

**INDIAN INSTITUTE OF TECHNOLOGY DELHI**  
**Industrial Research & Development Unit**

No.IITD/IRD/SURA-2024/ 373177

Dated: 25/02/2025

Office Memorandum

After technical evaluation by the concerned facilitator(s) and the committee(s) constituted by the Competent Authority, the following projects have been awarded to the students concerned under SURA-2024.

**Department of Civil Engineering**

#	Title of the Project	Name of the Students	Entry No.	Name of the Project Facilitator
1	Support Vector Machine Based Failure Mode Classification of Reinforced Concrete Columns under Cyclic Loading	Pranav Sai Reddy Chevuru Civil Engineering	2022CE11525	Prof. Srinivas Mogili Civil Engineering
2	Spatial Analysis and Optimization of EV Charging Station Infrastructure	Soumya Virat Zaveri Keshav Agrawal Civil Engineering	2022CE11521 2022CE11534	Prof. Manoj M. Civil Engineering
3	Examining the Relationship Between Shear Strength and Normal Load of Cementitious Materials for 3D-Printer	Sahil Mittal Siddhant Gupta Civil Engineering	2022CE11050 2022CE11536	Prof. Prashanth Vangla Prof. Shashank Bishnoi Civil Engineering
4	Surface Modification of Supplementary Cementitious Materials	Durga Patel Civil Engineering	2022CE11580	Prof. Shashank Bishnoi Civil Engineering

**Departments of Computer Science & Engineering and Mathematics**

#	Title of the Project	Name of the Students	Entry No.	Name of the Project Facilitator
5	Brain Stroke Type Identification and Functional Outcome Prediction via Fundus Imaging in Resource Limited Settings	Priyanshu Agrawal Vishakha Agarwal Computer Science & Engineering	2022CS11641 2022CS11097	Prof. Rahul Garg Computer Science & Engineering
6	Formal Verification of Neural Networks Using SAT/SMT Solvers	Mohit Dua Daksh Gupta Computer Science & Engineering	2022CS51745 2022CS51443	Prof. Priyanka Golia Computer Science & Engineering
7	Utility-Aware Data Masking	Ishika Nankani Omar Islam Laskar Computer Science & Engineering	2022CS11623 2022CS51636	Prof. Kaustubh Beedkar Computer Science & Engineering
8	Algorithms for the Shortest Vector Problem on Lattices	Pola Venkata Revanth Sarthak Panda Computer Science & Engineering	2022CS51650 2022CS51217	Prof. Rajendra Kumar Computer Science & Engineering
9	Finding Representative and Efficient Committees	Aditya Prakash Harshal Singh Sindal Computer Science and Engineering	2022CS11595 2022CS11597	Prof. Rohit Vaish Computer Science & Engineering
10	Calibration of Parameters of Heston Model/Analysis of	Akarsh Gupta Parth Bhardwaj	2022MT61966 2022MT11257	Prof. Anant K. Majee Dept of Mathematics



	Indian Options Using Neural Networks on Heston Model	Mathematics		
11	Adversarial Machine Learning Defence	Ansh Agrawal Computer Science & Engineering Rohan Chaturvedi Mathematics	2022CS51135 2022MT11262	Prof. Vireshwar Kumar Computer Science & Engineering

### Departments of Chemical Engineering/ DBEB / Textile and Fibre Technology

#	Title of the Project	Name of the Students	Entry No.	Name of the Project Facilitator
12	Cost-Effective and Functional Goniometer Development for Precise Optical Measurements	Shyam Kaushik Rahul Arvind Masand Chemical Engineering	2022CH11447 2022CH71476	Prof. Somnath Ghosh Chemical Engineering
13	Implementation of a Strategy for Improving the Recombinant Protein Production in Yeast Strains Containing High Copy Numbers of the Recombinant Protein Gene	Yashika Gulati DBEB	2022BB11386	Prof. Atul Narang DBEB
14	Deciphering the Mechanisms of $\alpha$ -Motif Induced Transcriptional Regulation in Hypoxia	Sparsh Vyas DBEB Athipatla Rahul Mathematics	2022BB11003 2022MT11277	Prof. Saran Kumar Kusuma School of Biological Sciences
15	Prediction of Viscosity of Non-Newtonian Fluids at Different Shear Rates and Temperatures Using Machine Learning	Lakshya Kumar Abhiraj Kumar Koslia Textile and Fibre Engineering	2022TT12183 2022TT12187	Prof. Abhijit Majumdar Textile and Fibre Engineering

### Departments of Electrical Engineering and Physics

#	Title of the Project	Name of the Students	Entry No.	Name of the Project Facilitator
16	Real-Time Joint Torque Prediction by Multiple Wearable Sensor Band Fusion Using EMG Signal	Shahid Khan Dhruv Jhunjhunwala Electrical Engineering	2022EE11163 2022EE32068	Prof. Sitikantha Roy Applied Mechanics Prof. Lalan Kumar Electrical Engineering
17	Simulation of Multi- Qubit System Using Quantum Entanglement	Lisha Goel Abheek Gera Electrical Engineering	2022EE11685 2022EE11160	Prof. Abhisek Dixit Electrical Engineering
18	Exploring the Potential of Dual-Drive Mach Zehnder Modulator: Generating Over 10 OFC Lines for Advanced Optical Communication	Gandharva Chhipa Kartikey Agarwal Electrical Engineering	2022EE11663 2022EE11156	Prof. Amol Choudhary Electrical Engineering
19	Seasonal Prediction of Monsoon	Madhav Biyani Electrical Engineering Ujjawal Sharma Computer Science & Engineering	2022EE11321 2022CS51137	Prof. Tanmoy Chakraborty Electrical Engineering
20	Smart Walking Stick: Fusion of Physiological and Vital Body Metrics with Predictive Analysis for Elderly Health Surveillance and Emergency Response	Madhav Gupta Electrical Engineering Aman Gupta Textile and Fibre Engineering	2022EE11737 2022TT12151	Prof. Tapan Kumar Gandhi Electrical Engineering



21	Design and Fabrication of Diffractive Optical Elements (For Unconventional Imaging Systems)	Shruti Aparna Anushka Pandey Physics	2022PH11850 2022PH11848	Prof. Kedar Khare Physics
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**Departments of Mechanical Engineering, Applied Mechanics, Material Science & Engineering and Energy Science & Engineering**

#	Title of the Project	Name of the Students	Entry No.	Name of the Project Facilitator
22	Analysis of Multiphase Flows Through Catalytic Converters Using Graph Neural Networks	Aditya Saxena Pranav Misra Applied Mechanics	2022AM11218 2022AM11527	Prof. Prapanch Nair Applied Mechanics
23	A Non-Invasive Approach to Determine Gastric Emptying for Gastroparesis Patients Using Physics Informed Machine Learning	Tejasraj Mangla Engineering and Computational Mechanics	2022AM11815	Prof. Sanjeev Sanghi Prof. Rajdip Nayek Prof. Rajat Mittal Applied Mechanics
24	Data-Driven Discrete Dislocation Dynamics	Shiv Ratn Sathwick Gowdat Engineering and Computational Mechanics	2022AM11816 2022AM12075	Prof. Sabyasachi Chatterjee Applied Mechanics
25	Investigation of Electro-Thermal Properties of VO <sub>x</sub> Thin Film for Microbolometer Application	Megha Mondal Utkal Roy Material Science and Engineering	2022MS11898 2022MS11899	Prof. Ankur Goswami Material Science and Engineering
26	Development of a Prototype Multi-Axis FDM-Based 4D Printer	Sidhant Nair Singana Sri Krishna Sai Mechanical Engineering	2022ME11991 2022ME12003	Prof. Sagar Sarkar Mechanical Engineering

The concerned students can collect the final payment from IRD (Accounts). However, award certificates will be released only on certification by the students through their facilitators that all bills related to their SURA projects have been settled.

*24/02/2025*  
Deputy Registrar (IRD)

**DISTRIBUTION**

1. Concerned students through project facilitator
2. Deputy Registrar IRD Accounts

CC: Associate Dean (R&D)