



A SHORT COURSE ON

Geosynthetic Reinforced Soil Structures (GRSS)

5-6 DECEMBER 2019

Ahmedabad Management Association
Dr. Vikram Sarabhai Marg, Ahmedabad, Gujarat 380015

ATTEND AND LEARN ABOUT

- GRSS Structure and Types
- Importance of Soil Properties and Impact on GRSS Design
- Geosynthetic Reinforcement Products and their Properties
- GRSS Design Codes: An Overview
- Limit Equilibrium Design
- Drainage Design for GRSS
- Geosynthetic Drains and their Properties
- Construction Quality Assurance for GRSS
- Case Histories – GRSS Experience in India

Includes Tour of Geosynthetic Testing Services laboratory

This short course will focus on the design and construction and quality assurance of geosynthetically reinforced soil systems including retaining walls and steepened slopes. A brief background of the application of each of these technologies will be presented including the advantages, economic considerations, and limitations of each type of system as compared to other conventional practices.



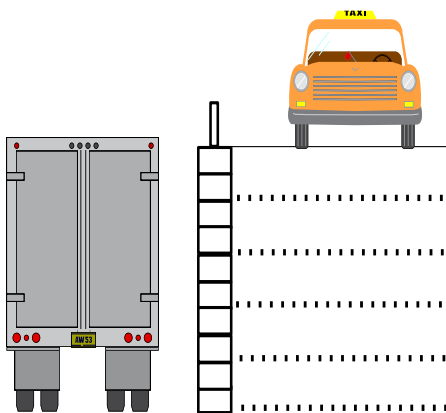
Details concerning the design, selection of reinforcing materials, specification and construction of each type of system will be covered. Current design codes/standards and software will be referenced and summarized. Special issues that have on occasion resulted in undesirable performance will be reviewed. An overview of several recent innovations such as the combination of reinforcement with lightweight fill and newly developed alternative design procedures will also be presented. Each attendee will be given course notes, which include step-by-step design procedures and example design problems.

TUITION

9000 INR tuition charge
8500 INR each for 2+ registrants

LEARNING OBJECTIVES

1. Understand the key elements regarding design of reinforced soil structures.
2. Provide a working knowledge suitable for preliminary design of reinforced soil structures.
3. Identify those resources and guidelines publicly available to assist in design of retaining walls, steepened slopes and roadways.
4. Discover vendors for wall and reinforcement systems and products.



PAYMENTS:

Check, bank transfer, demand draft, or credit card.

Return ALL registrations and payment via mail or scan and email to:

GTSP, ATTN: Ravi Kant
Plot No 2,
Ashwamegh Industrial Estate,
Near Changodar Bridge,
Changodar,
Ahmedabad-382213,
Gujarat, India

Email: rkant@gts-pl.com

SPONSORSHIP OPPORTUNITIES

GOLD: Present a 30-minute GRSS case history to the course participants with design explanation, material descriptions and resulting finished project. (6 spots ONLY – 15 PowerPoint slides maximum). GOLD sponsorship includes a dedicated table to display marketing materials and a one-page flyer in the course notebook. Also includes two full course registrations.

65,000 INR (six spots available)

SILVER: Display marketing materials on a dedicated display table. SILVER sponsorship includes a one-page flyer in course notebook and one full course registration.

25,000 INR (eight spots available)



**SAM ALLEN**

OUR ESTEEMED TEACHERS

Mr. Sam Allen is the Vice President of TRI/Environmental, Inc. (TRI) Geosynthetics Services, an international, independent third-party geosynthetics testing and research facility with laboratories and field offices in the USA, China, Brazil, India, South Africa and Australia. TRI provides routine geosynthetics conformance and verification testing services as well as specialized durability and in-application performance investigations. Presently he serves as the Past-Chairman of the American Society for Testing and Materials (ASTM) Committee D35 on Geosynthetic Materials. Mr. Allen received the ASTM Award of Merit in 2010 and holds the status of ASTM Fellow. Mr. Allen also serves as the Convener of ISO TC221, Working Group 5 on Geosynthetic Durability. He serves on the Technical Advisory Board of Geosynthetics Magazine, a geosynthetics industry trade journal. In addition, he is on the Board of Directors of the Geosynthetic Institute in Philadelphia, Pennsylvania, and the Council of the International Geosynthetics Society.

**JIMMY THOMAS**

Dr. Jimmy Thomas is a consulting engineer specializing in geotechnical engineering, geosynthetics, reinforced soil structures and pavement engineering. He graduated in Civil Engineering from Regional Engineering College Calicut, completed M.Tech in Geotechnical Engineering from College of Engineering Trivandrum and Ph.D in geotechnical engineering from IIT Kanpur. Jimmy Thomas has been associated with the geosynthetics industry in India since 1997 and worked for companies like Netlon India, Garware-Wall Ropes Ltd and Techfab India Industries Ltd. He has extensive experience in all aspects of geosynthetics including manufacturing, testing, design and installation. He was also responsible for the design of large number of reinforced soil structures.

Since 2009, Jimmy Thomas is working as a freelance consultant. He has been associated with several important highway and railway projects as a geotechnical consultant. Jimmy Thomas has published about 20 papers in national and international conferences and had made large number of technical talks and presentations. He has served as member in the technical committees of Bureau of Indian Standards and Indian Road Congress. He is active member of International Geosynthetics Society, Indian Geotechnical Society and Indian Road Congress.

**MICHAEL BERNARDI**

Mr. Michael Bernardi is a registered Professional Engineer, in Canada and the USA, with 40 years' experience in Civil (Geotechnical) Engineering. The last 34 years have been spent in the geosynthetics field, as a technical support person in both the product development and applications design realm. He has been employed by the three major North American geogrid manufacturers in various technical roles. He was also the founding partner (2002-2012) in a design/consulting firm focused primarily on the design and development of geosynthetics and geosynthetic-related structures such as concrete modular block retaining walls, steep slopes and embankments.

Currently Director of Engineering for Strata Systems, Inc., a Division of Glen Raven Technical Fabrics. Mr. Bernardi is the primary Technical Editor of the 3rd Edition of the National Concrete Masonry Association (NCMA) Design Manual for Segmental Retaining Walls (2009). Also participated in the development of Retaining Wall Design software, including CTI Vespa v1.0 and NCMA SRWall v4.0.

**RAVI KANT**

Mr. Ravi Kant is the Director of Geosynthetics Testing Services for Ahmedabad-based Geosynthetic Testing Services Pvt Ltd (GTSPL). He has a deep background in production, research, management, and testing with India's advanced technical textiles industry.

SCHEDULE OF EVENTS A Short Course On Geosynthetic Reinforced Soil Structures (GRSS) | *Schedule subject to change*

5 December	
9:00	Arrival and Registration
9:30	Welcome and Announcements – <i>Allen</i>
10:00	Types of Structures (Overview) – <i>Thomas</i>
10:30	
11:00	Importance of Soil Properties and Their Impact – <i>Thomas</i>
11:30	
12:00	Geosynthetic Materials and Measurement – <i>Allen</i>
12:30	Facing Materials and Measurement – <i>Allen</i>
1:00	LUNCH (exhibits)
1:30	
2:00	
2:30	Design Methods and Codes: Overview – <i>Bernardi</i>
3:00	
3:30	
4:00	
4:30	Limit Equilibrium – <i>Bernardi</i>
5:00	
5:30	
6:00	Discussion/Dismissal <i>Ending at 6:30</i>
6:30	

6 December	
9:00	Arrival and Registration
9:30	What did we learn yesterday?
10:00	
10:30	Drainage Design Considerations – <i>Thomas</i>
11:00	Drainage Design: Products and Properties – <i>Allen</i>
11:30	Construction Quality Assurance – <i>Allen</i>
12:00	Forensic Example - I – <i>Bernardi</i>
12:30	Forensic Example - II – <i>Thomas</i>
1:00	LUNCH (exhibits)
1:30	
2:00	
2:30	Case History I by sponsor
3:00	Case History II by sponsor
3:30	Case History III by sponsor
4:00	Case History IV by sponsor
4:30	Case History V by sponsor
5:00	Case History VI by sponsor
5:30	Panel Discussion <i>Ending at 6:30</i>
6:00	
6:30	

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SHORT COURSE TUITION CHARGE

9000 INR for 1 Registrant 8500 INR each for 2+ Registrants **Total Number of Registrants Attending** _____

SPONSORSHIP

Gold Sponsorship (6 available) 65,000 INR Silver Sponsorship (8 available) 25,000 INR

METHOD OF PAYMENT

Payment may also be made by check, bank transfer, demand draft, or credit card. **Total Amount Paid (INR)** _____

Check – Make check payable to GTSPL.

Credit Card Type: _____ **Credit Card #** _____ **Security Code:** _____ **Expiration Date:** _____

Please direct payment questions to Ravi Kant, Email rkant@gts-pl.com.

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ADDITIONAL REGISTRANT FORMS AVAILABLE ON PAGE 7

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