About the FDP:

From waterfront to roadbed, from foundations on soft soils to landslide control, from waste disposal systems to water reservoirs, geosynthetics have found an important place for themselves in civil engineering infrastructure projects. They have become an integral part of the solution to many construction engineering problems. The emerged as significant innovation in the geotechnical, geoenvironmental, water resources and pavement systems. Now India manufactures international guality products. We have also gained some experience in using them. Yet the understanding of the multifarious applications of design, construction, and specification is not common knowledge. To fill this gap, the Department of Civil Engineering, K L Deemed to be University in association with Geosynthetic Technology Advisory Services, Jaipur (GTAS) and Landmark Material Testing and Research Laboratory, Jaipur (LRL) with other industry experts prepared the course content such that the field experience of engineering with Geosynthetics with various case histories is planned as a course which is equivalent to a three credit UG or PG course. Practicing Engineers, geotechnical consultants, faculty, research scholars, PG and UG students can attend the program.

Registration Link: https://tinyurl.com/ybcruva7

FDP Link: https://global.gotomeeting.com/join/620966629

: INR 500/-**Registration Fee** Payment can be made through online: Name of the Account : Registrar, K L University Account Number : 62310916292 IFSC : SBIN0021361 : KLUniversity, Vaddeswaram, Guntur. Branch

Inaugural Address:

Mr. CSN Murty, Chief Engineer, NHA

Core Teaching Faculty:

Prof. G. Venkatappa Rao, Former Professor and Head Department of Civil Engineering, IIT Delhi and Chairman, GTAS and Chairman, Geosynthetics Division, LRL

Prof. M. Venkataraman, CEO, GTAS

Dr. Jimmy Thomas, COO, GTAS

Dr. Anil Dixit, MD GTAS and MD LRL

Dr. Ch. Hanumantharao, Prof. & HoD, Civil Engineering, KL

Invited Speakers:

Dr. ISN Raju, Former CE, Irrigation Dept, Govt of AP Mr. Vivek Kapadia, Director, SSNL, Govt of Gujarat Mrs. Atasi Das, Senior GM, GR Infra Projects Ltd., Gurugram Mr. Saurabh Vyas, Head Designs, Techfab India Mr. D. V. Bhavanna Rao, Former, CE, Govt of A.P. Er. Satish Naik, President, Best Geotechnics Pvt. Ltd. Mr. Kolli Mohana Krishna, IIT, Gandhinagar

For more Details Contact: Prof. G. Venkatappa Rao

Organizing Chairman, Former Professor and Head Department of Civil Engineering, IITDelhi and Chairman, GTAS and Chairman, Geosynthetics Division. LRL.

E-Mail: gvrao.19@gmail.com

Dr. Ch. Hanumantharao

Organizing Secretary, Professor & HoD, Civil Engineering Department, KL Deemed to be University. E-Mail: hrao ce@kluniversity.in Mobile: 9985119909



ONE WEEK ONLINE FDP ON ENGINEERING WITH GEOSYNTHETICS 13th - 18th July, 2020



Organizing by: Department of Civil Engineering

In Association with



(LTL LANDMARK

Landmark Material Testing and Research Laboratory, Jaipur (LRL)



l akshmaiah Education Foundation Green Fields. Vaddeswaram Guntur Dist., A.P., India, 522 502 +91 - 863 - 2399999, www.kluniversity.in

(DEEMED TO BE UNIVERSITY)

About KL Deemed to be University:

Koneru Lakshmaiah Education Foundation was established in 1980-81, as K.L. College of Engineering, which was upgraded to K.L. College of Engineering Autonomous in 2006 by UGC, and was declared as a Deemed to be University in 2009 by UGC, MHRD Govt. of India. In 2012 as a Deemed to be University, the institution was accredited by NAAC with A Grade and later in 2018, was re-accredited by NAAC with A++ grade. In 2019 UGC, MHRD declared this institute as Category I Institution.

About the Civil Engineering Department:

The Department of Civil Engineering was established in the year 1980 with an intake of 60 students and 5 Faculty as part of K. L. College of Engineering. The department has been successful in producing excellent and well-trained graduates. Today we have 590 Students (UG & PG) and 45 faculty members drawn from premium institutes throughout India, out of whom 5 Professors, 10 Associate Professors and 30 Assistant Professors. The Department is offering Courses for Under Graduate program in Civil Engineering, Post graduate Programs in Structural Engineering, Construction Technology and Management, Energy and Environmental Technologies, Geo-Informatics and Geotechnical Engineering. The department offers Ph. D in different specialization of Civil Engineering. The department is actively involved in research and consultancy with more than 500 Scopus Indexed Publications in the last 5 years.





About GTAS:

Geosynthetic Technology Advisory Services, Jaipur (GTAS) endeavor to provide the best Consultancy services and solutions to our customers and measure up to customer's expectations so as to establish a long term and enduring relationship of mutual advantage and hence is committed :-

- To provide single window customized, integrated solutions and responsive services.
- To provide the very high levels of technical expertise over a broad spectrum of materials.
- To provide services in accordance with acceptable professional standards that are tuned to customers' needs.
- To continued expansion and service diversification across the entire region.

About LRL:

Landmark Material Testing and Research Laboratory Pvt. Ltd. (LRL) is a Jaipur based specialist organization for rendering comprehensive, multi-disciplinary consultancy services for engineering, highways, airports and buildings projects, and quality management. We are managed by highly experienced and highly qualified IITians. It also provides testing of construction materials such as Aggregate, Soils, Cement, Rock, Bitumen, Concrete, Paver Block, Tiles, and Bricks.

LRL adheres to a well-defined quality assurance programme implemented by in-house experts with the use of modern testing facilities. We have qualified professionals to fulfill the obligation towards its customers. Our people are specialists who have a deep understanding of the industries, we serve.

Course Content:

Session1-4: Fundamentals of Geosynthetics

Types, properties arising from manufacture and polymers, functions, typical applications

Session 5-13: Geosynthetic Reinforced soil structures - Walls Basic principles, components and their role, comparison between IRC, BS and FHWA methods, types of facia and connections for block facia and precast panels for geogrid, geostraps, fill materials, Introduction to reinforced soil slopes, construction practices, remediation of distressed structures, case histories

Session 13-16: Testing and evaluation Geosynthetics

Woven and nonwoven geotextiles, geogrids, geocells, geostraps, geocomposites for strength, permeability, interface friction, installation damage, durability, Long Term Design Strength, specifications/suitability of various Geosynthetic for different applications.

Session 17-20: Geosynthetics in pavements

Functions, design practice as per IRC 37 and SP 59 and International best practices - subgrade improvement and drainage, reinforcement of subgrade and granular layers with biaxial grids and geocells, strengthening bituminous layers with glass fibre geogrids, optimization, Specifications, construction methodology, Use of RAP, typical case studies.

Session 21-24: Embankments on soft soils

Accelerated drainage by PVDs, multilayer reinforcement concept, stone filled basal mattress, case studies in black cotton soils, construction issues

Session 25-26: Engineered Land fills

Municipal Solid Waste and Hazardous waste landfills -Design Principles, construction, case histories including capping

Session 27-30: Water Resources Structures

Applications in Earth and Rock fill dams, Canals, reservoirs, Case Histories

Session 31-36: Erosion Control

Highway and hill slope erosion control with jute/coir RECPs, Coastal and river bank erosion control with gabions, Geosynthetic, containers, geotubes, case histories.

Rock fall protection principles and methodology.



Schedule of One Week Online FDP on **"Engineering with Geosynthetics**" during **13th-18th July, 2020**

Organized by: Department of Civil Engineering



Geosynthetic Technology Advisory Services, Jaipur (GTAS) Landma Landma Kong long to blog to blog

Landmark Material Testing and Research Laboratory, Jaipur (LRL)

Day / Timing	9:30 AM- 10:30 AM	10:30 AM- 11:30 AM	11:30 AM - 12:30 PM	12:30 PM – 13:30 PM	13:30 – 14:30 PM	14:30 PM – 15:30 PM	15:30 PM – 16:30 PM
July 13 MON	Inauguration& Program Summary GVR, CSN	Geosynthetics -Introduction GVR	GS APPLICATIONS MVR	Principles of Soil Reinforcement GVR	LUNCH BREAK	GS Types in India <mark>SV</mark>	QUIZ/Q & A MVR
July 14 TUE	GS Testing GVR/AD	GS Testing AD	GSRW -Design JT	GSRW -Design JT		GSRW construction DVB	Design Numerical problem solving JT
July 15 WED	LTDS GVR/AD	Case Studies GVR	Reinforced Slopes JT	Construction/ Case Studies of Slopes MVR		Seismic Stability of GSRSS <mark>CH</mark>	Design Numerical problem solving JT
July 16 THU	GS Pavements GVR	GS Pavements GVR	Design of GS Pavements <mark>KMK</mark>	Case Studies on Reinforced Slopes SN		RAP AS	PVT problem KMK
July 17 FRI	Basal Reinforcement GVR	GS BT Pavements GVR	Coastal & River bank protection <mark>MVR</mark>	Coastal & River bank protection MVR		GS in Water Resources Case studies VK	Case Studies SV
July 18 SAT	Coir GT for Erosion Control & LVR GVR	JGT for Erosion control GVR	Engineered Landfills MVR	Engineered Landfills MVR		GS in Water Resources ISNR	R&D GVR

Speakers: Inaugural Address by: Mr. CSN Murthy, Chief Engineer, NHAI.

GVR: Prof. G. Venkatappa Rao, Chairman, GTAS & LRL (GD)

MVR: Prof. M. Venkataraman, CEO, GTAS.

ISNR: Dr. ISN Raju, Former CE, Irrigation Dept, Govt of AP.

SV: Mr. Saurabh Vyas, Head Designs, Techfab India.

SN: Er. Satish Naik, President, Best Geotechnics Pvt.Ltd.

JT: Dr. Jimmy Thomas, COO, GTAS.

VK: Mr. Vivek Kapadia, Director, SSNL, Govt of Gujarat.

CH: Ch. Hanumantharao, Prof. & HoD-CE, KL

KMK: Kolli Mohan Krishna, IIT-Gandhinagar. *AD:* Dr. Anil Dixit, MD GTAS and MD LRL.

AS: Mrs. Atasi Das, Senior GM, GR Infra, Gurugram

DVB: Mr. D.V. Bhavanna Rao, Former, CE, Govt of A.P.