

**SCHEME FOR TRANSFORMATIONAL AND ADVANCED RESEARCH IN SCIENCES (STARS)  
Recommended proposals in the second call for proposals: Earth Sciences**

| <b>S.No</b> | <b>Proposal ID</b> | <b>Proposal Title</b>  | <b>Principal Investigator</b> | <b>Institution</b> |
|-------------|--------------------|--|-------------------------------|--------------------|
| 1           | 2023-0059          | Monitoring of glaciers dynamics and snow deposition in the Himalaya  | Prof. Gulab Singh             | IIT Bombay         |
| 2           | 2023-0097          | Dynamic Stability Analysis of Caisson Foundation in Layered Soils  | Dr. Kaustav Chatterjee        | IIT Roorkee        |
| 3           | 2023-0124          | SCALING-UP RISK ASSESSMENT OF GLACIERS AND HIGH-ALTITUDE LAKE IN THE ARUNACHAL PRADESH, THE WATER TOWER OF INDIA USING ADVANCED GEOSPATIAL TECHNIQUES AND MODELLING APPROACH | Prof. AJANTA GOSWAMI          | IIT Roorkee        |
| 4           | 2023-0135          | Crust and upper mantle shear velocity anisotropic structure in the Indo Burma Ranges and its geodynamic implication  | Dr. Kajaljyoti Borah          | IISER Kolkata      |
| 5           | 2023-0167          | High resolution imaging of the seismogenic Dhubri-Chungthang Fault Zone, India: Understanding segmentation of the Himalayan collision zone.                                  | Dr. ARUN SINGH                | IIT Kharagpur      |
| 6           | 2023-0176          | Climate change impacts on glacio-fluvial and hydrogeomorphic flood vulnerability of the upper Bhagirathi catchment, West-Central Himalayas                                   | Dr. Divyesh Varade            | IIT Jammu          |
| 7           | 2023-0199          | Landslide hazard assessment and mitigation – an integration of simulation techniques and machine learning algorithms in the Himachal Himalayas                               | Dr. Kripamoy Sarkar           | IIT (ISM) Dhanbad  |
| 8           | 2023-0303          | Isotopic and microbial approach to elucidate the anthropogenic influence on hydrology and nutrient cycles in the lower Ganga plain and estuary                               | Prof. PRASANTA SANYAL         | IISER Kolkata      |
| 9           | 2023-0382          | Enhancement of the Stability of Engineered Slope by Vegetation: A Sustainable Approach   | Dr. Subhadeep Metya           | NIT Jamshedpur     |
| 10          | 2023-0389          | PHYSICS BASED DYNAMIC RESPONSE OF URBAN LAYER AND FREE FIELD GROUND MOTION SYNTHETICS FOR EARTHQUAKE RISK MITIGATION   | Prof. J. P. Narayan           | IIT Roorkee        |

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| 11          | 2023-0408          | Understanding the biogeochemistry of selenium cycling in the soil-porewater-plant system in the seleniferous soil of Punjab, India, to develop rice and wheat cultivation strategy for reducing selenium toxicity and grain accumulation | Dr. Ashis Biswas              | IISER Bhopal             |
| 12          | 2023-0557          | Development of adaptive machine learning based approach for robust calibration of hydrological models  | Dr. Rajarshi Das Bhowmik      | IISc Bangalore           |
| 13          | 2023-0614          | An investigation on the impacts of climate change and anthropogenic activities on terrestrial hydroclimate and agriculture using a convection-permitting climate model   | Dr. Prasanth valayamkunnath   | IISER Thiruvananthapuram |
| 14          | 2023-0681          | Tectonic controls on river exits in the frontal Himalaya: Insights from the Kosi River exit, northern Bihar-Nepal Border, India  | Dr. Vinee Srivastava          | IISER Bhopal             |
| 15          | 2023-0699          | Assessing the influence of saline water dynamics and seawater intrusion on the aquatic ecosystem of Gosaba islands, Sundarbans delta   | Dr. Renji Remesan             | IIT Kharagpur            |
| 16          | 2023-0704          | Spatial propagation of concurrent droughts and their risks under future climate change: A complex networks-based approach  | Prof. Bellie Sivakumar        | IIT Bombay               |
| 17          | 2023-0714          | Novel conjugated molecule-based solid-state sensors for Nitrate, Fluoride and Chromium in water bodies: Sensor and field study   | Prof. Praveen C Ramamurthy    | IISc Bangalore           |
| 18          | 2023-0906          | Predictive modelling of sea level rise and saltwater intrusion into aquifers along the coastal zone of West Bengal and Odisha.   | Dr. Pulak Kumar Patra         | Visva Bharati            |
| 19          | 2023-1043          | Understanding the impacts of Pre-Monsoon heat stress on Indian Summer Monsoon Precipitation in Arid regions of India under changing and anthropogenic climate  | Dr. Saran Aadhar              | IIT Jodhpur              |