

Technical Committees on Soil Reinforcement (TC-R) & Hydraulic Applications (TC-H),
International Geosynthetic Society

TC218 Reinforced Fill Structures,
International Society for Soil Mechanics and
Geotechnical Engineering



Program, 25-27 June 2024

Day 1: Tuesday, June 25

Opening ceremony 08:30-09:00 (IGS President Sam Allen welcome, IGS Spanish Chapter introduction)

09:00-11:00	Geosynthetic materials and soil interaction-1	Chair: Oliver Detert
Flavio Cosma	Protection of reinforced soil structures using geosynthetic cementitious composite mats	
Gali Madhavi Latha	The novel geocell anchor cage system	
Marilene Pisano	Investigating soil-geogrid interaction: insights from long-term pullout tests	
Aníbal A. Moncada	Analysis of physical PET strap reinforcement pullout tests data	
(Coffee break 11:00 - 11:30)		
11:30-13:00	Geosynthetic materials and soil interaction-2	Chair: Yoshihisa Miyata
Giulia Lugli	Unveiling the long-term performance of PET geogrids with LLDPE coating in alkaline conditions: exhumation findings post lime and cement stabilization	
Oliver Detert	Degradation behavior of stressed polyester reinforcing products under alkaline conditions embedded in eluates and soils	
Samuel Allen	A New Look at the use of Coated PET Geogrid Reinforcement in Highly Alkaline Environments	
Open discussion 13:00 - 13:30 (Lunch 13:30 - 14:30)		
14:30-15:30	Numerical modelling approaches-1	Chair: Yewei Zheng
Margarida Pinho Lopes	Numerical modelling of geosynthetic reinforcements – simple constitutive models allowing for durability	
Aníbal A. Moncada	Insight to the numerical modelling of geosynthetic reinforced soil walls subjected to varying atmospheric conditions	
(Coffee break 15:30 - 16:00)		
16:00-17:00	Numerical modelling approaches-2	Chair: Ivan P. Damians
Yewei Zheng	Numerical investigation on the interaction of back-to-back MSE walls with different facing conditions	
Richard J. Bathurst	Numerical modelling of geosynthetic reinforced fills over voids	
Open discussion 17:00 - 17:30		
DINNER 19:00 - 22:00: Restaurant ALBA GRANADOS		

Day 2: Wednesday, June 26

09:30-11:00	Design guidelines and methods-1	Chair: Oliver Detert
Oltion Korini	MSE walls design on seismic regions	
Richard J Bathurst	Developments in reliability-based design for reinforced soil structures	
Yoshihisa Miyata	Reliability analysis of PET strap pullout models	
(Coffee break 11:00 - 11:30)		
11:30-13:00	Design guidelines and methods-2	Chair: Richard Bathurst
Ivan P Damians	The new Eurocode EN 1997-3	
Pietro Rimoldi	Design methods for drainage of reinforced fill structures	
Colin Jones	Reinforced soil design and construction with polymer strap reinforcement	
Open discussion 13:00 - 13:30 (Lunch 13:30 - 14:00)		
14:00-15:30	Case Histories-1	Chair: Giulia Lugli
Tony Tong Kwan Shen	Geotextile reinforced sludge pond closure	
Maximilien Van Breusegem	Optical fiber monitoring of a reinforced fill structure built with lime treated ground	
Antonio Ramirez	Challenges in the design, supply and installation of geocomposite drainage solutions as an alternative to traditional drainage systems of MSE structures	
(Coffee break 15:30 - 16:00)		
16:00-17:30	Case Histories-2: Bridge abutment applications	Chair: Shahriar Mirmirani
Hartmut Hangen	First permanent geosynthetic reinforced bridge abutments for autobahn spanning in Germany	
Jorge G Zornberg	Load-carrying geosynthetic-reinforced bridge abutments	
Francesco Masola	GRS-IBS system with double-twist steel-mesh and geogrids combination in Oosterweel Verbinding (Linkeroever, Holland)	
Open discussion 17:30 - 18:00		
SOCIAL EVENT 19:00-20:30: GARAGE BEER CO.		

Day 3: Thursday, June 27

09:00-11:00	Climate impact and Sustainability aspects-1	Chair: Stanislav Lenart
Fernanda Ferreira	Recycled construction and demolition aggregates as alternative fill materials for geosynthetic-reinforced systems	
David Shercliff	Wall and slope reinforcement via drainage - some practical examples and benefits	
Fabrizia Trovato	Life cycle assessment and design methodology of sustainable GRS structures using marginal fill and high performances draining geogrids	
Stanislav Lenart	Use of marginal and recycled fills for GRS structures	
(Coffee break 11:00 - 11:30)		
11:30-13:00	Climate impact and Sustainability aspects-2	Chair: David Shercliff
Anaïs Grandclerc	What's behind an EPD? Presentation of two EPD examples	
Jayakrishnan P.V.	Sustainability benefits of geosynthetics in erosion control, drainage and soil reinforcement applications	
Aníbal A. Moncada	Relevant aspects to consider on life cycle assessment of geosynthetic reinforced soil wall	
Open discussion 13:00 - 13:30		
Closing ceremony 13:30		

SOCIAL EVENT ADD-ON: Group tour to Sagrada Familia with English guide 16:00-18:00
(€30 each, limited space available, guests welcome)

Purchase Tickets Here: buy.stripe.com/28o9BB3uJbC8fledQR

Workshop Registration:

geosyntheticssociety.org/registration-tcr-barcelona-workshop-2024

Venue:

Universitat Politècnica de Catalunya·BarcelonaTech (UPC)
Department of Civil and Environmental Engineering / School of Civil Engineering
camins.upc.edu/en



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