



Govt. of N.C.T. of Delhi
DELHI TECHNOLOGICAL UNIVERSITY
(Formerly Delhi College of Engineering)
Shahbad Daulatpur, Bawana Road-Delhi-42

Research & Development Office

List of Recommendation Status for Projects Proposals Under Various Faculty Schemes-2026

- i. Young Faculty Grant (YFG),
- ii. Faculty Interdisciplinary Research Projects (FIRP),
- iii. Equipment Matching Grant (EMG), and
- iv. Multi-Institutional Faculty Interdisciplinary Research Project (MFIRP)

YOUNG FACULTY GRANT(YFG)				
S.No	Title of the Project	PI	Budget Requested	Remarks
1	Intelligent Automated Auditing for Secure Smart Contracts	Dr. Anita Thakur (IT)	₹ 5,00,000	Recommended
2	Hybrid Deep Learning and Foundation-Model Adaptation for Pedestrian Intent Prediction in Intelligent Transportation Systems	Dr. Ankit Yadav (IT)	₹ 5,00,000	Recommended
3	Automated Student Attendance Monitoring and Analytics System for Colleges	Dr. Akshay Mool (IT)	₹ 5,00,000	Recommended
4	Enhancing Thermal Efficiency and Emission Characteristics of CI Engines through Optimized Water-Emulsified Alternative Fuels and Improved Thermodynamic Combustion Modelling	Dr. Punnet Singh Gautam (ME)	₹ 5,00,000	Recommended
5	Democratizing urban agriculture: Developing assessible vertical farming kits for households	Deepika Kashyap (Design)	₹ 5,00,000	Not Recommended
6	Development of a high strength-to-weight ratio, two-ply clad sheet metal of Aluminium and ferrous alloy	Bijendra Prasad (ME)	₹ 5,00,000	Recommended

7	Physics-Informed Machine Learning Based Surrogate Model development for LPBF additive manufacturing of Ti-6Al-4V for aerospace applications	Ashish Kumar Mishra (ME)	₹ 5,50,000	Recommended
8	Contact Mechanics of Active Soft Membranes with Axisymmetric Topologies	Dr. Satyajit Sahu (ME)	₹ 5,00,000	Recommended
9	Low-Cost Decentralised Sewage Treatment Plant for Unauthorised Colonies of Delhi	Dr. Harsh Pipil (EN)	₹ 4,60,000	Recommended
10	Mycelium based biodegradable packaging composite	Dr. Jaigopal Sharma (BT)	₹ 4,05,000	Not Recommended
11	Development of an Affordable and functional Upper limb Prosthetic Terminal Device for Partial hand Amputees	Prof. Jai Gopal Sharma (BT)	₹3,00,000 to ₹4,00,000	Not Recommended
12	Development of upper limb prosthetic terminal device for partial hand amputees	Mr Jai Gopal Sharma (BT)	₹4,00,000 to ₹4,50,000	Not Recommended
13	A Lightweight, Explainable and Adversarially Robust Graph-Based Framework for Cybersecurity Threat Detection	Dr. Swechchha Gupta (SE)	₹ 5,00,000	Recommended
14	Advanced Detection of Malicious URL-Based Attacks from Network IP Data	Dr. Bhawana (CSE)	₹ 5,00,000	Recommended
15	Machine Learning Based Optimization of Manufacturing Process Parameters: A Case Study on Friction Stir Processing	Dr. Sumit Joshi (ME)	₹ 5,00,000	Recommended
16	HR and Operations Synergy in Platform Work Models through Empathetic Algorithm Human Resource Management for Viksit Bharat @2047	Dr. Veenu Shankar (DSM)	₹ 5,00,000	Recommended
17	Zero Discharge Campus at DTU	Dr. Rajat Chatterjee (EN)	₹ 5,00,000	Withdrawn
18	Use of Scrap Generated from E-Rickshaw Scrapping	Dr. Rajat Chatterjee (EN)	₹ 5,00,000	Recommended

19	Ergonomic Risk Mapping and Development of a Participatory Intervention Framework for Occupational Health and Productivity Enhancement among Metal Craft Workers	Dr. Dipayan Das (ME)	₹ 5,40,000	Recommended
20	Evaluation of inhibitory potential of ayurvedic herbs in combinatorial mode for the eradication of the carcinogenic gastric pathogen <i>Helicobacter pylori</i>	Dr. Ankita (BT)	₹ 5,00,000	Recommended
21	Integrative Genomic, Structural, and Functional Characterization of Heavy Metal Transporter Networks for Developing Metal-Safe Crop Plants	Mamta Rani (BT)	₹ 5,00,000	Recommended
22	Deciphering Molecular Drivers of Therapy Resistance in Non-Small Cell Lung Cancer Through Comparative Transcriptomics	Dr. Praveen Kumar (BT)	₹ 5,00,000	Recommended
23	Sensitising Antibiotics against Drug-Resistant Pathogenic <i>Escherichia coli</i> and <i>Salmonella</i> using Microbiome of the Plants Practiced as Diarrheal Medicine in the Indigenous Tribal Communities	Dr. Prem Raj Meena (BT)	₹ 5,00,000	Recommended
24	AI-Based Multimodal Speech Fusion for Automated Screening of Dysarthric Speech Patterns and Depression Associated with Neurological Disorders	Dr. Sunakshi Mehra (CSE)	₹ 5,00,000	Recommended
25	Development of NbB ₂ and VC Modified ZrB ₂ -TiC Ultra-High Temperature Ceramic Composites for Extreme Aerospace Applications	Dr. Ankur Sharma (ME)	₹ 5,00,000	Recommended
26	Design Innovations and Performance Evaluation of Conical Porous Journal Bearing Systems with Different Surface Topography Features	Dr. Anil Singh (ME)	₹ 5,90,000	Recommended
27	A Decentralized Framework for Real-Time Integrity Preservation and Lightweight Confidentiality in Resource-Constrained IoBT Environments	Dr. Ashish Kumar (CSE)	₹ 5,00,000	Recommended

FACULTY INTERDISCIPLINARY RESEARCH PROJECT(FIRP)					
S.No	Title of the Project	PI	Co-PI	Budget Requested	Remarks
1	Design and Characterization of FDM-Fabricated Bamboo-Reinforced Polymer Composites	Dr. Sushila Rani (ME)	Prof. Qasim Murtaza (ME), Dr Nilam (AP)	₹ 7,00,000	Not Recommended
2	Artificial Intelligence-aided Mathematical Modelling and Optimization of Zero Energy solar desalination systems in the sustainable freshwater production in India	Dr. Rajesh Kumar (ME)	Dr. Mohammad Zunaid (ME), Dr. Anjana Gupta (AM)	₹ 10,00,000	Recommended
3	Low-Cost Middleware/API Plug-in for SME Integration with India's GST e-Invoicing Portal	Prof Nidhi Maheshwari (USME)	Dr. Anamika Chauhan (IT), Pallavi Sethi (USME)	₹ 5,00,000	Recommended
4	Exploration of Metal Oxide-Polymer Based Composite Materials for Catalytic and Biological Applications in Wastewater Treatment	Dr Poonam Singh (AC)	Mr Yogendra Meena	₹ 10,00,000	Recommended
5	Design and Development of Electric Actuators using Rare-Earth-Free Brushless Motor Drive for Sustainable Infrastructure Systems	Dr. Saurabh Mishra (EE)	Sh. Hrishikesh Dubey (CE), Sh. Kuldeep Singh (EE)	₹ 10,00,000	Recommended
6	Securing Future Energy: Strategies for Fossil Fuel Replacement and Sustainable Transition	Dr. Raminder Kaur (AC)	Prof. Raju Sarkar (CE)	₹ 10,00,000	Recommended
7	Development Of Thermally stable Multifunctional Phosphor Materials For White Leds and Indoor Plant Growth Lighting Applications	Dr. M. Jayasimhadri (AP)	Dr. Vikas Gupta (DSM)	₹ 10,00,000	Recommended
8	Edge-Assisted AI based system for Multimodal Early Dementia Detection	Dr. Minni Jain (CSE)	Dr. Shally Gupta (IT)	₹ 10,00,000	Recommended
9	Design and Development of an Intelligent Thermal Runaway Experimental Platform for Multi-Abuse Safety Investigation of Lithium-Ion Batteries	Prof. M. Rizwan (EE)	Dr. N A Ansari (ME)	₹ 10,00,000	Recommended

10	SMIF-Net: A Robust Multi-Domain Learning Framework for Social Media Image Forensics	Satyabrata Adhikari (AM)	Ms. Anukriti Kaushal (CSE)	₹ 10,00,000	Recommended
11	Fractional-Order Gradient Descent and Hybrid Optimization for Intelligent Multi-User Interference Mitigation in Massive MIMO Systems for 5G and Beyond Wireless Networks	Dr Avinash Ratre (ECE)	Prof. Naokant Deo (AM)	₹ 10,00,000	Recommended
12	Integration of Ferroelectric Energy Storage Materials with PV and EV Charging Systems for Smart Grid Energy Management	Dr. Renuka Bokolia (AP)	Dr. Ankita Matta (EE)	₹ 10,00,000	Recommended
13	AI-Driven Optimization for Enhanced Hyperspectral Anomaly Detection	Dr. Rahul Thakur (ECE)	Dr. Dharendra Kumar (AM)	₹ 10,00,000	Recommended
14	Role of National Education Policy (NEP 2020) in Creating a Skilled Electronics Manufacturing Sector Workforce.	Dr Saurabh Agrawal (DSM)	Dr. Shikha N Khera (DSM), Dr. Kriti Suneja (ECE),	₹ 10,00,000	Recommended
15	AI-Assisted Design of Radiation Hardened Latch for Near Threshold Voltage Circuits	Dr. Chaudhry Indra Kumar (EE)	Priya Singh (SE), Rohan Pillai (EE), Dr. Abhishek Chaudhary (EE)	₹ 10,00,000	Recommended
16	Integrating ESG into Credit Risk Assessment: Development of an Eco-Conscious Lending Framework	Dr. Anurag Chaturvedi (USME)	Prof. Amit Mookerjee (USME), Prof. Nand Kumar (Humanities),	₹ 10,00,000	Recommended
17	Study of AI Integration in Engineering Education and its impact on manufacturing sector: Implications for industrial productivity and economic growth.	Dr. Ratnam Mishra (USME)	Prof. S. K. Garg (ME)	₹ 8,00,000	Recommended
18	Recycling End of life solar panels into Composite material	Krovvidi Srinivas (ME)	Dr. Anand (CSE)	₹ 9,50,000	Recommended

19	Design and Development of a Low-Cost Road Sweeping Machine	Dr. Satyajit Sahu (ME)	Dr. Pushpendra Singh (ME), Mr. Himanshu (EE)	₹ 59,60,000	Not Recommended
20	"Multilingual, Energy-Efficient Vision-and-Language Navigation for Assistive Navigation"	Dr. Rajesh Kumar Yadav (CSE)	Ashutosh Pandey (IT)	₹ 10,00,000	Recommended
21	Design and Development of an Adaptive Hybrid Energy Management System with AI-Based Predictive Battery Failure and Intelligent Battery Swapping for Electric Rickshaws	Deva Nand (ECE)	Dr. Garima (EE)	₹ 10,00,000	Withdrawn
22	Hybrid LLM and Quantum-Inspired Optimization Framework for Scalable Multi-Dimensional Software Quality Prediction	Dr. Shweta Meena (SE)	Dr. Kusum Lata (DSM)	₹ 10,00,000	Recommended
23	Development of a Multimodal Deep Learning Framework for Automated High-Throughput Analysis of Microscopy and Spectroscopic Data in Engineering Materials	Dr. Prashant Giridhar Shambharkar (CSE)	Dr. Anurag Chauhan (ECE)	₹ 10,00,000	Recommended
24	Investigations on BLDC Machine in Stand-alone Mode Comprising Wind Energy System for Remote Areas.	Dr. Duli Chand Meena (EE)	Dr. Prem Prakash (EE), Dr. Rajesh Birok (ECE), Dr. Rajesh Kumar Yadav (CSE)	₹ 10,00,000	Not Recommended
25	Development of a Grid-Connected Utility-Scale Solar Power Plant with Integrated Energy Storage System (ESS)	Dr. Garima (EE)	Dr. Deva Nand (ECE)	₹ 10,00,000	Recommended
26	Development of Energy Storage Integrated Electromechanical Actuation System for Resilient Infrastructure	Dr. Saurabh Mishra (EE)	Sh. Hrishikesh Dubey (CE)	₹ 10,00,000	Not Recommended
27	Improving the Assessment of Depression and Anxiety Using Machine Learning	Dr. Sonika Dahiya (SE)	Dr. Priyanka Meel (IT), Dr. Mohit Beniwal (DSM)	₹ 10,00,000	Recommended

28	Tesla Turbine with Transcritical CO ₂ in an ORC River	Prof. Anil Kumar (ME)	Dr.Puneet Kumar Gautam (ME), Prof.Anil Kumar (AC)	₹ 10,00,000	Recommended
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EQUIPMENT MATCHING GRANT(EMG)

S.No	Title of the Project	PI	Budget Requested	Remarks
1	Development of AI-Based Solution for Analysing, Benchmarking and Quality Monitoring of the Cybersecurity Audit Reports and Performance Monitoring of Auditing Organizations	Dr. Pawan Singh Mehra (CSE)	₹ 35,00,000	Recommended
2	Development of Advanced Flexible PVDF-Based Dielectric Materials for Applications in Energy Conversion and storage Devices	Dr. Deshraj Meena (AP)	₹ 23,35,000	Recommended

MULTI-INSTITUTIONAL FACULTY INTERDISCIPLINARY RESEARCH PROJECT(MFIRP)

S.No	Title of the Project	PI	Budget Requested	Remarks
1	Development of Advanced Sensorless Control Algorithms for Rare-Earth-Free Brushless Motor Drive	Dr. Saurabh Mishra (EE)	₹ 10,00,000	Not Recommended