

SCHEME FOR TRANSFORMATIONAL AND ADVANCED RESEARCH IN SCIENCES (STARS)
Recommended proposals in the second call for proposals: Data Science Mathematics

| S.No | Proposal ID | Proposal Title | Principal Investigator | Institution |
|------|-------------|---|-----------------------------|---|
| 1 | 2023-0031 | Real-time Trajectory Generation via Stochastic Sequential Quadratic and Linear Programming | Dr. Ketan Rajawat | IIT Kanpur |
| 2 | 2023-0033 | Development of AI/ML based predictive models for association analysis of risk factors and high granular forecasting for air pollutants | Prof. Sarbani Roy | Jadavpur University, Kolkata, West Bengal |
| 3 | 2023-0182 | Data-Driven Cloud-based Control of Connected and Autonomous Vehicles | Dr. Narendra Kumar Dhar | IIT Mandi |
| 4 | 2023-0184 | Identification and Control of Instabilities in Natural Circulation Loops (NCLs) in Thermal and Nuclear Power Plants using Dynamical Systems Theory | Prof. Achintya Mukhopadhyay | Jadavpur University, Kolkata, West Bengal |
| 5 | 2023-0252 | Efficient Algorithms for Large-Scale Public Transit Planning | Dr. Tarun Rambha | IISc Bangalore |
| 6 | 2023-0264 | Modelling and Predicting the Hydro-Meteorological Disasters in Indian Himalayas | Dr. Raju Attada | IISER Mohali |
| 7 | 2023-0266 | Development of an ultrasound-based medical imaging methodology with adaptive image processing algorithms for noninvasive early diagnosis of cancer: an in vitro study | Dr. Debabrata Ghosh | Thapar Institute of Engineering and Technology, Patiala, Punjab |
| 8 | 2023-0414 | Post-quantum Anonymous Authentication: Through the Lens of Lattice Cryptography | Dr. MARIA FRANCIS | IIT Hyderabad |
| 9 | 2023-0467 | Estimation and optimal allocation of relief material during public health emergencies | Prof. Hemant Gehlot | IIT Kanpur |
| 10 | 2023-0476 | Towards Predictive modeling of Indian Summer Monsoon considering Arctic teleconnections using the complexity-based approach. | Prof. Ankit Agarwal | IIT Roorkee |

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| 11 | 2023-0491 | AI Empowered IoT based Miniaturized Lead-less and Patch less Sleep Disorder Monitoring System Design | Prof. Amit Acharyya | IIT Hyderabad |
| 12 | 2023-0552 | Data-driven optimization of surgical fixation technique by fast detection of femur fracture type from X-ray images: An AI based framework | Dr. Souptick Chanda | IIT Guwahati |
| 13 | 2023-0587 | Development of a scalable asynchronous finite-volume solver to study cumulus entrainment | Dr. S. Ravichandran | IIT Bombay |
| 14 | 2023-0595 | Modelling oceanic wave breaking using machine learning, theory and Direct Numerical Simulations (DNS) | Prof. Ratul Dasgupta | IIT Bombay |
| 15 | 2023-0820 | DEEP NEURAL NETWORK PATH TO MULTIPHYSICS MODELING OF HEAT TRANSFER IN POROUS MEDIA | Dr. BANDARU MALLIKARJUN A | B.M.S.COLLEGE OF ENGINEERING, Bengaluru, 560019 |
| 16 | 2023-0825 | Developing a post quantum lattice based block cipher | Dr. Dr. Srinivasan Krishnaswamy | IIT Guwahati |
| 17 | 2023-1053 | Development of Intelligent Crop Management System for Recognizing and Supplementing the Crop Healthiness : iCroMaS | Dr. J. Krishnaiah | IIITD&M Kurnool |