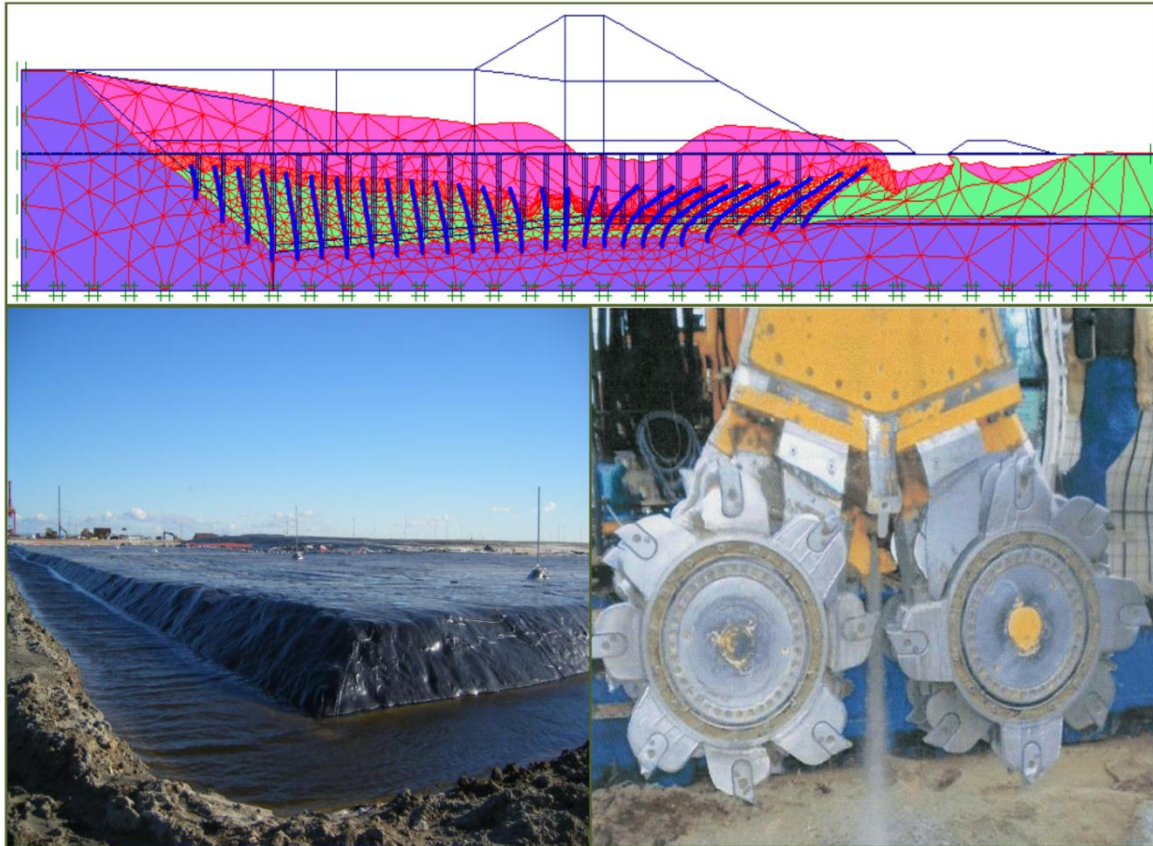


INTERNATIONAL SYMPOSIUM & SHORT COURSES

TC 211 IS-GI Brussels 2012



**Recent Research, Advances & Execution Aspects of
GROUND IMPROVEMENT WORKS**

30 May – 1 June 2012, Brussels, BELGIUM



TC 211

IS-GI Brussels 2012



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ORGANISING SECRETARIAT



With the support
of TIS-SFT



TC 211

IS-GI Brussels 2012



IS-GI Brussels 2012 - in total 330 registrations

Wednesday 30 May – Short Courses (230 participants)

- 3 parallel courses: Marine Ground Improvement – Deep Mixing – Rigid Inclusions & soil reinforcement
- Welcome reception (225 participants)

Thursday 31 May & Friday 1 June – Int. Symposium (280 participants)

- 7 Plenary sessions Vibro & Impact compaction – Vertical drains, Vacuum consolidation & Preloading – Soil Stabilisation – Deep mixing – Rigid inclusions & stone columns
Soil reinforcement in fill & in cut – Biogrout & other grouting methods
- Louis Menard lecture (P. Mengé, DEME)
- Specialty lecture by J.L. Briaud, President ISSMGE
- Technical Exhibition (16 Companies : gold & platinum sponsors)
- Banquet in the Belgian Comic Strip Centre – Horta (170 participants)

Saturday 2 June : Technical Visit (70 participants)

- AMORAS & MAS & City of Antwerp

TC 211

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Thursday 31 May & Friday 1 June - International Symposium (280 participants)

- 7 Plenary sessions *Vibro & Impact compaction – Vertical drains, Vacuum consolidation & Preloading – Soil Stabilisation – Deep mixing – Rigid inclusions & Stone Columns – Soil reinforcement in fill & in cut – Biogrout & other grouting methods*
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Profile participants Symposium

-Participants from 36 countries – 6 continents
(B : 85 - F : 45 – other : 150)

| | |
|-------------------------------|-----------------|
| - Contractors & Manufacturers | : 48% (B: 55%) |
| - Design/consultants | : 15 % (B: 22%) |
| - Research & academics | : 33% (B: 18%) |
| - Government/owners | : 4% (B: 5%) |

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Thursday 31 May & Friday 1 June - International Symposium (280 participants)

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Soil reinforcement in fill & in cut – BiogROUT & other grouting methods*







DEEP SOIL MIXING (DSM) - Topics

1. Introduction

2. Construction principles and equipment

Soil Mix (DSM)-material

of applications and case histories

International QA/QC procedures

on sites

ions



- Applications
- Earth/water retaining structures
- Foundations and soil reinforcement
- Land levees (2 papers)
- Slope stabilization (2 papers)
- In situ remediation (1 paper)
- Barriers against liquefaction









PL: Multi-storey commercial centre



Example footing
on DM columns

Square footing: 4.7 x 4.7 m

Char. load: 14,000 kN

Soil: 0.5-1.5 m loose fill, below

soft silty clay to 4.5 m;

25 columns, diam. 90 cm,

Cent. factor: 330 to 377 kg/m³

Max. factored col. load: 560 kN

Req. UCS: 2.2 MPa ($F_s=2.5$)

















































M. ALMEIDA

A. LE KOUBY

B. SIMON



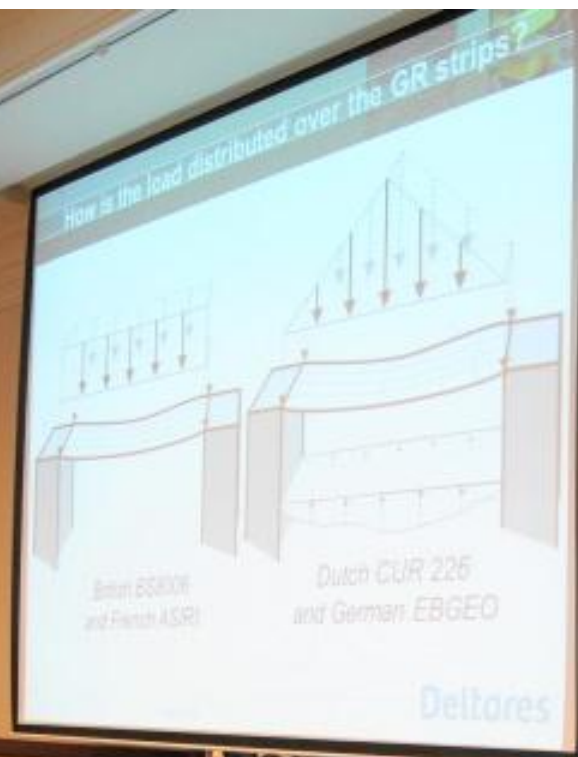








































14:35 - 14:45

Presentation of the
Performance of multi

14:45 - 14:55

Y. Miyake, R. B...

14:55 - 15:05

Laboratory study of
under lateral earth p...

15:05 - 15:15

Flotation of integra
embankment V. Va...

Ice-soil composites
preliminary report of
N.K. Vassilev, A. Ivanov



Technical Session Overview

Soil Reinforcement

John Sankey - The Reinforced Earth Co. (USA)
and
Dr. Turan Durgunoglu - Zetas Zemin

GTC Soil Reinforcement 2015









































J. CHU

J. MAERTENS

S. BRETTELE





1. Classification of grouting type of admixture

- D1. Particulate grouting
- D2. Chemical grouting
- D3. Different mixing methods (including premixing or deep mixing)
- D4. Jet grouting
- D5. Compaction grouting
- D6. Compensation grouting
- D7. Biogrouting

















Introduction: project

- Research project "Innovative monitoring tools for wetlands"
- Largely financed by IWT (government agency for Innovation by Science and Technology)
- Site and design from TUC RAIL, located near Brussels
- 3 partner companies: FBOS, Invenio, OSMOS
- Reference measurements: GEO, ATG, BBRL, University of Cambridge

















ISSMGE today
89 countries, Terzaghi 1936, 15 Presidents,
~19,000 members, 30 Technical Com., 33 Corporate Ass.







International Conference on Ground Improvement & Ground Control
Transport Infrastructure Development and Natural Hazards Mitigation

Centre for Geomechanics and Railway Engineering
University of Wollongong Australia
20 October - 2 November 2012

Venue: McKinnon Building

University of Wollongong













CLOSURE of the SYMPOSIUM

J. Maertens, TC 211 co-chairman

J.L. Briaud, President ISSMGE

B. Indraratna, University of Wollongong

F. De Cock, BGGG chairman

C. Jacquard, CFMS

Serge Varaksin, TC 211 co-chairman







