

**LIST OF SEED MONEY PROJECTS SANCTIONED IN LAST FIVE YEARS**

S.No	Name of the Faculty	Year of receiving	Title of Project	Duration of Project in Years	The amount of seed money (in INR Lakhs)
1	Dr. Kundan Lal	2018-19	To Investigate the Performance of a Nanofluid Based Cross Flow Heat Exchanger (Car Radiator)	2	5.78
2	Dr. Neeraj Kumar	2018-19	Development of NIM based new numerical method for fluid flow and heat transfer problems	2	3.2
3	Dr. Gagandeep Bhardwaj	2018-19	Crack Growth Analysis of Functionally Graded Materials under Thermo-Mechanical Loading using Extended Isogeometric Analysis	2	3.2
4	Dr. A.S. Oberoi	2018-19	Effects of varying catalyst loading on a MEA integrated in a reversible PEMFC on its performance characteristics: a theoretical investigation	2	4
5	Dr. Sachin Singh	2018-19	Design and Development of Micro- Abrasive Flow Finishing Setup for Uniform Nano Finishing of High Aspect Ratio Holes and Micro Features	2	5
6	Dr. Alok Garg	2018-19	PHOTOCATALYTIC DEGRADATION OF PHARMACEUTICAL COMPOUNDS IN WASTEWATER USING DOPED TiO <sub>2</sub> -SiO <sub>2</sub> PHOTOCATALYST	2	2.5
7	Dr. Anupam Sharma	2018-19	BEYOND POVERTY: QUANTITATIVE STUDY TO IMPROVE FEMININE HYGIENE IN UNDERDEVELOPED SUURBS OF PATIALA	2	3
8	Dr. Jayant Kolte	2018-19	Lead-free Flexible Nanocomposites for Energy Scavenging Systems	2	5
9	Dr. Devendra Kumar	2018-19	Development of nickel and zinc based electro catalyst for hydrogen evolution	2	5
10	Dr. Mily Bhattacharya	2018-19	Probing Protein-Nanoparticle interactions: Implications in Protein Misfolding and Aggregation	2	3
11	Dr. Mamta Gulati	2018-19	A study of different aspects of galaxy evolution.	2	3.5
12	Dr. H.S. Pannu	2018-19	Design and development of bleeding detection framework for capsule endoscopy images.	2	4.3
13	Dr. Sukhchandan	2018-19	Energy efficient real time adaptive lighting system for University Campus		3
14	Dr. Pawan Singh	2018-19	Power and Renewable Energy Management in TIET campus through strategic auditing and Benchmarking.	2	5
15	Dr. Atul Kumar Upadhyay	2020-21	Genome and transcriptome enabled identification of novel food allergens and decoding their possible role in human diseases	2	4.5
16	Dr. Priyanka Dey	2020-21	Development of commensal gut microbes-derived non-immunogenic therapeutic leads through identification and evaluation of intestinal targets against chronic metabolic disease.	2	4.25
17	Dr. Ovais Shafiq Qadri	2020-21	Development and evaluation of different edible coatings on quality and shelf life of minimally processed kinnow segments.	2	4.4
18	Dr. Himanshu Chawla	2020-21	Development of Curved U-shaped FRP-Concrete Composite Beams	2	2
19	Dr. Parminder Singh	2020-21	Experimental study of convective heat transfer characteristics of nanofluids under laminar flow conditions	2	4.1
20	Dr. Shivendra Shivani	2020-21	Mixed Reality: Physical interaction between real and virtual character or object	2	4.25
21	Dr. Rajendra Kumar Roul	2020-21	Design and development of stress detection framework using deep learning for young students and working professionals	2	4.5
22	Dr. Manisha Kaushal	2020-21	A Real time shadow detection approach hybridizing deep neural networks and imaging operations.	2	3.5
23	Dr. Krishan Kumar Gupta	2020-21	Design and Development of Single DC Source based Three-phase Multilevel Step-up Inverter as Low-cost Solution for PV and EV Applications	2	6
24	Dr. Manoj Badoni	2020-21	Performance Improvement of Solar Energy Conversion System with Power Quality Compensation	2	5.5
25	Dr. Sridhar Joshi	2020-21	Development of GaN FET non-linearity controlled 1000W audio amplifier	2	5
26	Dr. Sandeep Pandey	2020-21	Development of Fractional Order Anti-windup Controller for Removing Actuator Saturation in Delta Robot	2	6
27	Dr. Yogesh Tatte	2020-21	Direct Torque Control of five-phase Induction motor with three-level five-phase Inverter	2	6.2
28	Dr. Gitanjali Chandwani Manocha	2020-21	Hierarchical Software Defined Network for Internet of Things based Health-care System	2	3.15

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29	Dr. Mayank Agarwal	2020-21	Design and Development of Reconfigurable MIMO Antenna Array with High Port Isolation	2	6
30	Dr. Poonam Verma	2020-21	Developing a IEEE802.11p Channel Access Coordination Scheme for V2V Safety Message Broadcast in Vehicular Network	2	2.5
31	Dr. Rajesh Kumar Shukla	2020-21	Computational studies on entrapped air dynamics and splashing phenomena in thermal spray coating deposition	2	3.5
32	Dr. Rajendra Kumar	2020-21	Experimental and Numerical Analysis of Damping Characteristics of Armaments Jacket Panel using Indenter Impact	2	4.5
33	Dr. Devender Kumar	2020-21	Investigation of Dry Abrasion Wear of Automobile Windshield Glass and Its Effect on Night Driving	2	6
34	Dr. Rohit kumar Singla	2020-21	Energy Efficient Building Analysis with Nano Phase Change Material for Effective Thermal Management	2	3.1
35	Dr. Vishal Gupta	2020-21	PRECISION BONE DRILLING FOR THE BIOMECHANICAL PULLOUT STRENGTH OF CORTICAL/CANCELLOUS BONE SCREW	2	5.97
36	Dr. Ratnesh Kumar Raj Singh	2020-21	Design and Fabrication of Additive Friction Stir manufacturing Setup for development of functionally grade materials	2	4.75
37	Dr. Ravinder Singh Joshi	2020-21	A novel technique for fabrication of Al based hybrid composites with graphene and rare earth oxides as reinforcement using solar furnace	2	4.7
38	Dr. Kishore Khanna	2020-21	Numerical and Experimental Quantification of Uncertainties of Composites and their Propagation onto the Vibration Behaviour of Composite Structures.	2	4.75
39	Dr. Satish Kumar Sharma	2020-21	Hydrogen Embrittlement Study of Welded Joints of High Strength Steels	2	1.25
40	Dr. Bhupesh Goyal	2020-21	Design, synthesis and evaluation of novel peptides as potential inhibitors against amyloid- $\beta$ peptide aggregation in Alzheimer's disease	2	3.75
41	Dr. Raj Kumar Das	2020-21	Metal-Organic Framework Derived Catalysts for Efficient Electrocatalytic Water Splitting	2	2.75
42	Dr. Vikas Tyagi	2020-21	First Biocatalytic Synthesis of Quinoline and Fused Imidazole-pyridine Based Drug Precursors	2	4.75
43	Dr. Debasish Mandal	2020-21	Computational Exploration of Emergence and Applications of Transition Metal Catalysis: Focus on Optimum Catalyst Design for Organic Transformations	2	4
45	Dr. Anuj Kumar	2020-21	Mathematical Modeling and Optimal Control of Infectious Diseases	2	3
46	Dr. Jolly Puri	2020-21	Development of Dynamic Data Envelopment Analysis models with application to Indian Banking Sector	3	3.25
47	Dr. Munish Kansal	2020-21	On some higher order numerical schemes for solving nonlinear models and their dynamical analysis in the complex plane	2	3.1
48	Dr. Navdeep Kailey	2020-21	Some Duality Aspects of Fractional Variational Programs	2	1.5
49	Dr. Saurav Marik	2020-21	A Concerted Drive Towards the Synthesis and Characterization of Advanced Oxide Systems (High Entropy Oxides) for Room Temperature Exchange Bias and Magneto(di)electric Effect	2	2
50	Dr. Dheeraj Kumar Singh	2020-21	Topological states in iron-based superconductor	2	3.6
51	Dr. Debajyoti Dutta	2021-22	Development of crop salinity stress markers using plant proteins related to salt tolerance	2	6.6
52	Dr. Manpreet Singh	2021-22	Valorization of activated marble waste along with industrial and agricultural wastes for Advanced Construction Applications: Ultra-low Water Absorption, Improved Thermal and Mechanical Behavior.	2	4.3
53	Dr Arpit Goyal	2021-22	Development of a self-sensing cementitious composite for smart structural health monitoring	2	4.6
54	Dr. Dharendra Kumar Pandey	2021-22	RESIGNED- Strengthening of beam-column joint using shape memory alloy fiber "Seismic rehabilitation of beam column joint by using high strength mortar SMA fiber mix"	2	2.975
55	Dr. Surjit Singh	2021-22	Lightweight Internet of Things Protocol Development for realtime Communication Services. A step towards next generation computing for Smart Cities		5.5
56	Dr. Sumana Maiti	2021-22	Mobility-aware cost-efficient secure cloud data sharing with multiple users	2	3.8

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57	Dr. Manju	2021-22	A Synchronized and layered approach for continuous ground water monitoring using wireless sensor networks	2	5.5
58	Dr. Anil Singh	2021-22	A framework for providing digital healthcare services	2	2.3
59	Dr. Yashwant Singh Patel	2021-22	Social-sensing based collaborative Cloud-Edge Deep Learning for Latency and Energy-Efficient post disaster analytics	2	2.5
60	Dr. Nitigya Sambyal	2021-22	Deep Learning based System for detection for Retinal Abnormalities	2	4.55
61	Dr. Shivani Sharma	2021-22	Privacy preservation of sensitive healthcare image data	2	4.3
62	Dr. Suresh Chandra Raikwar	2021-22	Design and Development of an active prosthetic exoskeleton controlled by EEG based signals for the rehabilitation of the amputees	2	6.05
63	Dr. Sachin Kansal	2021-22	Mathematical modelling and development of visual information based dehazing device for hazy environment	2	3
64	Dr. Varun Srivastava	2021-22	To Develop segmentation, classification and retrieval framework of dermoscopic images with skin cancer or lesion"		4.3
65	Dr. Ashima Anand	2021-22	Robust and Secure copyright protection techniques for Digital Images.	2	5.3
66	Dr. Jatin Bedi	2021-22	AI for Social Good Energy Load Analytics and Defects Detection on Transmission Lines using Deep Learning	2	4.8
67	Dr. Gaurav Pareek	2021-22	Design and Benchmarking Of Secure Group Communication Protocols for Multiple Non-Disjoint, Non-Predefined Sets"		4.5
68	Dr. Geetika Dua	2021-22	Automatic defect detection and estimation of sub-surface defect parameters using thermal wave imaging for characterization of fibre reinforced polymer materials	2	6.7
69	Dr. Gaganpreet Kaur	2021-22	Interconnected PUFs for Device Level authentication/Communication In IoT Networks	2	5.4
70	Dr. Subiman Chatterjee	2021-22	An adaptive and efficient transform architecture design for future video codecs by exploiting the trade-off between accuracy and hardware complexity	2	6.7
71	Dr. Debayani Ghosh	2021-22	Semantics-Aware Design of Future Intelligent Networked Transportation Systems with Safety Guarantees		5.2
73	Dr. Robin Singla	2021-22	Modify properties of 2-D dimensional nanomaterials via functionalization and doping	2	6.5
74	Dr. Anjaneer Kumar Mishra	2021-22	Design and Development of Multi-Functional Power Electronic Interfaces for Plug-In Light Electric Vehicles		6.5
75	Dr. Saurabh Shukla	2021-22	Design, Development and Multi-Quadrant Power Flow Control of Renewable Source-Assisted Grid-Based Multifunctional E-Mobility Charger		7.1
76	Dr. Gyanendra Singh	2021-22	Holographic and Tomographic Microscopy for Quantitative phase 3D-imaging of the BIOLOGICAL cells for early age detection		7.995
77	Dr. Diwakar Prasad Tripathi	2021-22	Modelling and Simulation o Brain-Computer Interface for Concealed Information Test using Deep Learning Paradigms and Bio-inspired Optimization Algorithms		6.2
78	Dr. P Kalyan Chakravarthy K	2021-22	Cold Metal Transfer Technique by using Pulse MIG Welding Machine for Development of 3D Metallic Components	2	6.2
79	Dr. Jaskaran Singh	2021-22	Sensorless based approach for rotor system fault detection and diagnosis using deep learning methodologies.	2	6.3
80	Dr. Jay Prakash Tripathi	2021-22	Short term wind turbine power fluctuation reduction using an accumulator arrangement in the hydraulic power transmission.	2	7.03
81	Dr. Arindam Bhattacharjee	2021-22	Study of flexible body impacts: numerical, approximate and experimental.	2	4.75
82	Dr. Rajnish Mallick	2021-22	Machine learning-bases life estimation of a smart helicopter trailing-edge flap	2	5.94
83	Dr. Anshul Sharma	2021-22	Investigation of active vibration control of additive manufactured structures.	2	5.25
84	Dr. Priya Vashisht	2021-22	Ru (II) complexes of 1,10-phenanthroline possessing schiff bases for sensing of analyte ions and DNA	2	6
85	Dr. Banibrata Maity	2021-22	Strategies to Enhance Fluorescent Nanomaterials from Bio-waste Precursors for Sensing Applications and their Photophysical Study	2	5.1
86	Dr. Sanjoy Kr Mahatha	2021-22	Single crystal growth and electronic structure exploration of magnetic topological insulators		7
87	Dr. Tirthankar Chakraborty	2021-22	Fabrication and characterization of polymer nanofibre composites with tunable complex dielectric and magnetic ground states	2	6.5

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88	Dr. Shilpi Verma	2021-22	Enhanced degradation of anatoxin through the coupling of sulfate radicals and upconversion photocatalyst	2	6
89	Dr. Gaurav Goel	2021-22	Valorisation of dumpsite waste to manufacture Eco-bricks: Towards decarbonisation and sustainability in construction	2	4.5
90	Dr. Sheikh Adil Edrisi	2021-22	Identifying the ecological sustainability indicators for the agroforestry systems under restoration initiatives.	2	3.65
91	Dr. Bunushree Behra	2022-23	Co-hydrothermally carbonized microalgae waste to R3 recovery recycling and reuse approach for enviro-economic sustainability	2	4.5
92	Dr. Jyotsana Mehta	2022-23	Development of a point of care device based on 2D functional nanomaterials for high performance electrochemical sensing of priority antibiotics	2	8
93	Dr. Dipanjan Mukherjee	2022-23	Development of a methodological framework for road safety assessment using combined reactive and proactive approaches	2	3.875
94	Dr. Abhinay Kumar	2022-23	Assessment of prolonged storage stability characteristics of polymer modified asphalt binders	2	5.48223
95	Dr. Pratik Tiwari	2022-23	Development of laminated hemp fiber composites for low velocity impact resistance	2	7.95
96	Dr. Vivek Gupta	2022-23	Sustainable building bricks from brine sludge generated in chlor-alkali industries	2	7.45
97	Dr. Surya Kant	2022-23	Roller Compacted Concrete Roads containing 100% Recycled Materials	2	4.42
98	Dr. Kumari Monu	2022-23	Novel technique to modify recycled concrete aggregates using waste plastic	2	3.55
99	Dr. Seema Wazarkar	2022-23	Federated Learning for prediction of Cardiovascular Disease in old age people	2	5.9
100	Dr. Amit Kumar Trivedi	2022-23	A study on biometric fusion using Gait and fingerprint	2	6.66
101	Dr. Himali Horo	2022-23	Development and evaluation of biopolymer coated zinc oxide nanomaterials for controlled and targeted release of anti-cancer drug to triple negative breast cancer cells.	2	6.3
102	Dr. Vivek Pawar	2022-23	Biofuel production via hydroxyalkylation-alkylation of furfural with 2-methylfuran and hydrodeoxygenation of C15 fuel precursor over a Ni-based catalyst	2	7.5
103	Dr. Arnab pattanayak	2022-23	Through-Wall imaging using Metasurface-Integrated RADAR system	2	8
104	Dr. Abhishek Pal	2022-23	Hardware Implementation of Efficiency Improvement Strategy for Induction Motor Drive	2	6.95
105	Dr. Vishal Kumar Gaur	2022-23	Development and Validation of New Protection Schemes for Modern Electrical Transmission Line Network		7.75
106	Dr. Rajesh M Pindoriya	2022-23	Design and Development of Health Monitoring and Fault Diagnosis for Brushless Motor Drives In-Wheel Electric Vehicles	2	8
107	Dr. Anterpreet Kaur Bedi	2022-23	Development of an interactive virtual crops technology for improved wheat production in Punjab: Future agriculture		3.4
108	Dr. Amit Kumar	2022-23	Development and Validation of Power Control Philosophy for Three-Phase Grid Interfaced Inverter under Weak Grid Conditions	2	7.2
109	Dr. Ashish Kumar Gupta	2022-23	Deep learning based Automatic Target Detection and Recognition	2	6.31
110	Dr. Hitesh Kumar	2022-23	Transportation of Hydrogen through steel pipelines	2	7.97
111	Dr. Pankaj Kumar	2022-23	Structural Health Monitoring and Evaluation of Mechanical Properties with Ultrasonic Guided Waves and Bulk Waves	2	8
112	Dr. Raja Rout	2022-23	Development of synchronization based cooperative control algorithm for autonomous vehicles	2	6.3
113	Dr. Ashutosh Kumar	2022-23	Development of visible-light-driven hybrid bio-photocatalytic reactor system for treatment of PPCP-laden wastewater	2	7.8
114	Dr. Dhamodharan K	2022-23	Anaerobic fermentation of constructed wetland biomass emerged in sewage treatment	2	7
115	Dr. Shilpi Tyagi	2022-23	Microfinance, Poverty and Capability Building among poor Women in Punjab		3.16
116	Dr. Vasudha Chopra	2022-23	Experimental and Behavioral Economics Research Agenda	2	4.03
117	Dr. Rabi Prakash	2022-23	Caste in Non-Sanskritic Discourse: Explorations of Social and Political Discourse on Caste in Classical Hindi Vernacular in Pre-Modern India.	2	3.4
118	Dr. Sapna Pandit	2022-23	Simulation and Analysis of Nano Fluid Problem Arising in oil and Gas Industries	2	3.5
119	Dr. Prabal Pratap Singh Bhadauria	2022-23	Harvesting waste mechanical energy using piezoelectric lead-free textured ceramics	2	7.9