

# Two-day workshop on Geosynthetics for Sustainable Infrastructure



13-14 March 2026



IIT Tirupati

*Organised by*

Department of Civil & Environmental Engineering

Indian Institute of Technology Tirupati

*In association with*

International Geosynthetics Society - India

Indian Geotechnical Society Tirupati Chapter



## About the Workshop

Rapid urbanization and the escalating demand for large-scale infrastructure, such as high-speed rail corridors, metro systems, expressways, and urban redevelopment, have imposed significant geotechnical and sustainability challenges. The two-day workshop on Geosynthetics for Sustainable Infrastructure is designed to highlight the critical role of geosynthetic materials in delivering resilient, cost-effective, and environmentally responsible ground engineering solutions. The program will provide a comprehensive understanding of geosynthetic types, functional mechanisms, design methodologies, performance evaluation, and quality control testing, along with their applications in transportation, embankments, retaining structures, and environmental protection systems. Through expert lectures, technical discussions, and case studies, the workshop aims to strengthen professional competence and promote sustainable construction practices among students, researchers, and practicing engineers engaged in next-generation infrastructure development.

## About Department of Civil & Environmental Engineering, IIT Tirupati

The Indian Institute of Technology Tirupati (IIT Tirupati), established in 2015, is an autonomous institution under the Ministry of Education, Government of India, and is recognized as an Institute of National Importance under the Institutes of Technology Act, 1961. With strong potential to emerge as an academic and research institute of great repute, IIT Tirupati has developed key departments since its inception, including the Department of Civil and Environmental Engineering, one of the earliest departments established in 2015. The department offers a range of undergraduate courses designed to introduce students to academic research and industry-relevant themes through problem-solving and design-based approaches. Undergraduate research is actively encouraged by providing B.Tech students opportunities to work on research projects with faculty as part of the curriculum. In addition to M.S. and Ph.D. programs, the department offers M.Tech programs in environmental and water resources engineering, geotechnical engineering, structural engineering, and transportation and infrastructure engineering, along with a dual degree program in these specializations.

## About International Geosynthetics Society - India

The International Geosynthetics Society (igs) – India Chapter is a professional, non-profit organization dedicated to advancing the knowledge, research, and practical application of geosynthetics in civil and environmental engineering across India. It was established in 1988. As part of the global IGS network, the India Chapter promotes interaction among academia, industry, and practitioners through technical seminars, workshops, conferences, and publications. It plays a key role in disseminating best practices, encouraging innovation, supporting standards development, and fostering capacity building in the design, testing, and implementation of geosynthetic solutions for sustainable infrastructure development.

## About Indian Geotechnical Society - Tirupati Chapter

To promote interaction among geotechnical engineers of the region, a local chapter of the Indian Geotechnical Society, "IGS Tirupati Chapter," was established in 2005 in Tirupati. This chapter provides a common forum for academicians, researchers, designers, construction engineers, equipment manufacturers, and others interested in sharing, expanding, and distributing expertise and information in the field of geotechnical engineering practices and their practical applications. The local chapter intends to contribute to the propagation of the parent body's objectives and will always strive to assist it in its efforts by maintaining continuous interactions in the form of invited lectures, seminars, symposia, and field trips involving subject experts and engineers from this region and across the nation.



## Speakers



**Prof. G. V. Rao**  
Former Professor, IIT Delhi



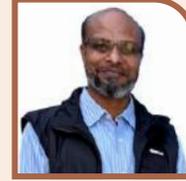
**Prof. K. Rajagopal**  
Former Professor, IIT Madras



**Prof. Manoj Datta**  
Emeritus Professor, IIT Delhi



**Prof. Amit Prashant**  
IIT Gandhinagar



**Prof. Sireesh Saride**  
IIT Hyderabad



**Prof. A. Murali Krishna**  
IIT Tirupati



**Dr. B. Janaki Ramaiah**  
IIT Tirupati



**Dr. P.S. Prasad**  
CSIR-CRRI, New Delhi



**Dr. Ratnakar Mahajan**  
Maccaferri Environmental  
Solutions Pvt. Ltd.



**Mr. Atanu Adhikari**  
Geoquest India Pvt. Ltd



**Mr. Saurabh Vyas**  
Techfab India Industries Ltd.



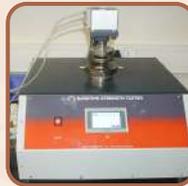
**Dr. Bhargav Kumar K P**  
Tensar International



**Dr. Kolli Mohan Krishna**  
Geosynapse Private Limited

### Workshop covers the following topics:

- An overview of Geosynthetics and its applications
- Reinforced earth (RE) wall and its design as per IS 18591:2024 and IRC-SP 102. (2014)
- Geosynthetics for geoenvironmental applications (Landfills, ash ponds & mine tailings)
- Numerical modelling and analysis of reinforced earth structures
- Forensic analysis of RE wall failures
- Basal reinforcement as ground improvement technique
- Geosynthetics for pavements
- Geosynthetics for high-speed rails
- Geosynthetics for soil erosion control
- MSE shored walls
- Geosynthetics for ground stabilisation system for working platforms



## Organizing Committee

Prof. Suresh Jain, Head, CEE, IIT Tirupati

Dr. B. Janaki Ramaiah, CEE, IIT Tirupati

Prof. R. Ayothiraman, CEE, IIT Tirupati

Prof. A. Murali Krishna, CEE, IIT Tirupati

EC member, IGS - India,  
Vice-Chairperson, IGS Tirupati Chapter.

Prof. Ch. Sudha Rani, SVUCE Tirupati  
Chairperson, IGS Tirupati Chapter

## Venue Location



**LECTURE HALL COMPLEX, IIT TIRUPATI**

## Registration Fee

| Category                           | Regn. Fee<br>(Exclusive GST) |
|------------------------------------|------------------------------|
| Students / Research scholars       | Rs. 500                      |
| Academicians / Researchers         | Rs. 2000                     |
| Practitioners / Industry Delegates | Rs. 3000                     |

## Scan to Register



Registration Link:

<https://forms.gle/pujvyZHS4P8N3uFZ9>



- Workshop registration fee includes access to all sessions, working lunch, and workshop kit
- Limited accommodation is available in the hostel. For details contact the convenors.



## Sponsorship Categories

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## Convenors

**Dr. B. Janaki Ramaiah / Prof. A. Murali Krishna**

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