

Activity Report

A Two-day National Workshop on “Geosynthetics for Infrastructure Sustainability and Resilience”(GEOINSURE 2023).

Resource efficiency plays a crucial role in sustainable development. The usage of geosynthetic materials has a significant effect on reducing adverse environmental impacts such as climate change (floods and droughts or urban heat islands). It promotes a resource-efficient and low-carbon economy and helps in reducing energy consumption and CO₂ emissions in comparison with conventional solutions. Thus, geosynthetics are widely used in construction and environmental engineering as they have a positive impact on the strength and durability of structures and also save time, natural resources and limit the investment cost. Combining recycled materials with geosynthetics creates additional benefits and plays a crucial role in providing efficient drainage, protecting slopes against erosion, and supporting vegetation of plants for biotechnical soil stabilization.

Hence, a Two-day National Workshop on “Geosynthetics for Infrastructure Sustainability and Resilience (GEOINSURE 2023) was designed and conducted by the Dept. of Civil Engineering, Sasi Institute of Technology and Engineering, Tadepalligudem in association with IGS Guntur chapter on 4th August and 5th August 2023 to impart field knowledge to the young students, faculty and engineers, on applications of geosynthetics, fostering the development of sustainable and resilient infrastructure. The workshop has covered various topics on Geosynthetics and their applications in various fields such as the construction of airport and runway embankments, eco-friendly and sustainable solutions using geosynthetics in River Bank Protection, Drainage and Reinforced Soil Walls & Slopes, Use of geosynthetics with natural fibres. Overall, six expert lectures were arranged and the title of each lecture with the experts given below.

An overwhelming response was received during the registration period. About 133 students, young engineers, research scholars and professionals

have registered for this two-day workshop. All the lectures were supported by real field scenarios, and data analyses were discussed from the field studies. The participating students in this workshop immensely benefitted from the interaction with the experts. A few photographs are attached along with the report.

PROGRAM SCHEDULE			
4 th August, 2023 (Friday)		5 th August, 2023 (Saturday)	
9.00-9.30 AM	Registration	9.00-10.15 AM	5. "Centrifuge-based Physical model studies on Geosynthetic Reinforced Soil Structures" by Prof. BVS Viswanadham, IIT Mumbai
9.30-10.15 AM	Inauguration	10.15-10.30 AM	Tea break
10.15-10.30 AM	Tea break	10.15-10.30 AM	Tea break
10.30-11.45 AM	1. "Construction of airport runway embankments at Kannur International Airport using geosynthetics" (6th Prof. Srirama Rao Lecture) by Dr Rajagopal, Rtd. Prof. Civil Engg. & PK Aravindan Chair Professor at IIT, Madras and Adjunct Professor at A.U, Vizag	10.30-11.45 AM	6. "Engineered Landfills" by Prof. BVS Viswanadham, IIT Mumbai
11.45-1.00 PM	2. "Ecofriendly and sustainable solutions using geosynthetics "by Sukrati Pandit, Senior Engineer (Technical), Maccaferri Environmental Solutions Pvt. Ltd., Gurugram, Haryana	11.45-1.00 PM	7. "Geosynthetics for sustainable solutions in River Bank Protection, Drainage and Reinforced Soil Walls & Slopes" by Dr Deepak Manjunath, Vice President – Design & Engineering, Terre Armee India, New Delhi
1.00-2.00 PM	Lunch break	1.00-2.00 PM	Lunch break
2.00-3.15 PM	3. "Polymer Science and Manufacturing of Geosynthetics" by Dr. Dali Naidu Arnepalli, Professor, Department of Civil Engineering, Indian Institute of Technology Madras Chennai, Tamil Nadu	2.00-3.15 PM	8. POSTER COMPETITION

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