

Getting acquainted with Geosynthetics in Soil Reinforcement

A two-day course to help understand **geosynthetics materials and design soil reinforcement structures** (walls, steep slopes, embankments and pavement structure)



Attend this course and learn about:

- Geosynthetics material for soil reinforcement
- Soil reinforcement principles
- Design of walls and steep slopes
- Design of embankments (soft soil, piles, and sinkholes)
- Design of pavement structure

Benefits include:

- Participation in an interactive workshop
- Practical activities for assessing geosynthetics properties for soil reinforcement
- Design examples on design software (available free of charge)
- CPD credits

Presenter:

Edoardo Zannoni Pr Eng, CEng

COURSE DATES & VENUES

Scheduled courses are offered online and face-to-face around the country based on demand.

Please contact Lizéle du Preez for more information on upcoming courses: Lizelle@saicepdp.org / 011 476 4100

TIMES: 08:00 for 08:30 to 16:30

REGISTRATION

To register, visit www.candidateacademy.co.za
OR email Academy@saicepdp.org

WHO SHOULD ATTEND

The course helps graduates to apply their theoretical training in practice. It is therefore recommended for:

- Staff working in the industry with very little experience or who are about to become involved in designing of soil reinforcement structures
- Candidate engineers, technologist and technicians
- Experienced personnel looking for a refresher course in geosynthetics in soil reinforcement

COURSE CONTENT

INTRODUCTION

- Why soil reinforcement?

INTRODUCTION TO GEOSYNTHETICS

- Geosynthetics products
- Geosynthetics functions

GEOSYNTHETICS FOR SOIL REINFORCEMENT

- Short term properties
- Long term properties
- SANS 20432 - assessment of geosynthetics for soil reinforcement
- Exercise - assessment of geosynthetics in short and long term

DESIGN OF WALLS AND SLOPES

- Components (facing, foundations, reinforcement, drainage)
- Design codes (SANS 207, FHWA etc.)
- Design principles, internal, overturning, sliding, bearing capacity analyses
- Exercise - Design a soil reinforcement structure (Using hand calculations, excel spreadsheet and freeware software)

DESIGN OF BASAL REINFORCEMENT

- Principles
- Embankments on soft soil
- Embankments on piles
- Embankments over sinkholes
- Exercise - Design a basal reinforcement structure (Hand calculations)

DESIGN OF GROUND REINFORCEMENT FOR ROADS

- Geosynthetics in the subbase
- Geosynthetics in the base
- Geosynthetics in the wearing course
- Geosynthetics in the overlay
- From design to construction - QA and QC on geosynthetics

ABOUT YOUR FACILITATOR

Edoardo Zannoni is a civil engineer and Section Manager: Geotechnical at Knight Piésold (Pty) Ltd. He previously held the position of business development manager geosynthetics for Maccaferri. He is involved in design of soil reinforcement structure in both civil and mining industry in South Africa and abroad. He is member of SABS and ISO technical committee in Geosynthetics and part of the council for the Group of Interest of Geosynthetics in South Africa and the International Geosynthetic Society.

In-house courses are available.
Contact Lizéle at lizelle@saicepdp.org for further information.

WHAT TO BRING TO THE COURSE

- Calculator
- Laptop with Excel



The Candidate Academy's philosophy is to support candidates on their road to registration with ECSA, by helping them through the transition from theoretical training to the 'how' of engineering projects and processes. The Academy offers practical, hands-on training relevant to experiences in the workplace.

**candidate
academy**
the road to registration – tower above the rest