

## About SPARC

The Scheme for Promotion of Academic and Research Collaboration (SPARC), an initiative of Ministry of Education, Government of India, aims at improving the research ecosystem of India's higher educational institutions by facilitating academic and research collaborations between top ranked Indian Institutions and globally ranked Foreign Institutions, through Joint Research Projects involving mobility of students and faculty. The SPARC Scheme is expected to have a major impact in providing the best international expertise to address major national problems, expose Indian academicians to the best collaborators abroad, enable international faculty to stay in India for a longer duration, provide Indian students an opportunity to work in the world class laboratories, to develop strong bilateral relationships in research, and improve the international ranking of Indian Institutions.

## About NIT Calicut

National Institute of Technology Calicut (NITC) is an Institute of National Importance established under the Ministry of Education, Government of India. The mandate of the Institute is to provide higher technical education and conduct research in the various branches of Engineering, Science, Technology and Management. Originally established in 1961 as a Regional Engineering College (REC), it was transformed into a National Institute of Technology in 2002. NIT Calicut offers 11 undergraduate and 30 postgraduate programs in 15 departments and several interdisciplinary and multi-disciplinary Centres. In the NIRF 2025 Engineering Rankings, NIT Calicut secured 21<sup>st</sup> position among engineering institutions in India. For more information, visit <https://nitc.ac.in/>.

## About Texas A&M University

Texas A&M University is a prestigious public land-

grant research university in the United States, located in College Station, Texas, and is particularly renowned for Engineering, Technology, Agriculture, Science, Business, and interdisciplinary research. As a leading R1 research university, Texas A&M has a strong emphasis on high-impact research, innovation and global collaboration. In the QS World University Rankings 2026, Texas A&M University is ranked 144th globally, reflecting its strong international academic reputation, research excellence, and global engagement

## About Virginia Polytechnic Institute and State University

Virginia Polytechnic Institute and State University is a prestigious public land-grant research university in the United States, located in Blacksburg, Virginia, and is particularly renowned for Engineering, Technology, Architecture, Computer Science, Agriculture, and Applied Sciences. As an R1 research university, Virginia Tech has a strong focus on interdisciplinary research, innovation, and practical solutions. In the QS World University Rankings 2026, Virginia Tech is ranked 358th globally, reflecting its strong international academic and research reputation.

## Workshop Overview

This workshop provides expert lectures and hands-on training on hydrological modelling, SWAT+ applications, climate change assessment, soil erosion, and landslide risk management. Participants will gain practical experience in SWAT+ model development, sensitivity analysis, calibration, validation, uncertainty analysis, and climate change impact assessment, along with the use of satellite data and geospatial techniques for soil erosion and landslide studies. Through expert interactions, practical sessions, project presentations, and field-based learning, participants will develop skills to identify erosion, landslide-prone areas, evaluate climate risks etc.



शिक्षा मंत्रालय  
MINISTRY OF  
EDUCATION



A Five - Day SPARC Workshop  
on

## Advances in Hydrological Modeling and Geospatial Techniques for Streamflow, Soil Erosion and Landslide Risk Assessment under a Changing Climate (HMG2026)

16<sup>th</sup> November- 20<sup>th</sup> November, 2026

Organized by



Department of Civil Engineering  
National Institute of Technology Calicut (NITC), Kerala  
673601, India

in collaboration with



Department of Ecology and Conservation Biology  
& Biological and Agricultural Engineering, Texas  
A&M University, USA

and



Department of Biological Systems Engineering,  
Virginia Polytechnic Institute and State University, USA

## SPARC Foreign Experts



**Prof. Raghavan Srinivasan**  
(Texas A&M University)



**Prof. Venkataramana Sridhar**  
(Virginia Polytechnic Institute  
and State University)

All other experts will be from IITs, NITs and other leading institutions, R&D organizations, and industries.

### Who Can Join?

The program is designed to support motivated professionals, teachers, and researchers with a keen interest in soil erosion and landslide research. Graduate, postgraduate, and Ph.D. students who are passionate about advancing their scientific and engineering research are also welcome to participate.

### Workshop Objectives

- To provide participants with a comprehensive understanding of soil erosion, landslides, hydrological processes, and their relationship with climate change
- To Provide hands-on training in SWAT+ modelling, sensitivity analysis, calibration, validation, and uncertainty analysis.

### Workshop Objectives (Contd...)

- To Introduce the application of satellite data, remote sensing, IoT, and sensor technologies in soil erosion and landslide studies.
- To Develop practical understanding through field visits and case studies, particularly in the context of Kerala and the Western Ghats.
- To Enhance skills in landslide monitoring, early warning, risk assessment, and risk management
- To Promote research capacity and interdisciplinary approaches to watershed, soil erosion, and landslide management

### How to register?

Those who are interested to participate in the programme is requested to fill the google form using the link below

<https://forms.gle/fz9t99y6KtrhghrQA>

OR scan the QR code



### Registration charges

|                                       |                     |
|---------------------------------------|---------------------|
| <b>Participants from abroad</b>       | <b>:USD 354</b>     |
| <b>Research organization/Industry</b> | <b>:Rs. 5,900/-</b> |
| <b>Faculty</b>                        | <b>:Rs. 3,540/-</b> |
| <b>PG &amp; Research Scholars</b>     | <b>:Rs. 1,180/-</b> |
| <b>UG Students</b>                    | <b>:Rs. 590/-</b>   |

The above fees include all instructional materials, computer usage for tutorials, free internet facility, tea and snacks. The course fee is inclusive of 18% GST as per institute norms.

### Payment

Scan the QR code for payment

For confirmation of registration, the proof of payment (a screen shot of the transaction details) is to be uploaded in google form



### OR

|                             |                                                    |
|-----------------------------|----------------------------------------------------|
| <b>Account Name</b>         | <b>: DIRECTOR NIT CALICUT</b>                      |
| <b>Account No.</b>          | <b>: 00000037618269594</b>                         |
| <b>Bank</b>                 | <b>: State Bank of India</b>                       |
| <b>Branch</b>               | <b>: CREC, Chathamangalam<br/>Kozhikode-673601</b> |
| <b>Branch Code</b>          | <b>: 002207</b>                                    |
| <b>IFSC</b>                 | <b>: SBIN0002207</b>                               |
| <b>SWIFT Code</b>           | <b>: SBININBB392</b>                               |
| <b>Short Name-Programme</b> | <b>: HMG2 2026</b>                                 |

The participants are required to remit the registration fee in online mode (NEFT/IMPS/SCAN & PAY) and fill the transaction details in the google form. While making payment include the **short name** of the programme.

### Important Information

Application deadline: **15-10-2026**

Selection notification (Email): **20-10-2026**

Participants are limited to **50**.

Accommodation will be provided in hostel or guest rooms subject to availability on payment basis

### Program Coordinators

Dr S K Pramada, NITC (SPARC PI)

Dr Sathish Kumar D (SPARC Co-PI)

### For any queries, please contact

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