11.08.2022	31.03.2023
3.	Dr. V.S. Pandey	Dean (Academics)	02.10.2021	11.08.2022
	Dr. Harish Kumar		11.08.2022	31.03.2023
4.	Dr. Vivek Shrivastava	Dean (Research & Consultancy)	02.10.2021	11.08.2022
	Dr. Anurag Singh		11.08.2022	31.03.2023
5.	Dr. Shelly Sachdeva	Dean (Student Welfare)	02.10.2021	11.08.2022
	Dr. Anuj Kumar Sharma		11.08.2022	31.03.2023

**(C) HoD's during 2022-23**

S. No.	Name	Designation	From	To
1.	Dr. Manisha Bharti	Head of Department (Electronics and Communication Engineering)	02.10.2021	30.12.2022
	Dr. Manoj Kumar		30.12.2022	31.03.2023
2.	Dr. Anurag Singh	Head of Department (Computer Sciences and Engineering)	02.10.2021	11.08.2022
	Dr. Shelly Sachdeva		11.08.2022	30.12.2022
	Dr. Geeta Sikka		30.12.2022	31.03.2023
3.	Dr. Harish Kumar	Head of Department (Mechanical Engineering)	02.10.2021	11.08.2022
	Dr. Abishek Mishra		11.08.2022	30.12.2022
	Dr. Leeladhar Nagadev		30.12.2022	31.03.2023
4.	Dr. Prashant Kumar	Head of Department (Applied Sciences)	02.10.2021	11.08.2022
	Dr. Amit Pratap Singh		11.08.2022	31.03.2023
5.	Dr. Ajay Kumar	Head of Department (Civil Engineering)	11.08.2022	31.03.2023
6.	Dr. Anmol Ratna Saxena	Head of Department (Electrical Engineering)	02.10.2021	11.08.2022
	Dr. Vivek Shrivastva		11.08.2022	31.03.2023

(D). Faculty during 2022-23

S. No.	Name	Designation
Department of Electronics & Communication Engineering (ECE)		
1.	Dr. Manoj Kumar	Professor
2.	Dr. Rikmantra Basu	Associate Professor
3.	Dr. Manisha Bharti	Associate Professor
4.	Dr. D. Vaithyanathan	Assistant Professor Grade I
5.	Dr. Sandeep Kumar	Assistant Professor Grade I
6.	Dr. Baljit Kaur	Assistant Professor Grade II
7.	Dr. Sachin Agrawal	Assistant Professor Grade II
8.	Dr. Nitin Singh Singha	Assistant Professor Grade II
9.	Dr. Dharmendra Kumar Jhariya	Assistant Professor Grade II
10.	Dr. Mahesh Kumar Singh	Assistant Professor Grade II



Department of Electrical Engineering (EE)		
11.	Dr. Vivek Shrivastava	Associate Professor
12.	Dr. Obbu Chandra Sekhar	Associate Professor
13.	Dr. Anmol Ratna Saxena	Associate Professor
14.	Dr. Tirupathiraju Kanumuri	Associate Professor
15.	Dr. Pankaj Mukhija	Assistant Professor Grade I
16.	Dr. Anshul Agarwal	Assistant Professor Grade I
17.	Dr. Sachin Singh	Assistant Professor Grade II
18.	Dr. Amit Kumar Singh	Assistant Professor Grade II
19.	Dr. Manoj Kumawat	Assistant Professor Grade II
Department of Computer Science & Engineering (CSE)		
20.	Dr. Geeta Sikka	Professor
21.	Dr. Shelly Sachdeva	Associate Professor
22.	Dr. Anurag Singh	Associate Professor
23.	Dr. Sushila Maheshkar	Assistant Professor Grade I
24.	Dr. Karan Verma	Assistant Professor Grade I
25.	Dr. Rishav Singh	Assistant Professor Grade II
26.	Dr. Chandra Prakash	Assistant Professor Grade II
Department of Mechanical Engineering (ME)		
27.	Dr. Harish Kumar	Associate Professor
28.	Dr. Abhishek Mishra	Assistant Professor Grade I
29.	Dr. Leeladhar Nagdeve	Assistant Professor Grade II
30.	Dr. Ashok Kumar Dewangan	Assistant Professor Grade II



Department of Applied Science & Humanities (AS & HM)		
31.	Dr. V.S. Pandey	Associate Professor
32.	Dr. Gyanendra Sheoran	Associate Professor
33.	Dr. Amit Pratap Singh	Associate Professor
34.	Dr. Anuj Kumar Sharma	Associate Professor
35.	Dr. Amit Mahajan	Associate Professor
36.	Dr. Prashant Kumar	Assistant Professor Grade I
Department of Civil Engineering (CE)		
37.	Dr. Ajay Kumar	Associate Professor
38.	Dr. Kapil Kumar	Assistant Professor Grade I

(E). Non-Teaching Staff as on 31st March 2023**Group A**

S. No.	Post Name	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	Pay Level - 14	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
2	Assistant Registrar	Pay Level - 11	2	2	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0
3	Assistant Librarian	Pay Level - 11	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
4	SAS Officer	Pay Level - 11	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
5	Medical Officer	Pay Level - 10	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
6	Executive Engineer	Pay Level - 10	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
Total			7	7	0	0	0	0	4	4	0	0	0	0	3	3	0	0	0	0



Group B

S. No.	Post Name	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	Technical Assistant	Pay Level - 6	6	4	1	0	1	0	1	1	0	0	0	0	5	3	1	0	1	0
2	Senior Technical Assistant	Pay Level - 7	2	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
3	Junior Engineer	Pay Level - 6	2	1	0	0	1	0	0	0	0	0	0	0	2	1	0	0	1	0
4	Assistant Engineer	Pay Level - 7	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
5	Personal Assistant	Pay Level - 6	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
6	Superintendent	Pay Level - 6	3	2	0	0	1	0	1	0	0	0	1	0	2	2	0	0	0	0
7	Senior Superintendent	Pay Level - 7	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0
Total			16	12	1	0	3	0	7	6	0	0	1	0	9	6	1	0	2	0

Group C

S. No.	Post Name	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	Junior Assistant	Pay Level - 3	6	4	1	0	1	0	2	1	0	0	1	0	4	2	1	0	0	0
2	Senior Assistant	Pay Level - 4	3	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
3	Assistant SG-II	Pay Level - 5	2	2	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0
4	Technician	Pay Level - 3	9	7	0	0	2	1	4	3	0	0	1	0	5	4	0	0	0	1
5	Senior Technician	Pay Level - 4	4	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
6	Pharmacist	Pay Level - 5	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
7	Office Attendant / Lab Attendant	Pay Level - 1	5	3	1	0	1	0	3	2	1	0	0	0	2	1	0	0	1	0
8	Senior Office Attendant / Senior Lab Attendant	Pay Level - 2	2	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
Total			32	26	2	0	4	1	19	16	1	0	2	0	13	10	1	0	2	1

Total (A+B+C)	55	45	3	0	7	1	30	26	1	0	3	0	25	19	2	0	4	1
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**(F). Administrative and Technical Staff during the Year 2022-23**

S. No.	Name of Employee	Designation	Department
1.	Sh. Ravinder Kumar	Registrar	Administration
2.	Dr. Manisha Singh	Assistant Registrar	Administration
3.	Dr. Gareema Sharma	Assistant Librarian	Central Library
4.	Dr. Anidev Singh	SAS Officer	Students Activity and Sports
5.	Sh. Kamal Kumar (till 18.09.2022)	Junior Engineer (Civil)	Office of Dean (P&D)
6.	Sh. Harpreet Singh Nanda	Senior Superintendent	Store and Purchase Section
7.	Sh. Bankuru Ramesh (DoJ 01.03.2023)	Superintendent	Store and Purchase Section
8.	Sh. Rahul (DoJ 14.03.2023)	Personal Assistant	Administration
9.	Sh. Sumit Sharma	Senior Technical Assistant (CSE)	ERP Cell
10.	Sh. Surender Kumar	Senior Technical Assistant (ECE)	Electronics Communication and Engineering
11.	Sh. R.V. Bhaskaran	Technical Assistant (EE)	Electrical Engineering
12.	Sh. Mukul Nakra	Assistant Engineer (Electrical)	Estate Office
13.	Sh. Manorath (DoJ 28.02.2023)	Pharmacist	Health Centre
14.	Sh. Aadesh Kumar	Senior Technician (Physics)	Applied Sciences (Physics)
15.	Sh. Pradeep Singh (DoJ 22.02.2023)	Senior Technician (CSE)	Computer Science and Engineering
16.	Ms. Shalini Singh (DoJ 24.02.2023)	Senior Technician (Chemistry)	Applied Sciences
17.	Sh. Krishan Pal	Senior Technician (Mechanical)	Mechanical Engineering
18.	Sh. Raushan Kumar	Technician (CSE)	Computer Centre



19.	Sh. Vikas Bhardwaj	Technician (CSE)	Computer Science and Engineering
20.	Ms. Rubal (DoJ 09.09.2023)	Technician (Environmental Sciences)	Civil Engineering
21.	Sh. Shubham Bhardwaj	Technician (Chemistry)	Applied Sciences (Chemistry)
22.	Sh. Jitender Singh Bisht	Senior Assistant	Administration
23.	Ms. Aditi Kandari	Senior Assistant	Establishment Section
24.	Sh. Punya Bansal (DoJ 31.03.2023)	Senior Assistant	Registrar Office
25.	Ms. Anupriya Das	Junior Assistant	Accounts Section
26.	Ms. Navisha Sharma	Junior Assistant	Central Library till 30/12/2022 30/12/2022 - Applied Science
27.	Sh. Lov Kumar Dubey	Senior Office Attendant	Central Library/Applied Sciences/Mechanical Engineering
28.	Sh. Bharat Singh	Senior Office Attendant	Administration
29.	Sh. Udit Sharma	Office Attendant	Academic Section
30.	Ms. Tripti (DoJ 09.03.2023)	Office Attendant	Establishment Section
31.	Mr. Pranjal Gaur (DoJ 15.03.2023)	Office Attendant	Electronics and Communication Engineering

(G). Temporary and Guest Faculty during the year 2022-23

S. No.	Name	Designation	Department	Date of Joining	Date of Relieving
1.	Dr. Anchal Thakur	Assistant Professor	Electronics and Communication Engineering	13.06.2022	01.12.2022
2.	Dr. Neha Paras	Assistant Professor	Electronics and Communication Engineering	13.06.2022	--
3.	Dr. Preeti Verma	Assistant Professor	Electronics and Communication Engineering	16.08.2022	--
4.	Dr. Shubhra	Assistant Professor	Electrical Engineering	16.08.2022	28.12.2022
5.	Dr. Rahul	Assistant Professor	Electrical Engineering	16.08.2022	28.12.2022
6.	Dr. Jaynendra Kumar	Assistant Professor	Electrical Engineering	17.08.2022	28.12.2022



7.	Dr. Pratibha	Assistant Professor	Applied Sciences (Humanities)	16.08.2022	--
8.	Dr. Jitendra Kumar Samriya	Assistant Professor	Computer Science and Engineering	16.08.2022	06.10.2022
9.	Dr. Jaspinder Kaur	Assistant Professor	Computer Science and Engineering	22.08.2022	--
10.	Dr. Richa Sharma	Assistant Professor	Computer Science and Engineering	25.08.2022	22.12.2022
11.	Ms. Sumika	Assistant Professor	Computer Science and Engineering	26.08.2022	28.02.2023
12.	Dr. Shilpa Jain	Assistant Professor	Computer Science and Engineering	26.08.2022	30.12.2022
13.	Dr. Prabhakar Agarwal	Assistant Professor	Computer Science and Engineering	26.08.2022	--
14.	Dr. Divya Punia	Assistant Professor	Computer Science and Engineering	07.10.2022	--
15.	Dr. Shanay Rab	Assistant Professor	Mechanical Engineering	14.09.2022	27.12.2022
16.	Dr. Shadab Ahmad	Assistant Professor	Mechanical Engineering	16.08.2022	27.12.2022
17.	Dr. Hargovind Soni	Assistant Professor	Mechanical Engineering	12.08.2022	--
18.	Dr. Ritu Goel	Assistant Professor	Applied Sciences (Mathematics)	14.11.2022	--
19.	Dr. Saloni Priya	Assistant Professor	Applied Sciences (English)	14.11.2022	31.03.2023
20.	Dr. Shailendra Kumar Tripathi	Assistant Professor	Computer Science and Engineering	31.01.2023	--
21.	Dr. Rohini Mahajan	Assistant Professor	Computer Science and Engineering	01.02.2023	--
22.	Dr. Parul Chauhan	Assistant Professor	Computer Science and Engineering	09.03.2023	--



Academic Activities

1. Introduction

Admission of students into undergraduate programme (B.Tech.) in Computer Science and Engineering (CSE), Electronics and Communication Engineering (ECE), and Electrical and Electronics Engineering (EEE) started from the academic session 2010-11 with first batch of 30 students in each discipline. The academic activities of NIT Delhi were initiated at NIT Warangal in the year 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 permanent campus located at G T Karnal Road, Delhi. Phase 1A of the construction of the permanent campus is completed. The campus is being built over the 51 acres of land strategically located over the intersection of two national highways.

From the academic year 2013-14, the student's intake in each discipline of B.Tech programme was increased to 60, which further has been enhanced to 75 from academic year 2021-22. M.Tech programme in the discipline of Electronics and Communication Engineering with student intake of 15 students was started from the academic year 2013-14 and in Computer Science and Engineering (Analytics) with an intake of 15 students in the academic year 2014-15. The M.Tech programmes were also started in Mechanical Engineering (CAD/CAM) from academic year 2016-17, while, the M.Tech programmes in Electronics and Communication Engineering (VLSI Design), Electrical Engineering (Power Electronics and Drives) and Applied

Sciences (Smart Materials) from started from academic year 2017-18. Admissions to all the UG programmes are through an all India level competitive exam JEE-Mains followed by centralized counseling process of JoSAA and for all PG programmes on the basis of valid GATE score followed by centralized counseling process of CCMT. Intake to M.Tech programmes was increased to 18/ 19 in the academic year 2021-22, which further has been increased by 15 additional seats in each programme from academic year 2022-23 for the candidates without GATE Score/ Self financed/ Sponsored candidates. It is worthy to mention herewith that from academic year 2022-23, the Institute is starting M.Tech (Part-Time) programmes 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.

2. Introduction of NEP 2020 and its features

a. Key Principles of National Education Policy, 2020.

The National Education Policy of 2020 is built on eight fundamental principles that pave the way for a more inclusive and effective educational system. Firstly, it emphasizes respect for diversity and local context, aiming to infuse this into every aspect of curriculum, pedagogy, and policy. Equity and inclusion are designated as the bedrock of all educational decisions, ensuring that no one is left behind. The policy underscores the importance of community participation, encouraging philanthropic, private, and community involvement in education.



Leveraging technology to overcome language barriers is another key facet, enabling better teaching and learning experiences. Instead of rote learning, the focus shifts towards conceptual understanding for exams. Recognizing each student's unique capabilities is crucial, unlocking their full potential. Critical thinking and creativity are championed to enhance logical decision-making and innovation. Lastly, continuous review and assessment by education experts ensure a dynamic and evolving educational landscape. These eight principles collectively work to shape a more accessible, diverse, and forward-thinking education system.

b. Skill and Learning Based Curriculum

The Institute has taken a significant step in enhancing the learning experience for students pursuing BTech and MTech programs, starting from the academic year 2022-23. The curriculum has been thoroughly revised to adopt a learning-centric approach, providing ample opportunities for skillful education. A notable feature is the integration of laboratory courses from the very beginning of these programs, offering a broad spectrum of electives to students. Each department now operates with an independent Board of Studies (BoS) tasked with reviewing and aligning the curriculum with specific requirements. Crucially, industry experts are actively involved in these BoS, ensuring a close tie to the industry's needs. These boards convene in regular periodic meetings, usually held every three months, to submit recommendations swiftly and keep the curriculum synchronized with evolving industrial demands. To ensure students are consistently updated and industry-ready, the Institute is also

organizing regular lectures by industry experts. This approach aims to equip students with the necessary skills and knowledge essential for a successful future in their respective fields.

c. Multi-Exit and Re-Entry

The National Education Policy of 2020 has been put into action for both undergraduate (UG) and postgraduate (PG) programs, introducing a flexible structure with multiple entry and exit points. For UG programs, students can opt to exit after the first year, receiving a Certificate for completing 40 credits. Exiting after the second year warrants a Diploma (80 Credits), and upon completing the third year (120 Credits), an advanced diploma is awarded. Those who continue and complete four years (160 Credits) earn a BTech Degree. Similarly, in PG programs, students can choose to exit after the first year, obtaining a PG Diploma for fulfilling 40 credits. On the other hand, completing two years (80 Credits) leads to the conferment of an MTech Degree. Additionally, a student has the option of re-entry into the program within three years from the stage they left. This innovative approach aims to accommodate diverse educational paths and suit the individual needs and circumstances of learners.

d. Minor Degree

To earn a Minor degree, a student must accumulate a minimum of 18 credits, achieved through four subjects, each comprising theory and lab components, with four credits assigned to each subject. Additionally, a minor project contributing two credits is required, to be completed in the 7th or 8th semester. Students have the option to pursue a Minor Degree after completing the 4th semester, with a maximum



allowance of studying two subjects in a single semester. The enrollment for a Minor Degree program is open to a minimum of 10 students and can accommodate a maximum of 60 students. The Institute has introduced Minor Degree programs in areas such as Artificial Intelligence and Machine Learning (AIML), System on Chip (SoC) Design, Reliability Engineering and plans to introduce more based on industry demands. Starting from the academic year 2022-23, admission to the AIML Minor Degree program has begun, with an intake of 41 students. This initiative provides students with an opportunity to gain expertise in specialized areas alongside their major degrees.

e. Academic Bank of Credits (ABC)

ABC functions as an academic bank, mirroring the operations of commercial banks in the financial realm but tailored for academic purposes. In this setup, students are akin to account holders and ABC extends various services such as credit verification, credit accumulation, credit transfer or redemption, and authentication of academic awards. Eligible students from Higher Educational Institutions (HEIs) have the opportunity to utilize the services provided by ABC. A crucial criterion is that a minimum of 10 students and a maximum of 60 students can opt for a Minor degree within this system. Moreover, credits earned by undertaking courses in registered HEIs during or after the academic year 2021-2022 are eligible for credit transfer, credit accrual and credit redemption through the academic bank of credits. It's important to note that students must acquire at least 50% of their credits from the parent institution where they are enrolled in a program. This innovative approach aims to facilitate

smoother academic processes and enhance the overall educational experience for students.

f. Internship: Pathway for Industrial Readiness

The internship duration for MTech and PhD students is set to be a minimum of 03 months and can extend up to a maximum of 12 months. For BTech students, the internship duration is fixed at 06 months. To commence an internship, students need a No Objection Certificate (NOC), which will be issued by the Head of the concerned Department. This NOC will serve as formal approval for the student to report to the organization where the internship is taking place. The Head of Department will notify the Dean (Academics) and the Head of Training and Placement Cell for their records. During the internship, students are required to present progress reports and undergo examinations related to their minor and major projects or dissertations according to the academic schedule of the Institute, with no exceptions or relaxations. Moreover, any knowledge generation during the internship, such as paper publications, reports, patents, copyrights, etc. will involve the Institute as a partner, and no such filings should occur without the Institute's knowledge. Additionally, any financial gains resulting from intellectual property rights or commercial development linked to the internship will be shared equally with the Institute. This framework ensures a structured and collaborative approach to internships, benefiting both the students and the Institute.

g. MOOCs Courses and online Courses.

Students are actively encouraged to diversify their learning by enrolling in online courses, with



a maximum allowance of 20% of the curriculum being completed through online platforms like NPTEL, Coursera, and Infosys Springboard. In a bid to offer a broad spectrum of specialized knowledge, departments are prompted to introduce elective courses, both departmental and open, focusing on niche areas. Students are motivated to enroll in these electives through online portals, enhancing their exposure to varied topics. Additionally, half of the courses in a Minor Degree program can be completed via MOOCs (Massive Open Online Courses), NPTEL, Coursera, and similar platforms. For students in the 8th semester of BTech and PhD researchers, internships provide valuable hands-on experience and are highly beneficial. Looking ahead, the institute has plans to initiate online courses in industry-oriented disciplines and key focus areas, aiming to up-skill technocrats already working in the industry. This approach embraces digital education and aims to provide a rich and flexible learning environment for students and professionals alike.

h. Academia-Industry-Research (AIR) Synchronization.

Students at the institute are strongly encouraged to engage with real-time industry challenges as a fundamental aspect of their project work during their PhD, MTech, and BTech programs. This involvement often includes collaboration with industry mentors and research organizations who serve as co-supervisors, enriching the academic experience. Many students who are concurrently employed in esteemed organizations like DRDO, CSIR, ISRO, and various industries have made substantial contributions by collectively addressing critical industrial and research problems. The institute

actively embraces the expertise of professionals from the research and industry sectors by appointing them as adjunct or visiting faculty, as well as Professors of Practice for durations ranging from 3 months to 1 year. This approach aims to provide students with valuable practical insights and knowledge. In recent years, numerous PhD, MTech, and BTech projects have been successfully supervised through collaborative efforts between institute faculty and research or industry experts. Looking forward, the institute is keen on mandating faculty participation in academic-industry-research interactions, fostering a culture of collaboration and mutual growth.

i. Part-Study/Exchange at IITs/NITs/CFTIs/Overseas Institutions.

In an effort to enrich the academic experience, students are provided with an opportunity to complete a semester at prestigious institutions such as IITs, NITs, CFTIs, and overseas institutes during their BTech, MTech, or PhD course. The courses taken during this period are carefully aligned with the curriculum at the host institution, and grades attained are suitably mapped. Despite being awarded a degree by NIT Delhi, this flexibility enables students to learn and benefit from the best courses offered outside their home institute. To facilitate such exchanges and academic endeavors, the institute has established several Memorandums of Understanding (MoUs) with IITs, NITs, CFTIs, and overseas institutions, fostering academic collaboration and student exchanges. Starting from the academic year 2022-23, the option of part-study has been implemented, extending its benefits to BTech, MTech, and PhD students, further broadening the educational horizons for aspiring learners.

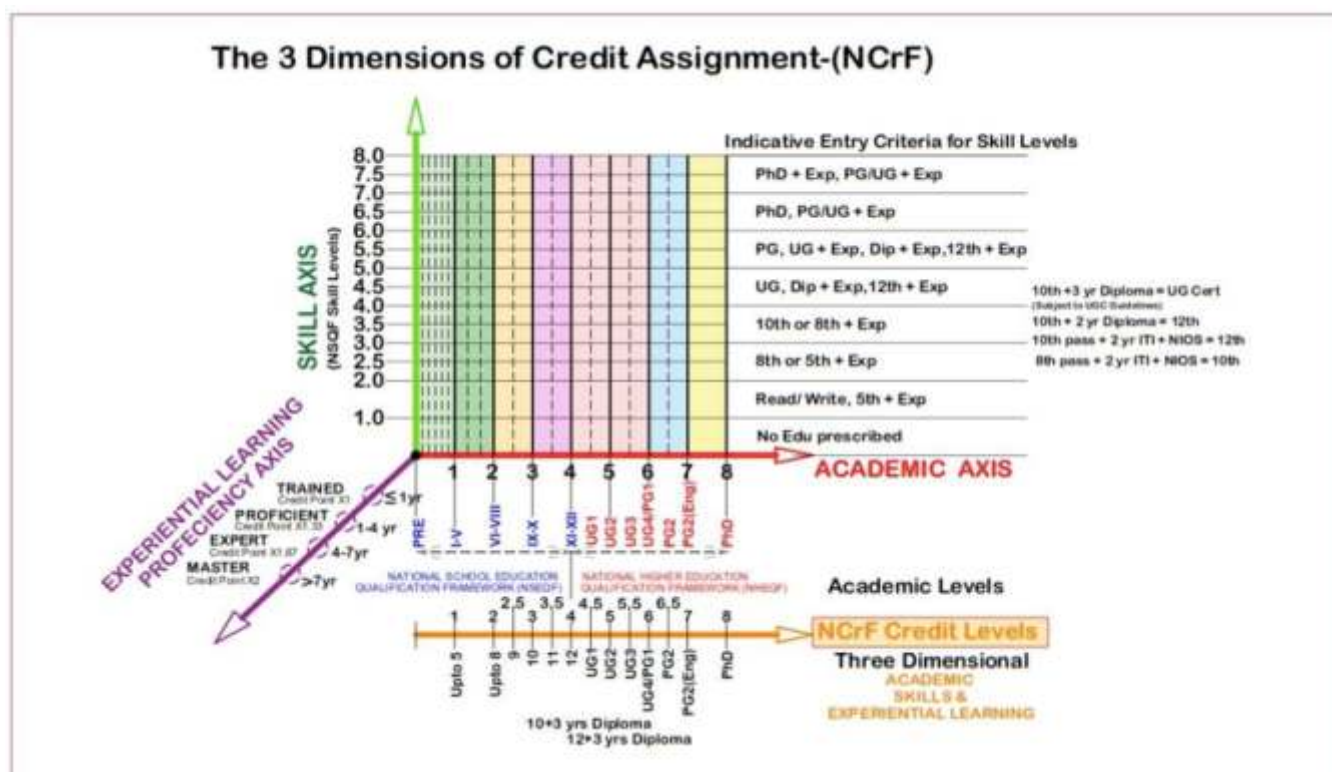


j. Earn while Learn scheme (EWL) for meritorious students.

This scheme aims to offer part-time engagement opportunities to students in need, striving to alleviate their financial challenges. The potential options for part-time engagement encompass various roles such as assisting in research projects, library assignments, computer services, data entry, and laboratory assistance. Students engaging in these roles will receive a consolidated hourly remuneration, with a cap of 20 hours per week and 20 days per month for their services. Payment will be based on the actual hours worked, and these engagements will take place after regular class hours. The primary objective is to lessen the economic burdens of learning, fostering adaptability among students. Additionally, this initiative provides a platform for students to refine their personality, acquire technical skills, and nurture entrepreneurial abilities, ultimately enabling them to swiftly transition into professional roles.

k. National Higher Education Qualification Framework- (NCrF).

Starting from the academic year 2023-24, the institute has planned to implement the National Credit Framework (NCrF), aligning with the recommendations put forth by the Ministry of Education. The NCrF is designed to revolutionize the educational landscape by allowing students and learners to accumulate credits within an 'Academic Bank of Credits.' These credits can later be redeemed to attain certificates, diplomas, or degrees, providing individuals with the flexibility of multiple entry and exit points in the education system. This approach emphasizes lifelong learning and encourages a dynamic, inclusive educational environment, fostering continuous skill development and academic growth for students at all stages of their learning journey.





Summary in a nut-shell

The Institute is actively aligning its curriculum with the National Education Policy of 2020 (NEP 2020), focusing on undergraduate (UG) and postgraduate (PG) programs. A key initiative involves encouraging students to participate in the Academic Bank of Credit (ABC) system, allowing them to accumulate and redeem credits for certificates, diplomas, or degrees. Furthermore, a Minor Degree option has been introduced for UG programs, offering additional learning opportunities. For a comprehensive educational experience, mandatory internships of 6 months and 1 year have been implemented for UG and PG students, respectively. In thesis supervision and doctoral guidance, there is a concerted effort to involve both academia and industry or R&D experts for a well-rounded approach. The Institute is also launching a Post Doctoral Fellowship Program, promoting advanced research. Faculty and students are

incentivized and motivated to engage in research publications, patents, and projects. Collaboration with industry and R&D organizations provides exposure to real-time challenges, and partnerships with reputable foreign academic institutions (with QS ranking up to 500) are sought to facilitate exchange programs for students and faculty, enhancing the overall academic environment.

3. Academic Departments with Sub-branches

In order to give boost, the research activities, the Ph.D. programmes were also started from January 2014 and currently, the Institute is offering Ph.D. in the different disciplines including Computer Science and Engineering, Electronics and Communication Engineering, Electrical Engineering, Mechanical Engineering, Environmental Sciences, Chemistry, Physics, Mathematics, Humanities and Management and Inter-disciplinary areas.

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
	Computer Science and Engineering (Analytics)		CSA
3.	Electrical Engineering		EE
4.	Electronics and Communication Engineering		ECE
5.	Civil Engineering		CE
6.	Mechanical Engineering		ME
7.	Humanities and Management		HM



4. Academic Programmes Offered and Sanctioned Intake

B. Tech. Programmes	M. Tech. Programmes	Ph.D. Programmes
Computer Science and Engineering (CSE) 121 + DASA	Computer Science and Engineering (Specialization in Analytics) 19 + DASA	Computer Science and Engineering (CSE)
Electrical Engineering (EE) 75 + DASA	Computer Science and Engineering 19 + DASA	Electrical Engineering (EE)
Electronics and Communication Engineering (ECE) 77 + DASA	Electrical Engineering (Specialization in Power Electronics and Drives) 19 + DASA	Electronics and Communication Engineering (ECE)
Mechanical Engineering (ME) 60+ DASA	Electronics and Communication Engineering 18 + DASA	Mechanical Engineering
Civil Engineering (CE) 30+DASA	Electronics and Communication Engineering (Specialization in VLSI) 19 + DASA	Civil Engineering
	Mechanical Engineering (Specialization in CAD/CAM) 19 + DASA	Chemistry
		Physics
		Mathematics
		Environmental Science and Engineering

5. Student Statistics:

Admitted Students at UG & PG Level (2022-2023)						
Course/ Category	Open (including PwD)	SC (including PwD)	ST (including PwD)	OBC (Including PwD)	EWS	Total
UG (3 branches)	144	54	28	99	38	363+54*
PG (5 branches)	45	18	8	31	11	113

*DASA Student

Branch - Wise Admission at UG Level (Category Wise) (2022-2023)								
Course	Open	SC	ST	OBC	DASA	EWS	PwD	Total
B. Tech. CSE	33	18	9	37	9	18	3	127
B. Tech. ECE	21	11	7	20	0	14	1	74
B. Tech. EE	25	11	3	19	0	8	2	68
B. Tech. CIVIL	6	6	2	9	0	4	2	29
B. Tech. ME	11	9	5	19	0	7	1	52
Total	96	55	26	104	9	51	9	350



Branch - Wise Admission at PG Level (Category Wise) (2022-2023)								
Course	Open	SC	ST	OBC	DASA	EWS	PwD	Total
M.Tech. CSE	5	3	2	7	0	2	0	16+3*
M.Tech. CSE (Analytics)	7	2	0	5	0	1	0	12+3*
M.Tech. ECE	5	2	1	2	0	1	0	9+2*
M.Tech. EE	6	3	0	7	0	2	0	15+3*
M.Tech. ECE (VLSI)	11	3	1	5	0	2	0	17+5*
M.Tech. ME	5	2	0	3	0	3	0	8+5*
Total	39	15	4	29	0	11	0	77+21*

*SFS (Self Finance Scheme)

6. Academic Session:

The academic year is divided into two semesters: Autumn (August to December) and Spring (January to June). Each semester will normally 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 working hours is usually from 9:00 am to 5:30 pm. However, few academic classes are

also scheduled from 8:30 am to arrange appropriate number of lecture hours/ course.

Courses Offered are available in the Institute website:

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

7. 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 Activities	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	--	16
Maximum Credits	Inclusive of backlog courses registered in study mode.	32
Maximum Credits	Inclusive backlog subject registered in study mode as well as examination mode.	35

Notes:

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

The minimum duration for a student for complying with the degree requirement is four

academic years from the date of first registration for his/her first semester.

The maximum duration for a student for complying with the degree requirement is eight academic years from the date of first registration for his/her 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)	$\geq 18^*$
3.	Dissertation (Sem.III: 8 Credits + Sem. IV: 12 Credits)	=20
4.	Independent Study and Seminar	=06

Mandatory Courses

S. No.	Courses	Credits
1.	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	--	16
Maximum Credits	Inclusive of backlog courses registered in study mode.	32
Maximum Credits	Inclusive backlog subject registered in study mode as well as examination mode.	35



Notes:

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

The minimum duration for a student for complying with the degree requirement is four

academic years from the date of first registration for his/her first semester.

The maximum duration for a student for complying with the degree requirement is eight academic years from the date of first registration for his/her 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)	$\geq 18^*$
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	--	16
Maximum Credits	Inclusive of backlog courses registered in study mode.	32
Maximum Credits	Inclusive backlog subject registered in study mode as well as examination mode.	35

Notes:

- Minimum credits necessary for the award of PG degree is 68.
- Must have completed all the credit requirements for the degree, as prescribed by the senate 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 considered eligible for the award of First Division with Distinction.
- 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 Dean (Academic) and HOD with equivalent credits of that particular course.

Ph.D.

- 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.

8. Rules for Selection of Academic Excellence Awards:

Eligibility Criteria:

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

- The Minimum CGPA required is 8.5 for the award of any medals or prize.
- He/ she has not failed in any subject at any stage during his/her course of study at the Institute till the time of the award.



- (iii) No disciplinary action has been taken against him/her for any offense during his/her course of study at the institute prior to the award.
- (iv) He/ she has not been punished under examination malpractice and involved in violation of 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. 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 2nd 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.

9. Academic Excellence awards received to the B. Tech and M. Tech students in the AY 2020-2022:

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
7.	181230009	ASWIN CHOWDARY UNDAVALLI	ECE	9.44	PRESIDENT'S GOLD MEDAL
8.	181210001	ABHINAV SINGH	CSE	8.94	DIRECTOR'S GOLD MEDAL
9.	181210022	DIMPAL KATANIYA	CSE	8.60	INSTITUTE SILVER MEDAL
10.	181230056	VENU SAHU	EEE	8.59	DIRECTOR'S GOLD MEDAL



MASTER OF TECHNOLOGY 2019-2022 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
8.	202221004	DIPALI PATIDAR	ECE (VLSI)	9.32	PRESIDENT'S GOLD MEDAL
9.	202211001	ADITI SAGAR	CSA	7.76	DIRECTOR'S GOLD MEDAL
10.	202211004	ANTARLEEN PAL	CSA	9.01	INSTITUTE SILVER MEDAL
11.	202220010	JYOTI KRAYLA	ECE	8.59	DIRECTOR'S GOLD MEDAL
12.	202231011	VARUN AGARWAL	EEE	9.18	DIRECTOR'S GOLD MEDAL
13.	202231008	SIDDHARTHA SUYAL	EEE	8.63	INSTITUTE SILVER MEDAL
14.	202311008	NAVITA CHOUDHARY	ME	9.08	DIRECTOR'S GOLD MEDAL
15.	202311011	SAURABH JANGIR	ME	9.00.	INSTITUTE SILVER MEDAL

10. Scholarship/Assistanceship:

The students of this Institute are awarded various types of scholarships from various

schemes of Central Govt., State Governments, Charitable Trusts/ Organizations. Following are the details of these schemes:-

S. No.	Name of the Scholarship	Name of the State/ Jurisdiction	Number of applications received for scholarship
1.	Central Sector Scholarship of Top Class Education for SC Students Ministry of Social Justice & Empowerment	All India	30
2.	Post Matric Scholarship for Students with Disabilities	All India	03
3.	Scholarship for Top Class Education for Students with Disabilities	All India	04



4.	National Fellowship and Scholarship for higher education of ST students- Scholarship (Formally Top Class Education for Schedule Tribe Students) Ministry of Tribal Affairs	All India	24
5.	Merit scholarship to SC/ST/OBC students of college / Professional institutions	Delhi	01
6.	Indian Air force Benevolent Association Subroto Memorial Scholarship scheme	All India	04
7.	PG scholarship Scheme for SC ST Students for persuing Professional Course	All India	01
8.	Central Sector Scheme of Scholarships for College and University Students	All India	11
9.	Prime Minister's Scholarship Scheme for Central Armed Police Forces and Assam Rifles	All India	06
10.	Post Matric scholarship schemes minorities CS	All India	02
11.	Rajasthan Police Benevolent Fund (RPBF)	Rajasthan	01
12.	Prime Minister Scholarship Scheme	All India	02
13.	Delhi Police Education Fund (DPEF)	Delhi	02
14.	CRPF welfare merit scholarship	All India	02
15.	Sikh Human Development foundation Scholarship (ShdFS)	Northern India State	02
16.	Post Matric scholarship Scheme for OBC students - Chandigarh	Chandigarh State	01
17.	Post Matric Scholarship for SC students - Uttrakhand	Uttrakhand	01
18.	Oil and Natural Gas Company scholarship	ONGC foundation	02
20.	South Central Railway central Staff Benefit fund	All India	01
21.	Post Matric Scholarship scheme for SC students	Delhi	03
22.	Post Matric Scholarship scheme for OBC students (PMS-OBC)	Delhi	01
23.	K L Sharma Sumitra Devi Scholarship Scheme	Director scholarship	05
24.	Scholarship Programme for Diaspora Children (SPDC)	Ministry of external affairs	01



Training and Placement Activities

1. Introduction of T&P and its events / activities.

The T&P Cell aims at enhancing the employability of the students while also providing the students with the necessary skillsets to grow in their respective fields of interest. The Cell performs the following activities throughout the year:

- (i) **Industry Networking:** The T&P Cell establishes and maintains connections with various industries and companies for collaboration.
- (ii) **Internship Opportunities:** Facilitates internships of 3rd year and 4th year B.Tech students and 1st year M.Tech students to give the students real-world experience in their chosen field.
- (iii) **Job Placement:** Organizes campus recruitment drives to connect the 4th year

B.Tech students, 2nd year M.Tech students and Ph.D. students with potential employers.

- (iv) **Seminars and Talks:** The T&P Cell organises expert lectures and seminars to offer guidance and skill enhancement services to help students make informed career choices and learn the recent industrial trends.
- (v) **Industry Insights:** Keeps students informed about emerging career opportunities.
- (vi) **Feedback Mechanism:** Collects feedback from employers to improve placement processes.
- (vii) **Placement Records:** Maintains various databases of placements, students and the visiting companies as a testament to the institution's quality education.

2. Recruiters, Top Recruiters, Highest Package (Branch wise)

Recruiters:

Companies that have hired from NIT Delhi

Amazon	Deloitte	Lemonvb Techsolu Private Limited
AU Bank	Gemini Solutions	LTi (Larsen & Toubro Infotech Ltd.)
Atlassian	HashedIn by Deloitte	Makemytrip
Adobe	HCLTECH	Mediatek
Arcesium	HDFC Bank	Samsung Data Systems
Bajaj Auto	HFCL	Samsung Engineering
Byjus, Think & Learn Pvt Ltd	Intuit	Samsung R&D Institute Delhi
C-DAC	Ixigo	Samsung Research Bangalore
Cognizant Technology Solutions Pvt. Ltd.	Keysight Technologies	Siemens
Country Delight	Larsen and Turbo	Siemens EDA(Mentor Graphics)



Highest CTC offered

Company Name	CTC in lakhs	Number of Offers made
Atlassian	82.63	1
Adobe	55.7	1
Arcesium	36	2
ServiceNow	35	1
Cashfree	32	3
Salesforce	30.88	3
Navi 30	1	
Tekion	29	6
Make My Trip	25.5	5
Goldman Sachs	24	3
MathWorks	23.19	3

Maximum number of Students hired by

Company Name	CTC in lakhs	Number of Offers made
Samsung R&D Delhi	15.5	25
Optum	14.499	12
Tekion	29	6
Siemens EDA	20.2	6
Make My Trip	25.5	5
Celigo	21	5
ZS Associates	13.656	5

Highest Packages (Branch-wise):

Branch	Highest Package offered by Company	CTC offered in Lacs
EEE	Atlassian	82.63
ECE	Adobe	55.7
CSE	Arcesium	35



3. Students' coordinators

S. No.	NAME	ROLL NUMBER	BRANCH	COURSE	YEAR	ROLE
1.	Saumya Jha	201230040	EEE	B.Tech	4th year	Student Head
2.	Umika Aggarwal	201220052	ECE	B.Tech	4th year	Dy. Student Head
3.	Surbhi Aggarwal	183231104	EE	Ph.D.	4th Year	Senior Coordinator
4.	Nitesh Kumar Singh	193231101	EE	Ph.D.	4th Year	Senior Coordinator
5.	Tushar Sharma	213231209	EE	Ph.D.	4th Year	Senior Coordinator

4. Faculty coordinators

1. Faculty Head: Dr. Kapil Kumar
2. Training and Placement Officer: Dr. Indu Joshi

5. Contact Details of the respective officer:

1. Dr. Kapil Kumar
Phone: +91 87556 04422
Email: headtnp@nitdelhi.ac.in
2. Dr. Indu Joshi
Phone: +91 97116 70032
Email: tpo@nitdelhi.ac.in
3. T&P Email: tnp@nitdelhi.ac.in








Student Activities

Arts-Club (Artizia)



S. No.	Name of the Committee	Faculty/ Students Members	Position
1.	Arts-Club (Artizia) NIT Delhi	Dr. Sandeep Kumar	Coordinator

Brief Report on the Activities held during 2022-2023





Activity/ Event Report	Pictures/ flyers/ posters (if available)
<p>House of frames (Sketching Competition)- House of frames (Sketching Competition) was organized by the Art Club of National Institute of Technology Delhi on 25th January 2023 in the LT8, Mini Campus. The theme of the event was "Republic Day". The primary objective of the drawing competition organized around the theme of Republic Day were to honor the ratification of the Indian Constitution on January 26, 1950, as well as to recognize the country's cultural diversity and sense of national togetherness. The event was organized effectively under the guidance of Dr. Sandeep Kumar (faculty coordinator) and with the assistance of event's student coordinators and members of Arts club. 32 participants from UG, PG, PHD, faculty and staff participated to show their inner artistic skills.</p>	 
<p>Rangoli competition- was organized by the Art Club of National Institute of Technology Delhi on 2nd November, 2022 in the LT corridor, Mini Campus. The theme of the event was "Diwali". The prime objective of the Rangoli making competition was to provide all participants a platform to express their imagination in the form of rangoli and to encourage others to take part in such events. The event was organized effectively under the guidance of Dr. Sandeep Kumar (faculty coordinator) and with the assistance</p>	

Activity/ Event Report	Pictures/ flyers/ posters (if available)
<p>of event's student coordinators and members of Arts club. 48 participants from UG, PG, PHD, and non-teaching staff participated to show their rangoli making skills. The vibe of the competition was very energetic and enthusiastic participants put in lots of efforts and came up with amazing ideas for their rangoli.</p>	
<p>Paix(Art competition)- "Paix" was organized by the Art Club of National Institute of Technology Delhi on 28th September 2022 in the LT2 and LT3, Mini Campus. The theme of the event was "Your definition of Peace". The prime objective of the Art competition "Paix" was to provide all participants a platform to show their inner artistic skills and to encourage others to take part in such events. The event was organized effectively under the guidance of Dr. Sandeep Kumar (faculty coordinator) and with the assistance of event's student coordinators and members</p>	





Activity/ Event Report	Pictures/ flyers/ posters (if available)
<p>of Arts club. 52 participants from UG, PG, PHD, faculty and staff participated to show their inner artistic skills.</p>	
<p>Break the bias (Painting Competition)-</p> <p>Painting competition “Break the bias” was organized by the Art-Club of National Institute of Technology Delhi on 30th November 2022 under the banner of “Discrimination Against Women Pakhwada”. The theme of the event was “Women up”. The event was organized effectively under the guidance of Dr.Sandeep Kumar (faculty coordinator) and with the assistance of event’s student coordinators and members of Arts club. The students participated enthusiastically to showcase their inner talent. Participants from UG, PG and PHD are participated to show their inner artistic skills</p>	



Activity/ Event Report	Pictures/ flyers/ posters (if available)
<p>Inkjection(Tattoo Making)-</p> <p>Tattoos making competition was organized by the Art-Club on 1st May 2022 during annual Techno-Cultural fest “Sentience'22” of NIT Delhi. To create a visual feast for the eyes, club organized the event for all to inject the environment with intricate tattoos. The event was organized effectively under the guidance of Dr.Sandeep Kumar (faculty coordinator) and with the assistance of event’s student coordinators and members of Arts club.</p> 	 
<p>SPRAY CLASH –(Spray painting)-</p> <p>“SPRAY CLASH” a Spray painting competition was organized by the Art-Club on 30th April 2022</p> <p>during annual Techno-Cultural fest “Sentience'22” of NIT delhi. Club organized the event for all to witness the clash of Reds, whites and blues to create a world of colours and poetry to inspire thoughts for takeaway. The event was organized effectively under the guidance of Dr.Sandeep Kumar (faculty coordinator) and with the assistance of event’s student coordinators and members of Arts club.</p>	



Activity/ Event Report	Pictures/ flyers/ posters (if available)
	 



Board for Student Activities (BSA)

Name of the Event:	Solo singing & Mono-skit competition
Event date & time:	17th October 2022 , 5:30 – 6:30 pm
Event location:	Auditorium, NIT Delhi

Event Summary:

On 17 October 2022, the Cultural Club of the institute organized a Diwali Celebration program in which Solo singing and Mono-skit competition were held.

Students showcased their talent and skills in their particular field of interest. 12 students participated in competition.

The event took place in the Auditorium, audiences along with the participants slowly gathered in the auditorium. The event was hosted by Nisha Kumari of CSE 2nd year (Executive Member of Cultural Club).

Firstly, mono-skit competition was commenced, students showcased their acting skills and entertained the audiences with their amazing acting and humor.

Participants of mono-skit:

1. Anurag Gautam (211210013)
2. Dharavath Rohith (201210015)
3. Chitransh Chaturvedi (211210021)

This was followed by solo singing competition embarked by outstanding singing performances by the participants.

Audiences were mesmerized by the melodic singing of the participants.

Participants of solo-singing:

1. Surpreet Singh (201220046)
2. Leelanand Shah (211220030)
3. Varun (211210071)
4. Akash (211220003)
5. Atul Mishra (191230017)
6. Gaurish Sood (211210070)
7. Aarya Jha (201210002)
8. Ramani Dulipala (201220019)



Both events were judged by **Ms. Kajal Rathi and Dr. Pratibha.**



Finally, the event was successfully concluded and everyone enjoyed the performances.

The winners of both events will be awarded cash prizes.

Winners of the competition are as follows:

Name of Competition: **Solo Singing**

S.N.	Name of Student	Roll No.	Remark	Prize
1.	Aarya Jha	201210002	Winner	Rs. 500/-
2	Gaurish Sood	211210070	Runner Up	Rs. 250/-

Name of Competition: **Mono Act**

S.N.	Name of Student	Roll No.	Remark	Prize
1.	Anurag Gautam	211210013	Winner	Rs. 500/-
2.	Dharavath Rohith	201210015	Runner Up	Rs. 250/-



CULTURAL CLUB HINDI DIWAS

There was a music and dance and nukkad natak performance by students on 14.09.2022 on the occasion of Hindi Diwas organized by the Hindi Cell.





REPUBLIC DAY CELEBRATION

Board for Student Activities (BSA)

Post-Event Report (to be submitted to Convener, BSA)

Name of the Event:	Republic Day Celebration
Event date & time:	26/01/2023
Event location:	In Front of Admin Block, NIT Delhi

A. Event Summary:

On **26th January 2023**, the **Republic Day Celebration** was organized in the institute.

The National Flag was unfurled by the Hon'ble Director, NIT Delhi. This was followed by the **National Anthem**, speech by the Director and the performances organized by the Cultural Club.

The total of six performances included Solo Song, Group Dance, Speech, Group Song, Poetry and Solo dance.

Theme: **Patriotism**

B. Prime Objectives of the Event:

The event was organized to celebrate the 74

years of India's constitution coming into effect. This event introduced the students to the importance of Republic Day and created a sense of unity as we have people from different states coming to learn and work together.

C. Objectives achieved

The rendition of Telugu song Desham Manade instilled a feeling of unity. The students also came to learn about the significance of Republic Day in this era. The dance performances on various patriotic songs reminded them of our great Nation as one.

Name and signature of Dy. General Secretary (Drama)	Name and signature of Dy. General Secretary (Dance)	Name and signature of Dy. General Secretary (Music)
Vikrant Kumar (201230049)	Shadab Agwan (201210029)	Riha Kokode (201210036)

Name and signature of faculty coordinators

Dr. Pankaj Mukhija	Dr. Chandra Prakash	Dr. Pratibha
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Photos of Event:



**STUDENTS TEAM**

S. No.	Roll No.	Name	Post
1	191210034	Palak Agarwal	General Secretary
2	201210029	Mohammed Shadab Agwan	Dy. General Secretary (Dance)
3	201210036	Riha Sanjay Kokode	Dy. General Secretary (Music)
4	201230049	Vikrant Kumar	Dy. General Secretary (Dramatics)

Executive Members:

S. No.	Name	Roll No.
1	Arshita	211210016
2	DevanshGahlawat	211220017
3	Syamantak Gupta	211220057
4	Sudhanshu Shrivastava	211230053
5	Akash	211220003
6	Chitransh Chaturvedi	211210021

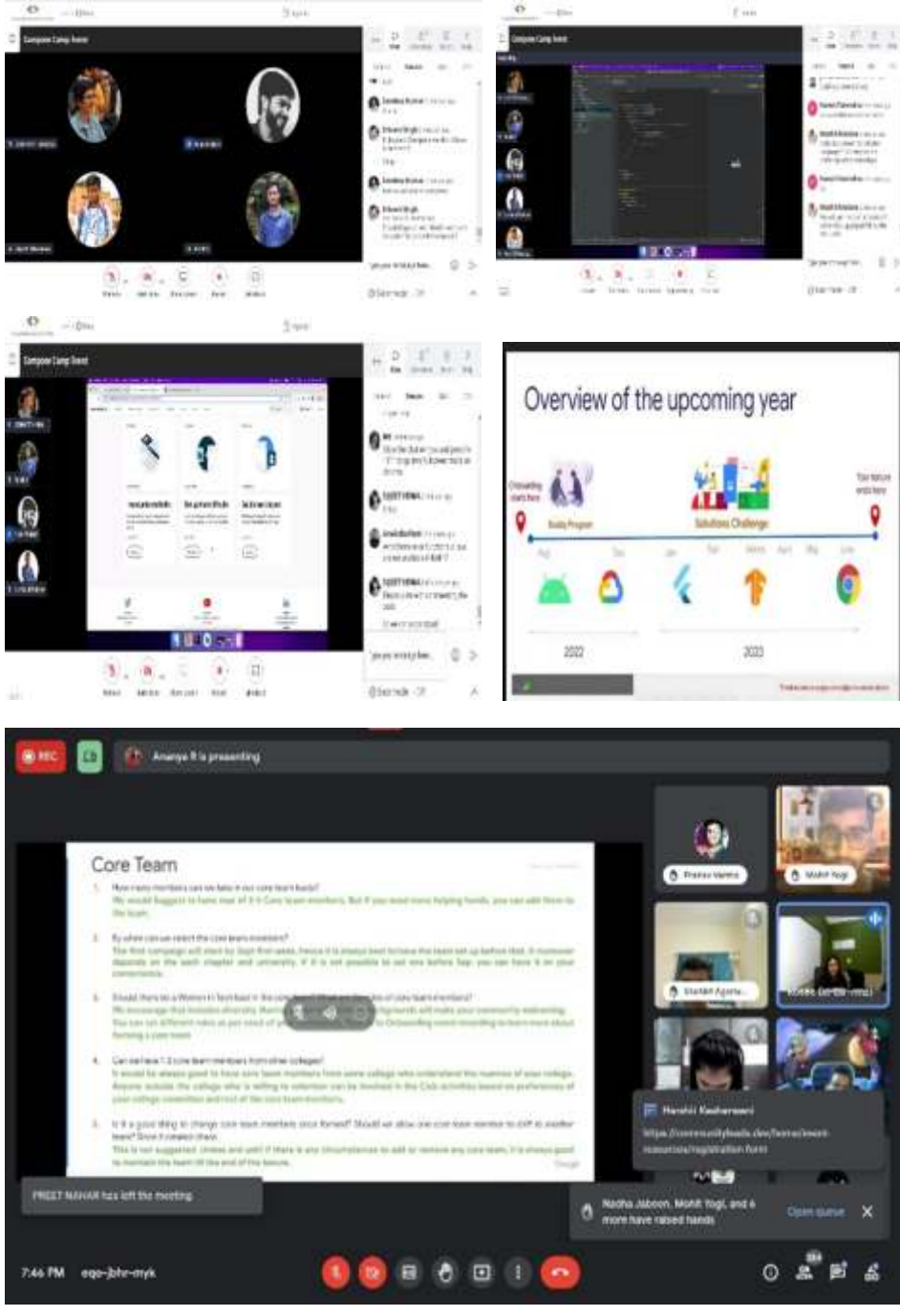
Google Developer Student Club (GDSC) EVENT**1. COMPOSE CAMP**

S. No.	Faculty/ Students Members	Position
1	Sidharth bhatla	Lead
2	Aryan Srivastava	Organizer
3	Himashu Verma	Organizer
4	Sanskar Kumar	Organizer
5	Supreet	Organizer
6	Deepak Gupta	Organizer
7	Ritik Tiwari	Organizer
8	Ishita	Organizer

Name of the Event:	Compose Camp
Event date & time:	19 September, 2022 - 6.30 PM
Event location:	Virtual



Brief Report on the Activities held during 2022-2023


Activity/ Event Report	Pictures/ flyers/ posters
<p>Google Developer Student Club, NIT Delhi organized an Introduction to Compose which held on 19-09-22 and shepherded by NITIN PRAKASH, a Google Developer Expert for all passionate technocrats looking to start their careers in development.</p> <p>In this session we have talked about Jetpack Compose which is Android's modern toolkit for building native UI. It simplifies and accelerates UI development on Android.</p> <p>We have taught how to install Android Studio and create a basic application through it using kotlin so overall it was a nice learning session.</p> <p>The success of this event would not have been possible without your cooperation and support, so thank you to each and every one of you.</p>	 <p>The images show a series of screenshots from a Google Developer Student Club event titled 'Compose Camp'. The top row shows a Zoom meeting interface with participants' video feeds and a chat window. The middle row shows a presentation slide titled 'Overview of the upcoming year' with a timeline from August to June, highlighting 'Building Projects' and 'Solutions Challenge'. The bottom row shows a presentation slide titled 'Core Team' with a list of team members and their roles, including NITIN PRAKASH, NITIN AGARWAL, and NITIN AGARWAL. The bottom right corner shows a Zoom meeting interface with a list of participants and a chat window.</p>



2. APP DEVELOPMENT

S. No.	Faculty/ Students Members	Position
1	Sidharth bhatla	Lead
2	Aryan Srivastava	Organizer
3	Himashu Verma	Organizer
4	Sanskar Kumar	Organizer
5	Supreet	Organizer
6	Deepak Gupta	Organizer
7	Ritik Tiwari	Organizer
8	Ishita	Organizer

Name of the Event:	Compose Camp
Event date & time:	19 September, 2022 – 6.30 PM
Event location:	Virtual

Activity/ Event Report	Pictures/ flyers/ posters (if available)
<p>Event summary:</p> <p>GDSC member Hardik Sachan hosted our first ever offline event on the Basics of App Development using Kotlin and Compose. He started with the basics of Kotlin using the online platform Kotlin playground. He shared a project which he made on GitHub using Kotlin and Compose and made it run on Android Studio to give a basic overview of how the process of App Development works. He also gave an installation guide on installing Android Studio on the user's system. In the end he took up various doubts from the audience and had an interactive session.</p>	







3. ANDROID APP DEVELOPMENT

S. No.	Faculty/ Students Members	Position
1	Sidharth bhatla	Lead
2	Aryan Srivastava	Organizer
3	Himashu Verma	Organizer
4	Sanskar Kumar	Organizer
5	Supreet	Organizer
6	Deepak Gupta	Organizer
7	Ritik Tiwari	Organizer
8	Ishita	Organizer

Name of the Event:	Android App Development Workshop
Event date & time:	October 31, 2022 6PM IST
Event location:	Virtual – google meet

Brief Report on the Activities held during 2022-2023


Activity/ Event Report	Pictures/ flyers/ posters (if available)
<p>GDSC member Hardik Sachan hosted the follow up event on the Basics of App Development using Kotlin and Compose. He started with the basics of Android using Android Studio. He gave a demonstration on creating and android application in a live coding session. In the end he took up various doubts from the audience and had an interactive session.</p>	   

**4. Competitive Coding**

S. No.	Faculty/ Students Members	Position
1	Sidharth bhatla	Lead
2	Aryan Srivastava	Organizer
3	Himashu Verma	Organizer
4	Sanskar Kumar	Organizer
5	Supreet	Organizer
6	Deepak Gupta	Organizer
7	Ritik Tiwari	Organizer
8	Ishita	Organizer

Name of the Event:	Session on Introduction to Competitive Coding
Event date & time:	January 28th, 2023 11AM IST
Event location:	Virtual – google meet

Brief Report on the Activities held during 2022–2023

Activity/ Event Report	Pictures/ flyers/ posters (if available)
<p>GDSC member Umang Kumar hosted an event on Competitive coding. At this event, we covered the basics of competitive coding for beginners. We also featured basic coding questions commonly asked and break down the navigation of popular competitive coding websites such as Codechef, Leetcode, etc.</p> <p>At the end of the event, we kept a practice session open for participants who wanted to practice what they learned at our live event.</p>	



LITERARY CLUB

Literary Club Committee:

S. No.	Name of the Committee	Faculty/ Students Members	Position
1.	Literary Club	Dr. Sachin Agrawal	Coordinator

Activity/ Event Report	Pictures/ flyers/ posters (if available)
<p>Treasure Hunt</p> <p>30/3/2022</p> <p>Mini Campus, NIT Delhi</p> <p>Treasure Hunt 2022, the first offline event at NIT Delhi permanent campus was conducted on 30th March 2022. Total 33 teams participated, which were distributed among five groups, each having 6-7 members.</p>	
<p>Quote Writing</p> <p>26/9/2022</p> <p>Mini Campus, NIT Delhi</p> <p>Literature club of NIT Delhi has organized a quote writing competition on the 26th of September, 2022. In this event the students have been asked to write and design beautiful quotes for the following list of places.</p>	
<ol style="list-style-type: none"> 1. Open Air Theatre 2. Canteen 3. Library 4. Registrar's office 5. Director's office 6. Hostel mess 	



Quiz on anticorruption

(04/11/2022)

Mini Campus, NIT Delhi

In accordance with the Corruption Free India for a Developed Nation theme of the Vigilance Awareness Week organized by the Central Vigilance Commission, AlphaZ - The Literature Society, organized a Quiz competition on the same, testing the knowledge of the participants about anti-corruption measures taken by the government and others. Each participant was given a test paper with 20 objective questions based on the aforementioned theme. 20 minutes was the allotted time for this Quiz.



Speech Competition on the Women Empowerment

30/11/2022

Admin Block NIT Delhi

To celebrate the Women Pakhwada Week, **AlphaZ** in collaboration with the **Internal Complaint Committee (ICC)**, NIT Delhi, conducted a speech competition on the theme "Women Empowerment". This competition provided the students a stage to present their interpretation of women





empowerment. Various thought provoking words were orated, unanswered questions lingered within the four walls as students took the podium and presented their view within 5 minutes.

The competition witnessed participation of 17 students across years and courses. Although the enthusiastic B.Tech first year students occupied the most number of seats, PhD and M.Tech students also voiced their opinion on the topic. The event is organized on 30th November, 2022 at the LT 3 of the admin block.



PHOTOGRAPHY CLUB


Brief Report on the Activities held during 2022–2023

Activity/ Event Report	Pictures/ flyers/ posters (if available)
<p>Mobile Photography workshop:</p> <p>The Clairvoyance Club of NIT Delhi organized a mobile photography workshop featuring Pramod Kr. Verma (guest speaker). The workshop aimed to provide students with valuable insights into the art of mobile photography, covering various topics such as composition, lighting, and editing. Participants were guided through various techniques and tips to improve their skills. The workshop also included hands-on sessions where students got to practice what they learned and receive personalized feedback from the speaker. Overall, the mobile photography workshop organized by the Clairvoyance Club was a great success, leaving students inspired and motivated to explore their creative potential in the world of photography.</p>	



Activity/ Event Report	Pictures/ flyers/ posters (if available)
<p>Photo exhibition:</p> <p>The Clairvoyance Club of NIT Delhi organized a captivating photo exhibition for students and faculty members alike. The exhibition showcased a diverse range of photograph. The exhibition included a variety of genres, including landscape, portrait, and street photography, and showcased the creative talents of the participants. Visitors were able to immerse themselves in the vivid imagery on display and appreciate the unique perspectives of each photographer. The exhibition was a great success, providing a platform for photography enthusiasts to showcase their work and inspire others to explore the art of photography.</p>	

Activity/ Event Report	
<p>Photo exhibition:</p> <p>The Clairvoyance Club of NIT Delhi organized a captivating photo exhibition for students and faculty members alike. The exhibition showcased a diverse range of photograph. The exhibition included a variety of genres, including landscape, portrait, and street photography,</p>	<p>and showcased the creative talents of the participants. Visitors were able to immerse themselves in the vivid imagery on display and appreciate the unique perspectives of each photographer. The exhibition was a great success, providing a platform for photography enthusiasts to showcase their work and inspire others to explore the art of photography.</p>

Activity/ Event Report	Pictures/ flyers/ posters (if available)
<p>International workshop on Electronics Photonics and IC's:</p> <p>NIT Delhi organized an international workshop on electronics, photonics, and ICs, which brought together various experts and researchers. The workshop provided a platform for participants to exchange knowledge and ideas on the latest advancements. The event included keynote</p>	<p>https://drive.google.com/drive/folders/14Cz-meuNKpDvixwO_b02Mjt6pBC-4UyM</p> 



Activity/ Event Report	Pictures/ flyers/ posters (if available)
<p>speeches, technical sessions, and hands-on training, allowing attendees to gain insights into cutting-edge research and technologies. The workshop covered a wide range of topics, including semiconductor devices, optoelectronics, integrated circuits, and photonics applications. Participants also had the opportunity to network with peers and industry professionals, fostering collaborations and partnerships that can lead to future research opportunities. Overall, the international workshop organized by NIT Delhi was a valuable platform for participants to enhance their knowledge and skills and keep up-to-date with the latest trends in electronics and photonics.</p>	
<p>SRC's Blood Donation Camp:</p> <p>The Social Reform Club of NIT Delhi recently organized a Blood Donation Camp on campus to support the noble cause of blood donation. The event aimed to create awareness about the importance of blood donation and encourage members of the campus community to contribute to this life-saving cause. The camp was conducted in collaboration with a reputed blood bank and adhered to all safety guidelines and protocols. Volunteers from SRC helped with the registration and screening of donors, ensuring that the donation process was smooth and hassle-free. The event received a tremendous response, with a large number of students, faculty, and staff members participating in the donation drive. The SRC team provided refreshments and a comfortable environment for donors to rest and recover after donating blood. Overall, the Blood Donation Camp organized by the</p>	 



Activity/ Event Report	Pictures/ flyers/ posters (if available)
<p>Social Reform Club was a resounding success, making a positive impact on the lives of many people in need of blood transfusions.</p> 	 
<p>RTSCEE International Conference:</p> <p>RTCSSE at NIT Delhi organized an International Conference on Chemical Sciences, Environmental Engineering, and Sustainable Energy. The conference brought together scholars, researchers, and industry experts to present their research and discuss the latest developments in these fields. The conference included a diverse range of research papers, covering topics such as sustainable energy, pollution control, waste management, green chemistry, and sustainable materials. The presentations were highly informative and thought-provoking, showcasing cutting-edge research and innovative solutions to some of</p>	<p>https://drive.google.com/drive/folders/1-omifT1WicXHPL3WY2IHYPoWopKjYTP</p> 



Activity/ Event Report	Pictures/ flyers/ posters (if available)
<p>the world's most pressing environmental challenges. Overall, the International Conference on Chemical Sciences, Environmental Engineering, and Sustainable Energy organized by RTCSE at NIT Delhi was a highly successful event that contributed significantly to advancing the field of sustainable science and engineering</p>	 



SRC Club Report

The Social Reform Cell-NIT DELHI is starting a Cloth Donation Drive for the indigent people in our locality. The drive focuses on generating resources to help the needy and unfortunate whilst reducing the landfill waste we produce, helping control our carbon footprints. The drive will begin on **October 13th, 2022** to collect your used clothes. These clothes will then be sorted and distributed to people in need. Boxes are made available at various locations to make the whole event more accessible, promoting equal participation from all students and faculty members. Donating clothes is an excellent way to help those in need without putting any extra work into it yourself. Help us reduce textile waste and donate your gently used clothes! Our boxes are donating easy – just drop your clothes off and we'll take care of the rest.



The members of social reformation cell with faculty coordinator Dr. Prashant Kumar Chauhan and Dr. Manoj Singh Kumawat duly invited our honourable Director sir Prof. Dr. Ajay K Sharma and honourable Registrar Sh. Ravinder Kumar in the blood donation drive. A message from honourable director sir of NIT Delhi to motivate our faculty, on-faculty member and students to take part in a noble cause by donating blood. The Blood donation camp is organised by the SRC Club NIT Delhi on **February 6, 2023** in Health centre, NIT Delhi. The are approximately 200 donors have given their blood for the noble cause.







ACTIVITIES (2022-2023)

Robotics Club Events

S. No.	Name of the Committee	Faculty/ Students Members	Position
1.	Organizer	Dr. Chandra Prakash	
2.	Organizer	Vikrant	Faculty Co-ordinator
3.	Organizer	Palak Agarwal	Student Co-Ordinator
4.	Organizer	Abhishek Yadav	Student Co-Ordinator
5.	Organizer	Vishal Shigh	Volunteer
6.	Organizer	Anil Gurjar	Volunteer
7.	Organizer	Divyam Dubey	Volunteer
8.	Organizer	Rohit Shigh Rajpoot	Volunteer
9.	Organizer	Shrey Kumar	Volunteer
10.	Organizer	Manas khantal	Volunteer

Brief Report on the Activities held during 2022-2023

Activity/ Event Report	Pictures/ flyers/ posters (if available)
<p>"ROBOTICS WORKSHOP"</p> <p>It was 2 days workshop with first day having introductive session on sensors and Arduino and second day having Arduino Coding, wheeled Robot and Competition</p> <p>The competition was of running a mobile or bluetooth control car on predefined track.</p> <p>There was total 20 teams participated.</p> <p>Winning team was team 16, members of team 16 were Umang, Mohit, Aditya, Himanshu.</p>	     



Activity/ Event Report	Pictures/ flyers/ posters (if available)
	 <p>The poster is for a 'NIT Delhi Presents ROBOTICS WORKSHOP'. It features a dark background with white text and images of gears and a hand holding a small robot. The text includes: 'NIT Delhi Presents', 'ROBOTICS WORKSHOP', '«2 DAYS WORKSHOP', '«19th - 20th Novemeber', 'VENUE: NITD Permanent Campus', 'Topics Covered' (listing Basics of Arduino, Arduino IDE, Sensors, Actuators, Tinker CAD, Line Follower Bot, and Manual Control Bot), and 'Computational Intelligence and Smart Research Group (CISMR)'. A QR code and a 'Register Now!' button are also present.</p>



CENTRALISED FACILITIES

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

The Outdoor Games Facilities:

- Cricket Cemented Turf pitch with Nets (With flood lights)

- Football (Ground with Flood lights)
- Kabaddi Court for both girls and boys separately
- Volleyball (One court with flood lights)
- Indoor gymnasium
- 400 mtr. Athletics ground with proper markings
- Badminton (Outdoor court with Flood Light)
- Outdoor gym

The Indoor Games provides the following facilities:

- Chess
- Caroms
- Table Tennis
- Pool Tables
- Indoor Gym in the Basement of hostel

Details of Sport Section Staff Members:

S. No.	Name of Staff	Designation
1.	Dr. Anidev Singh	Student Activity & Sports Officer
2.	Mr. Rajkumar	Senior Assistant
3.	Mr. Rajeev Sharma	Junior Assistant
4.	Mr. Abhishek	Office Attendant



Details of Coaches (Sports wise):

S. No.	Name of Coach	Sports
1.	Mr. Sagar Mandhari	Athletics
2.	Ms. Ankit Kumar	Badminton
3.	Mr. Vijay Chauhan	Cricket
4.	Mr. Brij Mohan Arora	Football
5.	Mr. Ajay Kumar	Kabaddi
6.	Ms. Sunita	Powerlifting
7.	Mr. Vikas Kumar	Volleyball
8.	Mr. Pawan Kumar	Yoga

Sports Club for the academic year 2022-23:

S. No.	Name of Students	Position
1.	Devyani Singh	General Secretary (Girls)
2.	Ajeeya Sharma	General Secretary (Boys)
3.	Anavi Somani	Deputy General Secretary (Girls)
4.	Hemasri Cheekati	Executive Member
5.	Karan Varshney	Executive Member
6.	Emmanuel Rahkoyo	Executive Member
7.	Monisha Gautam	Executive Member
8.	Mansi Arya	Executive Member
9.	Shridhar	Executive Member
10.	Tanishq Ranjan	Executive Member
11.	Abhinav Thakur	Executive Member
12.	Vivek Patidar	Executive Member
13.	Prashant Sharma	Executive Member

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 1st year students focussing 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 and management of playgrounds and courts.
- To enable students to participate in various inter NIT's and other sports festivals/tournaments and make 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 and accessible.

Sports Initiatives at NIT Delhi

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

National Cadet Corps

The National Institute of Technology Delhi has enrolled and started its NCC girls units at 7 Delhi Girls Battalion (NCC 7DGB) in 2022 with a maximum of 51 cadets and started with 17 cadets. A cadet has to be in NCC for 3 years in order to get her B-certificate and C-certificate. Cadets will be given free uniform, shoes and other dress material by NCC and cadets have to maintain the same till they complete their training. The NCC unit will immensely help the selected students in enhancing their personality skills and passion for the nation. The objective of NCC is to develop strong character, companionship, discipline, a secular outlook, and spirit of nationalism.

National Service Scheme

The National Institute of Technology Delhi has enrolled into NSS in 2022 with a maximum of 100 students. National Service Scheme (NSS) is a permanent youth programme under the Ministry of Youth Affairs and Sports. The motto of NSS is "Not me but you". It underlines that the



welfare of an individual is ultimately dependent on the welfare of the society as a whole. This expresses the essence of democratic living and upholds the need of selfless service and appreciation of the other man's point of view and also consideration for fellow human beings. It is a two year voluntary service where students are allowed to develop their personality through social service.

Events Organized by the Sports Section

YUJ 2022

Yuj 2022 is the inter-branch sports Tournament of NIT Delhi, organised by the ALTIUS sports club NIT Delhi. "Yuj", in Sanskrit, means 'to unite', and it fits our event perfectly as participants played as a team, students cheered in unison and everyone played without inhibitions.

Yuj witnesses the participation of students from all the branches of B.Tech, M.Tech and Ph.D., and offers a platform to display their talent in a highly charged and competitive ambience, Yuj 2022, during 2nd and 3rd April 2022.

Slogan Writing Competition

A slogan writing competition was organised by ALTIUS, NIT Delhi on 27th April, 2022 on the theme of International Yoga Day. It witnessed the participation of students from B. Tech, M. Tech and PhD students and staff members of NIT Delhi.

International Day of Yoga-21st June 2022

As a part of world-wide observation of International Day of Yoga, NIT Delhi celebrates International day of Yoga every year on 21st of June in the institute premises. The goal behind

the organization of the event was to spread the message of peace, harmony, and happiness. The event is attended with full enthusiasm by faculty, staff and students.

Sports section organised a poster making and slogan writing competition on the theme "Yoga for Peace & Harmony!".

Students, faculties and staff participated in large numbers with full enthusiasm and vigour.

Vigilance Awareness Run -14th November 2022

National Institute of Technology Delhi conducted Vigilance Awareness Run on 14th November 2022, in the playground followed by human chain formation in the football ground to mark the vigilance awareness week and all the students actively participated for the same.

Indoor Gymnasium Inauguration

The inauguration of the indoor gym was successfully concluded on 21st September 2022 by our honourable director Prof. (Dr.) Ajay K. Sharma. The gym contains world-class equipment that allows every student to train professionally, under the guidance of a trained expert. The environment of the gym is beginner friendly and the flexible timings make it a valuable asset to all.

The day also marked the first year anniversary of our honourable director Prof. (Dr.) Ajay K. Sharma sir as the director of NIT Delhi.

Outdoor Gymnasium Inauguration

An outdoor gym was inaugurated by Honourable Director Prof. (Dr.) Ajay K. Sharma on 11th October 2022. It gives all the students as well as the faculty members an opportunity to blend with



nature and exercise in the open, like a breath of fresh air.

Intra Tournaments

Sports section organized a Football, Table Tennis and Chess tournament for the students of the institute throughout the year to increase brotherhood, unity and to promote interaction among the students of various year and branches.

- The Table -Tennis and chess tournament was organised between 28th to 30th September, 2022. Table Tennis tournament was an inter branch inter year tournament while the chess tournament was an individual tournament. Both the events were highly competitive and engaged a lot of students.

- Football tournament was organised between 17th and 19th October, 2022. It was an inter-branch inter-year tournament. It was followed by informal events for faculty and DJ night as a part of Diwali celebration in the college premises by the Sports Club. Considered to be a great way of promoting a sporting culture in the college, the tournament started with an excitement and a passion for sports, and ended with a smile on faces. Students participated with great enthusiasm and around 9+ teams competed with each other for 3 days in the following tournaments.
- Following are the results of all the Intra college tournaments:-

S. No.	SPORTS	WINNER (Gold)	RUNNER -UP (Silver)	2nd RUNNER-UP (Bronze)
1.	TABLE TENNIS	ECE 3rd year	ECE 2nd year	CSE 2nd year
2.	FOOTBALL	CSE 4th year	CSE 2nd year	EEE 2nd year
3.	CHESS (BOYS)	Arnav Tyagi (EEE 2nd year)	Suraj Patel (ECE 2nd year)	Aditya Vaidya (EEE 2nd year)
4.	CHESS (GIRLS)	Afshan Khan (CSE 2nd year)	Shweta Rana (CSE 2nd year)	Mansi Arya (ECE 2nd year)

ANNUAL FITNESS ASSESSMENTS

Annual Fitness assessment of B.Tech First Year Students comprising various fitness components such as Speed, Endurance, Strength, Flexibility and agility was conducted in March 2023 to assess the student's fitness level and to motivate them to lead a healthy life.

SPORTS PRACTICE

In order to allow students to develop and learn through their experience in various sports, specialized Coaches have been hired, which provide proper training and techniques to the students for their respective sports. For the same, regular practice sessions are held on weekdays from 5:30 PM to 7:30 PM for both boys and girls in



the institute campus. The expert coaches train students in the specialized and scientific way to help them to improve their respective skills and techniques which will benefit them to perform better.

Yoga practise classes:

Along with practice for sports including athletics and team sports, Yoga classes are also arranged under the supervision of our coach for both students and faculty.

Regular yoga practice sessions are held on weekdays from 5:30 PM to 7:30 PM.

ACHIEVEMENTS OF NIT DELHI AT INTER NIT & OTHER COMPETITIONS 2022-23

➤ **ITUSA 2022 Thapar Institute of Technology Patiala**

NIT Delhi participated in the Inter Technology Sports Tournament (ITUSA) held at NIT Kurukshetra from 18th-20th November 2022, in which the Table Tennis team performed really well and secured fourth position among tough competition from the opponent teams.

➤ **All India Inter-NIT tournament, Jaipur**

NIT Delhi participated in the All India Inter NIT Basketball, Athletics and Lawn Tennis tournament held at NIT Jaipur, Rajasthan from 17th-20th November, 2022. Our men's Basketball team secured 4th position. Our college students displayed exceptional performances in all the sporting events.

➤ **All India Inter-NIT Kabaddi tournament, NITK Surathkal**

NIT Delhi participated in the All India Inter NIT Volleyball and Kabaddi tournament held at NIT Rourkela from 20th-22nd January, 2023. Following are the results:-

- i) Kabaddi girls secured Runner-up **Position (Silver Medal)**
- ii) Institute women's Kabaddi Captain **Arushi Jain** won the title for **"Best All Rounder" of the tournament.**

➤ **NIT Delhi participated in All India Inter NIT Power sports 2023 held at NIT Surat from 15th-19th February 2023. The institute bagged total 3 medals as follows:-**

S. No.	Name	Event	Medal
1.	Apoorv Jain	Weightlifting (96Kg)	BRONZE
2.	Emmanuel Rahkoyo	Weightlifting (81Kg)	BRONZE
3.	Emmanuel Rahkoyo	Bodybuilding	SILVER

➤ **All India Inter NIT Cricket & Football tournament, NIT Rourkela**

First ever, All India Inter NIT Womens Cricket tournament 2023 was held at NIT Rourkela from 28th to 30th January, 2023. Students showed

outstanding performances throughout the tournament. Institute Girls cricket team bagged Third position (Bronze) led by Anavi Somani (Team Captain).



All India Inter NIT Football and Kho-Kho tournament 2023 was held at NIT Rourkela from 10th to 13th February, 2023. Our Institute men's football team performed really well and all the players gave outstanding performances throughout the tournament.

➤ **All India Inter-NIT tournament, Silchar**

NIT Delhi participated in the All India Inter NIT Chess, Table Tennis and Badminton tournament held at NIT Silchar from 18th-20th November, 2022. Our Chess and Table Tennis team performed remarkably. Our players displayed exceptional performances in all the sporting events.

➤ **MNIT Sports Tournament (Date: 23rd - 25th March, 2023)**

MST'23 was a great success, and around 31 colleges participated in it from different parts of the nation. Around 1200 athletes from 18 different colleges and universities took part in it.

A total of 113 Students of NIT Delhi participated in various sporting events in MST which includes Football, Cricket, Basketball, Badminton, Chess, TT, Carrom, Volleyball.

All the players participated actively in MST '23 with full zeal and enthusiasm and performed with utmost brilliance and compassion and with that students backed various positions and trophies.

S. No.	Sports	Result	Remark
1.	Football	1st place	Champion
2.	Weight-lifting	1st place	Champion [3 Gold, 2 silver]
3.	Powerlifting	2nd place	Runner-up [4 Silver, 3 Bronze]
4.	Bodybuilding	2nd place	Runner-up [2 Gold, 1 Silver]
5.	Cricket	2nd place	Runner-up
6.	Kabaddi Girls	3rd place	2nd Runner-up
7.	Chess Girls	3rd place	2nd Runner-up
8.	Basketball Boys	3rd place	2nd Runner-up



Other National Events Organized

National Unity Day:



Vigilance Awareness week:



International Yoga day:





INTRA TOURNAMENTS

Chess:



Table tennis:





Outdoor gymnasium Inauguration:



Indoor gymnasium Inauguration:



Indoor gymnasium Inauguration:





Cricket teams:



Girls



Boys



Football team:



Kabaddi teams:







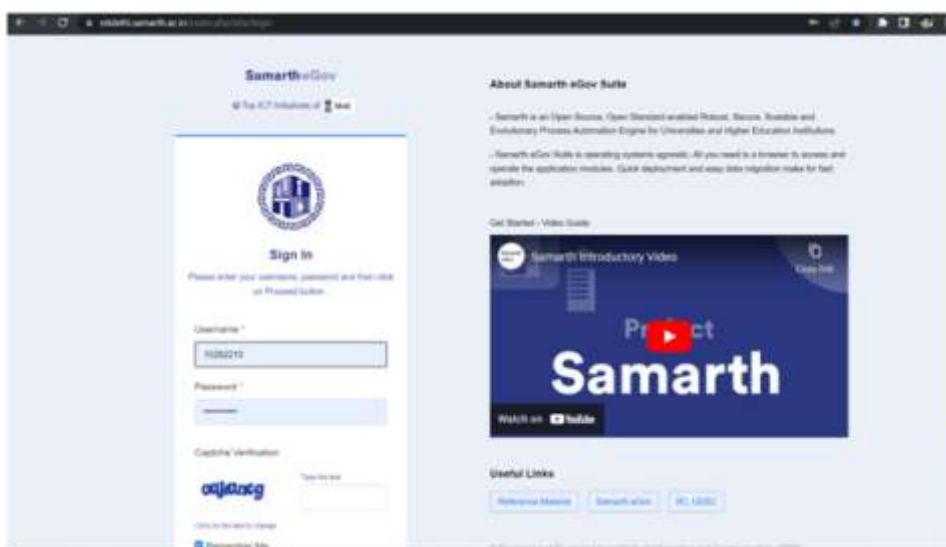
Institute Management System (IMS) /Computer Centre

Institute Management System (IMS) is management software—typically a suite of integrated applications—that an organization can use to collect, store, manage and interpret data.

Presently ERP team of NIT Delhi is handling/maintaining the existing Institute Management

System provided by the JIL Information Technology Limited, initiated since 2015 and also initiated the implementation of Project SAMARTH, maintained by Institute of Informatics & Communication, University of Delhi, as a mandatory initiative by the Ministry of Education, Govt. of India.





Features in IMS:

Student Information System

Student master database

- Rooms and exam centres management
- Formation of programs/branches/sections/sub-sections
- Enrolment number generation
- Pre-registration/registration
 - Core subject allocation
 - Department wise elective/free elective offerings
 - Elective/free elective choice collection from students
 - Faculty subject choice with rooms, day & time preference

- Teaching load distribution
- Registration slip printing
- Add/drop regular/back paper subjects
- Integrated fee collection
- Student attendance
- Time table preparation

Web-Kiosk

Web based application containing all the information related to students and employees (teaching & non-teaching). It is a presentation layer of Campus Lynx. All the users will have a separate Login ID and password to access the kiosk. It has following information:



<p>Student Web-Kiosk</p> <ul style="list-style-type: none"> • Personal information – view/edit • Academic information <ul style="list-style-type: none"> – Pre-registration/registration – record subject choice – Class time table – Class attendance – Class tests/mid/end semester test marks detail – Exam date sheet with seating plan – Marks obtained / CGPA/SGPA details – Disciplinary record • Fee detail which includes: <ul style="list-style-type: none"> – Fee payment, dues details 	<p>Employee Web-Kiosk</p> <ul style="list-style-type: none"> • Personal information <ul style="list-style-type: none"> – Contact information – view/edit • Academic information <ul style="list-style-type: none"> – Subject/room/day/time preference for time table – Time table (entire/employee wise) – Student attendance – Day/time preference/no duty request for invigilation duty – Employee wise date sheet/invigilation duty – View seating plan – Marks entry of class tests/mid semester test – Grade calculation – Booking/cancellation of room for special activities/ extra class – View result of student reaction survey (self) – Administration user option – Student information – Employee information
<p>Examination Management</p> <ul style="list-style-type: none"> • Invigilation duty with faculty load distribution/no duty request/time preference • Attendance/absentee list generation • Event based dual marks entry system – secured online entry of marks by faculty members with HOD/CoE/Dean Academic/Director approval 	<p>Student Fee Management</p> <ul style="list-style-type: none"> • Multiple currency support • Fee structure <ul style="list-style-type: none"> – Academic year, program wise fee with multiple quota handling – Individual fee structure • Fee waiver/discount



<ul style="list-style-type: none"> • Result processing <ul style="list-style-type: none"> – Final marks - Grade calculation - CGPA/SGPA calculation • Tabulation of grade list • Printing of grade/mark sheet, transcript & various MIS reports • Publishing of result on the web after approval. 	<ul style="list-style-type: none"> • Special approval in case of delay in payment • Fee collection <ul style="list-style-type: none"> – Cash – Bank – DD/cheque/ECS – Payment gateway – online payment (on demand) • Fine collection
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Regular Activities Performed:

1. Marks entry and grade calculation.
2. Result publish online of Makeup and End semester Examination
3. Attendance Entry on IMS
4. View attendance online for students and faculty.
5. Online No Dues clearance.
6. Generation of Grade sheet
7. Online semester course registration.

Further Brief Summary of Work Done:

1. ERP based Online Academic and Examination Systems:

(a) Online Student Information Systems:

We have following facilities in this regard.

- Course Registration Activity: Online course registration, no dues clearance, fee payment, approval for registration etc.
- Online Personal Information

Database. Every record of student.

- Online attendance entry in classes: Calculation of related marks, observation of attendance by student, faculty and parents.
- Generation of Academic Reports and Issuing of Various Certificates.
- (a) Online Examination Systems:
- Online Marks Entry by faculty.
- Online grade calculation by the faculty.
- Online approval of grades by the HoD, CoE and Director.
- Online publishing of result by Examination Section.
- Generation of various reports for Examination Section.
- Online QR code generation.
- Printing of Grade sheet on preprinted sheet.



2. Preparation of marks entry on IMS.
3. Resolving the queries of students regarding access of IMS on day to day basis.
4. Verifying the process of marks entry on IMS and preparation of draft user manual for marks entry and grade calculation as per the guideline issued by Dean Academic sir.
5. Supporting to the Office of Dean Academics (I/c) and Dean (R&C) regarding various academic activities.
6. Supporting the Examination section in various examinations related activities like allocating subject coordinator, grade calculations etc.
7. Supporting faculty members to resolve their technical issues/ queries related to IMS.
8. Implementation of teaching load distribution: AY 2020–2021.

Institute Management System provided by the Project SAMARTH, maintained by Institute of Informatics & Communication, University of Delhi, as a mandatory initiative by the Ministry of Education, Govt. of India:

The implementation was started from August 2021 onwards.

Initial Works implemented/ on process:

- Overall training of following modules demonstrated by the SAMARH team:

- Link for demonstrations and implementation are distributed among various sections/ departments of NIT. Few have shared their observations regarding necessary modifications, few are in process.
- Faculty data implementation under HR (PIS) module is almost completed.
- Being an academic Institution, NIT Delhi presently focuses on the Students and Grading & evaluation modules. However, a major modification in regard to SAMARTH designed algorithm is under process, since evaluation & grading process at NIT Delhi is based on 'relative grading system'. Several meetings have been already completed between ERP Cell and Examination Cell of NIT Delhi with SAMARTH team.
- After successful implementation of Grading & evaluation module, the student registration and related processes in that module will be initiated.
- Successfully completed the first progress review meeting with the Under Secretary, Higher Education, Ministry of Education, Govt. of India on February 11, 2022.



Implemented Modules	
1.	Leave Management Module.
2.	Knowledge Management Module.
3.	Human Resource Management Module
4.	Payroll Management Module.
5.	IT and Web Service Module.

Ongoing Modules	
1.	Academic Module.
2.	Evaluation and Grading Module.
3.	Estate Management Module.
4.	LTC sub Module.
5.	Sports Module.
6.	Store and Purchase Module
7.	Training and Placement module.
8.	Alumni module.

Samarth eGov Suite

An Overview

Project Initiative By: MoE, Ministry of Education

Designed & Developed By: IIT Research Labs, IITG

Project under: National Mission in Education through ICT,

Website: <https://www.samarth.edu.in>

Email: project@samarth.edu.in

Phone: +91 - 95548 09333

MoE's Top Initiative
Among the top 10 initiatives of MoE in the year 2018-2019

60+ HEIs Onboarded
80+ HEIs, 22 TEQIP HEIs, 2 State Universities, 1 Autonomous body

Policy Based
Based on standards and policies laid down by UGC and other statutory bodies of MoE

SaaS Deployment
Positioned as a web based Software as a Service application. Zero initial hardware overheads.

UNIVERSITIES/HEIs UNDER PROJECT SAMARTH

■ Universities - Phase I

■ Universities - Phase II

■ TEQIP HEIs

Functions Covered

40+ Modules

Help cover detailed workflows such as Academic Programme and Course Management, Legal Services, ETL, Leave, Payroll, Vendor Bill, Budget and Grants Management, etc. These are grouped in 8 broader functions.

University Details
 Academics
 HR

Establishment
 Governance
 Student Related Services

Administration
 Account & Finance



Central Library

TOTAL LIBRARY COLLECTION:

The Library has a total collection of 15537 books (approx. 2312 titles) inclusive of 5040 books in Book Bank category. The collection includes text books, reference books and various competitive exams books etc. The Library also has multimedia collection like CD's/DVD's/NPTEL Videos etc. (approximately 1198 CD's/DVD's). Also, Library has around 276 Thesis and Dissertation which are submitted by the PhD/M.Tech/B.Tech students of the Institute.

BRIEF INFORMATION ABOUT THE CENTRAL LIBRARY:

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

The Central Library have 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 etc. Also, apart from this, the Library has reference collection

including dictionaries, handbooks, and research related books.

The Library also holds a good collection for general reading purpose including books on sports & yoga, novels, fictions, books for competitive exams like GATE/IES, magazines on general awareness, current affairs, and specialized subject magazines like AutoCar, Digit, and Electronics for you etc. The Central Library follows 'Open Access System' along with Self Check-in/Check-out facility. The separate sections are arranged for the books under Text Books, Book Bank and Reference category for easy access to the users.

The Central Library have a rich collection of books on science & technology including Computer Science, Electrical & Electronics Engineering, Mechanical Engineering, Mathematics, Physics, Chemistry, Economics, and Management etc. Also, apart from this, the Library has reference collection including dictionaries, handbooks, and research related books.

The Library also holds a good collection for general reading purpose including books on sports & yoga, novels, fictions, books for competitive exams like GATE/IES, magazines on general awareness, current affairs, and specialized subject magazines like Auto Car, Digit, and Electronics for you etc.

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 LSRemote solution on Cloud package which is an integrated multi-user library automation management system that supports all in-house activities of the library. The LSRemote provides library users with a simple and convenient way to access library resources. With the app, users can search for books, journals, and other materials remotely from their mobile devices or computers. This means users don't have to physically visit the library to find the materials they need.
- The Library have RFID (Radio Frequency Identification) based Automation system and Circulation system (self Check-in/Check-out).
- The database of the entire library acquisitions is being updated on regular basis along with details of recently acquired books.
- The library has WebOPAC facility under which all the bibliographic details of the library collection can be accessed from Internet 24x7 on all week days by the users.
- The EAS/RFID Security Gates are installed at the library entrance to prevent Library resources from theft activities.
- The RFID smart cards (i.e. Institute ID cum Library Card) are also provided to all the students & faculty/staff members for the Institute.
- The library has RFID Portable Handheld reader (Jan. 2022) for easy and quick physical verification of library Books, for locating missing books and security check of checked out items etc.

- The library has initiated QR code facility for Over-due payments/fine in library from March 2023 onwards. It is an excellent way to provide convenience to patrons and it streamlines the payment process.

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 the purpose of their academic, research and administrative work. Use of 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 Book Bank facility to the B.Tech and M.Tech students. Under the Book Bank facility, the set of textbooks as per the prescribed syllabus are issued to the individual student for entire semester.
- **Reference and Information Service:** The Library also has a collection of General Reference Books including Dictionaries, Handbooks, and Bibliographies, etc. and these are available for reference within the library premises and are not for lending.
- **Email Alert Service:** Library provided 'Email Alert Facility' during the year 2022-23. Through this facility library send alerts for the Check-In/Check-Out, overdue and other alerts to its members.
- **WebOPAC Facility:** The library has WebOPAC facility under which all the



bibliographic details of the library collection can be accessed by the user from anywhere and anytime.

- **Current Awareness Service:** The library keeps its users updated about the current collection procured, resources subscribed or any other information/updates in the library on a time to time basis.
- **Plagiarism Check facility:** The Library offers a plagiarism check service to both students and faculty members of the Institute using Ouriginal and Turnitin software. This facility helps to ensure that research work is original and is properly cited, avoiding any issues with plagiarism.
- **Photocopy Facility:** Users are asked to avail 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 Newspaper Clippings' related to Engineering, Science and Technology 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 Annual Subscription basis on the rates negotiated by ESS consortium which includes 6000+ journals, articles, magazines, conference proceedings etc. The E-Databases subscribed for the year

2022-2023 are as below:-

- **On Self Subscription Basis:-**

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

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

- (i) ACM Digital Library
- (ii) Springer Link (1700+ Journals)
- (iii) Nature Journals (complimentary access)
- (iv) ASME (American Society of Mechanical Engineers)

2. **Remote Access Facility through INFED**

Platform:- Central Library has setup INFED (INDIAN Access Management Federation) platform of E-ShodhSindhu in the Institute during the year 2022-23. The INFED platform provides access to all the subscribed E-resources of the Institute from anywhere anytime via remote Login Facility. All the Research Students & Faculty Members have been successfully registered in INFED platform and the platform has benefited the entire research community of the Institute during Covid-19 Lockdown situation.

3. **OURIGINAL (Former Name URKUND) (Plagiarism Detection Software):-**

The Central Library is getting access to OURIGINAL (Former Name URKUND) Plagiarism Detection Software through e-ShodhSindhu under Centrally Funded Scheme of MoE. The access of Ouriginal Software has been provided to all the faculty members and Research Scholars of the Institute.



4. **NPTEL Videos:** The Library provides access to NPTEL (National Programme on Technology Enhanced Learning) Video to the various users of Library which provides 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. NPTEL is funded by the Ministry of Human of Education.
5. **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) and in LSRemote App. Therefore, the Library members can easily access the previous year question papers of NIT Delhi through the Library WebOPAC.
6. **Google Drive of Previous Year Question Papers:-** Central Library has created a Google Drive of previous year question papers of NIT Delhi so that the students may access the question papers for reference from anywhere/anytime.
7. **Registration of all Library Members in National Digital Library:-** All the students and faculty/staff members have been registered in the NDLI portal (project under 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, questions/solutions of common subjects for students of all engineering discipline.

8. **Access of PhD Thesis 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 it may be available to the entire research/scholarly community in the open access.

OTHER IMPORTANT ACTIVITIES OF THE LIBRARY:

- **Library Advisory Committee:**

There is library advisory committee which 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 to review the working conditions for 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 'SC/ST Book Bank Cell' in the Institute that ensures the distribution of 'Book Bank' by the Library to SC/ST students (on 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 conducted orientation program for the library users on time to time basis whenever any new software/technology is introduced in the library. 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.



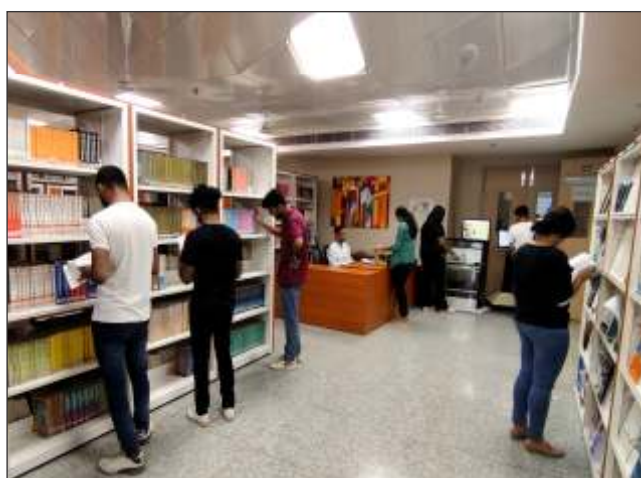
Photos of Central Library



Granulation Kiosk



Magazine Display Area



Book Display Area



E-Library



Medical facilities

The medical needs of the Campus population consisting of Students, Staff members and their families are met by the Institute Health Center. The Health Center has Visiting Physicians and

Pharmacist. The Institute Health center has facilities for OPD treatment. Health Center has Doctor's room, Pharmacy and an observer room contains semi-fowler beds for patient care.



Memorandum of Understanding with Hospitals/ Medical Organizations:

S. No.	Name of the Hospital	Location and Address of the Hospital/ Medical Organization
01.	Clove Dental	RK khanna Tennis Stadium, DLTA complex 1 Africa Avenue, New Delhi- 110029
02.	Center for Sight	Ashok vihar, Dwarka, Faridabad, Gurugram, Preet vihar, Rajouri Garden, Rohini, Ghaziabad, Safdurjung Enclave, Vikaspuri, Indirapuram

Medical Facilities Available at the Institute Campus:

S. No.	Facility
01	Establishment of Pharmacy
02	Pharmacist Recruited on Permanent Basis

Free Health Checkup camps organized at the Institute Campus:

S. No.	Health Camp Organized
01	Health Checkup Camp by Shree Aggarsain International Hospital, Rohini
02	Health Checkup Camp by Clove Dental

Staff: Mr. Manorath (Pharmacist)



Hostel Facility for Students

Hostels

There are 04 boy's and 01 girl's hostels which are looked after by respective wardens. The hostel administration is as under:

Hostel Administration

S. No.	Name	Designation
1.	Dr. Anuj K Sharma	Dean SW
2.	Dr. Tirupathiraju Kanumuri	Chief Warden
3.	Dr. Chandra Prakash	Warden (Dhauladhar Hostel)
4.	Dr. Rishav Singh	Warden (Dhauladhar Hostel)
5.	Dr. Leeladhar Nagdeve	Warden (SRHC Hostel)
6.	Dr. D.Vaithyanathan	Warden (NILERD Hostel)
7.	Dr. Preeti Verma	Warden (Yamuna Girls Hostel)
8.	Mr. Rajeev Sharma	Junior Assistant (Office of Chief Warden)
9.	Mr. Vikrant Kaushik	Associate Warden (Dhauladhar Hostel)
10.	Mr. Ajvendra	Associate Warden (Dhauladhar Hostel)
11.	Mr. Umakant	Associate Warden (Yamuna Boys Hostel)
12.	Ms. Kajal Rathi	Resident Warden (Yamuna Girls Hostel)
13.	Mr. Raj Kumar	Associate Warden (SRHC Boys Hostel)
14.	Mr. Krishan Pal	Associate Warden (SRHC Boys Hostel)
15.	Mr. Rajesh	Associate Warden (NILERD Boys Hostel)

Hostel should be a comfortable place to stay where the students can have the feeling of home. NIT Delhi has separate hostel facilities for around 685 boys (SRHC Hostel, NILERD Hostel, Dhauladhar Hostel) and 180 girls (Yamuna Hostel). NIT Delhi has Four boys' hostels (2 AC hostels and 2 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 own well- equipped mess along with night canteen to provide good and

hygienic food to the students. Quality purified water is provided 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 the discipline under the supervision of a Chief Warden. 24 hours security service with guards and CCTV and power backup is provided for the hostel.



Boys Hostel:-

1. Dhauladhar Boys Hostel –capacity of 340 students
2. NILERD Boys Hostel - Capacity of 165 Students
3. SRHC Boys Hostel 3- Capacity of 80 students

4. SRHC Boys Hostel 4- Capacity of 70 students

Girls Hostel

1. Yamuna Girls Hostel – Capacity of 180 students



BH-1
Dhauladhar Boys Hostel
(In permanent campus)



BH-1
Dhauladhar Boys Hostel
(In permanent campus)



BH-3 & 4
SRHC Boys Hostel (Narela)



GH-1
Yamuna Girls Hostel (In
permanent Campus)



Boys Hostel Mess



Girls Hostel Mess

Following are the other facilities provided in the hostels –

- Fully furnished and spacious rooms
- Free Wi-Fi and a computer room
- Visiting room
- Air Conditioner & Heater Room
- Geezers and water coolers
- Playground for outdoor games
- First aid facility
- 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.



Planning & Development and Estate Office

Physical and financial progress of Phase 1A & Phase-1B construction activities of permanent campus of NIT Delhi is as under:

Phase-1A

S. No.	Name of Work	Physical Progress	Financial Progress
1.	Mini Campus Building	Physical Possession Taken	98%
2.	Administrative Block Building		98%
3.	Start up Centre Building		100%
4.	Playground		100%
5.	External Development Works		100%

Phase-1B

S. No.	Name of Work	Physical Progress	Financial Progress
1.	Academic Block-01	Tender Awarded by TCIL to the agency M/s GCPPL-SCIPL Consortium and the work of Phase-1B construction has been initiated	
2.	Hostel-01		
3.	Residential Tower-01		30%
4.	Director Residence		
5.	External Development		



Academic Departments Department of Applied Sciences

Vision:

To empower the students for advanced study and research in the significant domains of basic and applied sciences so that they can think critically & logically, communicate clearly, and live ethically. The department is dedicated to set a benchmark for sciences education by providing the students with multi-disciplinary approach to come up with practical knowledge that has a transformative influence on society through continuous innovation in Education & Research.

Mission:

- To set up state-of-the art infrastructure in laboratories in the field of Applied Sciences.
- To promote research and innovation activities and impart quality technical education through dynamic teaching-learning environment.
- To integrate human values and ethics with technical education and make students responsible citizen of India.

1. List of Faculty (as on 31 March 2023):

S. No.	Name of Faculty	Designation	Highest Qualification
1	Dr. Amit Pratap Singh	Associate Professor (Chemistry) and Head	Ph.D.
2	Dr. V. S. Pandey	Associate Professor (Physics)	Ph.D.
3	Dr. Gyanendra Sheoran	Associate Professor (Physics)	Ph.D.
4	Dr. Anuj Kumar Sharma	Associate Professor (Physics)	Ph.D.
5	Dr. Amit Mahajan	Associate Professor (Maths)	Ph.D.
6	Dr. Prashant Kumar	Assistant Professor (Maths)	Ph.D.
7	Dr. Pratibha	Assistant Professor (Hum. & Mang.)	Ph.D.

2. Newly Developed Labs in the Department

Chemistry labs for undergraduate programmes and research laboratory have been set up in the department. Chemistry

laboratories are well equipped with various facilities like UV-Visible Spectrophotometer, Fluorescence Spectrometer, Gas Chromatography -Mass Spectrometer, FTIR spectrometer, TGA-DSC, etc.



In Physics, AROMA Lab is having the research facilities in the field of Optics and Microwave. Currently two external funded projects are going on in the lab. Also, 2 Ph.D. Scholars, 2 Research Scholars, 2 Research Associates, 2 Project Associates are doing their research on Optics & Microwave Imaging and Instrumentation. Following are the list to major equipments / components:-

i). Optics:-

- * Opto – Mechanical mounts
- * Optical components i.e. Mirror, lens, Microscope Objective, Beam splitter.
- * Spectrometer, EDFA, AOM, DMD, Multifunctional DAQ Card.

- * Lasers- Tunable laser (NIR), 632.8 nm, DFB laser
- * Laser Modules- 450 nm, 532 nm, 633 nm, 680 nm, 780 nm, 980nm.
- * Fibre – Isolator, circulator, couplers, optical amplifier.
- * Camera- NIR CMOS camera, Monochrome CMOS, Color CMOS etc.
- * Photo detector – Balanced photo detector, Fast photo detector etc.

ii). Microwave:-

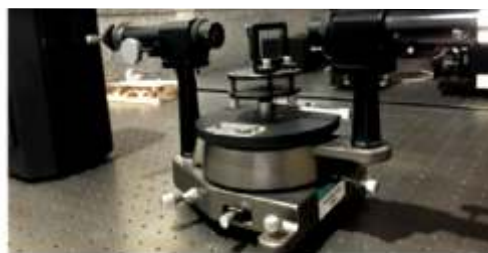
- * Signal Generator & accessories, USB power sensor & accessories, 3D translation stage and Vector Network Analyser (upto 40 GHz) etc.





UG Engineering Physics lab is well equipped laboratory with pleasant working environment. UG Physics lab has new apparatus to expose the new trends in the field of technology and science with the basic experiments related to Optics, Physics & Electronic Sciences such as....

- i). *Electronic Sciences & Physics*:- PN Junction Diode, LED Diode, Zener Diode, Semiconductors, Plank's constant set up, RLC- Series & Parallel, e/m set up by J.J. Thomson, CROs.
- ii). *Optics*:- Interference, Diffraction, Polarisation i.e. Newton's ring set up, Spectrometer set up, Malus law, Fresnel Bi-Prism set up.



- New procurement has been done by the department in order to develop lab and students facilities-
- i). The benchtop NMR spectrometer (80 MHz) Spinsolve 80 from magritek was recently procured by the department for chemistry lab. The high sensitivity of the 80 MHz model makes it possible to detect metabolites produced at sub millimolar concentrations in just minutes. The high homogeneity of the Spinsolve magnets delivers the highest resolution available today. The new Multi-X family of probes can measure multiple nuclei with a single instrument in a fully automatic way.





3. Projects Completed/On Going/sponsored projects in 2022-2023:

S. No.	Title	Start Date & Duration	Funding Agency	PI Name & Co-PI (if any)	Project cost	Whether Ongoing or completed
1.	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 3 months)	Science and Engineering Research Board (SERB) India	Dr. Anuj Kumar Sharma (PI) (Co-PI: Dr. Y. K. Prajapati, MNNIT Allahabad)	~21 Lacs	Completed on 26/03/2023
2.	In-situ Digital Holographic Tomography of subsurface Microstructure of Artwork	01/04/2019 (4 years)	DST	Dr. Gyanendra Sheoran (PI) (Co-PI: Prof. Ajay Kumar Sharma)	~85 Lacs	Completed on 31/03/2023
3.	Development of Near Infrared Spectrometer for plant disease detection'	01/04/2019 (4 years)	DST	Dr. Gyanendra Sheoran (PI) (Co-PI: Prof. Ajay Kumar Sharma)	~95 Lacs	Completed on 31/03/2023
4.	Energy method for analyzing hydrodynamic stability	Short Term Course on Current Trends in Mathematics and Applications	Department of Mathematics, NIT Kurukushetra	Dr. Amit Mahajan		13.02.2023 to 17.02.2023
5.	Convection and heat transfer in ferrofluids	Short Term Course on Current Trends in Mathematics and Applications	Department of Mathematics, NIT Kurukushetra	Dr. Amit Mahajan		13.02.2023 to 17.02.2023
6.	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	Completed
7.	Projection of Wave Power in Indian Ocean and its Utilization along the Coastal Regions	2022	SERB DST Govt. of India	Dr. Prashant Kumar	INR 24,54,360	Ongoing



4. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Organized in 2022-2023:

S. No.	Workshop/ Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Coordinator/ Convener/ Chairman
1	Workshop	Advances in Photonic Devices, Sensors, and Systems	Dr. Anuj Kumar Sharma (under SERB's SSR Scheme)	June 2-3, 2022	Dr. Anuj Kumar Sharma Dr. Y. K. Prajapati
2.	International Conference	1st International Conference On Recent Trends in Chemical Sciences and Sustainable Energy RTCSSE-2023	Department of Applied Sciences	March 24-25, 2023	Dr. Amit Pratap Singh (Convener)
3	Faculty Development Program	Sustainable Environment and Climate Change (SECC-2022)	Department of Applied Sciences	June 14 to June 19, 2022	Dr. Prashant Kumar Dr. Kapil Kumar

5. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Attended in 2022-2023:

S. No.	Workshop/ Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Faculty Attended by
1	Conference	CRSI	JNU	February 02-05, 2023	Dr. Amit Pratap Singh
2	Conference	EMEE-2023	IIT Roorkee	March 04-05, 2023	Dr. Amit Pratap Singh

6. Expert Lecture Delivered by Departmental Faculty in 2022-2023:

S. No.	Title of the Expert Talk	Name of the Event	Organized By	Duration	Faculty Attended by
1	Plasmonics sensors and the role of 2D materials	One week STC/FDP as "Optical materials and devices" (O. Plan No. ICT-159)	National Institute of Technical Teachers Training and Research (NITTTR) Chandigarh	January 16, 2023	Dr. Anuj K. Sharma
2.	MCM-41 functionalized ordered mesoporous materials: Application in catalysis and sensing	EMEE-2023	Department of Chemistry, IIT Roorkee	March 04-05, 2023	Dr. Amit Pratap Singh
3	Teaching Behavior and Well-Being in Students	ATAL FDP on Reliability Studies for Engineering Applications	National Institute of Technology Delhi	Feb 13 to 24, 2023	Dr. Pratibha



7. Journal Publications by the Departmental Faculty in 2022–2023:

S. No.	Name of the Authors (Departmental faculty name to be highlighted in bold)	Title of the paper	Name of the Journal	Volume	Page number	Month and Year of Publication
1	S. Singh, Anuj K. Sharma, P. Lohia, D. K. Dwivedi, V. Kumar, and P. K. Singh	Simulation study of reconfigurable surface plasmon resonance refractive index sensor employing bismuth telluride and MXene nanomaterial for cancer cell detection	Physica Scripta	98	025813	2023
2	J. B. Maurya, Nikki, J. P. Saini, Anuj K. Sharma, and Y. K. Prajapati	A Localized SPR D-Shaped Fiber Optic Sensor utilizing Silver Grating Coated with Graphene: Field Analysis	Optical Fiber Technology	75	103204	2023
3	V. A. Popescu, K. Chauhan, Y. K. Prajapati, and Anuj K. Sharma	Design and analysis of graphene- and germanium-based plasmonic probe with photonic spin Hall effect in THz frequency region for magnetic field and refractive index sensing	Optical and Quantum Electronics	55	135	2023
4	Y. S. Dwivedi, R. Singh, Anuj K. Sharma, and A. K. Sharma	Enhancing the performance of photonic sensor using machine learning approach	IEEE Sensors Journal	23 (3)	2320	2023
5	S. Singh, Anuj K. Sharma, P. Lohia, and D. K. Dwivedi	Design and Modelling of High-Performance Surface Plasmon Resonance Refractive Index Sensor Using BaTiO ₃ , MXene and Nickel Hybrid Nanostructure	Plasmonics	17	2049–62	2022
6	M. B. Raj, E. P. Pushpa, D. Vaithiyanathan, and Anuj K. Sharma	Simulation and sensitivity analysis of a plasmonic FET based sensor in visible spectral range under different design conditions	Optical and Quantum Electronics	54	745	2022
7	S. Pandey, S. Singh, S. Agarwal, Anuj K. Sharma, P. Lohia, and D. K. Dwivedi	Simulation study to improve the sensitivity of surface plasmon resonance sensor by using ferric oxide, nickel, and antimonene nanomaterials	Optik	267	169757	2022



8	Anuj K. Sharma, P. Kumar and Y. K. Prajapati	Plasmonics-based gas sensor with Photonic spin Hall effect in broad Terahertz frequency range under variable chemical potential of graphene	Optical and Quantum Electronics	54	328	2022
9	N Barak, V Kumari, G Sheoran	Module for zooming in extended depth of focus in digital holographic microscopy	Optics and Lasers in Engineering	161	107 389	2023
10	A Ahmed, V Kumari, G Sheoran	Reduction of Mutual Coupling in Antenna Array using Metamaterial Surface Absorber	International Journal of Electronics And Communications	160	154519	2023
11	Subhash Utadiya, Vismay Trivedi, Gyanendra Sheoran, Atul Srivastava, Daniel Claus, Humberto Cabrea, Arun Anand	Digital holographic imaging of thermal signatures and its use in inhomogeneity identification	Optics and Lasers in Engineering	160	107 227	2023
12	N Barak, V Kumari, G Sheoran	Measurement of specular surfaces using electrically tunable lens in digital holography	Journal of Optics	24	125603	2022
13	Aijaz Ahmed, Vineeta Kumari, Gyanendra Sheoran	Experimental Investigation of Microwave Holographic Reflectometry for Lung Tumor Detection	Measurement	160	111 336	2022
14	Garima Chaudhary and Amit Pratap Singh	BODIPY Immobilized MCM-41 Based Multianalyte Sensor: Application in Detection and Removal of Trivalent (Al ³⁺ , Cr ³⁺) and Divalent (Cu ²⁺ , Hg ²⁺) Metal Ions in Aqueous Media	European Journal of Inorganic Chemistry	26 (7)	e202200537	2023
15	Devender Singh, Sariika Tomar, Sweta Singh, Garima Chaudhary, Amit Pratap Singh, Rajeev Gupta	A fluorescent pH switch probe for the 'turn-on' dual-channel discriminative detection of magnesium and zinc ions	Journal of Photochemistry & Photobiology, A: Chemistry	435	114334	2022
16	VK Tripathi, A 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



17	H Parashar, A Mahajan	The onset of double-diffusive convection in a ferrofluid layer for local thermal nonequilibrium model with an internal heat source effect	Nanoscience and Technology: An international journal	13(4)	63-96	2022
18	VK Tripathi, A 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
19	S Choudhary, R Devi, A Mahajan, Sunil	Stability analysis in a couple-stress fluid layer with variable viscosity heated from below: Different conducting boundaries	Chinese Journal of Physics	83	94-102	2023
20	N. Kumar, Pratibha, A. Upadhyay, A. T. Petkoska, M. Gniewosz, and M. Kieliszek	Extending the shelf life of mango (<i>Mangifera indica</i> L.) fruits by using edible coating based on xanthan gum and pomegranate peel extract	Journal of Food Measurement and Characterization (Springer)	17	1300-1308	November 2022
21	N. Kumar, D. Daniloski, Pratibha, Neeraj, N. M. D'Cunha, Nenad Naumovski, A. T. Petkoska	Pomegranate peel extract – A natural bioactive addition to novel active edible packaging	Food Research International	156	111378	June 2022
22	N. Kumar, Pratibha, Neeraj, R. Sami, E. Khojah, Amani H. Aljahani, A. A. M. Al-Mushhin	Effects of drying methods and solvent extraction on quantification of major bioactive compounds in pomegranate peel waste using HPLC	Scientific Reports	12	Article number: 8000	May 2022
23	Priya P., Kumar P., Rajni	Mathematical modelling of nonlinear pressure drops in arbitrarily shaped port utilizing dual boundary element method	Ocean Engineering	275		2023
24	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 Climatology,	42	6183-6203	2022
25	Kumar P., Priya P., Rajni	Mathematical modelling of Visakhapatnam Port utilizing the porous and non-porous breakwaters with finite depth green function	Ocean Dynamics	72	557-576	2022



26	Kumar P., Sardana D., Weller E., Bhaskaran P.K.	Influence of climate variability on sea level rise and its teleconnection with sea surface temperature anomalies over the Indo-Pacific Ocean	International Journal of Climatology,	42	10195-10216	2022
27	Sardana D., Kumar P., Bhaskaran P.K., Nair T.M.B.	The projected changes in extreme wave height indices over the Indian Ocean using COWCLIP2.0 datasets	Climate Dynamics,	216		2022

8. Conference Papers Presented by the Departmental Faculty in 2022-2023:

S. No.	Name of the Authors (Departmental faculty name to be highlighted in bold)	Title of the paper	Name of the Conference	Place and Country where the Conference Held	Organizer of the Conference	Date of Presentation
1.	Devesh Kumar Mishra and Amit Pratap Singh	BODIPY immobilized MCM-41 based Solid Optical Sensors for Heavy Metal Ions Detection and Removal from Aqueous Medium	CRSI	Delhi, India	JNU	February 03, 2023
2.	Bhawna Joshi and Amit Pratap Singh	Metal-Functionalized Ordered Mesoporous Silicas (OMs) and Their Catalytic Applications in the Aminolysis, Suzuki-Miyaura and Heck Coupling Reaction	CRSI	Delhi, India	JNU	February 04, 2023

9. Book Chapters Published by the Departmental Faculty in 2022-2023:

S. No.	Name of the Authors (Departmental faculty name to be highlighted in bold)	Title of the Book Chapter	Name/ Details of the Book where the Chapter is Published	Volume	Page number	Publisher
1	Kumar P., Priya P., Rajni	Mathematical Modeling for Non-linear Wave Interaction of Submerged Body Using Hybrid Element Method	Lecture Notes in Mechanical Engineering,		15-24	Springer
2	Priya P., Kumar P., Rajni	Wave Spectral Analysis of Visakhapatnam Port under the Resonance Conditions	Advances in Transdisciplinary Engineering	32	708-715	IOS publisher
3	Kumar P., Vinita X., Rajni	Theoretical and numerical studies of boussinesq equations for onshore shallow-water wave propagation	Wave Dynamics		31-66	World Scientific



- i. Nishant Kumar, Pratibha, Anka Trajkovska Petkoska & Mohit Singla, "Natural Gums for Fruits and Vegetables Preservation: A Review". In: Murthy, H.N. (eds) Gums, Resins and Latexes of Plant Origin. Reference Series in Phytochemistry. Springer, Cham, 2022. https://doi.org/10.1007/978-3-030-91378-6_4.
- ii. Anit Kumar, Rakhi Singh, Rachna Sehrawat, Nishant Kumar, and Pratibha, "Probiotics". In: Chauhan, O.P. (eds) Advances in Food Chemistry. Springer, Singapore, 2022. https://doi.org/10.1007/978-981-19-4796-4_14.
- iii. Nishant Kumar, Pratibha, Neeraj and Anka Trajkovska Petkoska, "Applications of Edible Packaging for Preservation of Mushrooms". In: Wing-Fu Lai (eds) Food Packaging: Safety, Management and Quality. Nova Science Publishers Inc. 2022. ISBN 979-8-88697-249-8. DOI: <https://doi.org/10.52305/SEPV4757>.

10. Student's Thesis/ Project Guidance in 2022-2023:

PhD Students:

S. No.	Roll No.	Name of Student	Date of Defense	Joint Supervision (if any)	Title of Dissertation
1.	173431201	Vinit Kumar Tripathi	18-11-2022	--	Linear and nonlinear stability analysis of double diffusive convection in a fluid layer
2	163411201	Garima Chaudhary	21/07/22	--	Development of MCM-41 functionalized novel organic-inorganic hybrid mesoporous materials for catalysis and metal ion sensing

11. Any other significant achievement by department for annual report in 2022-2023:

Dr. Anuj K. Sharma was appointed the Associate Editor of the Frontiers in Electronic Materials (Opto-electronics section) in September 2021.



Department of Computer Science and Engineering

B.Tech in CSE & B Tech in AI and DS

VISION

- To communicate quality Computer Science Education for producing globally identifiable skilled technocrats and entrepreneurs upholding sound ethics, profound knowledge, and innovative ideas to meet industrial and societal expectations.

MISSION

- To impart value-based technical knowledge and skill relevant to Computer Science and Engineering through effective

pedagogies and hands-on experience on the latest tools and technologies to maximize employability.

- To strengthen multifaceted competence, nurture creativity, and innovation, and create entrepreneurial environment for an ever-changing technological scenario requiring communally cognizant solutions.
- To create an appetite for research, and higher education in contemporary, and emerging areas of Computer Science.
- To inculcate the moral, ethical, and social ideals essential for prosperous nation building.

1. Name of Faculty (as on 31 March 2023):

S. No.	Name of Faculty	Designation	Highest Qualification
1.	Prof. Geeta Sikka	HoD and Professor	Ph.D. (Computer Science and Engineering) from National Institute of Technology, Jalandhar
2.	Dr. Shelly Sachdeva	Associate Professor	Ph.D.(Computer Science and Engineering) from University of Aizu, Japan
3.	Dr. Anurag Singh	Associate Professor	Ph.D. (Computer Science and Engineering) from Indian Institute of Technology, Kanpur
4.	Dr. Sushila Maheshkar	Assistant Professor	Ph.D. (Computer Science and Engineering)
5.	Dr. Karan Verma	Assistant Professor	Ph.D. (Computer Science and Engineering) from Universiti Teknologi Petronas, Malaysia
6.	Dr. Chandra Prakash	Assistant Professor	Ph.D. (Computer Science and Engineering) from Malaviya National Institute of Technology, Jaipur
7.	Dr. Rishav Singh	Assistant Professor	Ph.D. (Computer Science and Engineering) from Indian Institute of Technology - Indian School of Mines, Dhanbad



2. Newly Developed Labs in the Department

Ubiquitous Computing Lab

S. No.	Description of Goods	Highest Qualification
i.	HBE-IoT Smart Server	Components and Concepts of Sensor Network, Sensor Network Platform, Sensor Network Protocol, Sensor Network, Development Environment, Basic Sensor Control, Extension Module Control
ii.	HBE-IoT Xnode Home with Edge Server	Raspberry Pi 3B, RSP Shield, Sensor Modules, Actuator Modules
iii.	QUBE-SERVO-2-USB Workstation	Hardware integration, Step response modeling, Noise measurement and filtering, Electromechanical modeling, Second-order systems, PD control, Stability analysis
iv.	OMNI Bundle	Six degree-of-freedom positional sensing, Portable design and compact footprint for workplace flexibility, Removable stylus for end-user customization, Two integrated momentary switches on the stylus for ease-of-use, and end-user customization

Intelligent Systems Lab 20 Workstations

AI and Data Science Lab 30 PCs

Complex system lab 35 PCs

New procurement has been done by the department in order to develop lab and students facilities -

1.	Ubiquitous Computing Lab	IoT Smart Health Lab (with suitable PC: i7, 16 GB RAM, 1TB SSD, WIN PRO) (new procurement)	<ul style="list-style-type: none"> • ÜData Collecting Part • ÜECG Signal Generating Part • ÜBio-Signal Measuring Part • ÜBio-Signal Measuring Part • ÜECG (Electro CardioGram) • ÜRespiration • ÜSpO2 (Pulse Oximeter) • ÜNIBP (Non-Invasive Blood Pressure) • ÜBio Impedance • ÜEEG (Electro EncephaloGram) • ÜEMG (Electro MyoGraphy) • ÜEOG (Electro OculoGraphy) • ÜGSR (Galvanic Skin Response)
2.	Project LAB : Computational Intelligence and smart Motion Robotic Lab		<ul style="list-style-type: none"> • Autonomous Robots : • Husky UGV • Turtle Bot • Microprocessor/ Sensors/ Servo motors • Pressure plate • IR sensors camera • 3D Printer • Graphics Processing Units (GPUs) 01 No
3.	Computer Vision and Image Processing Lab	Real time simulation of the environment to navigate. Large size dataset for the training	<ul style="list-style-type: none"> • Graphics Processing Units (GPUs) 05 No
4.	AI Research and Innovation Laboratory		Project submitted with FIST under Consideration



3. Projects Completed/On Going/sponsored projects in 2022-2023:

S. No.	Title	Start Date & Duration	Funding Agency	PI Name & Co-PI (if any)	Project cost (in INR)	Whether Ongoing or completed
1.	"An intelligent network analyzer cum patcher for advanced security hardening of the organizational network". (Prof. Geeta Sikka)	16-09-2021	DST	PI: Dr Urvashi Co PIs: Dr Lalit Kr Awasthi Dr Harsh K Verma	Rs.72,79,420/-	Ongoing
2.	Travel Risk Information in a Pandemic using Artificial Intelligence Development (Dr. Shelly Sachdeva)	Starting Jan 2021	DST funded project TRIP AID	As a Co-PI (in collaboration with DTU)	Rs 12.5 Lakhs	Completed
3.	"Mathematical Model for Multidimensional Multilayer Networks Using Quantum Mechanics". (Dr. Anurag Singh)	Feb 20, 2020 (For 3 years)	MATRICES, SERB, DST Project		Rs 6,60,000/-	Ongoing
4.	Start-Up Grant (Dr. Anurag Singh)		Technology Innovation Hub, IIT Patna		Rs 10 lakhs	Ongoing
5.	Open-source unmanned aerial vehicle simulation (Dr. Karan Verma)	March 2023 (For 2 years)	DST/INT/IUSSTF/ 2023/19455	Prof. Rao Vemuri	Rs. 27 lakhs	Ongoing
6.	Computational Techniques based investigation for Diabetic foot ulcers complications (CISMR) (Dr. Chandra Prakash)	March 2023 (For 3 years)	DST- Science and Engineering Research Board (SERB) under EMEQ scheme, Government of India	-	Rs 40 Lakhs	Ongoing

4. Consultancy services completed/ongoing in 2022-2023:

S. No.	Title	Year	Agency	Coordinator/ Dept.	Consultancy cost	Status (Completed/ ongoing)
1.	Real-Time Human Surveillance	28 March, 2023 (For 1 Year)	Imagenous Engineering Private Limited	Dr. Rishav Singh		Completed


5. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Organized in 2022-2023:

S. No.	Workshop/Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Coordinator/ Convener/ Chairman
1.	ISEA II sponsored 5 day online Short Term Course	"Recent Trends in security and Privacy"	NIT Jalandhar	November 07-11, 2022	CONVENER Prof Harsh Verma Dr Renu Dhir CORDINATORS Dr Geeta Sikka Dr Rajneesh Rani Dr Krishna Pal Sharma
2.	ISEA II sponsored 5 day online Short Term Course on	"Cyber security: Managing Risks in Information Age"	NIT Jalandhar	October 2022	CORDINATORS Dr Geeta Sikka Dr Samayveer Singh Dr Aruna Malik
3.	International Conference on Big Data Analytics.	Big Data Analytics in Astronomy, Science and Engineering.	NIT DELHI	5-7 Dec., 2022	Dr. Shelly Sachdeva, Dr. Chandra Prakash and Dr. Rishav Singh
4.	Faculty Development Programme	Information System Frontiers	AICTE ATAL	26 Sep.- 7 Oct, 2022	Dr. Shelly Sachdeva and Dr. Chandra Prakash
5.	Faculty Development Programme	Artificial Intelligence Techniques for Healthcare Application (SERB, Sponsoring Agency)	NIT Delhi	11,16 Jan. 2023	Dr. Sachin Singh, Dr. Karan Verma
6.	Research Seminar	Distributed and Federated Machine Learning	IIIT-Delhi (Venue: NIT Delhi)	21 April 2022	Dr. Chandra Prakash
7.	Research Seminar	Time-frequency and Geometric Analysis of Task-dependent Learning in Raw Waveform based Acoustic Models	IIIT-Delhi (Venue: NIT Delhi)	21 April 2022	Dr. Chandra Prakash
8.	Seminar	Intellectual Property Rights (IPR) Awareness under	National Intellectual Property Awareness Mission (NIPAM) (Venue: NIT Delhi)	05, May 2022	Dr. Chandra Prakash



6. Expert Lecture Delivered by Faculty in 2022–2023:

S. No.	Title of the Expert Talk	Name of the Event	Organized By	Duration	Faculty Delivered Expert Talk
1.	Blockchain Technology and its Applications (BTA'22)	One Week Online FDP, "Blockchain and its Applications", organized by the Department of Computer Science and Engineering and IT	Jaypee Institute of Information Technology, Noida	25th July–30th July 2022	Dr. Shelly Sachdeva
2.	Database Migration Tools: From RDB to NoSQL Database	Conference Paper The 21st International Conference on Intelligent Software Methodologies, Tools, and Technique, SOMET 2022	Japan	20 Sep –22 Sep 2022	Dr. Shelly Sachdeva
3.	Healthcare Trends and Challenges using Blockchain Technology"	Invited Speaker at AICTE Training and Learning FDP on 'AI and Data Analytics for Healthcare'	IGDTU	20 Feb – 3 Mar 2023	Dr. Shelly Sachdeva
4.	Federated Learning	GH Rasoni Lecture series	G. H. Rasoni Institute of Engineering and Technology (GHRIET) Pune.	Aug 12, 2022	Dr. Anurag Singh
5.	How to write Research Proposal in emerging area of Engineering & Technology	Expert talk	G L Bajaj Institute of Technology & Management, Greater Noida Delhi.	Sept. 10, 2022	Dr. Anurag Singh
6.	Federated Learning	ECE department lecture series	SRM University, AP	Sept. 16, 2022	Dr. Anurag Singh
7.	A research paper: A Biased Random Walk Scale-Free Network Growth Model with Tunable Clustering	11th International Conference on Complex Networks and their Applications	11th International Conference Palermo, Italy	Nov. 8–10, 2022	Dr. Anurag Singh
8.	A research paper, "Mean Hitting Time of Q-subdivision Complex Networks" is presented	11th International Conference on Complex Networks and their Applications	11th International Conference Palermo, Italy	Nov. 8–10, 2022	Dr. Anurag Singh
9.	A research paper, "A Community Detection Algorithm Using Random Walk"	11th International Conference on Computational Data and Social Networks	Tampa, Florida (virtual)		Dr. Anurag Singh
10.	Delivered a talk on, "Optimization Techniques"	Expert talk	Lovely University	Nov. 15, 2022	Dr. Anurag Singh



11.	Federated Learning	ATAL Faculty Development	CDAC Noida	Dec. 3, 2022	Dr. Anurag Singh
12.	Delivered a talk on, "in an one day symposium in mathematics"	National Mathematics Day (Ramanujan's birthday)	School of Physical Sciences (SPS), JNU Delhi	Dec. 22, 2022	Dr. Anurag Singh
13.	Delivered a presentation on, "Recent researches on Complex Networks"	Research Center on "Data, Complex Networks & Cybersecurity Sciences" of the Universidad Rey Juan Carlos, Madrid, Spain	Spain	Jan. 24, 2023	Dr. Anurag Singh
14.	Delivered talk on Optimization techniques in Machine Learning	SERB sponsored Seminar on ARTIFICIAL INTELLIGENCE TECHNIQUES FOR HEALTHCARE APPLICATIONS (AITHA-2023) during 22nd to 27th Feb. 2023	SERB	Feb. 25, 2023.	Dr. Anurag Singh
15.	Delivered talk on Federated Learning	Seminar on ARTIFICIAL INTELLIGENCE TECHNIQUES FOR HEALTHCARE APPLICATIONS (AITHA-2023) during 22nd to 27th Feb. 2023	SERB	Feb. 26, 2023.	Dr. Anurag Singh
16.	Cloud Computing	FDP on Emerging trends in Data Analytics, Machine Learning, Cloud Computing and Internet of Things		23 May - 27 May 2022	Dr. Karan Verma
17.	5G Security	FDP on IoT: Challenges & Applications	Sharda University, Greater Noida, UP	20 June - 24 June, 2022	Dr. Karan Verma
18.	IoT Applications	FDP on Wireless Sensor Networks and IoT	DTU	24 Dec. - 30 Dec. 2022	Dr. Karan Verma
19.	Federated Learning	ATAL Faculty Development	Manipal University, Jaipur	30-01 Jan. 2023	Dr. Karan Verma
20.	6G upcoming Wireless Communication	ATAL Faculty Development	Govt. Women college, Ajmer	15-17 Feb. 2023	Dr. Karan Verma
21.	CNN Learning and Image Processing	FDP on Deep Learning and Computer vision	Manipal University, Jaipur	03-07 January 2022	Dr. Chandra Prakash
22.	CNN and Computer vision	AICTE ISTE Sponsored one week Induction/ Refresher program on "Artificial intelligence and Deep Learning"	Rajasthan Institute of Engineering and Technology	10 Jan 2022	Dr. Chandra Prakash



23.	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	12 Jan 2022	Dr. Chandra Prakash
24.	Learning in human way: Deep Reinforcement Learning	Applied AI and Natural Language Processing,	Bennett University, Greater Noida	10 March 2022	Dr. Chandra Prakash
25.	Deep Reinforcement Learning	LPU Punjab	LPU Punjab	24 March 2022	Dr. Chandra Prakash
26.	Transfer Learning and Computer vision	AICTE-sponsored 5- Day FDP on "COMPUTER VISION & IMAGE PROCESSING"	J.C. Bose University of Science & Technology, YMCA, Faridabad	3 June 2022	Dr. Chandra Prakash
27.	Applications of Transfer Learning	Research Seminar		10 June 2022	Dr. Chandra Prakash
28.	Machine learning for Data Analytics in One week,	FDP on ML/DL for Data Science and Analytics using Python	NIT Jalandhar	Feb 2023	Dr. Chandra Prakash
29.	Deep Learning in Image Processing	Two week FDP on Deep Learning in Image Processing and Pattern Recognition	Central University of Rajasthan	Mar 2023	Dr. Chandra Prakash
30.	Computational Techniques for Classification of Brain Hemorrhage using CT Scans,	Two-week online FDP on Medical Image Processing	E & ICT sponsored, NIT Patna	22-Aug-2022 to 2-Sep-2022)	Dr. Chandra Prakash
31.	Federated Learning in Healthcare	Federated Learning in Healthcare	SRM Institute of Science and Technology, Chennai	6-11 June 2022	Dr. Rishav Singh


7. Journal Publications by the Departmental Faculty in 2022–2023:

S. No.	Name of the Authors (Departmental faculty name to be highlighted in bold)	Title of the paper	Name of the Journal	Volume	Page number	Month and Year of Publication
1.	N Agarwal, G Sikka, LK Awasthi	WGSDMM+ GA: A genetic algorithm-based service clustering methodology assimilating dirichlet multinomial mixture model with word embedding	Future Generation Computer Systems Elsevier	145	Pages 254–266	August 2023
2.	Urvashi, G. Sikka, L. K. Awasthi and B. Bhargava	Quantitative evaluation of extensive vulnerability set using cost benefit analysis	IEEE Transactions on Dependable and Secure Computing		1 – 11	06 March 2023
3.	Pushpendra Kumar Rajput, Geeta Sikka	Multi-agent architecture approach for self-healing systems: Run-time recovery with case-based reasoning	Concurrency and Computation: Practice and Experience	35	e7442	2023/1/10
4.	Samayveer Singh, Aridaman Singh Nandan, Geeta Sikka, Aruna Malik, and Pradeep Kumar Singh	Genetic Algorithm based Data Controlling Method using IoT enabled WSN in Power Grid	Soft Computing (Springer) SCI IF:3.6	--	--	2022
5.	Samayveer Singh, Aridaman Singh Nandan, Geeta Sikka, Aruna Malik, and Ankit Vidyarthi	A secure energy-efficient Routing protocol for Disease Data Transmission using IoMT	Computers and Electrical Engineering (Elsevier) SCI IF:4.15	101	108113	2022
6.	Raj Mohan Singh, Lalit Kumar Awasthi, Geeta Sikka	Towards Metaheuristic Scheduling Techniques in Cloud and Fog: An Extensive Taxonomic Review (Online)	ACM Computing Surveys (SCI IF=14.324)	55		2022
7.	Neha Agarwal, Geeta Sikka, and Lalit Kumar Awasthi	A systematic literature review on web service clustering approaches to enhance service discovery, selection and recommendation; Computer Science Review 45:100498, DOI: 10.1016/j.cosrev.2022.100498	Computer Science Review	45	100498	August 2022
8.	V. Pawar, S. Sachdeva	CovidBChain: Framework for Access-control, Authentication, and Integrity of Covid-19 Data,	Concurrency and Computation: Practice and Experience	34 (28)	1–24	19-Oct-2022
9.	V. Puri, P. Kaur, and S. Sachdeva	(k, m, t)-Anonymity: Enhanced Privacy for Transactional Data	Concurrency and Computation: Practice and Experience 2022,	34(18)	1–18	10 April 2022



10.	Shailee Bhatia, Shelly Sachdeva & Puneet Goswami	Air pollution prediction and hotspot detection using machine learning"	Journal of Statistics and Management Systems.	25(7)	1553-1564	7 Dec 2022
11.	Lokesh Jain, Rahul Katarya, and Shelly Sachdeva	Opinion Leaders for Information Diffusion Using Graph Neural Network in Online Social Networks.	ACM Transaction of Web.	17(2)	1-37	March 2023
12.	Vijayant Pawar, Shelly Sachdeva	ParallelChain: A Scalable Healthcare Framework with Low Energy Consumption Using Blockchain	International Transaction on Operational Research	-	1-29	14 March 2023
13.	Jain, Eeti, and Dr. Anurag Singh	Trust-and reputation-based opinion dynamics modelling over temporal networks. Journal of Complex Networks 10, no. 4 (2022): cnac019.	Journal of Complex Networks 10	10	Cnac 19	2022
14.	Mohit Sajwan, Ajay K. Sharma and Karan Verma,	IPRA: Iterative Parent-Based Routing Algorithm for Wireless Sensor Networks", Wireless Personal Communications, doi.org/10.1007/s11277-022-09515-2.		124	Pages 3321-3353	2022
15.	K Verma, P Kumar, A K Sharma, A Kumar	A Single-Point Control System for Consumer Devices Using Edge-Fog Computing, taylorfrancis, doi: 10.1201/9781003188230 113-121, 2023	Tajlor francis	-	-	2023
16.	Gunjan, Sharma, A.K. & Verma, K.	GA-UCR Genetic Algorithm Based Unequal Clustering and Routing Protocol for Wireless Sensor Networks.	Wireless Pen Commun	128	537-558,	2023
17.	Dr. Karan Verma, Dr. Ajay k Sharma, Dr. Ashok Kumar	Short and Long Answer Question using Deep Learning	IEEE Transaction on Neural Networks and Learning System	Accepted		2023
18.	D Sethi, S Bharti, C. Prakash	Multi-Feature Gait Analysis Approach using Deep Learning in Constraint-free Environment" for publication	Expert Systems	Online		2023
19.	Yogendra Swaroop Dwivedi, Rishav Singh, Anuj K. Sharma, Ajay Kumar Sharma	Enhancing the performance of photonic sensor using machine learning approach	IEEE Sensors Journal	23, 3	2320-2327	2023

**8. Conference Papers Presented by the Departmental Faculty in 2022–2023:**

S. No.	Name of the Authors (Departmental faculty name to be highlighted in bold)	Title of the paper	Name of the Conference	Place and Country where the Conference Held	Organizer of the Conference	Date of Presentation
1.	N. Bansal, S. Sachdeva, and L. Awasthi	"A workload-driven approach for automatic schema generation for document stores". https://doi.org/10.1145/3570991.3570996	The 6th Joint International Conference on Data Science & Management of Data (10th ACM IKDD CODS and 28th COMAD) (CODS-COMAD '23)	IIT Bombay, India	Association for Computing Machinery, New York, NY, USA,,	Jan., 2023
2.	N. Bansal, S. Sachdeva, L. Awasthi	Database Migration Tools: From RDB to NoSQL Database Volume 355, Pages: 563–570. DOI: https://doi.org/10.3233/FAIA220285	The 21st International Conference on Intelligent Software Methodologies, Tools, and Technique.	Kitakyushu, Japan	University of Aizu, i-SOMET	20 Sep., 2022
3.	Kumar, Pankaj, Anurag Singh, Ajay K. Sharma, and Hocine Cherifi	Mean Hitting Time of Q-subdivision Complex Networks. Volume 2 pp.359–370	Springer International Publishing 2023		Eleventh International Conference on Complex Networks and their Applications: COMPLEX NETWORKS 2022	2022
4.	Vashishtha, Rajesh, Anurag Singh, and Hocine Cherifi	A Biased Random Walk Scale-Free Network Growth Model with Tunable Clustering. Volume 2 pp.123–134, 2023.	Springer International Publishing 2023		Eleventh International Conference on Complex Networks and their Applications: COMPLEX NETWORKS 2022	2022



5.	Ajay K Sharma, Dr. Karan Verma. Dr. Ashok Kumar	Long Range Wireless IoTs	International Conference of APNIC 2023		Delhi	20-21 March, 2023
6.	V. Vats, R. Saikumar and C. Prakash	Identification of knee angle trajectory in Indian outfit using Pose Analysis	International Conference on Artificial Intelligence and Speech Technology IEEE (BEST PAPER).	IGDTUW, 9-10 Dec, 2022.	IGDTUW	9-10 Dec, 2022.
7.	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), 2022.			2022
8.	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), 2022.			2022
9.	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), (BEST PAPER)	National Institute of Technology Uttara- khand	National Institute of Technology Uttara- khand	2022
10.	V. Vats, R. Saikumar and C. Prakash	Identification of knee angle trajectory in Indian outfit using Pose Analysis,	International Conference on Artificial Intelligence and Speech Technology (BEST PAPER)	Delhi	IGDTUW	9-10 Dec, 2022. IEEE

9. Book Chapters Published by the Departmental Faculty in 2022-2023:

S. No.	Name of the Authors (Departmental faculty name to be highlighted in bold)	Title of the Book Chapter	Name/ Details of the Book where the Chapter is Published	Volume	Page number	Publisher
1.	Soni, K., Sachdeva, S., Goyal, A., Gupta, A., Bose, D., & Bhalla, S. (2023, March). Saral Anuyojan	An Interactive Querying Interface for HER.	In Big Data Analytics in Astronomy, Science, and Engineering: 10th International Conference on Big Data Analytics, BDA 2022, Aizu, Japan, December 5-7, 2022, Proceedings.		pp. 163-176	Springer Nature Switzerland.



2.	Bhatia, S., Sachdeva, S., & Goswami, P. (2023, March).	A Scientific Perspective of Agnihotra to Curtail Pollutants in the Air	In Big Data Analytics in Astronomy, Science, and Engineering: 10th International Conference on Big Data Analytics, BDA 2022, Aizu, Japan, December 5–7, 2022, Proceedings		pp. 211–219	Springer Nature Switzerland.
3.	Dr. Karan Verma, Prashant Kumar, Ajay K. Sharma and Ashok Kumar	A Single-Point Control System for Consumer Devices Using Edge-Fog Computing	Fog Computing Concepts, Frameworks and Applications	9781003188230	9	Taylor & Francis
4.	Verma, K., Kumar, A., de Sales, L.M., Kumar, S., Sharma, A.K., Singh, N.	Enabling Real-Time Vehicle-to-Vehicle (V2V) Communication for Intelligent Transportation System (ITS).	Optical and Wireless Technologies, Lecture Notes in Electrical Engineering, Springer, Singapore. https://doi.org/10.1007/978-981-19-1645-8_22 , 2023.	Vol. 892		Springer, Singapore.
5.	Sharma, A., Soni, M., Prakash C., Raj, G., Choudhary, A., Agrawal, A.P	A Pilot Study for Devanagari Script Character Recognition Using Deep Learning Models	Machine Intelligence and Data Science Applications. Lecture Notes on Data Engineering and Communications Technologies, Springer, Singapore. https://doi.org/10.1007/978-981-19-2347-0_46	Vol. 132		Springer, Singapore
6.	Sethi, D., Prakash, C., Bharti, S. (2022).	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, Cham.



10. Book Published by the Faculty in 2022–2023:

S. No.	Name of the Authors (Departmental faculty name to be highlighted in bold)	Title of the Book	Name/ Details of the Book	Volume	Page number	Publisher
1	Sachdeva, S., Watanobe, Y., & Bhalla, S. (Eds.). (2023).	Big-Data-Analytics in Astronomy, Science, and Engineering.	Big-Data-Analytics in Astronomy, Science, and Engineering: 10th International Conference on Big Data Analytics, BDA 2022, Virtual Event, December 5–7, 2022, Proceedings (DOI: https://doi.org/10.1007/978-3-031-28350-5)	Vol. 13830		Springer Nature
2	Manish Tiwari, Yaseera Ismail, Karan Verma, Amit Kumar Garg	Optical and Wireless Technologies	Optical and Wireless Technologies	1876–1100		Springer Singapore

11. Student's Thesis/ Project Guidance in 2022–2023:

PhD Students: NA

M. Tech Students:

S. No.	Roll No.	Name of Student	Date of Defense	Joint Supervision (if any)	Title of Dissertation	Name of Supervisor
1.	202211001	Aditi Sagar	May 2022		COVID-19 Severity Classification on Chest X-ray Images	Dr. Karan Verma
2.	202211002	Amit kumar	May 2022		Federated Learning in IoT Networks	Dr. Anurag Singh
3.	202211003	Anil kumar patel	May 2022		Cloud System for Interoperable Healthcare	Dr. Shelly Sachdeva
4.	202211004	Antarleen Pal	May 2022		Knee Angle Prediction Models For Rehabilitation Using Machine Learning	Dr. Chandra Prakash
5.	202211005	Aravind Ramagiri	May 2022		Navigation in Databases	Dr. Shelly Sachdeva
6.	202211007	Ayushi Bhujade	May 2022		Anamoly Detection in smart grid	Dr. Rishav Singh



7.	202211009	Irena Tigga	May 2022		Machine Learning Approach for Diabetic Foot Ulcer	Dr. Chandra Prakash
8.	202211010	Kumar Satyam Sagar	May 2022	Dr. Chandra Prakash	Indoor Air Pollution Monitoring and Reduction System	Dr. Shelly Sachdeva
9.	202211011	Mansi Gupta	May 2022		Classification Of COVID-19 Patients With Their Severity Using Chest CT Scans	Dr. Karan Verma
10.	202211012	Rohan Rawat	May 2022		Cattle recognition in an unconstrained environment	Dr. Rishav Singh

B. Tech Students:

S. No.	Roll No.	Name of Student	Date of Defense	Topic of Project	Name of Supervisor
1.	181210001	ABHINAV SINGH	4 May 2022	Cloud Based Interoperable Healthcare Data Exchange System	Dr. Shelly Sachdeva
2.	181210002	ABHISHEK KUMAR SUMAN	4 May 2022	User Interface for NoSQL	Dr. Shelly Sachdeva
3.	181210003	ABHISHEK LUTHRA	4 May 2022	Recommendation System using Face Emotion Detection	Dr. Anurag Singh
4.	181210004	ACHANTA PAVAN SANTHOSH MANIDEEP	4 May 2022	Crop Yield Prediction Using Machine Learning	Dr. Karan Verma
5.	181210005	AHAMBARISH SAIKIA	4 May 2022	Fruit Classification and Plant Disease Identification Using One Shot Learning	Dr. Chandra Prakash
6.	181210006	AKHILESH NANDWAL	4 May 2022	Recommendation System using Face Emotion Detection	Dr. Anurag Singh
7.	181210007	AKI SRI CHARAN	4 May 2022	Machine Learning	Dr. Karan Verma
8.	181210008	AMRIT RAJ	4 May 2022	Diagnosis of Alzheimer's Disease	Dr. Rishav Singh
9.	181210009	ANAND PANDEY	4 May 2022	Alertness Detection	Dr. Anurag Singh
10.	181210010	ANAND RAVIDAS	4 May 2022	COVID-19 IMPACT ON HEART	Dr. Rishav Singh
11.	181210011	ANKIT KUMAR ROUNIYAR	4 May 2022	Diagnosis of Alzheimer's Disease	Dr. Rishav Singh
12.	181210012	ASHISH AGGARWAL	4 May 2022	Image in Painting	Dr. Rishav Singh
13.	181210013	ASHWIN SHIV	4 May 2022	Face Recognition Biometrics System	Dr. Anurag Singh
14.	181210014	AYUSH MAHAJAN	4 May 2022	Yoga Pose Analyser	Dr. Rishav Singh
15.	181210015	BALWANT	4 May 2022	Image captioning in Hindi	Dr. Chandra Prakash
16.	181210016	BEETA SAMAD	4 May 2022	Modern IMS System with IoT Features	Dr. Chandra Prakash



17.	181210017	CHAKSHU GAUTAM	4 May 2022	Interoperable System for Covid-19	Dr. Shelly Sachdeva
18.	181210018	DASARI RAINY	4 May 2022	Crop Yield Prediction Using Machine Learning	Dr. Karan Verma
19.	181210019	DEEPIKA KUMARI	4 May 2022	Expressive Performance Attributes of Multi-Instruments	Dr. Karan Verma
20.	181210020	DHARAM SINGH MEENA	4 May 2022	Image captioning in Hindi	Dr. Chandra Prakash
21.	181210021	DIKSHA GOYAL	4 May 2022	Smart City IoT Air Monitoring System	Dr. Shelly Sachdeva
22.	181210022	MS. DIMPAL KATANIYA	4 May 2022	Cloud Based Interoperable Healthcare Data Exchange System	Dr. Shelly Sachdeva
23.	181210023	HEMANT MALAKAR	4 May 2022	Face Emotion Detection And Song Recommendation System	Dr. Karan Verma
24.	181210024	JAPMAN SINGH MONGA	4 May 2022	Fruit Classification and Plant Disease Identification Using One Shot Learning	Dr. Chandra Prakash
25.	181210025	JERIN JOSEPH	4 May 2022	Music Generation	Dr. Anurag Singh
26.	181210026	KARTIK KUMAR	4 May 2022	Human Pose Estimation	Dr. Rishav Singh
27.	181210027	KAUSTUBH GARG	4 May 2022	Alertness Detection	Dr. Anurag Singh
28.	181210028	MANISH MEENA	4 May 2022	Face Emotion Detection And Song Recommendation System	Dr. Karan Verma
29.	181210029	MAYANK	4 May 2022	Human Pose Estimation	Dr. Rishav Singh
30.	181210030	MAYANK BHANDARI	4 May 2022	Music Generation	Dr. Anurag Singh
31.	181210031	MOTUPALLI VISHISTA	4 May 2022	Expressive Performance Attributes of Multi-Instruments	Dr. Karan Verma
32.	181210032	NAMRATA PRASAD	4 May 2022	Smart IOT-Based Human Intrusion Detection System	Dr. Rishav Singh
33.	181210033	NIKITA UIKEY	4 May 2022	Interoperable System for Covid-19	Dr. Shelly Sachdeva
34.	181210034	POKALA GANESH REDDY	4 May 2022	Machine Learning	Dr. Karan Verma
35.	181210035	PRASHANT CHOUHAN	4 May 2022	Air Quality Monitoring System	Dr. Shelly Sachdeva
36.	181210036	PRASUN VERMA	4 May 2022	Smart City IoT Air Monitoring System	Dr. Shelly Sachdeva
37.	181210038	RAGHAV SHUKLA	4 May 2022	Image in Painting	Dr. Rishav Singh
38.	181210039	RAHUL DEV KUREEL	4 May 2022	Fingerprinting images with Neural Networks	Dr. Chandra Prakash
39.	181210041	RISHIKESH ANAND	4 May 2022	Fingerprinting images with Neural Networks	Dr. Chandra Prakash
40.	181210042	RITIKA SINGH	4 May 2022	Smart IOT-Based Human Intrusion Detection System	Dr. Rishav Singh
41.	181210043	ROHIT BYAS SHERWAN	4 May 2022	Image captioning in Hindi	Dr. Chandra Prakash



42.	181210044	ROHIT KUMAR	4 May 2022	2D Virtual Try-On using Image Processing	Dr. Anurag Singh
43.	181210045	SAKSHAM MITTAL	4 May 2022	Yoga Pose Analyser	Dr. Rishav Singh
44.	181210046	SAMYAK PRAJAPATI	4 May 2022	Modern IMS System with IoT Features	Dr. Chandra Prakash
45.	181210047	SANMESH SUNIL KAKADE	4 May 2022	Modern IMS System with IoT Features	Dr. Chandra Prakash
46.	181210048	SEEMANT SHEKHAR	4 May 2022	User Interface for NoSQL	Dr. Shelly Sachdeva
47.	181210049	SHAGUN	4 May 2022	Detection and Classification of Intracranial Brain Hemorrhage using CT Scans	Dr. Chandra Prakash
48.	181210050	SHASHI RAJ	4 May 2022	COVID-19 IMPACT ON HEART	Dr. Rishav Singh
49.	181210051	SHIVAM JOSHI	4 May 2022	Image in Painting	Dr. Rishav Singh
50.	181210052	SHUBHAM AGGARWAL	4 May 2022	Air Quality Monitoring System	Dr. Shelly Sachdeva
51.	181210053	SUMITRA SIVAKUMAR	4 May 2022	Air Quality Monitoring System	Dr. Shelly Sachdeva
52.	181210055	UTAM KUMAR	4 May 2022	Railway Scheduling and Movement Planning	Dr. Chandra Prakash
53.	181210056	VARTIKA CHATURVEDI	4 May 2022	Fruit Classification and Plant Disease Identification Using One Shot Learning	Dr. Chandra Prakash
54.	181210057	VENKATA SAI AKHIL PENUGONDA	4 May 2022	Machine Learning	Dr. Karan Verma
55.	181210058	VIKAS PALIWAL	4 May 2022	Trend prediction on Twitter	Dr. Karan Verma
56.	181210059	VISHAL NAGARGOJE	4 May 2022	Trend prediction on Twitter	Dr. Karan Verma
57.	181210060	VIVEK KUMAR	4 May 2022	User Interface for NoSQL	Dr. Shelly Sachdeva
58.	181210061	YANDRA AVINASH	4 May 2022	Crop Yield Prediction Using Machine Learning	Dr. Karan Verma
59.	181210062	YASH CHAUDHARI	4 May 2022	Interoperable System for Covid-19	Dr. Shelly Sachdeva
60.	181210063	YOGESH	4 May 2022	Recommendation System using Face Emotion Detection	Dr. Anurag Singh
61.	181210064	YUVRAJ SINGH CHAMPAWAT	4 May 2022	Modern IMS System with IoT Features	Dr. Chandra Prakash
62.	181210065	ANKIT ANAY KUMAR GHOSH	4 May 2022	Railway Scheduling and Movement Planning	Dr. Chandra Prakash
63.	181220031	HIMANSHU SRIVASTAVA	4 May 2022	2D Virtual Try-On using Image Processing	Dr. Anurag Singh

12. Any other significant achievement by department for annual report in 2022-2023:

1. DST International Travel Support (ITS), - USA Washington D.C – Nov. 2022.
2. Elsevier – [ADHOC] 2022 Best Paper

Awards in the Journal – 1000 USD.

3. PATENT Granted to Dr. Chandra Prakash ; The smart gait analyzer, Journal of the Indian Patent Office, Patent number 417146, 09-Jan-2023.



Department of Electrical Engineering

1. List of Faculty (as on 31 March 2023):

S. No.	Name of Faculty	Designation	Highest Qualification
1.	Dr. Obbu Chandra Sekhar	HoD, Associate Professor	Ph.D.
2.	Dr. Vivek Shrivastava	Associate Professor	Ph.D.
3.	Dr. Pankaj Mukhija	Assistant Professor	Ph.D.
4.	Dr. Anshul Agrawal	Assistant Professor	Ph.D.
5.	Dr. Anmol Ratan Saxena	Assistant Professor	Ph.D.
6.	Dr. Tirupathiraju Kanumuri	Assistant Professor	Ph.D.
7.	Dr. Sachin Singh	Assistant Professor	Ph.D.
8.	Dr. Amit k. Singh	Assistant Professor	Ph.D.
9.	Dr. Manoj Kumawat	Assistant Professor	Ph.D.

2. Projects Completed/On Going/sponsored projects in 2022-2023:

S. No.	Title	Start Date & Duration	Funding Agency	PI Name & Co-PI (if any)	Project cost	Whether Ongoing or completed
1.	Development of Non-contact type method for heart vibration parameters estimation	July 2019, 2 Years	DST DAAD	SACHIN SINGH	245000/-	ONGOING
2.	Cross layer optimization with QOS for NGN	20th August, 2019	TEQIP-III	SANDIP VIJAY, SACHIN SINGH	300000/-	ONGOING

3. Consultancy services completed/ongoingin 2022-2023:

S. No.	Title	Year	Agency	Coordinator /Dept.	Consultancy cost
1.	Vetting on the Project Drawings for UP Jal Jeevan Mission Project	2022-23	GVPR ENGINEERS LIMITED	Dr. Vivek Shrivastava/ Electrical Engineering	2.36 Lakhs

4. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Organized in 2022-2023:

S. No.	Workshop/Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Coordinator/ Convener/ Chairman
1.	International Conference	4th International Conference on Communication and Intelligent Systems (ICCIS 2022)	NIT Delhi	19th -20th, December 2022	Dr. Vivek Shrivastava Dr. Manoj Kumawat



2.	International	IEEE 10th Power India International Conference 2022 (PIICON 2022)	NIT Delhi	25th-27th November 2022	Dr. Vivek Shrivastava, Dr. A. Ratna Saxena, Dr. Anshul Agrawal Dr. Manoj Kumawat
3.	International Conference	Congress on Research in Engineering, Science and Management (CRESM 2022)	Padre Conceicao College of Engineering, Verna, Goa, India	10th-12th, March 2022	Dr. Vivek Shrivastava
4.	International Conference	7th International Conference on Advanced Production & Industrial Engineering (ICAPIE-2022)	NIT Delhi & DTU	June 11th-12th, 2022	Dr. Anshul Agrawal
5.	Conference	3rd Electric Power and Renewable Energy Conference (EPREC-2022)	NIT Jamshedpur	27th-29th May 2022	Dr. Anshul Agarwal
6.	FDP	Reliability Studies For Engineering Applications	AICTE Training and Learning (ATAL) Academy	13th-24th February 2023	Dr. Vivek Shrivastava Dr. Anshul Agrawal Dr. Manoj Kumawat
7.	Workshop	Design Test and validate Power Electronic s E-mobility Renewable Microgrid using Typhoon HIL	Typhoon HIL Quarbz Info	27th Jun 2022- 2nd July 2022	Dr. Vivek Shrivastava Dr. Manoj Kumawat
8.	Workshop	Wind Power Based Distributed Generation	GIAN IIT Kharagpur	29th April- 04th May 2022	Dr. Vivek Shrivastava
9.	Seminars	Artificial Intelligence Techniques for Healthcare Applications (AITHA-2023)	NIT Delhi	February 22-27, 2023	Sachin Singh
10.	Short-term Course	Emerging Trends in Power and Energy Systems (ETPES-2022)	NIT Delhi	26/07/2022 to 31/07/2022	Dr. Pankaj Mukhija Dr. Anshul Agrawal Dr. Amit k. Singh
11.	Lecture Prof D. P. Kothari	Energy and Environmental Problems facing the Third World and their Probable Solutions for their Sustainable Development and Poverty Alleviation	NIT Delhi	16-03-22	Dr. Vivek Shrivastava



12.	Lecture Prof D. P. Kothari	Evolution of Power Systems- Past ,Present and Future	NIT Delhi Shrivastava	15-03-22	Dr. Vivek
13.	Lecture Prof (Dr.) Saad Mekhilef	PV Technology's current status and future prospects	PES-IAS IEEE Delhi Chapter	22-09-22	Dr. Vivek Shrivastava

5. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Attended in 2022-2023:

S. No.	Workshop/Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Faculty Attended by
1.	Workshop	IEEE Chapter Chairs Workshop	IEEE PES R10 Singapore	Oct 31-Nov 01, 2022	Dr. Vivek Shrivastava
2.	International Conference	2022 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES)	IEEE & MNIT Jaipur	Dec 14-17, 2022	Dr. Vivek Shrivastava
3.	International Conference	22nd National Power Systems Conference (NPSC) 2022	IEEE & IIT Delhi	Dec 17-19, 2022	Dr. Vivek Shrivastava
4.	International Conference	International Conference of Emerging Technologies And Innovations	NIET Greater Noida Shrivastava	March 02, 2023	Dr. Vivek
5.	Seminar	Vimarsh 2022	North campus, University of Delhi	Nov 11, 2022	Dr. Vivek Shrivastava
6.	Seminars	"Artificial Intelligence Techniques for Healthcare Applications (AITHA-2023)" during February 22-27, 2023	NIT Delhi	6 days	Sachin Singh

6. Expert Lecture Delivered by Departmental Faculty in 2022-2023:

S. No.	Title of the Expert Talk	Name of the Event	Organized By	Duration	Faculty Delivered Expert Talk
1	Recent Trends in Power Electronics Applications to Renewable Energy	one week Faculty Development Program on "Recent Trends in Power Electronics Applications to Renewable Energy, Smart Grid, and Electric Vehicles	Department of Electrical and Electronics Engineering, B. M. S. College of Engineering, Bangalore	March 28, 2023	Dr. Anshul Agarwal
2	Power Electronic Interfaces for Green Energy Fed Residential DC Nano-grids	Microgrid: Issues, Challenges, and its Mitigation (25th Nov.- 29th Nov. 2022)	NIT Uttarakhand	One Week	Dr. Anmol Ratna Saxena



7. Journal Publications by the Departmental Faculty in 2022–2023:

S. No.	Name of the Authors (Departmental faculty name to be highlighted in bold)	Title of the paper	Name of the Journal	Volume	Page number	Month and Year of Publication
1.	U Agarwal, NS Rathore, N Jain, M Kumawat,	Adaptable pathway to net zero carbon: A case study for Techno-Economic & Environmental Assessment of Rooftop Solar PV System in University Campus	Energy Reports	09	3482–3492	March 2023
2.	U Agarwal, NS Rathore, N Jain, M Kumawat	A Review on India's Solar Energy Prospective: Potential, Environmental Protection and Policies Framework	J. Inst. Eng. India Ser. A	103	1– 15	2022
3.	U Agarwal, N Jain, M Kumawat	Distribution Network Automation Considering Hidden Failure and Components Aging	J. ALGEB. STATI	13	359–381	2022
4.	U Agarwal, N Jain, M Kumawat	Reliability enhancement of distribution networks with remote-controlled switches considering load growth under the effects of hidden failures and component aging	AIMS Elect. Eng.	06	247–264	2022
5.	Shailza Kanwar, Lalit Kumar Awasthi, Vivek Shrivastava	Candidate project selection in cross project defect prediction using hybrid method	Expert Systems with Applications	218	119625	Jan 2023
6.	Shubham Kumar, Anshul Agarwal and Tirupathiraju Kanumuri	Power Quality Improvement of a Fuel Cell-Powered Filterless Distributed Generation System Using Sinusoidal Pulse Width Modulation	Indian Journal of Pure & Applied Physics (IJPAP)	Vol. 60	754–762	September 2022
7.	Anshul Agarwal, Nitish Kumar & Pawan Dubey	Machine Learning Based Maximum Power Prediction for Photovoltaic System	Indian Journal of Pure & Applied Physics (IJPAP)	Vol. 60	892–898	Oct. 2022
8.	Rahul Jaiswal, Anshul Agarwal & Richa Negi	Experimental Validation of Torque Ripple Reduction in MMC fed BLDC Motor using proposed Phase Modulated Model Predictive Control	IETE Journal of Research, Taylor & Francis		1–21	Feb 2023



9.	Jayendra, Anshul Agarwal and Nitin Singh	Cost-Effective DC Microgrid System for Resilient Power Supply to Grid-Connected Societies	International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, Wiley	--	1-29	Feb 2023
10.	Nitesh Kumar Singh & Anshul Agarwal	Numerical Investigation of Electron/Hole Transport Layer for Enhancement of Ecofriendly Tin-Ge Based Perovskite Solar Cell	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	Vol: 45	3087-3106	Mar. 2023
11.	Shubham Kumar & Anshul Agarwal	Implementation of Artificial Neural Network based control for Power Quality Enhancement of Proton Exchange Membrane Fuel cell powered Distributed Generation System	Physica Scripta	--	1-21	Mar. 2023
12.	Shubham Kumar, Anshul Agarwal and Tirupathiraju-Kanumuri	Power Quality Improvement of Photovoltaic Distributed Generation System using Artificial Neural Network for Environmental Preservation	Journal of Engineering Research (JER)	---	1-15	Apr. 2022
13.	Kritika Bansal and Pankaj Mukhija	Event-triggered control of interconnected nonlinear systems subjected to cyber-attacks and time-varying coupling	Journal of the Franklin Institute	359	9703-9733	November 2022
14.	Chikkam, Sachin Singh	Stockwell Transform of Quadrature Stator Current-Based Fault Assessment in Induction Machine at Different Load Condition	Journal of Vibration Engineering & Technologies	Vol. 10	1-14	2022 Dec 30
15.	Chikkam, Sachin Singh	Condition Monitoring and Fault Diagnosis of Induction Motor using DWT and ANN"	Arabian Journal for Science and Engineering	Vol. 48	1-16	Oct 2022
16.	Chikkam, Sachin Singh	High-Resolution-Based Electrical Fault Diagnosis of Induction Motor Using Gabor analysis of Quadrature Stator Current at Variable Speed Regime	Arabian Journal for Science and Engineering	Vol. 31	34-46	Nov, 2022
17.	Deepti Chaudhary, Sachin Singh	Development of music emotion classification system using convolution neural network	International Journal of Speech Technology, Springer	24	571-580	Nov. 2022



18.	Vaithyanathan 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	Vol. 60	238-245	March 2022
19.	Ashish, D. Vaidhyathan, Sachin Singh	Comparative Analysis of Preamplifiers for Comparators"	Journal of Engg. Research	Vol. 10	50-59	2022 Mar
20.	Gupta, Monika, R. K. Singh, and Sachin Singh	An Algorithm to Address Cocktail Party Problem of Gujarati Language Using Cat Boost.	Wireless Personal Communications,	125(1)	261-280	2022 Jul
21.	Gupta, Monika, R. K. Singh, and Sachin Singh	Analysis of Optimized Spectral Subtraction Method for Single Channel Speech Enhancement.	Wireless Personal Communications	128(3)	2203-2215	2023 Feb

8. Conference Papers Presented by the Departmental Faculty in 2022-2023:

S. No.	Name of the Authors (Departmental faculty name to be highlighted in bold)	Title of the paper	Name of the Conference	Place and Country where the Conference Held	Organizer of the Conference	Date of Presentation
1.	M. Morey, M. Golla, N. Gupta, M. M. Garg and M. Kumawat	Mathematical Modelling and Experimental Validation of a 6th order High Gain Z-source DCDC Converter using ARM based Microcontroller	2022 IEEE 10th Power India International Conference (PIICON)	New Delhi, India	IEEE Delhi Section & NIT Delhi	25-27 Nov 2022
2.	D. Singh and M. Kumawat	Electric Vehicles Scenario in India: Trends, Barriers, and Scope	2022 IEEE 10th Power India International Conference (PIICON)	New Delhi, India	IEEE Delhi Section & NIT Delhi	25-27 Nov 2022
3.	U. Agarwal, N. Jain and Manoj Kumawat	Applicability of ANN for Reliability Analysis of Distribution Network	IEEE Delhi Section Conference (DELCON)	New Delhi, India	IEEE Delhi Section & NSUT Delhi	11th -13th February 2022
4.	V. Chaudhary and M. Kumawat	Modified Pulse Ripple Current Charging Method for Photovoltaic Battery Charging Application	2022 IEEE Students Conference on Engineering and Systems (SCES)	Prayagraj, India	MNNIT Allahabad Prayagraj	July 1st -3rd, 2022
5.	S. Bhambri, V. Shrivastava and M. Kumawat	Design Methodology of Single and Multi-Winding Coupled Inductor in Switching Converters	2022 IEEE 10th Power India International Conference (PIICON)	New Delhi, India	IEEE Delhi Section & NIT Delhi	25-27 Nov 2022



6.	T. Sharma, V. Shrivastava and M. Kumawat	A Comprehensive Study on Electricity Theft Detection Using Data Analysis	2022 IEEE 10th Power India International Conference (PIICON)	New Delhi, India	IEEE Delhi Section & NIT Delhi	25-27 Nov 2022
7.	Kritika Bansal, Siddhyarth Kumar and Pankaj Mukhija	Event-triggered Speed Synchronization Techniques for Multi Permanent Magnet Synchronous Motors	Power India International Conference 2022	NIT Delhi, India	NIT Delhi	26.11.2022
8.	Surbhi Aggarwal, Amit Kumar Singh	Selection and Contingency Analysis of EV Charging Station on 24-bus IEEE system	International Conference on Power, Control and Sustainable Energy Systems	Karnataka, India	B.M.S. COLLEGE OF ENGINEER- RING BENGALURU -560019	29/07/2022
9.	Surbhi Ag-garwal, Amit Kumar Singh	Siting and Sizing of EV Charging Stations and DG in the IEEE 24-Bus System	Ninth IEEE Power India International Conference	Delhi, India	NIT Delhi	26/11/2022
10.	D. S. Govind, A. Agarwal and V. Shrivastava	Grid Integrated 10kW Solar Photovoltaic System Using Conventional Controlling Techniques	2022 IEEE 10th Power India International Conference (PIICON)	New Delhi, India	IEEE Delhi Section & NIT Delhi	25-27 Nov 2022
11.	P. Saini, P. Thakur, R. C. Bansal, A. Dixit V. Shrivastava and J. Kumar,	Design of Controller for Brushless DC Motor Using a Hybrid Optimization Technique	2022 IEEE 10th Power India International Conference (PIICON)	New Delhi, India	IEEE Delhi Section & NIT Delhi	25-27 Nov 2022
12.	J. Verma, V. Sharma, G. Jain, N. K. Garg, V. Shrivastava and P. Garg	Power Management & Quality Analysis of Battery Storage Based Renewable Energy Generation System for Utility Bus	2022 IEEE 10th Power India International Conference (PIICON)	New Delhi, India	IEEE Delhi Section & NIT Delhi	25-27 Nov 2022
13.	B. Kasniya, T. Kanumuri, V. Shrivastava and V. Sharma	A Review of Li-Ion Battery's Thermal Runaway Mitigation Strategies with an Eye towards a Smarter BTMS	2022 IEEE 10th Power India International Conference (PIICON)	New Delhi, India	IEEE Delhi Section & NIT Delhi	25-27 Nov 2022
14.	R. Jigyasu, V. Shrivastava and S. Singh	Intelligent multiple fault diagnosis for predictive maintenance of induction motor	2022 IEEE 10th Power India International Conference (PIICON)	New Delhi, India	IEEE Delhi Section & NIT Delhi	25-27 Nov 2022
15.	S. Bhambri, V. Shrivastava and M. Kumawat	Design Methodology of Single and Multi-Winding Coupled Inductor in Switching Converters	2022 IEEE 10th Power India International Conference (PIICON)	New Delhi, India	IEEE Delhi Section & NIT Delhi	25-27 Nov 2022
16.	R. Jigyasu, V. Shrivastava and S. Singh	Advance deep convolution neural network for multiple fault diagnosis of induction motor	2022 IEEE 10th Power India International Conference (PIICON)	New Delhi, India	IEEE Delhi Section & NIT Delhi	25-27 Nov 2022



17.	D. S. Chandra Aditya and V. Shrivastava	Bidirectional Converter for V2G Application of Reactive Power Compensation	2022 IEEE 10th Power India International Conference (PIICON)	New Delhi, India	IEEE Delhi Section & NIT Delhi	25-27 Nov 2022
18.	T. Sharma, V. Shrivastava and M. Kumawat	A Comprehensive Study on Electricity Theft Detection Using Data Analysis	2022 IEEE 10th Power India International Conference (PIICON)	New Delhi, India	IEEE Delhi Section & NIT Delhi	25-27 Nov 2022
19.	Sumiti S, Vivek Shrivastava	Condition Monitoring of Power Electronics Converter – A Review	IEEE International Conference on Advance Computing and Innovative Technologies in Engineering		IEEE UP Section & GCET Greater Noida	28-29 April 2022
20.	Rajvardhan Jigyasu, Vivek Shrivastava, Sachin Singh and Vikas Bhadoria	Transfer learning based bearing and rotor fault diagnosis of induction motor	IEEE International Conference on Advance Computing and Innovative Technologies in Engineering		IEEE UP Section & GCET Greater Noida	28-29 April 2022
21.	Shailza Kanwar, Lalit Kumar Awasthi and Vivek Shrivastava	Feature Selection With Stochastic Hill Climbing Algorithm in Cross Project Defect Prediction	IEEE International Conference on Advance Computing and Innovative Technologies in Engineering		IEEE UP Section & GCET Greater Noida	28-29 April 2022
22.	Mandara C K, Vinay Kumar Jadoun & Anshul Agarwal	Load Forecasting of Electric Power Distribution System using Different Techniques: A Review	7th Student's Conference on Engineering and Systems (SCES 2022)	MNNIT Allahabad, Prayagraj, India	EED, MNNIT Allahabad	July 1-3, 2022
23.	Nitish Kumar, Anshul Agarwal, Shubham Kumar Singh & Rup Ray	Modified Boost Converter for High Power Applications	2022 IEEE10th Power India International Conference (PIICON)	Delhi, India	NIT Delhi	25-27 November 2022
24.	Rahul Jaiswal, Anshul Agarwal, Richa Negi and Komal Agrawal	A Comparative Analysis of Modulated Multilevel Converter at variable Arm Inductance	2022 IEEE10th Power India International Conference (PIICON)	Delhi, India	NIT Delhi	25-27 November 2022
25.	Nikhil Agrawal, Anshul Agarwal and Tirupathiraju Kanumuri	Performance Analysis of 7- Level Cascade H-Bridge Multilevel Inverter with Symmetrical & Asymmetrical Configuration	2022 IEEE10th Power India International Conference (PIICON)	Delhi, India	NIT Delhi	25-27 November 2022



26.	Digambar Singh Govind, Anshul Agarwal and Vivek Shrivastava	Grid Integrated 10kW Solar Photovoltaic System Using Conventional Controlling Techniques	2022 IEEE10th Power India International Conference (PIICON)	Delhi, India	NIT Delhi	25-27 November 2022
27.	Anshul Agarwal, Bhupendra Kumar, Nikhil Agrawal and Shubham Kumar Singh	A Comparative Analysis of Wind Energy Conversion Systems Based on PMSG for Maximum Power Extraction	2022 IEEE10th Power India International Conference (PIICON)	Delhi, India	NIT Delhi	25-27 November 2022
28.	Nitish Kumar & Anshul Agarwal	Real-Time Modelling and Controlling of Boost Converter Using Supervised Learning	2022 IEEE10th Power India International Conference (PIICON)	Delhi, India	NIT Delhi	25-27 November 2022
29.	Anshul Agarwal, Venkata Madhava Ram Tatahatla and Varun Agarwal	Optimized Reconfiguration Strategy of Partial Shaded Photo-Voltaic Arrays: Experimental Study	2022 IEEE10th Power India International Conference (PIICON)	Delhi, India	NIT Delhi	25-27 November 2022
30.	S. Bharti and A. R. Saxena	Electric Vehicles Scenario and its Charging Infrastructure in India	2022 IEEE 10th Power India International Conference (PIICON)	India	NIT Delhi	26/11/2022
31.	S. Suyal and A. R. Saxena	Charge Equalization Techniques used for Battery Management System of Residential DC Nano-Grids: A Brief Review	2022 IEEE 10th Power India International Conference (PIICON)	India	NIT Delhi	26/11/2022
32.	S. Suyal and A. R. Saxena	Active Charge Equalization of an 'm×n' Battery Stack in Electric Vehicles during Charging, Discharging, or Isolated Condition	2022 IEEE 10th Power India International Conference (PIICON)	India	NIT Delhi	26/11/2022
33.	A. R. Saxena and S. Suyal	A Reconfigurable DC-DC Converter with Active Battery Charge Equalization for Power Management of Residential DC Nano-Grids	2022 IEEE 10th Power India International Conference (PIICON)	India	NIT Delhi	26/11/2022
34.	D. Kumar and A. R. Saxena	Circuit Averaging Approach for Impedance Modeling of Source and Load Converter with Bidirectional Converter	2022 IEEE 10th Power India International Conference (PIICON)	India	NIT Delhi	26/11/2022
35.	D. Kumar and A. R. Saxena	Circuit Averaging Approach to Model Two-Switch Battery Integrated DC/DC Converters for Interaction Analysis	2022 IEEE 10th Power India International Conference (PIICON)	India	NIT Delhi	26/11/2022


9. Book Chapters Published by the Departmental Faculty in 2022–2023:

S. No.	Name of the Authors (Departmental faculty name to be highlighted in bold)	Title of the Book Chapter	Name/ Details of the Book where the Chapter is Published	Volume	Page number	Publisher
1.	U. Agarwal, N. Jain, and Manoj Kumawat	Ocean Energy: An Endless Source of Renewable Energy	Optimal Planning of Smart Grid With Renewable Energy Resources	1	173–207	IGI Global
2.	Jaiswal, S.P.; Bhadoria, V.S.; Singh, R.; Shrivastava, V.; Ambikapathy	A. Case Study on Modernization of a Micro-Grid and Its Performance Analysis Employing Solar PV Units	Energy Harvesting; Enabling IOT Transformations	1		Chapman and Hall/CRC: Boca Raton, FL, USA, 2018
3.	Burhan U Din Abdullah, Shiva Pujan Jaiswal, Suman Lata, Suman Dulal, Vivek Shrivastava	Performance and Reliability Investigation of Practical Microgrid with Photovoltaic Units	Artificial Intelligence for Solar Photovoltaic Systems: Approaches, Methodologies, and Technologies	1	255–288	CRC Press
4.	Shailza Kanwar, Lalit Kumar Awasthi & Vivek Shrivastava	Cross-Project Defect Prediction by Using Optimized Light Gradient Boosting Machine Algorithm	Communication and Intelligent Systems	1	933–946	Springer, Singapore
5.	Jigyasu, R., Shrivastava, V., Singh, S	Data Fusion-Based Smart Condition Monitoring of Critically Applied Rotating Machines	Third Doctoral Symposium on Computational Intelligence.	1	205–218	Springer, Singapore
6.	Dr. Anmol Ratna Saxena and Deepak Kumar	Three-Port DC–DC Converters for Integration of Solar PV and Energy Storage Devices with LVPDS Distribution System	Advanced Power Electronics Converters for Future Renewable Energy Systems	1	34	CRC Press
7.	A. Kulshreshtha and Dr. Anmol Ratna Saxena	Game-Theoretic Optimization for PV–Battery Fed Lighting Systems in DC Homes	Artificial Intelligence and Sustainable Computing. Algorithms for Intelligent Systems	1	36	Springer, Singapore
8.	Varun Agarwal, Venkata Madhava Ram Tatabhatla & Anshul Agarwal	An analytical study to evaluate the performance of PV configurations under partial shading conditions	Recent Developments in Electrical and Electronics Engineering	978–981–19–7992–7 (ISBN)	1–9	Springer
9.	Rahul Jaiswal, Anshul Agarwal and Richa Negi	A Comparative PWM Analysis of MMC	Recent Developments in Electrical and Electronics Engineering	978–981–19–7992–7	1–8	Springer



10. Book Published by the Departmental Faculty in 2022-2023:

S. No.	Name of the Authors (Departmental faculty name to be highlighted in bold)	Title of the Book	Name/ Details of the Book	Volume	Page number	Publisher
1.	Harish Sharma, Vivek Shrivastava, Kusum Kumari Bharti, Lipo Wang,	Communication and Intelligent Systems	ISBN 9789811921308 Aug 2022	I & II	1220	Springer Nature Singapore
2.	Bhavnes Kumar Bhanu Pratap Vivek Shrivastava	Artificial Intelligence for Solar Photovoltaic Systems: Approaches Methodologies, and Technologies	ISBN 978-1032054414 July 2022	Edition-1	309	CRC Press

11. Student's Thesis/ Project Guidance in 2022-2023:

PhD Students:

S. No.	Roll No.	Name of Student	Date of Defense	Joint Supervision (if any)	Title of Dissertation
1.	133302201	Neetu	10/May/2022	Prof. B K Kanaujia, Director, NIT Jalandhar	Analysis & Design of Dielectric Resonator Antennas using Perturbation Technique
2.	183231101	Nitish Kumar	30/Sept/2022 (Thesis Submitted)	-----	Machine learning Application in Hybrid Energy System for Household and Industrial Application
3.	163231103	Kritika Bansal	12.08.2022	NA	Aperiodic Sampled-data Control of Networked Systems Under Communication Constraints
4.	173231201	Mohit Bajaj	09/05/2022		Assessment and Improvement of Power Quality in Renewable DG Systems

M. Tech Students:

S. No.	Roll No.	Name of Student	Date of Defense	Joint Supervision (if any)	Title of Dissertation
1.	202231010	Sumiti	26-05-22	NA	Speed Control of DC Motor using Fuzzy Based Optimization of PI Controller
2.	202231011	Varun Agarwal	May 2022	NA	A New Static Reconfiguration Technique Based on Fibonacci Random Number Generator



3.	202231008	Siddharth Suyal	May 2022	NA	A Reconfigurable Bi-directional DC-DC Converter with Active Battery Charge Equalization for Power Management of Off-Grid Residential Complexes
4.	202231007	Shobhna Singh Kurmi	May 2022	NA	Feasibility Analysis of Solar DC Nanogrid for Off-Grid Rural India
5.	202231009	Siddhyarth Kumar	May 2022	NA	Event-Triggered Control of Permanent Magnet Synchronous Motor
6.	202231002	Ashish Yadav	26/05/2022	NA	PMSG based wind energy conversion system with MPPT
7.	202231006	Ravi Pal	25/05/2022	NA	Minimization of Leakage Current in Transformer-less Inverters for PV Grid Applications
8.	202231012	Vivek Chaudhary	25/05/2022	NA	Modified Pulse Ripple Current charging method for battery charging in Photovoltaic application
9.	202231001	ABHINAW PRATAP SINGH	May 2022		Condition Monitoring of Electrical Machines using Machine Learning

M. Tech Students:

S. No.	Roll No.	Name of Student	Date of Defense	Topic of Project
1.	181230001 181230040 181230056	Abhinav Dewan Ritik Ranjan Gupta Venu Sahu	19-05-22 19-05-22 19-05-22	Fault Detection System for Three Phase Transmission Line Using Machine Learning Algorithms
2.	181230026 171230047	Manoj Yadav Sunil Rana	19-05-22 19-05-22	Electric Vehicles
3.	181230025 181230035 181230034	Mahesh Pankaj Singh Om Prakash Jha	19-05-22 19-05-22 19-05-22	Protection of electrical equipments from high starting current (Inrush current)
4.	(181230012), (181230046), (181230032)	Bikramjit Singh, Shreya Agrawal, Nikhil Garg	19-05-22	Solar powered hybrid AC/DC Home
5.	(181230014), (181230022), (181230015)	Deekshant Goyal, Kanupriya Khandelwal, Karthik Naik	19-05-22	Air Quality Sensing and Monitoring
6.	181230043 181230051 181230052	Roshan Kumar Meena Suraj Meena Suraj Patel	19-05-22	Photovoltaic-wind Hybrid Energy System



7.	181230029 181230049	Mohd Shakir Siddharth RadhavBaraik	19-05-22	Design and Analysis of Smart Energy Meter
8.	181230027, 181230048, 181230058	Mayank Kumar, Siddarth Jain, Vismay	19-05-22	wireless drowsiness detection with ASAB
9.	181230047, 181230057, 181230059	Shubham goyal, Vineet dhankar, vivek chauhan	19-05-22	designing of converter for solar PV system
10.	181230004 181230023	Abhishek Kumar Kapil Nagar	19/05/2022	Online Food Order System
11.	181230039 181230033 181230038	Rahul Sawlani Nitya Praveen Singh	19/05/2022	IOT SMART HOME AUTOMATION
12.	181230001 181230015 181230016	Aaftab Hussain Abhishek Sharma Hariom Meena	19/05/2022	Heartbeat and Oxygen Level Measurement System
13.	181230006 181230008 181230028	Adarsh Attri Amit Kumar Mayank Sharma	19/05/2022	Charging of Electric Vehicle with Solar Energy using MPPT
14.	181230045	Shashwat	2022	Android application-based control and monitoring of organic greenhouse system using internet of things
15.	181230018 181230042 181230030	Harshit Panchal Rohan Prasad Mohit Kumar Singh	2022	Atmospheric controlled farming in polyhouse (Agriman)
16.	181230020 181230036 181230050	Ishita Aggarwal Pinki meena Stanzin duskong	2022	Condition monitoring of transformer using artificial intelligence

12. Any other significant achievement by department for annual report in 2022-2023:

- Dr. Vivek Shrivastava received a Real Time Emulator (HIL 402) of Typhoon HILL GmbH, Switzerland of costs Rs. 18.50 Lakh + Taxes under Corporate Social Responsibility (CSR)

project by QUARBZ INFO SYSTEMS Kanpur India.

- One Patent entitled "A System for Efficient MPPT Tracking with Variable Wind Speed Using an Artificial Neural Network" is Granted and One patent entitled "A COMPOSITE WATER PUMPING SYSTEM" is published online.



Department of Electronics and Communication Engineering

Vision:--

Create an educational environment to prepare the students to meet the challenges of the modern electronics and communication industry through state of art technical knowledge and innovative approaches beneficial to society.

Mission:-

- To cultivate an entrepreneurial environment and industry interaction, leading to the emergence of creators, innovators, and leaders.
- To promote co-curricular and extra-curricular activities for the overall personality development of the students.
- Building of responsible citizens through awareness and acceptance of ethical values.
- To promote teaching and learning by engaging in innovative research and by offering state-of-the-art undergraduate, postgraduate, and doctoral programs.

1. List of Faculty (as on 31 March 2023):

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

2. Projects Completed/On Going/sponsored projects in 2022-2023:

S. No.	Title	Start Date & Duration	Funding Agency	PI Name & Co-PI (if any)	Project cost	Whether Ongoing or completed
1.	Investigation of Group IV Semiconductor Alloy (Ge/Ge _{1-x} 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



2.	Speech biometric based student authentication system	Started- 18 June 2019; (Completed- 25 May 2022)	NPIU (TEQIP-III, TEQIP Collaborative research scheme	1. Dr BhanuPriya (PI) Assistant Professor, ECE, BIET Jhansi 2. Dr. Sandeep Kumar (Co-PI) Assistant Professor, ECE, NIT Delhi 3. Mr. Satish Singh (Co-PI), Assistant Professor, ECE, BIET Jhansi 4. Dr. Dinesh Srivastava (Co-PI) Professor, ECE, BIET Jhansi 5. Ms Julie Devi (Co-PI) Assistant Professor, ECE , BIET Jhansi	Rs. 843000	Completed (25 May 2022)
3.	Captioning the Extracted events of the Scene from the Video through Spatio-Temporal Graph Model	2022-25	TIH, IIT Patna	Dr. Anurag Singh & Dr. Mahesh K. Singh (CO-PI)	30 Lacs	Ongoing

3. Newly Developed Labs in the Department

-Advanced VLSI Lab and PG lab

4. New procurement has been done by the department in order to develop lab and students-

S. No.	Item Description	S. No.	Item Description
1	Cadence EDA Tools		4.90 GHz Turbo, 65 W), 8GB/512GB SSD/ 1TB HDD, HP P22 G5 FHD Monitor
2	DC Power Supplies	13	Mentor Graphics Tools
3	Digital Multimeter	14	Two (2) Channel pulse Code [TDM/ PCM] Modulation/ Demodulation with frame & bit Error Detection & synchronization & Correction Expt. Panel
4	DC Ammeters	15	Delta, adaptive delta, sigma delta modulation and demodulation Experiment Module
5	Arbitrary Function Generators	16	AM modulation & demodulation Expt. module
6	LCR Meters	17	FM Modulation & Demodulation Expt. Module
7	Digital Storage Oscilloscopes (DSO)	18	Data Formatting/ Reformatting Expt. Module
8	Communication Systems Trainer	19	16 QAM Modulation/ Demodulation Expt. Module
9	Single (1) channel Sampling & Reconstruction, 4 Channel TDM/PAM & PPM, PWM, PFM Expt. panel	20	4 Channel CDMA Modulation/ Demodulation Expt. Module
10	PCB Prototype Machine along with PCB full assembly setup	21	Baseband SDR Communication Kit (PSK, DPSK, QPSK, DQPSK, 16QAM, 8QAM, 8PSK, MSK, DMSK Differential Mode & non-differential mode)
11	Multi function machine (Photocopier machine)		
12	HP Pro Tower 400 G9, Desktop PCs - Intel® Core™ i7-12700 (25 MB cache, 8 cores, 18 threads, 2.10 GHz to		



22	Instrumentation Lab Trainers	24	Mobile wireless EEG Amplifier System with Post Processing Software
23	HP Pro Tower 400 G9, Desktop PCs – Intel® Core™ i7-12700 (25 MB cache, 8 cores, 18 threads, 2.10 GHz to 4.90 GHz Turbo, 65 W), 16GB/512GB SSD/4GB Graphics card, HP P22 G5 FHD Monitor	25	Biomedical Instrumentation DSP Kits
		26	Advanced Visual Computing Lab

5. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Organized in 2022-2023:

S. No.	Workshop/Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Coordinator/ Convener/ Chairman
1.	Short-term Course	Emerging Trends in Signal Processing, Communication and VLSI (ETSPCV-2022)	Dept. of ECE, NIT Delhi	06-06-2022 To 11-06-2022	Dr. Manisha Bharti & Dr. Sandeep Kumar
2.	FDP	VLSI Devices and Communication Systems (VDCS)	Dr. Sachin Agrawal Dr. Nitin S Singha	6 days (23rd-28th May 2022)	Dr. Sachin Agrawal Dr. Nitin S Singha
3.	Seminar	IPR AWARENESS PROGRAMME FOR RESEARCH SCHOLARS & TEACHERS	Indraprastha University Internal Quality Assurance Cell (IIQAC) in collaboration with Ministry Commerce & Industry	AUGUST 16, 2022	Co-Coordinator (Prof. Manoj Kumar)
4.	Short Term Course	Latest Trends in VLSI Devices, Circuits and Tools	Dept. of ECE, NIT Delhi	19.09.2022 To 24.09.2022	Convener (Dr D Vaithiyanathan) and Dr Preeti Verma
5.	FDP	Advancement in Microwave Technology for VLSI and Communication System	Dr. Sachin Agrawal Dr. Nitin S Singha Dr. D. Jhariya	6 days (7-12) Nov. 2022	Dr. Sachin Agrawal Dr. Nitin S Singha Dr. D. Jhariya
6.	Lecture	"Photonics Generation and Transmission of Microwave Signals" By-Dr. Amitesh Kumar, Associate Professor, Indian Institute of Technology (ISM) Dhanbad	Dept. of ECE, NIT Delhi	16-11-2022	Dr. Manisha Bharti & Dr. Sandeep Kumar



7.	Seminar	IPR Awareness Programme (National Intellectual Property Awareness Mission (NIPAM 2.0))	Dr. Sachin Agrawal, Dr. Dharmendra Kumar Jhariya,	1 day 30th November, 2022	Dr. Sachin Agrawal, Dr. Dharmendra Kumar Jhariya
8.	FDP	Emerging Trends in Antenna Design for RF Energy Harvesting Circuit	Dr. Sachin Agrawal Dr. R Basu Dr. D. V.	6 days (03-08) Jan 2023	Dr. Sachin Agrawal Dr. R Basu Dr. D. Vaithiyanathan
9.	Workshop	One-Week International IEEE Workshop on "Electronics, Photonics and IC at the 75th Anniversary of Transistor	ECE Department, NIT Delhi with IEEE Photonics Society-Delhi Section (Rajasthan Chapter), The Prakash Bharati (a consortium of IEEE Photonics Society Chapters of India) and IEEE Circuits and Systems Society Delhi Chapter.	February 20-25, 2023	Convener (Dr Rikmantra Basu) and Dr. Neha Paras
10.	Short-Term Course (STC)	Recent Trends in Computer Vision, Artificial Intelligence (AI) & Robotics (RTCVAIR-2023)	Dr Dharmendra Kr Jhariya and Dr Mahesh K Singh, ECE Department, NIT Delhi-110036	March 20th-25th, 2023. (Hybrid Mode) Venue: Admin Block Conference room & ECE Department	Dr Dharmendra Kr Jhariya and Dr Mahesh K Singh

6. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Attended in 2022-2023:

S. No.	Workshop/Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Faculty Attended by
1	Short-term Course	VLSI Devices and Communication Systems (VDCS)	Dept. of ECE, NIT Delhi	23rd -28th May 2022	Dr. Sandeep Kumar, Dr Dharmendra K Jhariya



2	Short-Term Course (STC)	Emerging Trends in Signal Processing, Communication and VLSI (ETSPCV-2022)	Department of Electronics and Communication Engineering NIT Delhi-110036	June 6th-11th, 2022	Dr Dharmendra Kr Jhariya, Dr. Sachin Agrawal
3	Short-term Course	Latest Trends In VLSI Devices, Circuits And Tools	Dept. of ECE, NIT Delhi	19th-24th, September 2022	Dr. Manisha Bharti, Dr. Sandeep Kumar
4	Short-term Course	Advancement in Microwave Technology for VLSI and Communication System	Dept. of ECE, NIT Delhi	07th -12th November 2022	Dr. Manisha Bharti, Dr. Sandeep Kumar and Dr. Mahesh K Singh
5	Workshop for Faculty Development	AICTE Digital Creativity Skills-2022	Adobe Express	November 30th, 2022	Dr Dharmendra Kr Jhariya
6	Seminar	IPR Awareness Programme (National Intellectual Property Awareness Mission (NIPAM 2.0)	Dr. Dharmendra Kumar Jhariya, Assistant Professor, ECE Department, NIT Delhi	30th November, 2022 Time: 12:30 PM Venue: LT-2 (Mini Campus), NIT Delhi.	Dr. Mahesh K Singh
7	Faculty Development Programme	Online Education: An Evolving Paradigm	Association of Indian Universities & Guru Gobind Singh Indraprastha University Academic and Administrative Development Centre (AADC) AIU-GGSIPU-AADC	13 -17 February 2023.	Prof Manoj Kumar
8	International Workshop	International IEEE Workshop on "Electronics, Photonics and IC at the 75th Anniversary of Transistor	Dept. of ECE, NIT Delhi	February 20-25, 2023	Dr. Manisha Bharti And Dr Dharmendra Jhariya
9	Short Term Course	ARTIFICIAL INTELLIGENCE TECHNIQUES FOR HEALTHCARE APPLICATIONS (AITHA-2023)	Department of Electrical Engineering Department, NIT Delhi-110036	February 22nd - 27th 2023	Dr Dharmendra Kr Jhariya



10	Faculty Development Programme	Recent Trends in Computer Vision, Artificial Intelligence (AI) & Robotics (RTCVAIR-2023)	NIT Delhi ECE Department	March 20th-25th, 2023.	Dr. Manisha Bharti, Dr. Sandeep Kumar, Dr. Nitin Singh Singha, Dr. Sachin Agrawal
11	Short-term Course	Recent Trends in Computer Vision, Artificial Intelligence and Robotics	ECE Department, NIT Delhi	1 Week	Dr. Neha Paras
12	Conference	1st International Conference on Recent Trends in Chemical Sciences and Sustainable Energy	Applied Science Department, NIT Delhi	2 Days	Dr. Neha Paras
13	Workshop	Professional Development Workshop on Digital Creativity Skills	Adobe	1 Day	Dr. Neha Paras

7. Expert Lecture Delivered by Departmental Faculty in 2022-2023:

S. No.	Title of the Expert Talk	Name of the Event	Organized By	Duration	Faculty Delivered Expert Talk
1.	Role of AI/ML in VLSI Design and Technology	Recent advancement in machine Learning and artificial intelligence	Department of Information Technology, Maharaja Surajmal Institute of Technology (MSIT)	6-10 February 2023	Prof Manoj Kumar
2	Advanced Optical Networks	Resource Person	ABES Engineering College, Ghaziabad	2 hrs	Dr. Manisha Bharti
3	Evolution of Electronics and Photonics and it's Challenges	Expert Talk	Mechatronics Department of Chandigarh University	April 22, 2022.	Dr. Rikmantra Basu
4	Journey From Electrons to Photons Past, Present, and Future	Expert Talk	Govind Ballabh Pant Institute of Engineering & Technology Pauri Garhwal, Uttarakhand in Collaboration with IEEE Prakash Bharati India, In celebration of International Light Day 2022, contributing to	May 13, 2022	Dr. Rikmantra Basu



			Azadi Ka Amrit Mahotsav, the 75th Anniversary of Indian Independence		
5	Artificial Intelligence for Embedded Systems	Guest Lecture	Vel Tech High Tech Dr. Rangarajan Dr. Sakunthala Engineering College (Autonomous), Chennai	2 hrs 07.03.2023	D.Vaithiyan-athan
6	Recent Trends in VLSI Design	Six Day Faculty Empowerment Program on Recent Trends in Electronics, Signal Processing & Networks (RTESPN2023)	Madras Institute of Technology, Anna University, Chennai	2 hrs 08.02.2023	D. Vaithiyan-athan
7	Basics of Linear Integrated Circuits & Applications	Guest Lecture	RMK Engineering Kavaraipeitai, Tamil Nadu	2 hrs 03.02.2023	D. Vaithiyan-athan
8	Embedded System Design	Six Day Faculty Development Training Programme on, "Empowering IoT using Raspberry Pi or Arduino	College of Engineering Guindy, Anna University, Chennai.	2 hrs 31.01.2023	D. Vaithiyan-athan
9	Arithmetic building blocks	Six Day Faculty Development Training Programme on, "VLSI Design"	St.Peter's College of Engineering & Technology, Chennai	2 hrs 24.01.2023	D. Vaithiyan-athan
10	Implementation strategies and testing	Six Day Faculty Development Training Programme on, "VLSI Design"	St.Peter's College of Engineering & Technology, Chennai	2 hrs 28.01.2023	D. Vaithiyan-athan
11	Innovative Ambient Intelligence on Embedded Systems	One day workshop	Saveetha Institute of Medical and Technical Sciences, School of Engineering, Tamil Nadu	2 hrs 29.09.2022	D. Vaithiyan-athan
12	AI for Embedded Systems	Guest Lecture	St. Xaviers Catholic College of Engineering, Nagercoil, Tamil Nadu	2 hrs 18.08.2022	D. Vaithiyan-athan
13	Chip Packages	Six Day Faculty Development Training Programme on, "Electronics Packaging and Testing"	KPR Institute of Engineering and Technology, Coimbatore	2 hrs 25.07.2022	D. Vaithiyan-athan



14	System on Chip Design	Electronics Engineering Association	MIT Campus, Anna University	2 hrs 10.06.2022	D. Vaithiyanathan
15	AI for Embedded Systems	Five Days FDP Internet of Everything (IoE)	Academic Staff College in association with school of Electronics Engineering of VIT University Vellore	2 hrs 16.05.2022	D. Vaithiyanathan
16	Cryptographic primitives and distributed databases	A Five-Day Workshop on Blockchain Technology	Department of Computer Science (Cyber Security), RGNIYD.	5 days	Dr. Nitin Singh Singha

8. Journal Publications by the Departmental Faculty in 2022-2023:

S. No.	Name of the Authors	Title of the paper	Name of the Journal	Volume	Page number	Month and Year of Publication
1.	Vikram Singh, Manoj Kumar, Sandeep Kumar Arya	A Common-Gate Cascaded with Cascoded Self-Bias Common Source Approach for 3.1 – 10.6 GHz UWB Low Noise Amplifier	International Journal of Information Technology, Springer	14	2389-2398	May 2022
2	Anil Khatak, Manoj Kumar, Sanjeev Dhull	A 11.91 PJ/Step 70-MS/S 7-Bit Sub-Ranging SAR-ADC In 90 nm CMOS Technology	Journal of Engineering Science and Technology	17	4433-4447	Dec 2022
3	Misbah Manzoor Kiloo, Vikram Singh, Manoj Kumar, Nitin Kumar, Neeraj Tripathi, Anil Bhardwaj	Active Inductor based Cross Coupled Differential Ring Voltage Controlled Oscillator for UWB Applications	International Journal of Information Technology, Springer	15	-	-
4	Agrawal, K. A., Bharti, M., Kumar J.	Channel Estimation of FBMC Aux, FBMC and OFDM based on BER and PAPR for 5G Systems	Indian Journal of Pure & Applied Physics (IJPAP)	Vol. 60, Issue No. 4	320-324	April 2022
5	Pragya Gupta., Bharti, M., Anubhav Kumar	CPW fed Four Element Diversity Antenna for UWB applications with Wi-Fi/ISM/WLAN Band	Journal of Enggineering Research (JER).	Early Cite	1-14	April 2022
6	A. Sharma, P. G. Bahubalindrani, M. Bharti, S. Shrivastava, S. Talukder	A Compact Model of Amorphous InGaZnO TFTs to Predict Temperature-Dependent Characteristics	IEEE Electron Device Letters)	Vol. 43, Issue No. 9	1475-1478	July 2022



7	Gupta, P., Bharti, M., & Kumar, A.	Circular Polarized Two-element Compact Dual-band Mimo Antenna For 5g And Wearable Applications	Revue Roumaine Des Sciences Techniques—série Électrotechnique Et Énergétique	Vol. 67, Issue No. 3	321-326.	2022
8	Suruchi Sharma, Rikmantra Basu, Baljit Kaur, [Digital Object Identifier: 10.1109/TED.2022.3156895] (IF: 2.704) ISSN: 0018-9383	Temperature analysis of a dopingless TFET considering interface trap charges for enhanced reliability	IEEE Transaction on Electron Devices	vol. 69, issue 5	2692-2697	May 02, 2022
9	Harshvardhan Kumar and Rikmantra Basu, [Digital Object Identifier: 10.1109/jsen.2022.3159833] (IF: 3.076). ISSN: 1530-437X	Design of Mid-Infrared Ge _(1-x) Sn _x Homo Junction p-i-n Photodiodes on Si Substrate	IEEE Sensors Journal	Vol 22, Issue 8	7743-7751	April 15, 2022
10	Jaspinder Kaur, Rikmantra Basu and Ajay K Sharma, [Digital Object Identifier: 10.1007/s10946-022-10060-3] (IF: 0.607).	PERFORMANCE ANALYSIS OF NITRIDE-BASED TUNNEL-INJECTION TRANSISTOR LASER	Journal of Russian Laser Research, Springer	Vol 43, no 3	361-369	May, 2022
11	Jaspinder Kaur, Rikmantra Basu and Ajay K Sharma, [Digital Object Identifier: 10.1007/s12633-022-02025-7]	Design and Analysis of Si _{1-x-y} Ge _y Sn _x -Si _{1-x} Ge _x Alloy based Solar Cell emphasizing on Ge Composition 15%	Springer	15	-	July 22, 2022
12	Ashima, D.Vaithyanathan, Balwinder Raj	Design and Performance Assessment of Graded Channel Gate-All-Around Silicon Nanowire FET for Biosensing Applications	Silicon	15	-	-
13	Alok Kumar Mishra, Urvashi Chopra, D. Vaithyanathan, Baljit Kaur	A Low Power High-Speed Single Phase Clock Level Restoring 16T Master Slave Flip Flop	Circuit World	Early Cite	-	-
14	J. Britto Pari, K. Mariammal, D. Vaithyanathan	A Reconfigurable High-Speed and Low Complexity Residue Number System based Multiply-Accumulate Channel Filter for Software -Radio Receivers	World Journal of Engineering	Early Cite	-	-



15	Manigandan Muniraj and Vaithiyanathan Dhandapani	Underwater image enhancement by modified color correction and adaptive Look-Up-Table with edge-preserving filter	Signal Processing: Image Communication	113	1-24	April 2023
16	Omendra Kumar Singh, Vaithiyanathan Dhandapani, Baljit Kaur	Partially Extended Germanium Source DG-TFET: Design, Analysis, and Optimization for Enhanced Digital and Analog/ RF Parameters	Silicon	15	1475-1490	February 2023
17	Ashima Vaithiyanathan D. and Balwinder Raj	Analog Performance Analysis, of High-K Spacer Dual Material Gate Graded Channel Nanotube	Journal of Electronic Materials	52	422-428	January 2023
18	Bharathi Raj Muthu, Ewins Pon Pushpa, Vaithiyanathan Dhandapani, Anuj Kumar Sharma	Simulation and sensitivity analysis of a plasmonic FET based sensor in visible spectral range under different design conditions	Optical and Quantum Electronics	54	1-17	December 2022
19	A. Ranjani Aruna, Kamala J, Hanuman C R S, Dhandapani Vaithiyanathan	Analysis Optimum Sizing of 12T PCSA for High-Speed Soft Error Tolerant Logic Circuits Design	Journal of Electrical Engineering & Technology	17	3473-3485	November 2022
20	Alok Kumar Mishra, D. Vaithiyanathan, Yogesh Pal, Baljit Kaur	Design and Mathematical Analysis of a 7T SRAM Cell with Enhanced Read SNM using PMOS as Access Transistor	Circuit World	48	322-332	June 2022
21	G. Prabakaran, D. Vaithiyanathan, Madhavi Ganesan	FPGA based Intelligent Embedded System for Predicting the Productivity Using Fuzzy Logic	Sustainable Computing: Informatics and Systems	35	1-13	May 2022
22	Manigandan Muniraj and Vaithiyanathan Dhandapani	Underwater image enhancement by color correction and color constancy via Retinex for detail preserving	Computers and Electrical Engineering	100	1-17	May 2022
23	P. Agarwal and Sandeep Kumar	Electroencephalography-based imagined speech recognition using deep long short-term memory network	ETRI Journal (Wiley)	Vol. 44, Issue 4	672-685	Aug 2022
24	R. Yadav, V.S. Pandey and Sandeep Kumar, S. Gotra	Obtaining Wide Bandwidth with Higher-order TM Modes Merging in a Graphene-based Logarithmic Antenna for THz Sensing Applications	Micro and Nanostructures (Elsevier)	Vol. 169, (207344)	1-12	Sep 2022,



25	R. Yadav, V.S. Pandey and Sandeep Kumar, S. Gotra	A Beam Steered Graphene- Based Yagi-Uda Array Antenna with Transverse Magnetic to Hybrid Mode Conversion Approach	Journal of the Optical Society of America A	Vol. 39, Issue 10,	1749-1759	Sep 2022
26	UK Acharya and Sandeep Kumar	Image sub-division and quadruple clipped adaptive histogram equalization (ISQCAHE) for low exposure image enhancement	Multidimensional Systems and Signal Processing (Springer)	34	25-45	March 2023
27	Sachin Agrawal, Manoj S Parihar	Design and Development of Patch Loaded Slot Antenna for Super Wide band Communication System and MIMO Application	Wireless Personal Communications	130	-	March 2023
28	Sachin Agrawal, Manoj S Parihar	Bandwidth Enhancement of a Compact Slot Antenna With Frequency Scale up/down Capability	IETE Technical Review	40	632-640	August 2022
29	Ayush Kanojia, Sachin Agrawal, Rohit Lorezo	Comprehensive Analysis of a Power-efficient 1-bit Hybrid Full Adder cell	Wireless Personal Communications	129	-	Jan 2023
30	Sachin Agrawal, Prabhat Soni	A Balloon Shape Monopole Super Wideband MIMO Antenna for THz Applications	Microwave review	-	-	Feb 2023
31	Dharmendra Kumar Jhariya and Akhilesh Mohan,	Compact Ultra Wideband Filter with Reconfigurable Band Notch Characteristics	International Journal of Electronics Letters (Taylor & Francis),	1	1-11	11, 2022. http://doi.org/10.1080/21681724.2022.2062790 .
32	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	023017	June 2022
33	Preeti Mehta, Mahesh K Singh, Nitin Singha	Recaptured attack-resilient watermarking scheme	Journal of Electronic Imaging	31	043043	July 2022
34	Nitin Singha, Mahesh K Singh,	Maximizing Utility by Optimal Capacity Division in P2P Networks	Cluster Computing (Springer)	65	-	March 2023
35	Preeti Verma, V.S. Pandey, Ajay K Sharma	Implementation and Variability Analysis of Low- Power Robust Muller C-Element: LPRCE	Springer Journal of metrology society of India	35	63-70	June 2022



36	Deepika, Neha Paras, Anil Arya, Rajesh Kumar, Shashi Sharma, Sohan Lal, V. Kumar and Anurag Gaur,	Room temperature magento-electric coupling in Pb-Zn substituted Co ₂ Y-hexaferrite	Journal of Materials Science: Materials in Electronics, Springer	33	-	2022
37	Jeetendra Singh, Shailendra Singh and Neha Paras	Design and Integration of Vertical TFET and Memristor for Better Realization of Logical Functions	Silicon, Springer	14	-	2022
38	BillelSmaani, Neha Paras, Shiromani BalmukundRahi, Young Suh Song, Ramakant Yadav, and SubhamTayal,	Impact of the Self-Heating Effect on the Nanosheet FET Performance	ECS Journal of Solid State Science and Technology, IOP	12	-	2023

9. Conference Papers Presented by the Departmental Faculty in 2022-2023:

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.	P. LikhithaSaveri, Sandeep Kumar and Manisha Bharti	Segmentation and Area Calculation of Brain Tumor Images Using K-Means Clustering and Fuzzy C-Means Clustering	International Conference on Expert Clouds and Applications (ICOECA 2023)	Bengaluru, India	R V College of Engineering Bengaluru, India	9-10, February 2023
2	Manisha Bharti, Sandeep Kumar and AkashRawat	Design of Low Phase Noise PLL with Improved Locking Time	2nd International Conference On Emerging Electronics and Automation	Silchar, India	NIT Silchar	16th- 18th Dec 2022
3	KritikaUpadhyay, Sandeep Kumar, Manisha Bharti and Prabhakar Agarwal	Performance Evaluation of Synthetic Aperture Radar Images	8th IEEE International Conference on Signal Processing and Communication (ICSC 2022), Noida, India	Noida, U.P., India	Department of Electronics and Communication Engineering, JIIT, Noida, U.P.	December 01 - 03, 2022



4	Nikita, Sandeep Kumar, Prabhakar Agarwal and Manisha Bharti	Comparison of multi-class motor imagery classification methods for EEG signals	2nd International Conference on Multidisciplinary in Research and Innovation	Coimbatore, Tamil Nadu, India	Kishori Raman PG College, Mathura, Uttar Pradesh & RSP Conference Hub, Coimbatore,	26-27 November 2022
5	Gupta, P.; Bharti M, Kumar A	Circularly Polarized Two Port Flexible Antenna For WLAN And Wi-fi-6 Applications	4th IEEE International Conference on Advances in Computing, Communication Control and Networking	Greater Noida, India	Department of Electronics and Communication Engineering, Galgotia Institute	December 16-17, 2022
6	Ashish Mishra, D.Vaithyanathan, Preeti Verma, Sachin Singh, Baljit Kaur	Low Power High-Speed Optimized Comparator for Flash ADC	IEEE 2022 Smart Generation Technologies in Computing, Networking & Communication (SMARTGENCON)	Bengaluru, Karnataka, India,	Ghousia College of Engineering	December 23-25, 2022
7	Abhishek Behera, Alok Kumar Mishra, D.Vaithyanathan, Preeti Verma	Architectural Improvement and Performance Evaluation of 1D-to-2D Array Conversion Priority Encoder	IEEE 2022 Smart Generation Technologies in Computing, Networking & Communication (SMARTGENCON)	Bengaluru, Karnataka, India,	Ghousia College of Engineering	December 23-25, 2022
8	Swatantrata Shukla, Alok Kumar Mishra, Preeti Verma, D.Vaithyanathan, Baljit Kaur	Design of Low Power N-Bridge Master and P-Bridge Slave Topologically Arranged Flip-Flop	IEEE 2022 Smart Generation Technologies in Computing, Networking & Communication (SMARTGENCON)	Bengaluru, Karnataka, India,	Ghousia College of Engineering	December 23-25, 2022
9	Ashima, D.Vaithyanathan, Balwinder Raj	Temperature Sensitivity Analysis of Graded Channel Si-Nanotube FET based on DC, Analog, and Linearity Parameters	2022 International Conference on Futuristic Technologies (INCOFT)	Belagavi, Karnataka, India.	S. G. Balekundri Institute of Technology (SGBIT),	November 25 – 27, 2022.



10	Ashima, D.Vaithyanathan, Balwinder Raj	Effect of Temperature Variations on the Linearity parameters of Graded Channel Nanotube Field Effect Transistor	2022 Fourth International Conference on Recent Advances in Materials and Manufacturing (ICRAMM 2022),	Erode, Tamil Nadu, India	Velalar College of Engineering and Technology	December 08-09, 2022
11	BijjulaPruthwiraj, Alok Mishra, Vaithyanathan Dhandapani	A Low Power CMOS Analog Multiplier using Regulated Cascode Current Mirror based on Translinear principle	2022 IEEE 3rd Global Conference for Advancement in Technology (GCAT)	Bangalore, India	Nagarjuna College of Engineering & Technology	October 07-09, 2022
12	Sushmita Kumari, Baljit Kaur, Alok Mishra, Vaithyanathan Dhandapani	Analysis and Implementation of a Low Power Sense Amplifier based flip flop with symmetric latch design	2022 IEEE 3rd Global Conference for Advancement in Technology (GCAT)	Bangalore, India	Nagarjuna College of Engineering & Technology	October 07-09, 2022
13	Dipali Patidar, Alok Kumar Mishra, Vaithyanathan Dhandapani, Baljit Kaur	An Energy-Efficient Conditional-Boosting Flip-Flop with Conditional Pulse for Low Power Application	2022 IEEE 3rd Global Conference for Advancement in Technology (GCAT)	Bangalore, India	Nagarjuna College of Engineering & Technology	October 07-09, 2022
14	Omendra Singh, Vaithyanathan Dhandapani, Baljit Kaur	Investigation of Temperature variation in Partially Extended SiL-xGex Source Double Gate Tunnel FET	2022 IEEE 3rd Global Conference for Advancement in Technology (GCAT)	Bangalore, India	Nagarjuna College of Engineering & Technology	October 07-09, 2022
15	Vipul Verma, Alok Mishra, Vaithyanathan Dhandapani, Baljit Kaur	Review of Different Flip-Flop Circuits and a Modified Flip-Flop Circuit for Low Voltage Operation	2022 IEEE 3rd Global Conference for Advancement in Technology (GCAT)	Bangalore, India	Nagarjuna College of Engineering & Technology	October 07-09, 2022
16	Vaithyanathan Dhandapani, Manigandan Muniraj, Manju I	Underwater image enhancement using color constancy via homomorphic filtering and depth estimation	2022 International Conference on Signal and Information Processing (IConSIP)	Pune, India	College of Engineering	August 26 - 27, 2022
17	Vaithyanathan Dhandapani, Manigandan Muniraj, Manju I	Fusion based underwater image enhancement and detail preserving	2022 International Conference on Signal and Information Processing (IConSIP)	Pune, India	College of Engineering	August 26 - 27, 2022
18	D.Vaithyanathan, Ashish Mishra, Rajat Mishra, Alok Kumar Mishra, PreetiVerma, Baljit Kaur	A Modified Dynamic Comparator for Lowering Peak Kink in Differential Amplifier and Latch	Third International Conference on Advances in Physical Science and Materials (ICAPSM 2022)	Coimbatore, Tamil Nadu, India	KPR Institute of Engineering and Technology	August 18 - 19, 2022



19	Sandeep Kumar, P. A. Tiwari, P. Agarwal and U. K. Acharya	Synthesized speech quality measurement of an Improved Fundamental Frequency (Pitch) Detection Algorithm	2022 IEEE Silchar Subsection Conference (SILCON), Silchar, India	Silchar, India	NIT Silchar	04-06 November 2022
20	P. Likhitha Saveri and Sandeep Kumar	Classification of cancerous lung images by using transfer learning	8th IEEE International Conference on Signal Processing and Communication (ICSC 2022), Noida, India	Noida, U.P., India	Department of Electronics and Communication Engineering, JIIT, Noida, U.P.	December 01 - 03, 2022
21	R. Yadav, V.S. Pandey and Sandeep Kumar, S. Gotra	CubeSat Inter-Satellite Link-based Log Periodic Antenna for C-band Applications	IEEE- 7th Students' Conference on Engineering & Systems (SCES-2022)	Allahabad, India	Dept. of Electrical Engineering, MNNIT Allahabad,	July 1-3, 2022
22	Sachin Agrawal, Pratham Agrasen, Praveen Kumar Shah and Madhuri Bendi	Super Resolution Based Channel Estimation	BITS EEE CON	BITS Pilani	Springer	4-5/11/2022
23	Sachin Agrawal, Prabhat Kr. Soni	A Conical Shape Monopole THz Super Wideband Antenna for MIMO Application	MAPCON 2022	Bangalore	IEEE	12-16/12/2022
24	Madhulika Verma, Sachin Agrawal	Performance Emulation of Two Vertical Dielectrically Modulated Tunnel Field Effect Transistors	IEEE 6th Conference on Information and Communication Technology (CICT-2022),	IIITM Gwalior	IEEE	Dec 2022
25	Naveen pathak, Sachin Agrawal, Bhaskar Awadhiya	Design and Implementation of Power Efficient 8:1 Multiplexer using PTL Technology	PCEMS 2023	VNIT Nagpur	IEEE	April 2023
26	Kamal Singh, Nitin Singh Singha	Performance Analysis of Large Scale Machine Learning Optimization Algorithms	CSNT 2023,	Technocrats Institute of Technology (Excellence), Bhopal (MP)	IEEE	April 2023
27	Abhishek Yadav, Sachin Agrawal, Nitin S Singha	Realization of High-Performance Multipliers for FPGA Application (Accepted)	RAEEUCCI-2023	SRM Chennai	IEEE	May 2023



28	Amit Kumar, Dharmendra Kumar Jhariya, Amit Ranjan Azad (Best paper award)	Dual-Mode Wideband Bandpass Filter Using Single SIW Cavity with Perturbation Slot	8th International Conference on Signal Processing and Communication (ICSC 2022)	December 01 – 03, 2022	JIIT Noida, India	02/12/2022
29	Amit Kumar, Pankaj Kumar Gautam, Dharmendra Kumar Jhariya	Comparative Analysis of BER performance of M-ary QAM based OFDM Systems in different channel conditions	AECE-2022 (2nd International Conference AECE-2022 Advancement in Electronics 2022. (CRC Press (Taylor & Francis Online))	July 14th–15th, 2022	RKGIT, Meerut, Ghaziabad (U.P.), India	14/07/2022
30	Raghvendra Singh, Mahesh K. Singh and Dharmendra Kumar Jhariya	New Framework for Implementation of Decision Tree Classifier	International Conference on Intelligent Systems and Smart Infrastructure	21st–22nd May, 2022.	Shambhunath Institute of Engineering and Technology (SIET), Prayagraj, IET Lucknow and Manipal University Jaipur in collaboration with ECE dept., at SIET Prayagraj (UP), India.	22/05/2022
31	Amit Kumar and Dharmendra Kumar Jhariya	Low-Noise Amplifier Design: An Open-Source Perspective	2nd International Conference on the Paradigm shifts in Communication, Embedded Systems, Machine Learning and Signal Processing (PCEMS 2023)	5th – 6th April, 2023.	Visvesvaraya National Institute of Technology, Nagpur, India	05/04/2023
32	Shilpi Kumari, D K Jhariya, P K Gautam and Sagar Kumar Sahoo	Real-Time Sign Language Detection and Recognition	5th International Conference on Recent Innovations in Science & Technology (RIST 2023)	07th – 08th April , 2023.	Holy Grace Academy of Engineering, Mala, Thrissur, Kerala. India.	7/04/2023.



33	Jignesh, Dharmendra Kumar Jhariya and Neha Paras	Analysis and Implementation of Approximate 4-2 Compressors for Approximate Multipliers	2nd International Conference on the Paradigm shifts in Communication, Embedded Systems, Machine Learning and Signal Processing (PCEMS 2023)	05th - 6th April, 2023	Visvesvaraya National Institute of Technology, Nagpur, India	5/04/2023
34	Raghvendra Singh, Abhishek, Mahesh Kumar Singh, Dharmendra Kumar Jhariya	Performance Comparison of FPGA based Linear SVMs Classifier and Computer Simulation	2nd International Conference on the Paradigm shifts in Communication, Embedded Systems, Machine Learning and Signal Processing (PCEMS 2023)	05th - 6th April, 2023	Visvesvaraya National Institute of Technology, Nagpur, India	6/04/2023
35	Amit Kumar and Dharmendra Kumar Jhariya	Multifactor Authentication System	2nd International Conference on the Paradigm shifts in Communication, Embedded Systems, Machine Learning and Signal Processing (PCEMS 2023)	05th - 6th April, 2023	Visvesvaraya National Institute of Technology, Nagpur, India	6/04/2023
36	Preeti Verma, Ajay K Sharma	Design and Analysis of Groundless XNOR Gate topology in 90nm Technology	IEEE Global Conference for Advancement in Technology (GCAT),	Bangalore, India	Nagarjuna College Of Engineering & Technology, Bangalore.	October 2022

10. Book Chapters Published by the Departmental Faculty in 2022-2023:

S. No.	Name of the Authors (Departmental faculty name to be highlighted in bold)	Title of the Book Chapter	Name/ Details of the Book where the Chapter is Published	Volume	Page number	Publisher
1	A. Sharma, P. G. Bahubalindrani, M. Bharti, and P. Barquinha	Unified Physical Parameters Based Analytical Drain Current Model of Amorphous InGaZnO TFTs for Emerging Display Technolog	3rd International Conference on "Mobile Radio Communications & 5G Networks (MRCN- 2022) Lecture Notes in Network & Systems	Vol. 588	535-542	Springer, Singapore



2	Pandey, S., Bharti, M., & Agrawal, A. K.	Analysis of M-ary QAM-Based OFDM Systems in AWGN Channel	In Advances in Energy Technology Lecture Notes in Electrical Engineering	Vol. 766	223-235	Springer, Singapore
3	Bharti, M., Shukla, M., Joshi, A., & Garg, T.	Simultaneous Frequency and SSB Modulation for Ultrasonic Speakers.	In Advances in Energy Technology Lecture Notes in Electrical Engineering	Vol. 766.	499-506	Springer, Singapore
4	Bharti, M., Joshi, A., & Garg, T	Controlling an SSB-SC Amplitude Modulator Using a Second-Order Control System	In Advances in Energy Technology Lecture Notes in Electrical Engineering	Vol. 766	487-497	Springer, Singapore
5	Sakshi, Bharti, M.	Multiple Frequency Band Planar Antenna for Different Applications.	In Advances in Energy Technology Lecture Notes in Electrical Engineering	Vol. 766	49-54	Springer, Singapore
6	Bharti, M., & Garg, T	Analysis of SPA Scheme for Massive MIMO	In Advances in Energy Technology Lecture Notes in Electrical Engineering	Vol. 766	41-47	Springer, Singapore
7	PriyaKatiyar, Sandeep Kumar, Upendra Kumar Acharya, Prabhakar Agarwal	Study and Implementation of efficient Pseudorandom Number Generator	Intelligent Systems and Smart Infrastructure Proceedings of ICISSI 2022 Edited By-Brijesh Mishra, Rakesh Kumar Singh, SubodhWairya, Manish Tiwari-February 16, 2023	-	294-302	CRC Press Taylor & Francis
8	JyotiKrayla, Sandeep Kumar, Upendra Kumar Acharya, Arun Kumar Sahani, Pankaj Kumar & AritroSengupta	Comparative Analysis of Fuzzy Logic-based Image Enhancement Techniques for MRI Brain Images	In: Asokan, R., Ruiz, D.P., Baig, Z.A., Piramuthu, S. (eds) Smart Data Intelligence. Algorithms for Intelligent Systems. Springer, Singapore. https://doi.org/10.1007/978-981-19-3311-0_38 18 August 2022		pp 447-458	Springer, Singapore



9	JyotiKrayla, Upendra Kumar Acharya, Sandeep Kumar	Performance Analysis of Image Enhancement Techniques for MRI Brain Images	In: Chong, P.H.J., Kalam, A., Pascoal, A., Bera, M.K. (eds) Emerging Electronics and Automation. Lecture Notes in Electrical Engineering, Springer, Singapore. https://doi.org/ 10.1007/978-981-19- 4300-3_29 10 November 2022	vol 937.	pp 331–342	Springer, Singapore
10	Preeti Verma, Ajay K Sharma, Swatantrata Shukla, Alok K Mishra, D. Vaithyanathan, Baljit Kaur	Distributed Intelligent Circuits and Systems: Study and Analysis of Low Power Dynamic Sequential Circuits	World Scientific Publisher	Accepted for publication	NA	World Scientific Publisher
11	D. Kumar, N. Paras and S. B. Rahi	Performance Analysis of Tunnel Field Effect Transistor for Low Power Applications,	Intelligent Green Technologies for Sustainable Smart Cities,	1	195–225	Wiley
12	Pramod Kumar, Manisha Bharti and Neha Paras	Designing of non-volatile memories utilizing Tunnel Field Effect Transistor,	Tunneling Field Effect Transistor: Design, Modeling and Applications,			CRC Taylor & Francis

Book Published by the Departmental Faculty in 2022–2023:

S. No.	Name of the Authors	Title of the Book	Name/ Details of the Book	Volume	Page number	Publisher
1	Manju Khari, Manisha Bharti, M.Niranjanamurthy	Wireless Communication Security: Mobile and Network Security Protocols	Wireless Communication Security: Mobile and Network Security Protocols	ISBN: 978111977 7144	251 Pages	Wiley Scrivener Publishing
2	P. K. Basu, B. Mukhopadhyay and Rikmantra Basu, Oxford University Press, UK, 2022. DoP: April 05, 2022	Semiconductor Nanophotonics				Oxford University Press

**11. Student's Thesis/ Project Guidance in 2022-2023:****PhD Students:**

S. No.	Roll No.	Name of Student	Date of Defense	Main Supervisor	Joint Supervision (if any)	Title of Dissertation
1.	173221210	Dr. Suruchi Sharma	21.01.2023	Dr. Baljit Kaur,	Dr. Rikmantra Basu	Design of Tunnel Field Effect Transistor for low power and high-performance applications
2	173221205	Harshvardhan Choudhary	10.08.2022	Dr D Vaithyanathan	Dr. Harish Kumar, ME Department	Development and Measurement Uncertainty Estimation of Force Transducers
3	183221101	Alok Kumar Mishra	08.02.2023	Dr D Vaithyanathan	Dr. Baljit Kaur	Design and Analysis of Low Power Memory Elements for High Speed VLSI Circuits
4	183222106	Upendra Kumar Acharya	08-04-2022	Dr Sandeep Kumar	No	Image enhancement techniques for low exposure images
5	183221104	Prabhakar Agarwal	13-01-2023	Dr Sandeep Kumar	No	Development of efficient algorithms for recognition of imagined speech
6.	173221207	Neelam Barak	10-11-2022	Dr. Gyanendra Sheoran	No	Application of electrically tunable lens in microscopy

M. Tech Students:

S. No.	Roll No.	Name of Student	Date of Defense	Main Supervisor	Joint Supervision (if any)	Title of Dissertation
1.	20222001	Abhyuday Singh	May 2022	Dr Manisha Bharti	No	Design and Implementation of a High Speed and Robust 9T SRAM Bitcell
2.	202220004	Animesh Sahu	May 2022	Dr Manisha Bharti	Dr D Vaithyanathan	Improvement of Bus Arbitration on AXI Interconnect and Fair Bandwidth Allocation to Available Hardware Accelerator
3.	202221007	Manish	May 2022	Dr Manisha Bharti	No	Physical design Implementation of a Synthesized high frequency complex partition in 10nm Intel



4	202220001	Abhishek	May 2022	Dr Rikmantra Basu	No	Effect of Temperature in Bandgap Narrowing for the Application of Optoelectronic Devices
5	202221014	Vipul Jee Verma	May 2022	Dr D Vaithyathan	No	Review of Different Flip-Flop Circuits and a Modified Flip-Flop Circuit for Low Voltage Operation
6	202221004	Dipali Patidar	May 2022	Dr D Vaithyathan	No	An Energy-Efficient Conditional-Boosting Flip Flop with Conditional Pulse for Low Power Application
7	202221002	Bijjula Pruthwiraj	May 2022	Dr D Vaithyathan	No	A Low Power CMOS Analog Multiplier using Regulated Cascode Current Mirror based on Translinear Principles
8	202220004	Animesh Sahu	May 2022	Dr D Vaithyathan	Dr. Manisha Bharti	Improvement of Bus Arbitration on AXI Interconnect and Fair Bandwidth Allocation to Available Hardware Accelerator
9	202220010	Jyoti Kyrila	May 2022	Dr Sandeep Kumar	No	Implementation Of Image Enhancement Techniques For Medical Images
10	202221010	Priya Katiyar	May 2022	Dr Sandeep Kumar	No	FPGA Implementation of a Pseudorandom Number Generator using Four-Wing MemristiveHyperchaotic System and Bernoulli Map
11	202221006	Gopesh Singh	May 2022	Dr Nitin Singh Singha	Dr. Sachin Agrawal	Pin Placement Analysis for Server System on Chip
12	202222008	Jatin Kumar Goyal	May 2022	Dr Nitin Singh Singha	No	Analyzing smart home security issues using Blockchain Technology
13	202221008	MOHD SALIM JAN	May 2022	Dr Nitin Singh Singha	Dr. Mahesh K Singh	High Speed and Low Power Consumption
14	202220006	Ayush Kanojia	May 2022	Dr. Sachin Agrawal		Design and Analysis of an Energy and Area Efficient Hybrid Full Adder Cell
15	202220007	Madhuri Bendi	May 2022	Dr. Sachin Agrawal	Dr. D. K. Jhariya	Deep Learning Based Models for OFDM channel Estimation
16	202220011	Komal Kumari	June-2022	Dr. D. K. Jhariya	No	Implementation of Decision Tree Classifier on FPGA



17	202221011	Raghvendra Singh	June-2022	Dr. D. K. Jhariya	Dr Mahesh K Singh	Design Automation and Implementation of ML Classifier chips
18	202220007	Benot Madhuri	June-2022	Dr. D. K. Jhariya	Dr Sachin Agrawal	Deep Learning based Channel Estimation
19	202221003	DEEPAK KUMAR KUSHWAHA	June-2022	Dr Mahesh K Singh	-	A Wide-Range Power-Delay and Area Efficient Voltage Level Shifter Based on a Regulated Cross-Coupled Pull-Up Network

B. Tech Students:

S. No.	Roll No.	Name of Student	Date of Defense	Main Supervisor	Topic of Project
1.	181220021	Bansari Sinha	May 2022	Dr Manisha Bharti	Digital Steganography
2.	181220033	Lallan	May 2022	Dr Manisha Bharti	Complete Face Recognition System
3.	181220035	Medikonda Anjali	May 2022	Dr Manisha Bharti	Customer Sentiment Predictor
4.	181220051	Shaurya Anand	May 2022	Dr Manisha Bharti	Authentication using Typing Pattern
5	181220039 & 181220056	Nakka Soma Shekar Reddy Udde Akhilesh	May 2022	Dr Manisha Bharti	Air Quality Detection
6	181220060	Yash Gautam	May 2022	Dr Manisha Bharti	Microcontroller based ECG Signal Generator
7	181220049	Saransh	May 2022	Dr Rikmantra Basu	Smart Agriculture System
8	181220058	Vinay Kumar	May 2022	Dr Rikmantra Basu	Smart Agriculture System
9	181230009	Aswin Chowdary Undavalli	May 2022	Dr Rikmantra Basu	Compact Antenna Design
10	181230017	Harshit Malpotra	May 2022	Dr Rikmantra Basu	AI and IOT for Farm Monitoring (FarmBuddy)
11	181220027	Gyandeep	May 2022	Dr Rikmantra Basu	Image and Video Generation using Gan
12	181220054	Tanishq Arora	May 2022	Dr Rikmantra Basu	Image and Video Generation using Gan
13	181220050 181220041	Shanu Garg Nitesh Gupta	May 2022	Dr D Vaithyathan	Smart Flight Management System
14	181220045 181220057	Rachna Chandra Vavilala Tulasi Sri Bharathi	May 2022	Dr D Vaithyathan	Design and Implementation of an Intelligent Assistive System for Visually Impaired People for Aerial Obstacle Avoidance and Fall Detection



15	181220014 181220055	Arya Vashisht Tripti Kumari	May 2022	Dr D Vaithyathan	Blood Vessel Segmentation of eye using digital image processing (Hypertensive Retinopathy Diagnosis)
16	181220047	Rahul Sinha	May 2022	Dr Sandeep Kumar	Blood Cell Classification Using Neural Networks
17	181220040	Neeru kattu Shashidhar Yadav	May 2022	Dr Sandeep Kumar	IoT based intelligent robot for monitoring, air quality prediction and noise pollution check
18	181220029	Harshit Gupta	May 2022	Dr Sandeep Kumar	Fake currency detection with machine learning and image processing
19	181220053	Sukrit Malik	May 2022	Dr Sandeep Kumar	Detection of crack in walls using image processing in MATLAB
20	181220016 & 181220059	Ashish Ranjan & Vishal Kumar	May 2022	Dr Sandeep Kumar	A novel hybrid edge detection technique using second order derivative laplacian, canny and prewitt operator for X-ray images
21	181220012	Anubhav Prasad	May 2022	Dr Nitin Singh Singha	Tracking of Daily Spending
22	181220002	Abhishek	May 2022	Dr Nitin S Singha	Tracking of Daily Spending
23	181220007	Akshay Agrawal	May 2022	Dr Nitin S Singha	Implementation of Ancient Indian Game and marketing it live on site
24	181220024	Deepak	May 2022	Dr Nitin S Singha	Implementation of Ancient Indian Game and marketing it live on site
25	181220011	Anshul	May 2022	Dr Nitin S Singha	Login page using face recognition
26	181220006	Akashat Pandey	May 2022	Dr Nitin S Singha	Improvisation in Channel Estimation and Signal Detection in OFDM System
27	181220013	Arpit Jain	May 2022	Dr Nitin S Singha	3D object detection
28	181220032	Khushboo	May 2022	Dr Sachin Agrawal	Channel Estimation in OFDM Systems using Bi-LSTM Deep Learning Method
29	181220038	Muddssir Raza	May 2022	Dr Sachin Agrawal	Channel Estimation in OFDM Systems using Bi-LSTM Deep Learning Method
30	181220043	Pratham Agrasen	May 2022	Dr Sachin Agrawal	Deep Learning Based Channel Estimation
31	181220044	Praveen Kumar Shah	May 2022	Dr Sachin Agrawal	Deep Learning Based Channel Estimation



32	181220037	Mohd Humaid	May 2022	Dr Sachin Agrawal	Improvisation in Channel Estimation and Signal Detection in OFDM System
33	181220017	Ashutosh Tripathi	May 2022	Dr Sachin Agrawal	Improvisation in Channel Estimation and Signal Detection in OFDM System
34	171220003	ADARSH PATHAK	May 2022	Dr. D. K. Jhariya	Microwave device (Filter, Antenna for wireless communication)
35	171220026	KAKUMANI UDAY KIRAN	May 2022	Dr. D. K. Jhariya	Augmented reality chatbot using cloud and AI
36	171220038	PYLA VENKATA DURGA PRASAD	May 2022	Dr. D. K. Jhariya	
37	181220003	ABHISHEK SHARMA	May 2022	Dr. D. K. Jhariya	Restaurant Management System based app (using both mobile and web technology)
38	181220046	RAHUL KUMAR VERMA	May 2022	Dr. D. K. Jhariya	
39	181220022	BHUKYA SURYA KIRAN NAIK	May 2022	Dr. D. K. Jhariya	Multimodal Authentication System
40	181220026	GADE NAVEEN KUMAR	May 2022	Dr. D. K. Jhariya	
41	181220009 181220025	Anish Pankholi Dinesh Nath Goswami	May 2022	Dr Mahesh K Singh	Image Steganography Analysis using Deep Learning Methods
42	181220034 181220052	Manik Papneja Shubham Pokhriyal	May 2022	Dr Mahesh K Singh	Web Development
43	181220048	Sachin S Singh	May 2022	Dr Mahesh K Singh	Lane Detection using Sobel Operator
44	181220061	Yogesh Choudhary	May 2022	Dr Mahesh K Singh	Fake News Detection
45	181220020	Banoth Shirisha	May 2022	Dr Mahesh K Singh	Implementation of Face Recognition System



Department of Mechanical Engineering

VISION: Committed to the holistic development of Lives and Society by imparting Knowledge of Science and Technology and Crystallizing the future

MISSION: Application of Knowledge through learning and inculcating Research Oriented mind-set towards Design and Innovative Development for Realistic Societal Solutions.

GOALS:

- To impart the best technical education at under graduate level so as to train the students to be able to boldly face a world that is being transformed by scientific and technological advances
- To engage in research work, beneficial to industry as well as society and disseminate the research findings.
- To provide knowledge based technological services to satisfy the needs of the industry as well as society.
- To help in building national capabilities in developing technologies, opening up new vistas in education and research.
- To promote institute industry interaction through sponsored research by sponsoring faculty to work in industry

1. List of Faculty (as on 31 March 2023):

S. No.	Name of Faculty	Designation	Highest Qualification
1	Dr.LeeledharNagdeve	HoD, Assistant Professor	PhD
2	Dr. Harish Kumar	Associate Professor	PhD
3	Dr.Abhishek Mishra	Assistant Professor	PhD
4	Dr. Ashok Kumar Dewangan	Assistant Professor	PhD
5	Dr. Hargovind Soni	Assistant Professor (Contractual)	PhD

2. Newly Developed Labs in the Department

CAD/CAM LABORATORY

The department has Laboratories for Computer Aided Design and Manufacturing. The

infrastructure available includes two air-conditioned Portable Cabins with 24 computer systems and a classroom. The laboratories have the internet facilities and software for CAD/CAM.



CAD/CAM Lab

Academy for Advanced & Reverse Manufacturing (ARM) Lab

This facility based on the advance 3D printing technology. It has Fused Filament Fabrication technique where a temperature-controlled head

extrudes a thermoplastic material layer by layer onto a build platform. The other one is liquid-based Vat Photo-polymerization 3D printer. This lab also provides the facility of 3D scanning and Reverse Manufacturing for practical and research work



**ARM Lab****Additive Manufacturing Technology (AMT) Centre**

Additive manufacturing is a type of manufacturing technology that builds three-dimensional objects by building up materials, rather than cutting them

away. Generally, the method involves adding layers of material such as plastic, metal and concrete. There are a variety of types of additive manufacturing, each using different techniques and materials to achieve the result.

**Additive Manufacturing Technology (AMT) Centre**



Advanced Manufacturing Lab

Advanced manufacturing technologies, or Industry 4.0, involves automating traditional manufacturing processes using technologies such as robotics, Internet of Things (IoT), big data analytics, artificial intelligence, and autonomous systems. Advanced manufacturing technologies

can improve manufacturing capability and efficiency.

Implementing these technologies can help your company by:

- Optimizing processes
- Shortening cycle times
- Improving quality



Advance Manufacturing Lab



Smart Manufacturing Lab

Smart manufacturing (SM) is a technology-driven approach that utilizes Internet-connected machinery to monitor the production

process. The goal of SM is to identify opportunities for automating operations and use data analytics to improve manufacturing performance.



CNC Lathe



CNC Milling

Advanced Composites Lab

Advanced composites, or polymer composites, are made by combining reinforcement (such as fiber glass, carbon fiber, or aramid fiber) with a resin, which is another name for polymer



Advanced Composite Lab



3. EXPERT TALKS/FDP/STC/CONFERENCES ORGANIZED (2022-2023)

S. No.	Type of Event	Title of Event	Duration	Sponsored Agency
1.	STC	Emerging Technologies in Thermo-Fluids and Energy Systems(ETTES-2023)”	April 11th-16th, 2023	Self-Sponsored
2.	FDP	“Modern Manufacturing in Industry 4.0”	February 7th -12th, 2023	Self-Sponsored
3.	FDP	Modern Trends in Manufacturing and Thermal Sciences (MTMTS-2022)	April 5-10, 2022	Self-Sponsored
4.	International Conference	Advancement in Manufacturing Engineering – 2022 (ICAME - 2022)	November 12-13, 2022	CAPIER
5.	International Conference	7th International Conference on Advanced Production and Industrial Engineering (ICAPIE-2022)	June 11-12, 2022	CAPIER
6.	Expert Talk	Expert Talk on Electrochemical Process	October 21, 2022	Self-Sponsored



- Dr Leeladhar Nagdeve attended on “Experimental investigation into Portable Near Dry EDM from December 08-12,2022
- Dr Leeladhar Nagdeve attended the international conference on “Influence of process variables on surface roughness of 316L stainless steel parts processed through selective layer melting” from December 08-12, 2022 organized by IIT Kanpur.
- Dr Ashok K Dewangan attended the international conference on “Low Power High Speed Optimized Comparator for flash ADC” from December 23-25,2022
- Conference attended on “Architectural improvement and performance Evaluation of 1D to 2D array conversion Priority Encoder” from December 23-25, 2022



4. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Organized in 2022-2023:

S. No.	Workshop/ Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Coordinator/ Convener/ Chairman
1	FDP	Modern Manufacturing in Industry 4.0	Mechanical Engg. NIT Delhi	February 07-12, 2023	Dr. Leeladhar Nagdeve & Dr. Ashok K Dewangan
2	FDP	Modern Trends in Manufacturing and Thermal Sciences (MMTSc-2022)	Mechanical Engg. NIT Delhi	April, 5-10, 2022	Dr. Harish Kumar, Chairman

5. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Attended in 2022-2023:

S. No.	Workshop/ Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Faculty Attended by
1	Conference	3rd Biennial International Conference on Future Learning Aspects of Mechanical Engineering (FLAME - 2022)	Amity University Noida	August 03-05, 2022	Dr. Abhishek Mishra, Session Chair

6. Expert Lecture Delivered by Departmental Faculty in 2022-2023:

S. No.	Title of the Expert Talk	Name of the Event	Organized By	Duration	Faculty Delivered Expert Talk
1	Natural Fiber Reinforced Polymer for Sustainable Bio- Composites: Opportunities, Challenges and Industrial Applications	International conference on "Plastics & Polymers Technology (PPT 2022)"	Plastic & Polymer Technology Conferences-2022	December 16, 2022	Dr. Leeladhar Nagdeve
2	Role of modified Surfaces in Pool Boiling heat transfer	1st International conference on Sustainable Materials Manufacturing and Energy technologies (SMMET- 2022)	Raj Kumar Goel Institute of Technology, Ghaziabad	24th to 25th June, 2022	Dr. Ashok Kumar Dewangan
3	Overview of Boiling heat transfer	Expert talk at Department of Mechanical Engineering	College of Engineering Roorkee (COER)	24th February	Dr. Ashok Kumar Dewangan



7. Journal Publications by the Departmental Faculty in 2022-2023:

S. No.	Name of the Authors (Departmental faculty name to be highlighted in bold)	Title of the paper	Name of the Journal	Volume	Page number	Month and Year of Publication
1	V Joshi, L Nagdeve, G Moona, H Kumar	Mechanical Testing of Hybrid LM30 Metal Matrix Composite Fabricated through Stir Casting Route	Indian Journal of Pure & Applied Physics (IJPAP)	61 (01),	33-42	2023/12/1
2	Alok Ranjan, Harish Kumar, Leeladhar Nagdeve, Abhishek Mishra, Gajendra Kumar Gaurav, Jiří Jaromír Klemeš	Mechanical properties of rice husk ash, an environmental pollutant, based composites: A step towards sustainable hybrid composites	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	44(4)	9584-9602	2022/12/21
3	Alok Ranjan, Leeladhar Nagdeve, Harish Kumar, Abhishek Mishra	Tribological Performance of Aluminium Metal Matrix Hybrid Composites	MAPAN	37(4)	845-858	2022/12
4	Alok Ranjan, Leeladhar Nagdeve, Harish Kumar, Abhishek Mishra, Jitendra Kumar Katiyar	Tribological behaviour of stir casted hybrid-Al metal matrix composites using Taguchi technique	Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology	237(4)	894-910	2022/10/20
5	Krishnakant Dhakar, Rahul Kumar, Ankush Katheria, Leeladhar Nagdeve, Harish Kumar	Effect of various dielectric fluids on electric discharge machining (EDM): a review	Journal of the Brazilian Society of Mechanical Sciences and Engineering	44 (10)	487 (1-17)	2022/10
6	Meena Pant, Leeladhar Nagdeve, Girija Moona, Harish Kumar	Estimation of Measurement Uncertainty of Additive Manufacturing Parts to Investigate the Influence of Process Variables	MAPAN	37	765-775	2022/8/16
7	Meena Pant, Leeladhar Nagdeve, Girija Moona, Harish Kumar, Anuj Sharma	Tribological behavior investigation of 316L stainless steel samples processed by selective laser melting	Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology	237	718-731	2022/5/16



8	Appurva Jain, Abhishek Mishra, Vikrant Tiwari	Experimental investigation and numerical prediction of rupture in SS304 stainless steel sheet under tension	Alexandria Engineering Journal	65	521-530	February 2023
9	Appurva Jain, Abhishek Mishra, Vikrant Tiwari, Gurminder Singh, Ravinder Pal Singh and Sunpreet Singh	Deformation Measurement of a SS304 Stainless Steel Sheet Using Digital Image Correlation Method	Photonics (MDPI)	9(12), 912	1-15	November 2022
10	Uma Shankar Prasad, Radhey Shyam Mishra, Ranadip Kumar Das, Hargovind Soni	Experimental and Simulation Study of the Latest HFC/HFO and Blend of Refrigerants in Vapour Compression Refrigeration System as an Alternative of R134a	Processes	11	814	9-3-2023
11	Priyaranjan Sharma, Hargovind Soni, Sunita Sethy, Sudhansu Ranjan Das, Mohammed Y Tharwan, Sharaf Al Sofyani, Abdel-Hamid I Mourad, Ammar Elsheikh	Surface characterization of SAE 304 after WED cutting: an experimental investigation and optimization	Journal of Materials Research and Technology	23	5723-5732	1-3-2023
12	Manij IV, PM Mashinin, Narendranath S Hargovind Soni Shadab Ahmad, Shanay Rab &	Artificial Neural Network-based Prediction Assessment of Wire Electric Discharge Machining Parameters for Smart Manufacturing Paladyn.	Journal of Behavioral Robotics	14	20220118.	31-03-2023
13	Ashish Kumar, AkhileshwarNirala, VP Singh, Biraj Kumar Sahoo, RC Singh, Rajiv Chaudhary, Ashok K Dewangan, Gajendra Kumar Gaurav, JiříJaromírKlemeš, Xinghui Liu	The utilisation of coconut shell ash in production of hybrid composite: Microstructural characterisation and performance analysis	Journal of Cleaner Production	398	136494	2023
14	Rajesh Choudhary, Abhishek Mukhija, Subhash Sharma, Rohitash Choudhary, Ami Chand, Ashok K Dewangan, GajendraKumar Gaurav, JiříJaromírKlemeš	Energy-saving COVID-19 biomedical plastic waste treatment using the thermal-Catalytic pyrolysis	Energy	264	126096	2023



8. Conference Papers Presented by the Departmental Faculty in 2022-2023:

S. No.	Name of the Authors (Departmental faculty name to be highlighted in bold)	Title of the paper	Name of the Conference	Place and Country where the Conference Held	Organizer of the Conference	Date of Presentation
1.	Rahul Kumar, AnkushKatheria, Leeladhar Nagdeve, Harish Kumar, K. Dhakar	Experimental Investigation into Portable Near Dry EDM"	12th International Conference On Meso and Nano Engineer (COPEN-12)	India December 08 - 12, 2022	Indian Institute of Technology, Kanpur	December 08 - 12
2.	Meena Pant, Leeladhar Nagdeve, GirijaMoona, Harish Kumar	Influence of process variables on surface roughness of 316L stainless steel parts processed through selective laser melting	(COPEN-12)	India December 08 - 12, 2022	Indian Institute of Technology, Kanpur	December 08 - 12
3.	Krishna Kumar, Harish Kumar, Leeladhar Nagdeve, GirijaMoona	A Review on transmutation in properties of Aluminum metal matrix composite reinforced with Industrial waste	ICAME-2022)			November 12-13rd, 2022
4.	KudaruUjwal, Leeladhar Nagdeve, Harish Kumar and P Anil Kuma (2022) "Isolator", 7th International Conference on Advanced Production and Industrial Engineering (ICAPIE-2022) jointly organized by DTU, CAPIER, and Department of Mechanical Engineering, NIT Delhi during June 11-12, 2022 at NIT Delhi, INDIA	Design and Analysis of Conical				
5.	VP Singh, Rajan Kumar, Ashish Kumar, Ashok K Dewangan	Automotive light weight multi-materials sheets joining through friction stir welding technique: An overview	Materials Today: Proceedings (ICAME -2022)	India	NIT Delhi	November 12-13, 2022



6.	Md. Nasar Equbal, Ashok K Dewangan, Syed Qaudir Moinuddin, and Ashok K Yadav	A review on Producing, Storage and Usage of Hydrogen as Fuel in IC Engines	1st International Conference on Heat Transfer and Fluid Dynamics AHTFD-22	India, December 1-3, 2022	Department of Mechanical Engineering, AMU Aligarh India	December 1-3, 2022
7.	Manish Patel, Ashok K Dewangan, and Ashok K Yadav	A review on Carbon Dioxide Removal Technologies for Biogas Upgrading	1st International Conference on Heat Transfer and Fluid Dynamics AHTFD-22	India, December 1-3, 2022	Department of Mechanical Engineering, AMU Aligarh India	December 1-3, 2022
8.	Md. Nasar Equbal, Ashok K Dewangan, Syed Qaudir Moinuddin, and Ashok K Yadav	Impact of Hydrogen Enriched-Biogas/Biodiesel on a Diesel Engine: A review	International Conference on Nanotechnology: Opportunities and Challenges ICNOC-2022	India, November 28-30, 2022	Department of Applied Sciences & Humanities Jamia Millia Islamia, New Delhi	November 28-30, 2022
9.	Manish Patel, Ashok K Dewangan, and Ashok K Yadav	Experimental and Computational Study of Combustion and Emission Characteristics of a Diesel Engine Fueled With Diesel-Biodiesel Premixed With Nonoaditives	International Conference on Nanotechnology: Opportunities and Challenges ICNOC-2022	India, November 28-30, 2022	Department of Applied Sciences & Humanities Jamia Millia Islamia, New Delhi	November 28-30, 2022
10.	Meena Pant, Girija Moona, Leeladhar Nagdeve, Harish Kumar	Tensile strength analysis of 316L stainless steel parts fabricated via selective laser melting	3rd International conference on advances in materials and processing challenges and opportunities	India, October 17-19, 2022	Department of Metallurgical and materials Engineering Indian Technology Roorkee	India, October 17-19, 2022

**9. Book Chapters Published by the Departmental Faculty in 2022-2023:**

S. No.	Name of the Authors (Departmental faculty name to be highlighted in bold)	Title of the Book Chapter	Name/ Details of the Book where the Chapter is Published	Volume	Page number	Publisher
1.	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, Lecture Notes in Mechanical Engineering	10.1007/978-981-16-2794-1_99	1139-1152	Springer, 2022
2.	Shadab Ahmad, Shanay Rab & Hargovind Soni	Advances in Additive Manufacturing and Its Numerical Modelling	Handbook of Metrology and Applications	978-981-19-1550-5	1-21	07 February 2023

10. Book Published by the Departmental Faculty in 2022-2023:

S. No.	Name of the Authors (Departmental faculty name to be highlighted in bold)	Title of the Book	Name/ Details of the Book	Volume	Page number	Publisher
1.	Debi Prasad Mishra, Ashok Kumar Dewangan, Achhaibar Singh	Recent Trends in Thermal and Fluid Sciences: Select Proceedings of INCOME 2021	Proceedings of INCOME 2021	2195-4364	1-339	Springer Nature
2.	Shriram Hegde (Editor), Abhishek Mishra (Editor), D. K. Singh (Editor)	Recent Developments in Mechanics and Design: Select Proceedings of INCOME 2021	Lecture Notes in Mechanical Engineering (November 2022)	978-981-19-4140-5	i-xii, 1-285	Springer
3	Meena Pant, Girija Moona, Leeladhar Nagdeve, Harish Kumar	Role of Metrology in the Advanced Manufacturing Processes	Handbook of Metrology and Applications	10.1007/978-981-19-1550-5_58-1	1-19	Springer
4	Meena Pant, Girija Moona, Leeladhar Nagdeve, Harish Kumar	Metrological Assessments in Additive Manufacturing	Handbook of Metrology and Applications	10.1007/978-981-19-1550-5_61-1	1-12	Springer
5.	Mansi, Harish Kumar, Ajay K.S Singholli	Additive manufacturing a brief introduction	Handbook of Metrology and Applications	10.1007/978-981-19-1550-5_61-1	1-11	Springer



11. Student's Thesis/ Project Guidance in 2022-2023:

PhD Students:

S. No.	Roll No.	Name of Student	Date of Defense	Joint Supervision (if any)	Title of Dissertation
1.	163311201	Neeraj Kumar	12-08-2022	Dr. Abhishek Mishra	Train Scheduling and Rescheduling for the Indian Railway Network

M. Tech Students:

S. No.	Roll No.	Name of Student	Date of Defense	Main Supervisor	Joint Supervision (if any)	Title of Dissertation
1	202311008	Navita	2022	Dr. Leeladhar Nagdeve	Dr Harish Kumar	PLA- Spirulina Algae polymer matrix composite:green plastic
2	202311007	KudaruUjjwal	2022	Dr. Leeladhar Nagdeve	Dr Harish Kumar	Design and Analysis of conical Spring Isolator
3	202311004	Binayak	2022	Dr. Leeladhar Nagdeve	Dr Harish Kumar	Experimental investigations into magnetic abrasive finishing of A17075 Hybrid Aluminium metal matrix composite (HAMMCs)
4	202311009	Rahul Kumar	2022	Dr. Leeladhar Nagdeve	Dr Harish Kumar	Design and analysis of Conical Spring isolator
5	202311003	Ashish Kumar	2022	Dr. Harish Kumar	Dr. Leeladhar Nagdeve	Investigation of wear Behaviour of green hybrid Aluminium metal matrix composite
6	202311013	Shivendra Rajput	2022	Dr Ashok K Dewangan	Dr. Leeladhar Nagdeve	Influence of path planning strategies on Microstructure and mechanical properties using WAAM of SSER304L Alloys
7	202311001	Akshay Ramesh Suryawanshi	2022	Dr. Harish Kumar	Dr. Leeladhar Nagdeve	Experimental investigations on machining parameters of Inconel 718 alloy using Wire- EDM
8	202311006	Ranu Raj	2022	Dr. Harish Kumar	Dr. Leeladhar Nagdeve	Parameter optimization of wear and coefficient of friction of A17075 Hybrid Aluminium Metal Matrix Composite(HAMMCs)
9	202311006	Jay Shankar	2022	Dr. Harish Kumar	Dr. Leeladhar Nagdeve	Mechanical Behaviour of Bamboo fiber reinforced epoxy composite



10	202311002	Anenaya Raajsshri	2022	Dr. Harish Kumar	Dr. Leeladhar Nagdeve	Process optimization of polyethylene Terephthalate Glycol samples fabricated by fused filament fabrication
11	202311014	Vikas Bhushan	2022	Dr. Ashok K Dewangan		An Experimental Investigation on vibrational behavior and control of hydrodynamic journal bearing
12	202311011	Saurabh Jangir	2022	Dr. Ashok K Dewangan		Investigation on thin wall ER-4043 aluminium alloy components using wire arc additive manufacturing
13	202311005	Dhula Ram Khokhriya	2022	Dr. Ashok K Dewangan	Dr Harish Kumar	Application of computer vision in 3D printing technology



Department of Civil Engineering

Vision

- To create an educational environment to prepare the students to meet the challenges of infrastructure development through state of art technical knowledge and innovative approaches upholding sound ethics.

Mission

- To create learning, development and testing environment to meet ever

challenging needs of the infrastructure development.

- To create entrepreneurial environment and industry interaction for the benefit of society.
- To be a global leader in training human resources in the various domains of Civil Engineering.
- To collaborate with reputed institutions at national and international level for academic and research excellence.

1. List of Faculty (as on 31 March 2023):

S. No.	Name of Faculty	Designation	Highest Qualification
1	Dr Ajay Kumar	HoD & Associate Professor	Ph.D.
2	Dr Kapil Kumar	Assistant Professor	Ph.D.

2. Newly Developed Labs in the Department

- LESER (Laboratory of Environmental Sustainability and Energy Research) Basement Lab

3. New procurement has been done by the Department in order to develop lab and students facilities -

- (i) Universal Testing Machine

(ii) Capo Cut And Pull Out Test Equipment

(iii) Galvapulse Corrosion Rate analyser

4. Following Instruments / Equipments have been procured in the financial year 2022-23 for the development of LESER (Laboratory of Environmental Sustainability and Energy Research) Lab.

S. No.	Item Description	Quantity
1.	Automatic Kjeldahl Unit	01
2.	Refrigerator	01
3.	UV Visible Spectrometer	01
4.	Automatic Weighing Balance	02



5.	Flame Photometer	01
6.	Hot Air Oven	01
7.	Electronic Pipettes	02
8.	BOD Incubator	01
9.	Magnetic Stirrer	01
10.	Water Quality Checker	01
11.	Ultrapower Water Purification Unit	01
12.	Water Distillation Unit	01
13.	Vaccum Pump	01
14.	Muffle Furnace	01
15.	Dessicator	01
16.	Digital pH Meter	01
17.	Automatic Burette	01
18.	Digital COD Digester	01
19.	Hot Plate with Magnetic Stirrer	01
20.	DO Meter	01
21.	Turbidimeter	01

5. Projects Completed/On Going/sponsored projects in 2022-2023:

S. No.	Title	Start Date & Duration	Funding Agency	PI Name & Co-PI (if any)	Project cost (Rs.)	Whether Ongoing or completed
1	Vulnerability Assessment and Remedial Measures for Protected Monuments in Bihar	March, 2023-May, 2024	BSDMA Bihar	Dr. Ajay Kumar (Co-PI)	964128/	Ongoing

6. Consultancy services completed/ongoing in 2022-2023:

S. No.	Title	Year	Agency	Coordinator/ Dept.	Consultancy cost(Rs.)
1.	Structural audit report of old building named VAYUDOOT Building at Safdarjung Airport, New Delhi	2023	Airports Authority of India Rajiv Gandhi Bhawan New Delhi	Ajay Kumar	10,62,000
2.	M25, M30 Design Mix	2023	Krishna Buildspace Pvt. Ltd.,	Ajay Kumar	1,18,000
3.	Vetting of structural design drawings available for an industrial warehouse buildingArchitects	2023	KITLEAPAR	Ajay Kumar	1,15,000
4.	Vetting of Structural Drawings of Conference Hall & Shopping Complex, Pulwama	2023	Sushumna Consultancy Services LLP	Ajay Kumar	50000
5.	Vetting of Reservoir Drawings	2023	NMR Engineering Works	Ajay Kumar	23600

**7. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Organized in 2022-2023:**

S. No.	Workshop/ Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Coordinator/ Convener/ Chairman
1.	Lecture by Prof. Andrew Whittaker	Expert Lecture	Civil Dept., NIT Delhi	22.02.2023	Ajay Kumar
2.	Lecture by Prof. Beni Lew and Prof. Abid Ali Khan	Expert Lecture	Civil Dept., NIT Delhi	13.02.2023	Dr. Kapil Kumar
3.	e-Faculty Development (FDP) programme	Sustainable Environment & Climate Change (SECC-2022)	Department of Applied Sciences, NIT Delhi	14-19.06.2022	Dr. Kapil Kumar

8. Workshops/ Short-term Courses/ Seminars/ Lectures/ FDP/ Conference Attended in 2022-2023:

S. No.	Workshop/ Short-term Courses/ Seminars/ Lectures	Name of the Event	Organized By	Duration	Faculty Attended by
1.	Lectures	National Platform for Disaster Risk Reduction (NPDRR) - 2023	Ministry of Home Affairs, Government of India	10-11, March 2023	Ajay Kumar
2.	Conference	3rd International Conference on Material Science, Smart Structures and Applications	Surya Engineering College, Erode	27-28, March 2023	Ajay Kumar

9. Expert Lecture Delivered by Departmental Faculty in 2022-2023:

S. No.	Title of the Expert Talk	Name of the Event	Organized By	Duration	Faculty Delivered Expert Talk
1.	Analysis of sandwich laminates	Technological Advancements in Civil Engineering (TACE-2022)	MMMUT Gorakhpur	09.12.2022	Ajay Kumar
2.	Composites	International Conference on Materials and Manufacturing for Sustainable Developments (ICMMS-2022)	SRM University Delhi-NCR, Sonapat	16.09.2022	Ajay Kumar



10. Journal Publications by the Departmental Faculty in 2022–2023:

S. No.	Name of the Authors	Title of the paper	Name of the Journal	Volume	Page number	Month and Year of Publication
1.	R. C. Bush, Anoop Shirkol, Sruthi J S, Ajay Kumar	Study of Seismic Analysis of Asymmetric Building with Different Shapes of Staggered Openings and Without Openings in Shear Wall	Materials Today	2022, 64	964–969	May 2022
2.	Ravi Kumar, Ajay Kumar	Free Vibration Response of CNT reinforced Multiscale Functionally Graded Plates using the Modified Shear Deformation Theory	Advances in Materials and Processing Technologies	2022, 8	4257–4279	May 2022
3.	Jitendra Singh, Ajay Kumar, Małgorzata Szafraniec, Danuta Barnat-Hunek and Barbara Sadowska-Buraczewska	Static Analysis of Skew Functionally Graded Plate Using Novel Shear Deformation Theory	Materials	2022, 15	1–20	July 2022
4.	Pranav Kumar, Ajay Kumar	Stability analysis of imperfect functionally graded CNTs reinforced curved beams	Mechanics Based Design of Structures and Machines	https://doi.org/10.1080/15397734.2022.2116340		September 2022
5.	Ravi Kumar, Ajay Kumar	Post-buckling analysis of CNT-reinforced hybrid FG plates using MTSDT	Mechanics Based Design of Structures and Machines	https://doi.org/10.1080/15397734.2022.2138915		October 2022
6.	Raushan Kumar, Ajay Kumar	Flexural analysis of laminated composite porous plate	Asian Journal of Civil Engineering	24 (3)	673–692	October 2022
7.	Bharat Bhushan Mishra, Ajay Kumar, Umut Topal	Stochastic normal mode frequency analysis of hybrid angle ply laminated composite skew plate with opening using a novel approach	Mechanics Based Design of Structures and Machines	51	275–309	January 2023
8.	Raushan Kumar, Ajay Kumar	Free vibration analysis of laminated composite porous plate	Asian Journal of Civil Engineering	https://doi.org/10.1007/s42107-022-00561-6		January 2023
9.	Jitendra Singh, Ajay Kumar	Flexural response of MWCNT reinforced composite plate	Asian Journal of Civil Engineering	https://doi.org/10.1007/s42107-023-00581-w		February 2023
10.	Naveen Chand, Surindra Suthar, Kapil Kumar, Vineet Singh	Removal of pharmaceuticals by vertical flow constructed wetland with different configurations: Effect of inlet load and biochar addition in the substrate.	Chemosphere	307 (Part 2)	135975	August 2022



11.	Ganesh Sude, Ankur Rajpal, Vinay Kumar Tyagi, Kapil Sharma, Pravin Kumar Mutyar, B. K. Panday, R. P. Pandey, Absar Ahmad Kazmi	Evaluation of sludge quality in Indian sewage treatment plants to develop quality control indices	Environmental Science and Pollution Research	10.1007/s11356- 023-25320-1	January, 2023
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11. Conference Papers Presented by the Departmental Faculty in 2022-2023:

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.	Anil Kumar Gupta, Ajay Kumar	Dynamic Behavior of Porous FG Plates	ICMSS 2023	Erode, India	Surya Engineering College	27.03.2023
2.	Prashant Kumar, Ajay Kumar	Dynamic analysis of the steel-concrete pervious composite beam	ICMSS 2023	Erode, India	Surya Engineering College	27.03.2023

11. Student's Thesis/ Project Guidance in 2022-2023:

PhD Students:

S. No.	Roll No.	Name of Student	Date of Defense	Joint Supervision (if any)	Title of Dissertation
1	17CE002	Bharat Bhushan Mishra	19.08.2022	NIL	Vibration and buckling response of composite laminates including uncertainties using FEM and machine learning methods
2.	183441101	Naveen Chand	28.12.2022	Dr. S. S. Suthar	Removal of pollutants from wastewater using Constructed Wetlands

Prepared by: Annual Report Committee:

Dr. Gyanendra Sheoran	Chairman
Dr. Manisha Singh	Member
Dr. Anidev Singh	Member
Dr. Gareema Sharma	Member
Dr. Dharmendra Kumar Jhariya	Member



National Institute of Technology Delhi

Part-II

Separate Audit Report and Annual Accounts 2022-2023



कार्यालय महानिदेशक लेखापरीक्षा (केन्द्रीय व्यय)
Office of the Director General of Audit (Central Expenditure)
डी जी ए सी आर भवन, इन्द्रप्रस्थ एस्टेट, नई दिल्ली-110 002
DGACR Building, Indraprastha Estate, New Delhi-110 002

ए.एम.जी-III/एस.ए.आर/एन.आई.टी./9-7/2023-24/

दिनांक: 09.08.2023

सेवा में,

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

विषय : वर्ष 2022-23 के लिए राष्ट्रीय प्रौद्योगिकी संस्थान, दिल्ली के लेखाओं पर पृथक लेखापरीक्षा प्रतिवेदन ।

महोदया/महोदय,

मैं राष्ट्रीय प्रौद्योगिकी संस्थान, दिल्ली के वर्ष 2022-23 के प्रमाणित वार्षिक लेखों 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 2022-23 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

Q

AR

3-21m
10/8/23

— हस्ता. —
निदेशक (ए.एम.जी.-III)

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E-mail : dgace@cag.gov.in
Website : https://cag.gov.in/cen/new-delhi-iii/ten



ए.एम.जी.-III/एस.ए.आर/एन.आई.टी./9-7/2022-23/653

दिनांक: 09.08.2023

✓ 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./9-7/2022-23/

दिनांक: 09.08.2023

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 31st March 2023**

We have audited the attached Balance Sheet of National Institute of Technology, Delhi (NITD) as at 31st March 2023, the Income & Expenditure Account and Receipts & Payments Account for the year ended on that date under Section 19(2) of the Comptroller & Auditor General's (Duties, Powers & Conditions of Service) Act, 1971 read with section 22(2) of 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. Balance Sheet

A.1 Fixed Assets (Schedule 4) - Rs.283.10 Crore

An amount of Rs. 34.09 crore has been shown as addition under building and external development out of which works for an amount of Rs.13.34 crore were yet to be completed and needs to be depicted under work-in-progress. This has resulted in overstatement of Building and understatement of work-in-progress by Rs. 13.34 crore. Further the depreciation amounting to Rs. 27 lakh has been charged on the work-in progress of Rs. 13.34 crore resulting in understatement of Fixed assets and Corpus/Capital fund by Rs. 27 lakh.

B. Grants-in-aid

During the year 2022-23, the National Institute of Technology (NIT), Delhi received grants-in-aid of Rs. 136.13 crore. It had an opening balance of Rs. 52.86 crore (as per previous SAR). Out of the total Grants-in-aid of Rs. 188.99 crore, it utilized Rs. 186.87 crore (Capital: Rs. 154.41 crore & Revenue : Rs. 32.46 crore) and grants-in-aid of Rs. 0.55 crore was lapsed leaving unutilized grants-in-aid of Rs. 1.57 crore as on 31 March 2023.

C. 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 2023; 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 C& AG of India

Director General of Audit
(Central Expenditure)

Place: New Delhi

Date: 08.08.23



Annexure to report

1. Adequacy of internal audit system

- Internal Audit wing has been established in NIT Delhi in January 2022 to conduct pre-audit. However, internal audit for the year 2022-23 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

- The internal control of the NITD is adequate in areas seen by audit.

3. System of physical verification of Assets

- The physical verification of Fixed Assets except Furniture and Fixtures and Plant and Machinery has been conducted up to 2022-23.
- The physical verification of Furniture and Fixure and Plant and Machinery was conducted upto 2021-22.
- Physical verification of Library books was conducted up to 2020-21.

4. System of physical verification of inventory

- Physical verification of Stationery and Consumables were conducted up to 2022-23 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 31.3.2023.



National Institute of Technology Delhi



सत्यमेव जयते

प्रोमी

उपनिदेशक (ए.एम.जी-III)

ए.एम.जी.-III/एस.ए.आर./एन.आई.टी./9-7/2023-24/655

कार्यालय महानिदेशक लेखा परीक्षा
(केन्द्रीय व्यय), नई दिल्ली

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

दिनांक: 09.08.2023

प्रबंधन पत्र

प्रिय डॉ अजय कुमार शर्मा जी,

राष्ट्रीय प्रौद्योगिकी संस्थान दिल्ली, के वर्ष 2022-23 के लेखों की लेखापरीक्षा कर ली गयी है और मेरे कार्यालय के पत्र संख्या ए.एम.जी.-III/एस.ए.आर./एन.आई.टी./9-7/2023-24/655 दिनांक: 09.08.23 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,

प्रोमी

डॉ अजय कुमार शर्मा जी
निदेशक,
राष्ट्रीय तकनीकी संस्थान,
प्लॉट नं एफ ए.7, ज़ोन पी.1,जी.टी. करनाल रोड,
नई दिल्ली-110036

अ.अ.नि.
10/8/23

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Fax : 91-11-23702271

A.G.C.R. Building, I.P. Estate, New Delhi-110002
e-mail : dgace@cag.gov.in



Annexure to Management Letter

Part-A Persistent Irregularities

1. 57 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.
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. This was also pointed out in the Management letter for the year 2021-22 but remedial action has not been taken.

Part-B Other Irregularities

1. In annual account for the year 2021-22, an amount of Rs. 230.55 crore has been shown as Work in progress which has been shown as addition to the Building in the accounts for the year 2022-23. As per the format of Accounts prescribed by Ministry of Education the amount shown as addition to the Building should have been correspondingly shown as deduction under the head Work-in-progress but this entry has not been depicted in the schedule of Fixed Assets. This needs to be rectified.
2. **Earmarked/Endowment Fund (Schedule 2)-Rs. 11.86 crore**
An amount of Rs.918.12 lakh has been shown as opening balance as on 01.04.2022 and during the year receipts of Rs. 329.86 lakh has been added to the fund but no income from investment made of the Funds/accrued interest on the investments /interest on saving bank Account has been shown in the above schedule. Further as per the format of Accounts prescribed by Ministry of Education the fund wise closing balance should be represented by: cash and bank balance, investment, interest accrued but not due, but the same has not been depicted in the Schedule 2.
3. As per Note number 14 of Notes to Accounts, the expenditure on E-journal has been booked under revenue expenditure. This is contravention of the format of accounts prescribed by Ministry of Education which provides for capitalisation of Expenditure on E-Journal and charging of depreciation @ 40% on E-Journal.



National Institute of Technology Delhi



GHOSH KHANNA & CO LLP

(LLP Identification No: AAV-9018)

CHARTERED ACCOUNTANTS

L-2A Hauz Khas Enclave, New Delhi-110016 India
Phone: +91 (011) 2696 2981/72 Fax: +91 (011) 2696 2983
Email: ghkca@ghkca.com Website: www.ghkca.com

Compilation Report

We have compiled the attached **Balance Sheet of the National Institute of Technology, Delhi at 31st March 2023** and also **The Income and Expenditure Account and The Receipt and Payment Account** of the Institute for the year ended 31.03.2023 included in the accompanying prescribed form and accordingly, do not express an opinion or provide any assurance about whether the financial statements are in accordance with accounting principles generally accepted in India.

Management is responsible for the preparation and fair presentation of the financial statements included in the form prescribed by the Government of India, Ministry of Education in accordance with accounting principles generally accepted in India and for designing, implementing, and maintaining internal control relevant to the preparation and fair presentation of the financial statements.

Our responsibility is to conduct the compilation in accordance with generally accepted accounting principles issued by the Institute of Chartered Accountants of India. The objective of a compilation is to assist management in presenting financial information in the form of financial statements without undertaking to obtain or provide any assurance that there are no material modifications that should be made to the financial statements.

The Financial Statements included in the accompanying prescribed form are presented in accordance with the requirements of the Government of India, Ministry of Education, and are not intended to be a presentation in accordance with accounting principles generally accepted in India.

This report is intended solely for the information and use of the National Institute of Technology, Delhi, and is not intended to be and should not be used by anyone other than these specified parties.

Ghosh Khanna & Co LLP
Chartered Accountant
Firm Registration No: 003366N/N500362

Deepak Kumar Saxena
Partner
Membership No. 083561



Place: New Delhi

Date: 30th May 2023

Note: Ghosh Khanna & Co., (ICAI No: 003366N) has been converted from Partnership firm to LLP w.e.f. 15th February 2021.

Registered Office: B-5, P.T. Road (Sub. Phase) Scheme-1, Vasant Vihar-110014 Tel: +91 (011) 2216 8321 Email: ghkca@ghkca.com



NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Balance Sheet as at 31.03.2023

Amount in Rs.

Sources Of Funds	Schedule	Current Year	Previous Year
Corpus/ Capital Fund	1	4,348,416,458	2,780,550,070
Designated/Earmarked/Endowment Funds	2	118,624,301	91,812,472
Current Liabilities And Provisions	3	177,386,289	627,556,534
Total		4,644,427,048	3,499,919,075
Application Of Funds	Schedule	Current Year	Previous Year
Fixed Assets			
Tangible Assets 224,932,201			
Intangible Assets 12,674,893			
Building 2,593,429,381	4	2,831,036,475	2,373,981,034
Investments - From Earmarked/Endowment Funds	5		
Long Term		-	-
Short Term		-	-
Investments - Others	6	-	-
Current Assets	7	778,993,873	947,460,977
Loans & Deposits	8		1,034,396,699
178,477,064			
Total		4,644,427,048	3,499,919,075
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: 30/05/2023

Place: Delhi

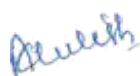


National Institute of Technology Delhi


NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Income And Expenditure Account For The Year Ended On 31.03.2023

Amount in Rs.

Sources Of Funds	Schedule	Current Year	Previous Year
Academic Receipts	9	108,418,748	64,585,594
Grants/Subsidies/IRG	3c	317,990,735	217,254,486
Income from Investments	11	24,869,138	26,509,100
Interest Earned	12	5,347,276	356,213
Other Income	13	4,179,735	2,660,531
Prior Period Income	14	3,399	37,154,620
Total		460,809,032	348,520,545
Expenditure	Schedule	Current Year	Previous Year
Staff payments & benefit (Establishments Expenses)	15	157,803,762	111,860,542
Academic Expenses	16	4,450,711	826,975
Administrative and General Expenses	17	174,772,249	136,412,501
Transportation Expenses	18	5,061,835	1,169,430
Repair and Maintenance	19	6,299,233	2,856,899
Finance Cost	20	164,260	37,668
Depreciation	4	81,422,018	13,037,523
Other Expenses	21	-	-
Prior Period Expenses	22	4,475,721	1,201,760
Prior Period Depreciation		-	939,285
Interest transferable to Ministry		4,227,353	9,222,797
Total		438,677,141	277,565,381
Balance being excess of Income over Expenditure		22,131,890	70,955,164
Balance Being Surplus/Deficits Carried To Capital/Corpus Fund		22,131,890	70,955,164



Accountant
NIT Delhi



Asstt. Registrar
NIT Delhi



Registrar
NIT Delhi



Director
NIT Delhi

Date: 30/05/2023

Place: Delhi

NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Income And Expenditure Account For The Year Ended On 31.03.2023

Amount in Rs.				
Receipts	Annexure	Current Year	Previous Year	Payments
I Opening Balance				I. Expenses
(1) Cash Balance (Include Imprest)		174,932	820,169	- Establishment Expenses
(2) Bank Accounts				- Academic Expenses
In Schedule Banks		420,858,697	542,660,356	- Administration Expenses
In Deposit Accounts		520,607,432	506,257,518	- Transportation Expenses
II Grant Received (Sch-3(c))				- Repair & Maintenance Expenses
--- Grant From Central Government		1,355,798,750	181,374,606	- Finance Cost
III Accademic Receipts	1	108,418,748	64,585,594	- Interest on Term Deposit/ Saving Bank transfer to Ministry
IV Security Deposit from Students				- Prior Period Expenses
- Increase in Hostel Security Deposit		2,850,000	380,000	II Payment Against Earmarked/ Endowment Fund
- Increase in Mess Security Deposit		2,850,000	380,000	III Payment Against Sponsored Projects
- Increase in Caution Money		7,200,000	3,980,000	IV. Payment Against Sponsored Fellowship and Scholarship
V Receipts Against Earmarked/ Endowment Fund				V. Investments and Deposit made
- Institute Development Funds		12,167,500	7,438,500	- Out of Earmarked/Endowments Funds
- Games Fund, Sports and Culture Funds		6,353,000	4,506,500	- Out of Own Funds
- Students Aid and Welfare Funds		2,252,000	1,353,500	VI. Term Deposit with Schedule
- Students Club				VII. Expenditure On Fixed Assts and Capital
- Medical Funds		1,143,700	935,000	- Fixed Assets
- Library and Books Bank		3,695,400	2,498,866	- Capital Works In Progress
- Industrial Training & Placement		3,167,000	2,034,500	VIII. Other Payment Include Statutory Payment
- Allumimi Association		472,000	339,000	IX. Refund Of Grants
- Examination Funds		3,735,500	2,378,000	X. Deposites &
- Startup Fund		-	-	XI. Other Payments
- Faculty Dev. Prog.		-	-	- Payments of EMD
- Tech Fest		-	-	- Payable to Students
- Dasa Students Fund		-	-	- Misc Payments
VI. Receipts Against Sponsored Projects	3	14,661,996	7,352,614	- Payment of Security Deposits
VII. Receipts Against Sponsored Fellowship and Scholarship				- Increase in Debtor
VIII. Income On Investments				





Receipts	Annexure	Current Year	Previous Year	Payments	Annexure	Current Year	Previous Year
-Earmarked/Endowments Funds		-	-	- TDS & TCS receivable			403,956
-Other Investments		20,405,884	26,220,136	- Statutory Duty payable paid			365,220
IX. Interest Received on				- Excess fee payable to Students		-	3,415,790
- Bank Deposit		-	-	- Scholarship payable		-	947,579
- Loan &		-	-	- Decrease in Time Barred Cheque		48,149	-
Saving Bank Accounts	7	5,347,276	356,213	- Project expense		271,691	-
X. Investments encashed				XII. Closing Balance			
XI. Term Deposits with Scheduled Banks encashed				(1) Cash Balance (Include Imprest)		190,056	174,932
XII. Other income (including Prior Period Income)	2	4,183,134	39,815,151	(2) Bank Accounts			
XIII. Deposits and		-	5,757,113	In Schedule Banks		53,008,903	420,858,697
XIV. Miscellaneous Receipts		-	354,665	In Deposit Accounts		720,000,000	520,607,432
XV. Any Other Receipts							
- Excess received from Students		-	-				
- Received of EMD		1,973,528	-				
- Decrease in Debtor		638,808	-				
- TDS & TCS receivable		434,262	-				
- Increase in Statutory Duty payable		4,618,013	-				
- Increase in Scholarship Payable		488,000	-				
- Increase in Time Barred Cheque		-	57,779				
-Other Receipts		-	271,689				
Total		2,504,495,560	1,402,107,471	Total		2,504,495,560	1,402,107,471

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023
Place: Delhi



NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Annexure to Receipt & Payment Account For The Year Ended On 31.03.2023

		Amount in Rs.
S. No.	Particulars	Current Year
1	Academic Receipts	
	As per Income & Exp. A/c	108,418,748
	Add: Fee Outstanding during last year	-
	Add-Excess Fee Received	-
	Add: Received during the year	-
		108,418,748
	Less-Excess Fee Received	
	Less: received during previous year	-
	Less: Fee Outstanding during the year	-
	Balance To Receipts & Payments A/c	108,418,748
2	Other Income	
	As per Income & Exp. A/c	4,183,134
	Add: Received during the year	-
		4,183,134
	Deprecation Written Back Retrospectively	-
	Less: received during previous year	-
	Balance To Receipts & Payments A/c	4,183,134
3	Receipts Against Sponsored Projects	
	As per Sch-3(A)	14,661,996
	Balance To Receipts & Payments A/c	14,661,996
	Payments Against Sponsored Projects	11,251,394
	Balance To Receipts & Payments A/c	11,251,394
4	Establishment Expenses	
	As per Income & Exp. A/c	157,803,762
	Add:- Provision for the year 2021-22	41,038,351
	Add:- Festival 21-22	-
		198,842,113
	Less:- Festival 22-23	-
	Less:- Provision for the year 2022-23	74,120,923
	Balance To Receipts & Payments A/c	124,721,19



5 Academic Expenses

As per Income & Exp. A/c	4,450,711
Add:- Provision for the year 2021-22	232,551
Less:- Payment Yet to be made to Creditors	-
Add:- Prepaid Expenses 2021-22	-
	4,683,262
Less- Prepaid Expenses 2022-23	-
Less:- Provision for the year 2022-23	382,551
Balance To Receipts & Payments A/c	4,300,711

6 Administration Expenses

As per Income & Exp. A/c	174,772,249
Add:- Provision for the year 2021-22	14,801,620
Add:- Payment made to Opening Creditors	1,862,832
Add:- Prepaid Expenses 2021-22	7,586,527
Add:- Closing Stock	1,117,804
	200,141,032
Less:- Provision for the year 2022-23	11,002,003
Less:- Payment Yet to be made to Creditors	6,408,269
Less:- Opening Stock	503,998
Balance To Receipts & Payments A/c	182,226,762

7 Intt. Recd. On Deposits

As per Income & Exp. A/c	5,347,276
Add: Accrued of Last Year 2021-22	-
	5,347,276
Less: Accrued during the year 2022-23	-
Balance To Receipts & Payments A/c	5,347,276



NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Fund/Corpus Fund

Schedule 1**Amount in Rs.**

S.No.	Particulars	Current Year	Previous Year
A	Balance at the beginning of the year	2,398,622,245	2,184,338,804
	Add: Contributions towards Corpus/Capital Fund	-	-
	Add: Grants from UGC, Government of India and State Government to the extent utilized for capital expenditure	1,544,086,135	200,306,633
	Add: Assets Purchased out of Earmarked Funds	1,648,363	-
	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 year	(81,422,018)	13,976,808
	Less: Depreciation for 2021-22 (Rectification)	(27,953,617)	-
	Less: Loss on fixed asset	-	-
	Add: Other Additions	-	-
	Total (A)	3,834,981,108	2,398,622,245
B	Suplus/(Deficifit) Opening Balance	381,927,824	362,150,711
	(Less): Excess of Expenditure over Income trasferred from the Income & Expenditure Account	-	-
	Add: Excess of Income over Expenditure trasferred from the Income & Expenditure Account	-	-
	Excess of Academic Income over Academic Expenditure 103,968,037	-	-
	Others (81,836,147)	22,131,890	70,955,164
	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 2022-23	81,422,018	(13,976,808)
	Add: Depreciation for 2021-22 (Rectification)	27,953,617	-
	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)
	Total (B)	513,435,350	381,927,824
	Total (A+B)	4,348,416,458	2,780,550,070

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023

Place: Delhi





NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Earmarked/Endowment Fund


Schedule -2

Amount in Rs.

Schedule -2 Earmarked/Endowment Fund	Allumni 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 Club	Tech Fest	Startup Fest	Total	
													Current Year	Previous Year
A.														
a.) Opening Balance	2,155,300	8,344,833	36,325,500	8,741,607	18,258,735	4,329,579	9,488,005	150,000	122,138	3,687,799	208,976	-	91,812,472	70,493,092
b.) Received During the Year	472,000	3,167,000	12,167,500	3,695,400	6,353,000	2,252,000	3,735,500	-	-	1,143,700	-	-	32,986,100	21,483,866
c.) Income from Investments made of the Funds	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d.) Accrued Interest on the Investments	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.) Interest on Saving Bank a/c	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total (A)	2,627,300	11,511,833	48,493,000	12,437,007	24,611,735	6,581,579	13,223,505	150,000	122,138	4,831,499	208,976	-	124,798,572	91,976,958
B.														
Utilisation/ Exp. Towards objects of the Funds														
i) Capital Expenditure	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ii) Revenue Expenditure	62,937	208,674	-	-	4,761,127	256,006	482,250	-	-	403,277	-	-	6,174,271	164,486
Total (B)	62,937	208,674	-	-	4,761,127	256,006	482,250	-	-	403,277	-	-	6,174,271	164,486
Closing balance at the year end (A-B)	2,564,363	11,303,159	48,493,000	12,437,007	19,850,608	6,325,573	12,741,255	150,000	122,138	4,428,222	208,976	-	118,624,301	91,812,472


Accountant
NIT Delhi


Asstt. Registrar
NIT Delhi


Registrar
NIT Delhi


Director
NIT Delhi

Date: 30/05/2023
Place: Delhi

NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Income And Expenditure Account For The Year Ended On 31.03.2023

Schedule 2

Amount in Rs.

1. Sr. No	2. Name of the Endowment	Opening Balance as on 01.04.2022		Additions during the Year		Total		Expenditure on the object during the year 9	Closing Balance as on 31.03.2023		Total (10+11)
		3. Endowment	4. Accumulated Interest	5. Endowment	6. Interest	7. Endowment (3+5)	8. Accumulated Interest (4+6)		10. Endowment	11. Accumulated Interest	
-			-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-





NATIONAL INSTITUTE OF TECHNOLOGY DELHI

Schedule 3

Current Liabilities and Provisions

Amount in Rs.

0	Particulars	Current Year		Previous Year	
A	Current Liabilities				
1	Deposits From Staff	-	-	-	-
2	Deposits from Students				
	a) Hostel Security	9,800,500		6,950,500	
	b) Mess Security	9,790,000		6,940,000	
	c) Library & Lab Security	122,000		122,000	
	d) Students Co-op. Security	39,050		39,050	
	e) Security Deposit Students (Caution Money)	23,897,419		16,697,419	
	f) Tuition Fee Received in	-		-	
	g) Hostel Rent from Students	-		-	
	h) Admin Processing Fees	-		-	
	i) Computer/ Internet Fees Received	-		-	
	j) Scholarship Payable	631,621		143,621	
	k) Excess Fee Received	111,209		111,209	
	l) Other payable to Students	784,171	45,175,970	784,171	31,787,970
3	Sundry Creditors:				
	a) For Goods (Annexure 'A')	3,973,029		121,070	
	b) Others (Annexure 'A')	2,435,240	6,408,269	1,741,762	1,862,832
4	Deposit-others(Including, EMD, Security Deposit) Annexure 'D'	2,929,430	2,929,430	955,902	955,902
5	Statutory Liabilities:(TDS,GPF,WC Tax, CPF,GIS,NPS)				
	a) Overdue	-		-	
	b) Others Annexure 'B'	7,656,717	7,656,717	3,038,704	3,038,704
6	Other current Liabilities				
	a) Salary				
	b) Receipts against Sponsored Projects (Schedule 3A(i))	6,726,756		4,270,927	
	c) Receipts against Sponsored Fellowships & Scholarships (Sch-3A(ii))	1,125,064		170,291	
	d) Unutilised Grants (Sch-3C)	15,653,864		521,931,984	



	e) Grants In	-		-	
	f) Time Barred Cheques	,310,548		1,358,697	
	g) Interest payable to Ministry	4,227,353		5,121,373	
	h) Overhead Charges	-		-	
	i) Outstanding Exp Annexure 'C'	21,458,114	50,501,699	23,079,993	555,933,265
	Total (A)		112,672,085		593,578,673
B	Provisions				
1	For Taxation	-		-	
2	Gratuity	22,587,251		-	
3	Superannuation Pension	-		-	
4	Accumulated Leave/Encashment	42,126,953		33,977,861	
5	Trade Warranties/Claims	-		-	
6	Others (Specify)	-	64,714,204	-	33,977,861
	Total (B)		64,714,204		33,977,861
	Total (A+B)		177,386,289		627,556,534

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023

Place: Delhi



NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Sponsored Projects

Schedule 3(A) (i)

Amount in Rs.

S. No.	Name of the Project	Opening Balance as on 01.04.2022		Receipts/Interest Recoveries during the year	Total	Expenditure/transfer during the year	Closing Balance as on 31.03.2023	
		Credit	Debit				Credit	Debit
1	NMEICT Awareness	-	-	-	-	-	-	-
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)	849,562	-	1,798,292	2,647,854	2,299,260	348,594	-
5	DST-TDT/SHRI-07/2018 (Dr. Gyanendra Sheoran)	120,394	-	1,955,704	2,076,098	1,903,742	172,356	-
6	DST/INT/DAAA/P-20/2019 Dr. Sachin Singh	99,938	-	-	99,938	2,438	97,500	-
7	DST - Chandra Sekhar	-	-	764,026	764,026	61,000	703,026	-
8	SERB Project - AS-CH03 (Dr. AP Singh)	-	-	-	-	-	-	-
9	Seed Grant (Dr. AP Singh)	-	-	-	-	-	-	-
10	Linear and Non Linear Stability Analysis	-	-	-	-	-	-	-
11	MHRD Project	-	-	-	-	-	-	-
12	Project for development of Noval Metal	-	-	-	-	-	-	-
13	CSIR-Anuj Kumar Sharma	(9,701)	-	-	(9,701)	-	(9,701)	-
14	CSIR- Amit Mahajan	(46,800)	-	-	(46,800)	-	(46,800)	-
15	CSIR (Ms Vinita)	27,482	-	-	27,482	-	27,482	-
16	SERB/ECR/2016/1141 (Dr. Anmol Ratna Saxena)	320,477	-	-	320,477	-	320,477	-
17	SERB DST - Dr. Prashant Kumar	(0)	-	-	(0)	-	(0)	-
18	SERB DST - Dr. Prashant Kumar (CRG/2021/003654)	1,100,000	-	26,066	1,126,066	366,375	759,691	-
19	SERB DST - Dr. Rikmantra Basu	163,917	-	-	163,917	38,440	125,477	-
20	SERB DST - Dr. Rikmantra Basu (CRG/2020/002966)	692,275	-	-	692,275	287,280	404,995	-



S. No.	Name of the Project	Opening Balance as on 01.04.2022		Receipts/Interest Recoveries during the year	Total	Expenditure/ transfer during the year	Closing Balance as on 31.03.2023	
		Credit	Debit				Credit	Debit
21	SERB - Anurag Singh	4,836	-	200,000	204,836	219,948	(15,112)	
22	SERB - Dr. Anuj Sharma	207,925	-	420,620	628,545	526,125	102,420	
23	AITHA-2023 SERB (DR. SACHIN SINGH)	-	-	150,000	150,000	150,000	-	
24	ATAL FDP (Shelly Sachdeva) Project	-	-	300,265	300,265	300,265	-	
25	IEEE Photomix Society Delhi - Fund	-	-	10,000	10,000	10,000	-	
26	Special Man Power Development Project fund	-	-	-	-	-	-	
27	BRNS - (Dr. Vivek Shrivastava)	-	-	-	-	-	-	
28	LASTEC-LP/BU/REV (Dr. Gyanendra Sheoran)	-	-	-	-	-	-	
29	MOES-36/OOIS (Dr. Prashant Kumar)	566,334	-	4,769	571,103	571,103	(0)	
30	Unnat Bharat Project (Dr. Parveen Kumar)	-	-	-	-	-	-	
31	Seed Grant (Dr. Gyanendra Sheoran)	-	-	-	-	-	-	
32	Seed Grant (Dr. Sachin Singh)	-	-	-	-	-	-	
33	Seed Grant (Dr. Tirupathiraju Kanumiri))	-	-	-	-	-	-	
34	Project Stability and Convention In Magnetic Nanofluid-Dr.Amit Mahajan	-	-	-	-	-	-	
35	SERB/F/10719/2022-2023/chander Prakash	-	-	2,374,900	2,374,900	-	2,374,900	
36	SERB/F/8613/22-23/FSER/Gyanendra Sheoran	-	-	1,118,400	1,118,400	-	1,118,400	
37	Dr Vivek Shrivastava BRNS Project	-	-	92,289	92,289	590	91,699	
38	Unnat Bharat Project (Dr. Kapil Kumar)	25,520	-	-	25,520	-	25,520	
39	Anurag Singh Matrix Spl	22,936	-	-	22,936	22,936	-	
	Total	4,270,927	-	9,215,331	13,486,258	6,759,502	6,726,756	



S. No.	Name of the Project	Opening Balance as on 01.04.2022		Receipts/Interest Recoveries during the year	Total	Expenditure/transfer during the year	Closing Balance as on 31.03.2023	
		Credit	Debit				Credit	Debit
1	DST Brainstorming Committee Fund	-	-	-	-	-	-	-
2	FDP Programme	-	-	-	-	-	-	-
3	Research Scholar Day 2017	-	-	-	-	-	-	-
4	Faculty Development Programme	102,020	-	-	102,020	-	102,020	-
5	Sentience 2019	24,335	-	-	24,335	24,335	-0	-
6	Sentience 2022	-	-	320,496	320,496	320,496	-	-
7	AICTE Exam	-	-	-	-	-	-	-
8	NCAME 2018	8,785	-	-	8,785	-	8,785	-
9	Red cross society	10,550	-	-	10,550	-	10,550	-
10	STC Nampet 2020	-	-	-	-	-	-	-
11	STTP Conferece	4,200	-	-	4,200	-	4,200	-
12	IEEE NITD Student Branch	10,000	-	2,500	12,500	-	12,500	-
13	AICTEL ATAL FDP	10,401	-	-	10,401	-	10,401	-
14	AICTE ATAL FDP Vivek Shrivastava	-	-	238,000	238,000	239,265	-1,265	-
15	Gian Sponsored Programme	-	-	332,151	332,151	331,512	639	-
16	PIICON - 2022	-	-	3,463,943	3,463,943	3,297,361	166,582	-
17	Short Term Course	-	-	180,903	180,903	100,191	80,712	-
18	CUET 2022 (Dr. Anurag Singh)	-	-	158,400	158,400	-	158,400	-




NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Sponsored Programmes

Schedule 3(A)(i)		Amount in Rs.				
S. No.	Name of the Project	Opening Balance as on 01.04.2022		Receipts/Interest Recoveries during the year	Total	Expenditure/transfer during the year
		Credit	Debit			
1	DST Brainstorming Committee Fund	-	-	-	-	-
2	FDP Programme	-	-	-	-	-
3	Research Scholar Day 2017	-	-	-	-	-
4	Faculty Development Programme	102,020	-	-	102,020	-
5	Sentience 2019	24,335	-	-	24,335	-0
6	Sentience 2022	-	-	320,496	320,496	-
7	AICTE Exam	-	-	-	-	-
8	NCAME 2018	8,785	-	-	8,785	-
9	Red cross society	10,550	-	-	10,550	-
10	STC Nampet 2020	-	-	-	-	-
11	STTP Conferece	4,200	-	-	4,200	-
12	IEEE NITD Student Branch	10,000	-	2,500	12,500	-
13	AICTEL ATAL FDP	10,401	-	-	10,401	-
14	AICTE ATAL FDP Vivek Shrivastava	-	-	238,000	238,000	239,265
15	Gian Sponsored Programme	-	-	332,151	332,151	331,512
16	PIICON - 2022	-	-	3,463,943	3,463,943	3,297,361
17	Short Term Course	-	-	180,903	180,903	100,191
18	CUET 2022 (Dr. Anurag singh)	-	-	158,400	158,400	-



S. No.	Name of the Project	Opening Balance as on 01.04.2022		Receipts/Interest Recoveries during the year	Total	Expenditure/transfer during the year	Closing Balance as on 31.03.2023	
		Credit	Debit				Credit	Debit
19	Research Scholar Day Exp 2022	-	-	179,132	179,132	178,732	400	
20	RTCSSE -2023 Events (Dr A.P Singh)	-	-	571,140	571,140	-	571,140	
	Total	170,291	-	5,446,665	5,616,956	4,491,892	1,125,064	-


Accountant
NIT Delhi


Asstt. Registrar
NIT Delhi


Registrar
NIT Delhi



Director
NIT Delhi

Date: 30/05/2023
Place: Delhi

NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Sponsored Fellowships And Scholarships

Schedule 3(B)		S. No.	Name of the Project	Opening Balance as on 01.04.2022				Transactions During the year				Closing Balance as on 31.03.2023	
				3		4		5		6		7	
				CR.	DR.	CR.	DR.	CR.	DR.	CR.	DR.	CR.	DR.
1			University Grants Commission	-	-	-	-	-	-	-	-	-	-
2			Ministry	-	-	-	-	-	-	-	-	-	-
3			Grant Received CISR	-	-	-	-	-	-	-	-	-	-
4			Grant Received (Mumbai)	-	-	-	-	-	-	-	-	-	-
			Total	-	-	-	-	-	-	-	-	-	-


Accountant
NIT Delhi


Asstt. Registrar
NIT Delhi


Registrar
NIT Delhi


Director
NIT Delhi

Date: 30/05/2023
Place: Delhi





NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Unutilised Grants From UGC, Government of India and State Governments

Schedule 3(C.)

Amount in Rs.

0	Current Year	Previous Year
A. Plan grants: Government of India		
Balance B/F	521,931,984	720,917,255
Add: Receipts during the year		
:Received during the year	1,361,300,000	240,975,000
:Less RBI TSA Balance lapse on 31.03.2023	(5,523,750)	(59,600,394)
Add: RBI TSA Balance lapse on 31.03.2022 (Rectification)	22,500	-
: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
Total(a)	1,877,730,734	939,493,103
Less Refunds		
Less: Utilized for Revenue Expenditure	317,990,735	217,254,486
Less: Utilized for Capital expenditure	1,544,086,135	200,306,633
Less: Transferred to projects	-	-
Total (b)	1,862,076,870	417,561,119
Unutilized carried forward (a-b)	15,653,864	521,931,984
B. UGC grants: Plan		
Balance B/F	-	-
Add: Receipts during the year	-	-
Total(c)	-	-
Less Refunds	-	-
Less: Utilized for Revenue Expenditure	-	-
Less: Utilized for Capital expenditure	-	-
Total (d)	-	-
Unutilized carried forward (c-d)	-	-
C. UGC Grants Non Plan		
Balance B/F	-	-
Add: Receipts during the year	-	-
Total(e)	-	-
Less Refunds	-	-
Less: Utilized for Revenue Expenditure	-	-
Less: Utilized for Capital expenditure	-	-
Total (f)	-	-
Unutilized carried forward (e-f)	-	-
D. Grants from State Govt.		
Balance B/F	-	-
Add: Receipts during the year	-	-
Total(g)	-	-
Less Refunds	-	-
Less: Utilized for Revenue Expenditure	-	-
Less: Utilized for Capital expenditure	-	-
Total (h)	-	-
Unutilized carried forward (g-h)	-	-
Grand Total (A+B+C+D)	15,653,864	521,931,984



NATIONAL INSTITUTE OF TECHNOLOGY DELHI												
Fixed Assets												
Amount in Rs.												
S. No.	Assets	Gross Block			Depreciation Block			Net Block				
		Cost as on 01.04.2022	Addition	Deductions	Total	Dep. Up to 31.03.2022	Depreciation Adjustment	Add. During the Year	Rate of Dep	Total Depreciation	Balance as on 31.03.2023	Balance as on 31.03.2022
		3	4	5	6	7	8	9	10	11	12	13
1	2											
A	Tangible Assets (A)											
a	Equipments											
1	Lab Equipments	36,534,183	-	-	36,534,183	18,343,723	-	1,455,237	8.0%	19,798,960	16,735,223	18,190,460
2	Lab Equipments for Dept of ECE	9,982,481	2,318,700	-	12,301,181	4,623,902	-	614,182	8.0%	5,238,084	7,063,097	5,358,579
3	Lab Equipments for Dept of EEE	7,197,893	11,971,052	-	19,168,945	3,179,556	-	1,279,151	8.0%	4,458,707	14,710,238	4,018,337
4	Lab Equipments for Civil Dept	-	4,804,994	-	4,804,994	-	-	384,400	8.0%	384,400	4,420,594	-
5	Lab Equipments for Dept ME	-	8,154,222	-	8,154,222	-	-	652,338	8.0%	652,338	7,501,884	-
6	Lab Equipments for CSE Dept	-	195,290	-	195,290	-	-	15,623	8.0%	15,623	179,667	-
7	Lab Equipments for Applied Science	-	35,960	-	35,960	-	-	2,877	8.0%	2,877	33,083	-
8	Equipments	4,818,774	991,200	-	5,809,974	2,490,595	-	265,550	8.0%	2,756,145	3,053,829	2,328,179
9	Mess Equipments	-	1,180,425	-	1,180,425	-	-	94,434	8.0%	94,434	1,085,991	-
10	Lab Equipments for Dept of AS	1,011,428	-	-	1,011,428	323,656	-	55,022	8.0%	378,678	632,750	687,772
b	Office & Office Equipments											
1	Air Conditions	6,226,850	-	-	6,226,850	3,548,889	-	200,847	7.5%	3,749,736	2,477,114	2,677,961
2	Biometric Machine	87,283	-	-	87,283	48,433	-	2,914	7.5%	51,347	35,936	38,850
3	Blade Server	2,961,185	-	-	2,961,185	1,998,801	-	72,179	7.5%	2,070,980	890,205	962,384
4	CCTV Camara	1,045,564	3,998	-	1,049,562	516,874	-	39,952	7.5%	556,826	492,736	528,690
5	Camara	74,853	187,271	-	262,124	39,298	-	16,712	7.5%	56,010	206,114	35,555
6	Coffee Machine	98,438	-	-	98,438	59,064	-	2,953	7.5%	62,017	36,421	39,374
7	Digital Copier Machine	2,380,572	-	-	2,380,572	1,318,739	-	79,637	7.5%	1,398,376	982,196	1,061,833
8	Fogging Machine	31,500	-	-	31,500	21,267	-	767	7.5%	22,034	9,466	10,233
9	Franking Machine	95,000	-	-	95,000	42,750	-	3,919	7.5%	46,669	48,331	52,250
10	Gyser	807,477	-	-	807,477	405,096	-	30,179	7.5%	435,275	372,202	402,381
11	Grass Cutting Machine	54,450	-	-	54,450	27,575	-	2,016	7.5%	29,591	24,859	26,875
12	Kitchen Appliance	2,057,986	698,231	-	2,756,217	1,372,606	-	103,771	7.5%	1,476,377	1,279,840	685,380
13	Lawn Remover	14,175	-	-	14,175	5,672	-	425	5.0%	6,097	8,078	8,503
14	Library Books	7,746,742	660,076	-	8,406,818	6,179,697	-	222,712	10.0%	6,402,409	2,004,409	1,567,045
15	Library Equipments	2,816,778	-	-	2,816,778	1,802,736	-	81,123	8.0%	1,883,859	932,919	1,014,042

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S. No.	Assets	Gross Block			Depreciation Block				Net Block			
		Cost as on 01.04.2022	Addition	Deductions	Total	Dep. Up to 31.03.2022	Depreciation Adjustment	Add. During the Year	Rate of Dep	Total Depreciation	Balance as on 31.03.2023	Balance as on 31.03.2022
1	2	3	4	5	6	7	8	9	10	11	12	13
	C											
1	Software	47,093,778	17,098,909	-	64,192,687	44,953,995	-	7,695,477	40%	52,649,472	11,543,215	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	1,886,130	-	3,908,258	2,022,128	-	754,452	40%	2,776,580	1,131,678	-
4	License Fee Agreement	28,500	-	-	28,500	28,500	-	-	40%	28,500	-	-
5	Web Media Player	103,950	-	-	103,950	103,950	-	-	40%	103,950	-	-
	Total (C)	69,211,236	18,985,039	-	88,196,275	67,071,453	-	8,449,929		75,521,382	12,674,893	2,139,783
							-			-		
	Grand Total (A+B+C)	2,570,671,855	538,477,459	-	3,109,149,315	196,690,821	-	81,422,018		278,112,839	2,831,036,475	2,373,981,034

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi


Registrar
NIT Delhi


Director
NIT Delhi

Date: 30/05/2023
Place: Delhi



NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Investments From Earmarked/Endowment Funds

Schedule 5**Amount in Rs.**

0	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)	-	-	-	-
	Total	-		-	

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023

Place: Delhi



NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Current Assets

Schedule 7**Amount in Rs.**

0	Particulars		Current Year		Previous Year	
0	Inventories:					
a)	Stores and Spares		-		-	
b)	Loose Tools		-		-	
c)	Publication		-		-	
d)	Laboratory Chemicals, Consumable and Glass ware		-		-	
e)	Building Material		-		-	
f)	Electrical Material		-		-	
g)	Stationery		1,117,804		503,998	
h)	Water supply material		-		-	
i)	Stock-in-trade		-		-	
j)	Building Material (Others)		-	1,117,804	-	503,998
2	Sundry Debtors	Annexure 'G'		4,677,111		5,315,919
3	Cash balances in hand					
a)	Imprest given to staff	Annexure 'E'	185,998		112,637	
b)	Cash in hand		-		47,858	
c)	Franking Machine Balance		4,058	190,056	14,437	174,932
4	Bank Balances:					
a)	With Scheduled Banks:					
i)	Canara Bank Acc. No. 7559		-		41,555	
ii)	Canara Bank Acc. No. 8009		-		3,298,765	
iii)	Canara Bank Acc. No. 8010		-		497,738	
iv)	Canara Bank Acc. No. 4075		1,709		64,962,366	
v)	Canara Bank Dir. NIT Delhi 4080		-		-	
vi)	Canara Bank Dir. NIT Delhi DASA 4078		-		-	
vii)	Canara Bank Dir. NIT Fee 4077		6,216,519		243,645,692	
viii)	Canara Bank Acc. No. 8131		-		819,057	
ix)	Canara Bank Dir. NIT Hostel Fee 4076		-			
x)	Canara Bank Dir. NIT BRNS PROJECT		91,699			
xi)	Canara Bank Acc. No. 9851		-		26,582	
xii)	Canara Bank 0108		43,334		44,941,018	
xiii)	Canara Bank 0109		-		8,573,818	
xiv)	Canara Bank Acc. No. 6538		524,644		104,705	
xv)	BoB Dir. NIT Delhi Capital A/c No. 6535		-		-	
xvi)	BoB Dir. NIT Delhi Endowment Fund A/c No. 6539		1,003,705			
xvii)	BoB Dir. NIT Delhi Projects A/c No. 6537		3,515,872			
xviii)	BoB Dir. NIT Delhi Salary A/c No. 6538		-			
xix)	BoB Dir. NIT General A/c 6540		4,705,337			
xx)	BoB NIT Delhi A/c No. 6394		10,855,372			
xxi)	BoB PICON 2022		307,923			
xxii)	GIAN NIT DELHI A/C No.1889		639			
xxiii)	UBI bank A/c no. 1014		70,869			
xxiv)	ICICI bank A/c no. 1915		16,748,993			
xxv)	SBI Acc. No. 4566		17,086		3,010,229	
xxvi)	ICICI bank A/c no. 1801		8,905,202		50,937,171	
xxvii)	RBI A/C 1001(object head -31)		-		-	
xxviii)	RBI A/C 1001(object head -35)		-			
xxix)	RBI A/C 1001(object head -36)		-	53,008,903	-	420,858,697
b)	Term Deposits					
i)	With Canara bank	Annexure to Sch'7'	35,000,000		520,607,432	
ii)	With Bank of Baroda	Annexure to Sch'7'	510,000,000		-	
iii)	With ICICI Bank	Annexure to Sch'7'	175,000,000	720,000,000	-	520,607,432
	Total			778,993,873		947,460,977

Accountant
Accountant
NIT Delhi

Asstt. Registrar
Asstt. Registrar
NIT Delhi

Registrar
Registrar
NIT Delhi

Director
Director
NIT Delhi

Date: 30/05/2023**Place: Delhi**



NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Investment Others

Schedule 6**Amount in Rs.**

0	Particulars	Current Year		Previous Year	
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)	-	-	-	-
	Total		-		-

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023

Place: Delhi



Annex to sch 7
NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Statements showing investment details as on 31.03.2023
Amount in Rs.

S. No.	FD No	Bank Name	Date of FDR Made	Opening Balance	Accrued Interest as on 01.04.2022	Date of Addition	Addition	Interest Earned on FDR's During the year 2022-23	TDS Deduction on Interest Earned on FDR	Interest Earned (Net of TDS) on FDR's During the year 2022-23	Matured/Encashed Principal	Interest	Date of encashment/ Maturity	Maturity Amount	Intt. accrued as on 31st March 2023	FDRs Balance as on 31.03.2023
1	29833010001019	Canara Bank	24.01.2022	7,444,915	53,297	-	-	241,789	-	241,789	7,444,915.00	295,086.00	1/23/2023	7,740.00	-	-
2	29833010001020	Canara Bank	24.01.2022	5,955,934	42,638	-	-	193,432	-	193,432	5,955,934.00	236,070.00	1/23/2023	6,192,004	-	-
3	29833010001030	Canara Bank	26.01.2022	12,016,062	84,524	-	-	375,128	-	375,128	12,016,062.00	459,652.00	1/23/2023	12,475,714	-	-
4	29833010001031	Canara Bank	26.01.2022	12,016,062	84,524	-	-	375,128	-	375,128	12,016,062.00	459,652.00	1/23/2023	12,475,714	-	-
5	29833010001032	Canara Bank	26.01.2022	12,016,062	84,524	-	-	375,128	-	375,128	12,016,062.00	459,652.00	1/23/2023	12,475,714	-	-
6	29833010001033	Canara Bank	26.01.2022	12,016,062	84,524	-	-	375,128	-	375,128	12,016,062.00	459,652.00	1/23/2023	12,475,714	-	-
7	29833010001036	Canara Bank	26.01.2022	12,016,062	84,524	-	-	375,128	-	375,128	12,016,062.00	459,652.00	1/23/2023	12,475,714	-	-
8	29833010001042	Canara Bank	22.01.2022	7,488,001	55,914	-	-	255,938	-	255,938	7,488,001.00	311,852.00	1/23/2023	7,799,853	-	-
9	28764130000042	Canara Bank	01.10.2021	876,204	22,423	-	-	25,768	-	25,768	876,204.00	48,191.00	1/23/2023	924,395	-	-
10	29833010002000	Canara Bank	31.01.2022	35,032,052	194,011	-	-	975,340	-	975,340	35,032,052.00	1,169,351.00	1/23/2023	36,201,403	-	-
11	29833010002004	Canara Bank	18.03.2022	7,083,835	10,597	-	-	234,227	-	234,227	7,083,835.00	244,824.00	1/23/2023	7,328,659	-	-
12	29834680000001	Canara Bank	03.03.2022	80,000,000	197,040	-	-	2,289,744	-	2,289,744	80,000,000.00	2,486,784.00	1/23/2023	82,486,784	-	-
13	29834010001084	Canara Bank	15.12.2021	316,646,181	3,033,843	-	-	2,567,227	-	2,567,227	316,646,181.00	5,601,070.00	1/23/2023	322,247,251	-	-
14	14008747913	Canara Bank	2-Mar-23	-	-	-	25,000,000	155,069	-	155,069	-	-	3/2/2024	-	155,069	25,000,000
15	2983401000032/1	Canara Bank	3-Feb-23	-	-	-	5,000,000	44,306	-	44,306	-	-	8/3/2023	-	44,306	5,000,000
16	2983401000032/2	Canara Bank	3-Feb-23	-	-	-	5,000,000	44,306	-	44,306	-	-	8/3/2023	-	44,306	5,000,000
17	303203000020737	Bank of Baroda	6-Oct-23	-	-	-	40,000,000	559,715	-	559,715	40,000,000.00	559,715.00	1/23/2023	40,559,715	-	-
18	303203000020738	Bank of Baroda	6-Oct-23	-	-	-	80,000,000	1,119,429	-	1,119,429	80,000,000.00	1,119,429.00	1/23/2023	81,119,429	-	-
19	303203000021462	Bank of Baroda	24-Jan-23	-	-	-	100,000,000	1,431,989	-	1,431,989	-	-	1/24/2024	-	1,431,989	100,000,000
20	303203000021463	Bank of Baroda	24-Jan-23	-	-	-	100,000,000	1,431,989	-	1,431,989	-	-	1/24/2024	-	1,431,989	100,000,000
21	303203000021464	Bank of Baroda	24-Jan-23	-	-	-	100,000,000	1,431,989	-	1,431,989	-	-	1/24/2024	-	1,431,989	100,000,000
22	303203000021466	Bank of Baroda	24-Jan-23	-	-	-	100,000,000	1,431,989	-	1,431,989	-	-	1/24/2024	-	1,431,989	100,000,000
23	303203000021468	Bank of Baroda	24-Jan-23	-	-	-	100,000,000	1,431,989	-	1,431,989	-	-	1/24/2024	-	1,431,989	100,000,000
24	303203000021475	Bank of Baroda	24-Jan-23	-	-	-	5,000,000	41,375	-	41,375	-	-	3/11/2023	-	41,375	5,000,000
25	303203000021476	Bank of Baroda	24-Jan-23	-	-	-	5,000,000	41,375	-	41,375	-	-	3/11/2023	-	41,375	5,000,000
26	303203000021477	Bank of Baroda	-	-	-	-	5,000,000	37,603	-	37,603	5,000,000.00	37,603.00	3/26/2023	5,037,603	-	-
27	303203000021489	Bank of Baroda	24-Jan-23	-	-	-	5,000,000	37,603	-	37,603	5,000,000.00	37,603.00	3/26/2023	5,037,603	-	-
28	092910001339	ICICI Bank	23-Jan-23	-	-	-	5,000,000	44,247	-	44,247	-	-	4/24/2023	-	44,247	5,000,000
29	092910001340	ICICI Bank	23-Jan-23	-	-	-	5,000,000	44,247	-	44,247	-	-	4/24/2023	-	44,247	5,000,000
30	09291004948	ICICI Bank	23-Jan-23	-	-	-	30,000,000	375,403	-	375,403	-	-	-	-	375,403	30,000,000
31	461010000001	ICICI Bank	24-Mar-23	-	-	-	30,000,000	48,082	-	48,082	-	-	-	-	48,082	30,000,000
32	461013000003	ICICI Bank	24-Feb-23	-	-	-	5,000,000	31,452	-	31,452	-	-	12/11/2023	-	31,452	5,000,000
33	461013000004	ICICI Bank	24-Feb-23	-	-	-	5,000,000	31,452	-	31,452	-	-	12/11/2023	-	31,452	5,000,000
34	461013000005	ICICI Bank	24-Feb-23	-	-	-	5,000,000	31,452	-	31,452	-	-	12/11/2023	-	31,452	5,000,000
35	461013000006	ICICI Bank	24-Feb-23	-	-	-	5,000,000	31,452	-	31,452	-	-	12/11/2023	-	31,452	5,000,000
36	461013000008	ICICI Bank	24-Feb-23	-	-	-	5,000,000	29,032	-	29,032	-	-	12/14/2023	-	29,032	5,000,000
37	461013000012	ICICI Bank	6-Mar-23	-	-	-	80,000,000	410,968	-	410,968	-	-	3/6/2023	-	410,968	80,000,000
Total				520,607,432	4,032,383	-	850,000,000	18,977,618	-	18,977,618	650,607,432	14,445,838	1,577,888	685,053,270	8,564,163	720,000,000




NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Loans,s and Deposits

Schedule 8**Amount in Rs.**

S. No.	Particulars	Current Year		Previous Year	
1	Advances to Employee:(Non Interest Bearing)				
a)	Salary	-		-	
b)	Festival	1,800		1,800	
c)	For Expenses (Annexure 'F')	588,593	590,393	385,672	387,472
2	Long Terms to Employee :(Interest Bearing)				
a)	Vehical Loan	-		-	
b)	Home Loan	-		-	
c)	Other to be Specified	-	-	-	-
3	Advances and other amounts recoverable in cash or in kind or for value to be received:				
a)	On Capital Accounts	-		-	
b)	NBCC	-		-	
c)	TCIL	981,300,000		-	
d)	Interest Free Mobilization to NBCC	31,785,583		168,823,626	
e)	Interest Free Secured Mini Campus	-		-	
f)	Delhi GOVT	40,320		40,320	
g)	Fee Receiavble from CSAB	-		-	
h)	Fee Receivable from Students	-		-	
i)	Secured Administration Block	-		-	
j)	Employment News	22,752		22,752	
k)	NIT Transit House	-		-	
l)	Others & Receivables	-		-	
m)	NBCC	-		-	
n)	NHAI	-	1,013,148,655	100,000	168,986,698
4	Prepaid Expenses				
a)	Computer Repair & Maintenance	-		-	
b)	E- Journals prepaid	7,418,858		-	
c)	Equipment Repair & Maintenance	-		-	

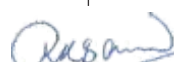


S. No.	Particulars	Current Year		Previous Year	
d)	Subscription Charges	5,658		49,993	
e)	Rent	180,000		-	
f)	Prepaid Tds	-		-	
g)	Website & Domain charges	14,995			
h)	Insurance Expenses	17,009			
i)	Library Expenses	-	7,636,520	-	49,993
5	Deposits				
a)	Telephone (MTNL)	10,000		10,000	
b)	Lease Rent(IAMR)	3,348,900		3,348,900	
c)	Lease Rent(YWCA)	-		-	
d)	Security Deposit -Sandvic	-		-	
e)	Security Deposit - TPDDL	638,331		638,331	
f)	Security Deposit - Vigyan Bhawan	-	3,997,231	60,762	4,057,993
6	Accrued Income :				
a)	On Investments from Earmarked/Endowment Funds	-		-	
b)	On Investments-Others	-		-	
c)	On Loan and	-		-	
d)	On Term Deposits	8,564,163		4,100,909	
e)	On saving Account	-	8,564,163	-	4,100,909
7	Other - Current assets receivable from UGC/Sponsored Projects				
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	-	-	-	-
8	Claims Receivable				
a)	TDS Receivable	391,930		893,999	
b)	TCS Receivable	67,808		-	
c)	Others (suspense)	-	459,738	-	893,999
9	Others	-	-	-	-
	Total	1,034,396,699		178,477,064	


Accountant
NIT Delhi

Date: 30/05/2023
Place: Delhi


Asstt. Registrar
NIT Delhi


Registrar
NIT Delhi


Director
NIT Delhi



NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Fee From Students

Schedule 9**Amount in Rs.**

S. No.	Particulars	Current Year	Previous Year
1	Academic		
a)	Tuition Fee	64,546,218	48,200,872
b)	Admission Processing Fee	4,337,500	2,557,000
c)	Computer and Internet Fee	3,716,000	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	-	-
	Total(A)	72,599,718	53,139,872
2	Examinations		
a)	Admission Test Fee	-	-
b)	Annual Exam Fee	-	-
c)	Mark Sheet, Certificate Fee & Transcripts	-	-
d)	Transcript & Transcript Certificate Charges	60,992	40,583
e)	Duplicate Marksheet Charges	8,200	2,700
f)	Make Up Exam Fee and Exam Mode Fee	163,300	85,200
	Total (B)	232,492	128,483
3	Other Fees/Charges		
a)	Identity Cards Fee	116,400	68,600
b)	Fine/Late fees/Miscellaneous Fee	55,382	14,961
c)	Students Certificate Charges	72,100	79,750
d)	Contingency Fees	265,000	40,000
e)	Original Degree Charges	103,100	33,721
f)	Processing charges (on security deposit refund to students)	206,000	295,000
g)	Postage charges from students	45,648	45,883
h)	Academic Verification Charges	20,101	16,000
i)	Study Mode Fees	3,400	4,000



S. No.	Particulars	Current Year	Previous Year
j)	Photostate charges from students	26,490	
k)	PHD Thesis Fees	450,000	450,000
l)	Convocation Fee	-	-
m)	Hostel Fee	34,222,917	10,269,325
	Total (C)	35,586,538	11,317,239
4	Sale of Publication		
a)	Sale of Admission forms	-	-
b)	Sale of Syllabus and Question Paper etc	-	-
c)	Sale of prosectus including admission forms	-	-
	Total (D)	-	-
5	Other Academic Receipts		
a)	Registration Fee for WorkShop, Programme & Seminar & Verification charges	-	-
b)	Registration Fee(Academic Staff College)	-	-
	Total (E)	-	-
	Grand Total (A+B+C+D+E)	108,418,748	64,585,594

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023

Place: Delhi



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

Schedule 10**Amount in Rs.**

Particulars	Plan			Total Plan	-	Current year Total	Previous year Total
	Govt. of India	UGC					
		Plan	Specific Scheme				
Balance B/F	521,931,984	-	-	521,931,984	-	521,931,984	720,917,255
Add: Sanction during the year	1,361,300,000	-	-	1,361,300,000	-	1,361,300,000	240,975,000
Less: RBI TSA balance lapse as on 31.03.2022	(5,523,750)	-	-	(5,523,750)	-	(5,523,750)	(59,600,394)
Add: RBI TSA Balance lapse on 31.03.2022 (Rectification)	22,500	-	-	22,500	-	22,500	-
Add: Transferred from Corpus Fund	-			-		-	37,201,243
Total	1,877,730,734	-	-	1,877,730,734	-	1,877,730,734	939,493,103
Less: Refund to UGC	-	-	-	-	-	-	-
Balance	1,877,730,734	-	-	1,877,730,734	-	1,877,730,734	939,493,103
Less: Utilised for Capital expenditure (A)	1,544,086,135	-	-	1,544,086,135	-	1,544,086,135	200,306,633
Balance	333,644,599	-	-	333,644,599	-	333,644,599	739,186,470
Less: utilized for Revenue Expenditure (B)	317,990,735	-	-	317,990,735	-	317,990,735	217,254,486
Balance C/F (C)	15,653,864	-	-	15,653,864	-	15,653,864	521,931,984

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023

Place: Delhi



NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Income from Investments

Schedule 11**Amount in Rs.**

	Particulars	Earmarked Fund/ Endowments Funds		Other Investments	
		Current year	Previous year	Current year	Previous year
1	Interest				
a)	On Govt. Securities	-	-	-	-
b)	Other Bonds/Debentures	-	-	-	-
2	Interest on FDRs (Incl. Auto Sweep) - IRG	-	-	12,029,670	27,266,690
	Interest on FDRs (Incl. Auto Sweep) - Non-TSA Fund			4,227,353	-
	Less: Interest transferable to Ministry			-	(4,858,499)
3	Income Accrued but not received on term deposits (Incl. Auto Sweep)	-	-	8,564,163	4,100,909
4	Others (Specify) - Interest On Income Tax Refund	-	-	47,952	-
	Total	-	-	24,869,138	26,509,100
	Transferred To Earmarked/Endowment Funds	-	-	-	-
	Balance	-	-	24,869,138	26,509,100

Accountant
NIT DelhiAsstt. Registrar
NIT DelhiRegistrar
NIT DelhiDirector
NIT Delhi**Date: 30/05/2023****Place: Delhi**



NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Interest Earned

Schedule 12**Amount in Rs.**

S. No.	Particulars	Current Year	Previous Year
1	On Savings Accounts:		
a)	With Scheduled Banks	5,389,768	1,063,913
	Less: Transferred to Projects/scholarship amount	(42,492)	(444,826)
	Less: Interest transfer to Ministry (FY 2021-22)	-	(262,874)
2	On Loans:		
a)	Employees/Staff	-	-
b)	Others	-	-
3	Interest on Debtors and Other Receivables		
a)	With Non-Scheduled Banks	-	-
b)	Post Office Savings Accounts	-	-
c)	Others	-	-
	Total	5,347,276	356,213

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023

Place: Delhi



NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Other Income

Schedule 13

Amount in Rs.

S. No.	Particulars	Current Year	Previous Year
0	Income from Land & Buildings		
1	Hostel Room Rent	-	-
2	License fee	50,128	35,469
3	Hire Charges of Auditorium/Play ground/Convention Centre, etc	-	-
4	Electricity charges recovered		-
5	Water charges recovered.	-	-
	Total A	50,128	35,469
B	Sale of Institute's publications	-	-
C	Income from holding events		
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)	-	-
	Total C	-	-
D	Others		
1	Income from consultancy	1,529,803	-
2	RTI fees	60	-
3	Income from Royalty	-	-
4	Application Fees (Recruitment)	1,972,130	-
5	Misc. receipts (Sale of tender form, waste paper, etc.)	4,480	74,987
6	Profit on sale/disposal of Assets		
a)	Owned Assets	-	-
b)	Assets received free of cost	-	-
7	Grants/Donations from Institutions, Welfare Bodies and International Organizations	-	-



S. No.	Particulars	Current Year	Previous Year
8	Others		
a)	Computer and Internet Fee	-	-
b)	ID card Charges (Other than from students)	200	-
c)	Income from Guest House	145,662	44,000
d)	Bus Charges	4,500	-
e)	Other Income	8,801	19,379
f)	Late Delivery, Penalty etc.	71,356	-
g)	Vehicle Charges Recovery	20,127	-
h)	PHD Application Fees	182,500	105,500
i)	Income from Certificates (Other than issued to students)	-	-
j)	Tender Fees	-	55,000
k)	Study Mode Fee	-	-
l)	Institute overhead charges from various project/programmes	70,000	893,531
m)	Unclaimed balance under various project/programmes	-	1,432,665
n)	Sponsorship Received	-	-
o)	Processing Fee	-	-
p)	Rent Income	119,988	-
	Total D	4,129,607	2,625,062
	Grand Total (A+B+C+D)	4,179,735	2,660,531

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023

Place: Delhi



National Institute of Technology Delhi

NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Prior Period Income

Schedule 14

Amount in Rs.

S. No.	Particulars	Current Year	Previous Year
1	Academic Receipts	2,833	(2,000)
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	Depreciation Written Back Retrospectively	-	-
7	Interest on Income tax refund	6	
8	License Fee	560	
	Total	3,399	37,154,620

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023

Place: Delhi



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

Schedule 15**Amount in Rs.**

	Particulars	Current year			Previous year		
		Plan	-	Total	Plan	-	Total
1	Salaries and Wages	105,303,592	-	105,303,592	84,802,362	-	84,802,362
2	Allowances and Bonus	-	-	-	-	-	-
3	Employer Contribution to CPF	-	-	-	39,920	-	39,920
4	Contribution to Other Fund (NPS Employer Share)	11,348,798	-	11,348,798	9,052,910	-	9,052,910
5	Staff Welfare Expenses	-	-	-	-	-	-
6	Retirement and Terminal Benefits	30,736,343	-	30,736,343	13,544,351	-	13,544,351
7	LTC	727,663	-	727,663	1,788,350	-	1,788,350
8	Medical facility	2,494,830	-	2,494,830	258,602	-	258,602
9	Children Education Allowance	837,000	-	837,000	756,000	-	756,000
10	Honorarium	25,000	-	25,000	25,000	-	25,000
11	Others						
a)	CPDA	891,521	-	891,521	536,650	-	536,650
b)	Composite Transfer Grant and Relocation Expenses	137,371	-	137,371	179,280	-	179,280
c)	Contribution to New Pension Scheme	-	-	-	-	-	-
d)	NSDL	-	-	-	7,236	-	7,236
e)	Pension Contribution Dr. Ajay Kumar Sharma	666,789	-	666,789	334,269	-	334,269
f)	Leave salary Contribution Dr. Ajay kumar Sharma	295,812	-	295,812	156,123	-	156,123
g)	DA Arrear	1,524,193		1,524,193			
h)	Earned Leave Encashment	260,003	-	260,003	357,533	-	357,533
i)	Gratuity Expenses	2,554,847		2,554,847			
j)	Leave salary & Pension Contribution	-	-	-	21,956	-	21,956
	Total	157,803,762	-	157,803,762	111,860,542	-	111,860,542


 Accountant
 NIT Delhi


 Asstt. Registrar
 NIT Delhi


 Registrar
 NIT Delhi


 Director
 NIT Delhi

Date: 30/05/2023
Place: Delhi



National Institute of Technology Delhi

NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Employees' Retirement And Terminal Benefits

Schedule 15 A

Amount in Rs.

S.No.	Particular	Pension	Gratuity	Leave Encashment	Total
1	Opening Balance as on 01.04.2022	-	-	33,977,861	33,977,861
2	Addition: Capitalized value of Contributions Received from other Organizations	-	-	-	-
3	Less: Actual Payment during the Year (b)	-	-	-	-
4	Balance Available on 31.03.2023 [c = (a-b)]	-	-	33,977,861	33,977,861
5	Provision required on 31.03.2023 (d)	-	22,587,251	42,126,953	64,714,204
A.	Provision to be made in the Current year [(d-c)]	-	22,587,251	8,149,092	30,736,343
B.	Contribution to New Pension Scheme & CPF	-	-	-	-
C.	Medical Reimbursement to Retired Employees	-	-	-	-
D.	Travel to Hometown on Retirement	-	-	-	-
E.	Deposit Linked Insurance Payment	-	-	-	-
	Total (A+B+C+D+E)	-	22,587,251	8,149,092	30,736,343


Accountant
NIT Delhi


Asstt. Registrar
NIT Delhi


Registrar
NIT Delhi


Director
NIT Delhi

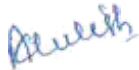
Date: 30/05/2023
Place: Delhi



NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Academic Expenses

Schedule 16**Amount in Rs.**

	Particulars	Current year				Previous year			
		Plan	-	Academic	Total	Plan	-	Academic	Total
1	Laboratory expenses	-	-	852,560	852,560	-	-	11,301	11,301
2	Field work/Participation in Conferences	-	-	-	-	-	-	-	-
3	Expenses on Seminars/Workshops	-	-	-	-	-	-	-	-
4	Sitting Fees - visiting experts	-	-	779,507	779,507	-	-	703,548	703,548
5	Printing and stationary	-	-	-	-	-	-	-	-
6	Academic Refreshment expenses	-	-	-	-	-	-	-	-
7	Admission expenses	-	-	-	-	-	-	-	-
8	Convocation expenses	-	-	2,390,727	2,390,727	-	-	-	-
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	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
	Others (specify)	-	-	-	-	-	-	-	-
17	Library Expenses	-	-	89,160	89,160	-	-	-	-
18	TA to Students	-	-	-	-	-	-	-	-
19	Academic Expenses	-	-	-	-	-	-	-	-
20	Literary Club Expenses	-	-	-	-	-	-	-	-
21	Interest on TDS	-	-	-	-	-	-	112,126	112,126
22	License Fee- Admin	-	-	-	-	-	-	-	-
23	Travelling Exps - visiting experts	-	-	274,860	274,860	-	-	-	-
24	Transcript Expenses	-	-	63,897	63,897	-	-	-	-
	Total	-	-	4,450,711	4,450,711	-	-	826,975	826,975


Accountant
NIT Delhi


Asstt. Registrar
NIT Delhi


Registrar
NIT Delhi


Director
NIT Delhi

Date: 30/05/2023
Place: Delhi



NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Administrative and General Expenses

Schedule 17

Amount in Rs.

	Particulars	Current year			Previous year		
		Plan	-	Total	Plan	-	Total
1	Infrastructure						
a)	Electricity and power	24,234,903	-	24,234,903	5,354,789	-	5,354,789
b)	Water charges (Including License Fees)	880,338	-	880,338	74,370	-	74,370
c)	Insurance	-	-	-	-	-	-
d)	Rent, Rates and Taxes (including property tax)	30,316,280	-	30,316,280	47,445,847	-	47,445,847
2	Communication						-
a)	Postage, Telephone, Fax and Internet Charges	3,730,558	-	3,730,558	3,374,607	-	3,374,607
3	Expenses on Contractual & Outsourced Employees						-
a)	Salary to Contractual Staff	13,414,807	-	13,414,807	4,671,365	-	4,671,365
b)	Outsourced Employees Expenses	28,720,394	-	28,720,394	20,178,835	-	20,178,835
4	Fest Expenses						-
a)	Saptrang	-	-	-	-	-	-
b)	Terra Technica 2018	-	-	-	-	-	-
c)	Terra Technica 2017	-	-	-	-	-	-
d)	Work Shop/seminar/conference/Cultural Exps.	563,917	-	563,917	11,800	-	11,800
5	Others						-
a)	NIT Transit House Contribution	350,000	-	350,000	-	-	-
b)	Professional Charges (Incl. Sitting Fees)	2,199,455	-	2,199,455	1,752,768	-	1,752,768
c)	Printing and Stationery	1,909,717	-	1,909,717	655,432	-	655,432
d)	Travelling and Conveyance Expenses	864,303	-	864,303	20,942	-	20,942
e)	Stipend (Incl. Post Doctoral Fellowship)	35,486,257	-	35,486,257	27,483,706	-	27,483,706
f)	Auditors Remuneration	163,205	-	163,205	102,465	-	102,465
g)	Statutory Bodies Meeting and Various Meeting	286,854	-	286,854	122,274	-	122,274
h)	Security Expenses	14,063,398	-	14,063,398	11,183,809	-	11,183,809
i)	E- Journals & Periodical Subscription Fee	9,859,009	-	9,859,009	11,008,690	-	11,008,690
j)	Campus Shifting charges	626,691	-	626,691	-	-	-
k)	Misc Exp	382,889	-	382,889	123,738	-	123,738
l)	Late Fee, Interest & Others-GST	17,246	-	17,246			
m)	Advertisement and Publicity	620,895	-	620,895	699,137	-	699,137
n)	News Paper, Magazines etc	22,872	-	22,872	8,736	-	8,736
o)	Boarding & Lodging and Guest House Expenses	132,997	-	132,997	36,286	-	36,286
p)	Laboratory Expenses	-	-	-	88,796	-	88,796
q)	Website related expenses	33,974	-	33,974	-	-	-
r)	AMC Charges	1,725,152	-	1,725,152	1,409,369	-	1,409,369
s)	DSC Expenses	5,778	-	5,778	2,000	-	2,000
t)	Housekeeping Expenses	274,412	-	274,412	169,487	-	169,487
u)	Refreshment	544,160	-	544,160	160,397	-	160,397
v)	Orientation Programme Expenses	180,060		180,060	-	-	-



	Particulars	Current year			Previous year		
		Plan	-	Total	Plan	-	Total
w)	Horticulture Expense	157,821	-	157,821	272,856	-	272,856
x)	E-Office Recurring Expenses	251,900		251,900			
y)	Consultancy Expenses	701,906	-	701,906	-	-	-
z)	Other Expenses (Admin)	153,679	-	153,679	-	-	-
aa)	Recruitment Expenses	1,625,872	-	1,625,872	-	-	-
ab)	Generator Running Expense	30,999		30,999			
ac)	Sports Expenses (Admin)	229,551		229,551			
ad)	Honorarium -Admin	10,000	-	10,000	-	-	-
	Total	174,772,249	-	174,772,249	136,412,501	-	136,412,501

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023

Place: Delhi



National Institute of Technology Delhi

NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Transportation Expenses

Schedule 18

Amount in Rs.

	Particulars	Current year			Previous year		
		Plan	-	Total	Plan	-	Total
1	Vehicles (owned by institution)						
a)	Running expenses	211,331	-	211,331	-	-	-
b)	Repairs & maintenance	-	-	-	-	-	-
c)	Insurance expenses	2,430	-	2,430	-	-	-
2	Vehicles taken on rent/lease/Hiring						
a)	Rent/lease expenses/Hiring	4,478,485	-	4,478,485	876,228	-	876,228
b)	Running expenses	369,589	-	369,589	293,202	-	293,202
	Total	5,061,835	-	5,061,835	1,169,430	-	1,169,430

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023

Place: Delhi



NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Repairs & Maintenance

Schedule 19**Amount in Rs.**

	Particulars	Current year			Previous year		
		Plan	-	Total	Plan	-	Total
1	Estate & Building Maintenance	5,135,490	-	5,135,490	1,448,024	-	1,448,024
2	Furniture & Fixture	-	-	-	79,983	-	79,983
3	Plant & Machinery	-	-	-	-	-	-
4	Office Equipments	328,982	-	328,982	764,208	-	764,208
5	Computer	435,983	-	435,983	454,380	-	454,380
6	Laboratory & Scientific Equipments	-	-	-	-	-	-
7	Audio Visual Equipments	-	-	-	-	-	-
8	Cleaning Material & Services	-	-	-	-	-	-
9	Books Binding Charges	-	-	-	-	-	-
10	Gardening	-	-	-	-	-	-
11	Electricity and Electric Repair	398,778	-	398,778	110,304	-	110,304
	Total	6,299,233	-	6,299,233	2,856,899	-	2,856,899

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023

Place: Delhi



National Institute of Technology Delhi

NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Finance Costs

Schedule 20

Amount in Rs.

	Particulars	Current year			Previous year		
		Plan	-	Total	Plan	-	Total
1	Bank Charges	164,260	-	164,260	37,668	-	37,668
	Total	164,260	-	164,260	37,668	-	37,668

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023

Place: Delhi



NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Other Expenses

Schedule 21**Amount in Rs.**

	Particulars	Current year			Previous year		
		Plan	-	Total	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	-	-	-	-	-	-
	Plant Acquisition	-	-	-			
	Total	-	-	-	-	-	-

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023

Place: Delhi



National Institute of Technology Delhi

NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Prior Period Expenses

Schedule 22

Amount in Rs.

	Particulars	Current year			Previous year		
		Plan	-	Total	Plan	-	Total
1	Establishment expenses	238,201	-	238,201	-	-	-
2	Academic expenses		-	-	-	-	-
3	Administrative expenses	4,237,520	-	4,237,520	1,201,760	-	1,201,760
	Total	4,475,721	-	4,475,721	1,201,760	-	1,201,760

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023

Place: Delhi



NATIONAL INSTITUTE OF TECHNOLOGY DELHI
List of Creditors as on 31.03.2023

Creditors For Goods**Annexure 'A'**

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
5	Pacemaker Solution	3,851,959	-
	Total	3,973,029	121,070

Creditors-Others**Annexure 'A'**

S.No.	Particulars	Amount in Rs.	Amount in Rs. (P.Y)
1	NBCC Payable	-	1,669,408
2	Citalert Security Services Pvt Ltd	72,117	72,117
3	Manish Dhiman	277	277
4	Sanko Network	360	360
5	Reliance Communication Ltd	11,000	(400)
6	Anil Amina (Crs for Exp)	9,000	-
7	Anurag Singh (Crs for Exp)	36,530	-
8	M/s EBSCO	1,509,218	-
9	Simulation Technologies Pvt Ltd	433,125	-
10	Vikas Kaushik (Crs for Exp)	4,940	-
11	MK Jain (Crs for Exp)	3,988	-
12	Pawan Kumar Sharma (Sitting Fee Crs)	3,600	-
13	A.V. Associates	6,977	-
14	Frank Copier Pvt. Ltd	254,597	-
15	Ravinder Kumar Crs for Exp	1,826	-
16	Vladimir Mazalov Crs for Exp.	20,425	-
17	PIICON 2022 (Refundable)	67,260	-
	Total	2,435,240	1,741,762

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023
Place: Delhi



National Institute of Technology Delhi

NATIONAL INSTITUTE OF TECHNOLOGY DELHI
List of Statutory Dues as on 31.03.2023

Annexure 'B'

S.No.	Particulars	Amount in Rs. (c.y.)	Amount in Rs. (p.y.)
1	CGST TDS	162,672	53,876
2	IGST TDS	299,880	44,782
3	SGST TDS	161,742	53,876
4	CGST Payable	146,796	-
5	IGST Payable	106,797	-
6	SGST Payable	74,796	-
7	TDS on Salary 192B	155,935	52,206
8	TDS on Contract 194C	2,631,884	743,907
9	TDS on Rent 194I	736,299	654,071
10	TDS on Professional 194J	1,293,235	121,300
11	TDS on NRI 195	-	-
12	NPS Payable (Both Employer & Employee)	1,873,188	1,314,686
13	GPF Payable	14,919	-
14	CPF Payable	-	-
15	GIS Payable	(1,424)	-
	Total	7,656,717	3,038,704

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023
Place: Delhi



NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Detail Of Outstanding as on 31.03.2023

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	490,000		38,387	
4	Campus Maintenance	4,600		4,600	
5	CPF Contribution	-		-	
6	E-Journal Expense	-		2,253,830	
7	Electricity Exp	1,767,587		319,806	
8	Equipment Repair Maintenance	-		382,505	
9	Conveyance Payable	-		-	
10	Computer Repair Maintenance	-		14,957	
11	Internet Charges	880,575		1,237,376	
12	Legal Charges	8,000		31,800	
13	Newspaper & Periodicals	3,800		2,233	
14	Other Payable	125,562		275,827	
15	Professional Charges	48,183		138,501	
16	E-Office Expense Payable	35,986			
17	Rent	-		3,457,168	
18	Salary Outsourcing Staff	2,645,143		2,140,246	
19	Salary and Wages Contractual	1,122,256		1,099,868	
20	Security Exp.	1,309,678		947,670	
21	Vehicle Hiring & Running Expenses	43,555		47,210	
22	Stipend Of Phd	1,641,435		1,161,880	
23	Stipend Of Mtech	863,843		1,206,194	
24	Travelling Expenses	-		4,560	
25	Telephone Exp	11,800	11,002,003	11,800	14,801,620
	Establishment Expenses Payable				
26	Medical Reimbursement Payable	-		81,976	
27	Salary Payable	9,298,750		6,669,799	
28	Leave Salary & Pension Contribution	104,968		77,494	
29	Dr. Ajay K. Sharma Deductions Payable	2,551		21,439	
30	Dr. Chandra Prakash, CPF Contribution	-		210,388	
31	Geeta Sikka Deductions Payable	50		-	
32	Ravinder Kumar Payable	400		-	
33	GIS Deductions	-		(606)	



S.No.	Particulars		Amount in Rs.	P.Y	Amount in Rs. (P.Y)
34	Gratuity Expense payable	-	9,406,719	-	7,060,490
	Unspent balance of Counsellings				
35	CCMT 2017	227		227	
36	CCMT 2019	110,880		110,880	
37	CCMT 2022	185,000		-	
38	CSAB 2016	47,932		47,932	
39	CSAB 2019	-		-	
40	CSAB 2020	-		-	
41	CSAB 2021	-		23,512	
42	CSAB 2022	-		-	
43	DASA 2019	23,512		-	
44	DASA 2021	15,000	382,551	50,000	232,551
	Project Expenses Payable				
45	CSIR Project	-		-	
46	DST Project	-		-	
47	DST Shri Project	-		-	
48	STC	-		-	
49	SERB	-		-	
50	SMPD	-		-	
51	SERB Dr Rikmantra Basu Pyable (CRG/2020/002966)	-		38,440	
52	SERB Expense payable	-		-	
53	GIAN, IIT Kharagpur	-	-	233,251	271,691
	Other Payable				
54	TDS Amount Reimbursable	-		-	
55	Amount un-identified	666,841	666,841	713,641	713,641
	Total		21,458,114		23,079,993

Accountant
NIT DelhiAsstt. Registrar
NIT DelhiRegistrar
NIT DelhiDirector
NIT Delhi

Date: 30/05/2023

Place: Delhi



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

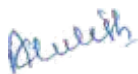
Annexure 'D'

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	A .S Infoways (EMD)	82,600	-
3	Avantech Engineering Pvt Ltd (EMD)	134,000	-
4	Balka Furnishaers EMD	4,000	4,000
5	Ergo Dyanamix EMD	10,000	10,000
6	Exxjet System LLP (EMD)	82,600	-
7	Frank Copier Private Limited	15,000	15,000
8	Galaxy Enterprises EMD	3,000	3,000
9	Jain Furniture EMD	2,100	2,100
10	Monotech System Ltd (EMD)	731,600	-
11	Neotel EMD	10,000	10,000
12	NET PRO INDIA	10,000	10,000
13	Net Web Technologyes	11,000	11,000
14	NIT Delhi Mess EMD	50,000	50,000
15	Sahni Associates EMD	4,000	4,000
16	Shree Balaji Furnishers EMD	3,100	3,100
17	Star Fabricator	36,565	36,565
18	Sulabh International Social Service Org. EMD	33,496	33,496
19	T K Meena EMD	6,000	6,000
20	Altem Technologies Pvt Ltd (EMD)	82,600	-
21	Top Land EMD	16,000	16,000
22	Wipro Enterprises Pvt Ltd (EMD)	731,600	-
	Total (A)	2,069,261	224,261

**B) Details of Other Security Deposit**

S.No.	Particulars	Amount in Rs.	Amount in Rs. (P.Y)
1	Bengal Battery Co. Performance Security	40,496	40,496
2	Bridge People Technology P Ltd (Perfo. Security)	40,437	40,437
3	Grand Slam Fitness Security Deposit	-	-
4	International Book Centre (Performance Security)	20,000	-
5	Frank Copier Private Limited	-	254,597
6	JILIT Ltd	202,248	202,248
7	Mikroz Info Security P. Ltd.	39,805	39,805
8	New Yadav Tourist Security Deposit	25,000	25,000
9	Reliance Internet Security	110,000	110,000
10	Research India	2,820	2,820
11	Sahni Associates Security	16,238	16,238
12	Gaussian Optixs Pvt. Ltd.	16,230	-
13	Altem Technologies Pvt Ltd (Performance Security)	159,149	-
14	Security Deposit (Arpit Gulati)	50,000	-
15	Premier Trading Corporation (Performance Security)	16,451	-
16	Sandvic Components Security	46,095	-
17	Simulation Technology P Ltd (Performance Security)	25,200	-
18	Security Deposit (Veg Morning Fresh)	50,000	-
	Total (B)	860,169	731,641
	Grand Total (A+B)	2,929,430	955,902


Accountant
NIT Delhi


Asstt. Registrar
NIT Delhi


Registrar
NIT Delhi


Director
NIT Delhi

Date: 30/05/2023
Place: Delhi



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
A	Cash Imprest				
1	Anmol Ratna	705		705	
2	Rikamntra Basu	3,937	4,642	3,937	4,642
B	Imprest Card		107,995		107,995
C	Imprest (Others)				
1	Sh. Mukul	25,000		-	
2	Dr. Rikamntra Basu	48,361	73,361	-	-
	Total		185,998		112,637

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023
Place: Delhi



National Institute of Technology Delhi

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	Aditi Kandari	-	4,812
2	Anidev Singh	41,859	50,000
3	Anuj Kumar Sharma	-	15,000
4	Anupriya Das	-	10,000
5	Anurag Singh	-	31,300
6	Jitender Singh Bisht	22,017	15,000
7	Kamal Kumar	-	50,000
8	Karan Verma	-	24,544
9	Lov Kumar Dubey	-	73,272
10	LTC Advance	378,817	-
11	Manisha Bharti	-	14,385
12	Mukul Nakra	-	74,359
13	Satyender Singh	-	3,000
14	Vikrant Kaushik	-	20,000
15	Amit Pratap Singh	50,000	-
16	Ms. Pooja Khatri	2,000	-
17	Obbu Chandra Shekhar	87,900	-
18	Rakesh Narang	2,000	-
19	Rikmantra Basu	4,000	-
	Total	588,593	385,672

Accountant
NIT Delhi

Asstt. Registrar
NIT Delhi

Registrar
NIT Delhi

Director
NIT Delhi

Date: 30/05/2023

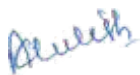
Place: Delhi



NATIONAL INSTITUTE OF TECHNOLOGY DELHI
List of Debtors as on 31.03.2023

Annexure 'G'

S.No.	Particulars	Amount in Rs.	Amount in Rs. (P.Y)
1	Abhishek Singh	1,670	1,670
2	Anil Kumar (Ex-MTS)	137	137
3	Ashok Tours & Travels	25,578	25,578
4	Bhupesh Kumar	373	373
5	GGSIU University	3,068	3,068
6	TDS Recoverable from Employees	-	52,206
7	Craftdude Furniture	61,824	-
8	Receivable from Students	3,698,257	4,546,664
9	Recoverable from Canara Bank	578,083	686,223
10	Nanak Arts	2,327	-
11	Gaurav Dwivedi	43,400	-
12	Pankaj Chandna (Crs for Exp)	10,320	-
13	Pawan Kumar Sharma Tour and Travels	7,200	-
14	Dharmendra Kumar Crs for Exp	22,320	-
15	Chandra Prakash Crs for Exp	879	-
16	Cargo Motors Pvt Ltd	221,675	-
	Total	4,677,111	5,315,919


 Accountant
 NIT Delhi


 Asstt. Registrar
 NIT Delhi


 Registrar
 NIT Delhi


 Director
 NIT Delhi

Date: 30/05/2023
Place: Delhi



National Institute of Technology Delhi



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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