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ΕΤΑΙΡΕΙΑ
ΕΔΑΦΟΜΗΧΑΝΙΚΗΣ
& ΓΕΩΤΕΧΝΙΚΗΣ
ΜΗΧΑΝΙΚΗΣ

Τα Νέα της Ε Ε Ε Ε Γ Μ

10

Αρ. 10 - ΟΚΤΩΒΡΙΟΣ 2007

XVth EUROPEAN CONFERENCE ON SOIL MECHANICS AND GEOTECHNICAL ENGINEERING Athens, 13 – 19 September 2011

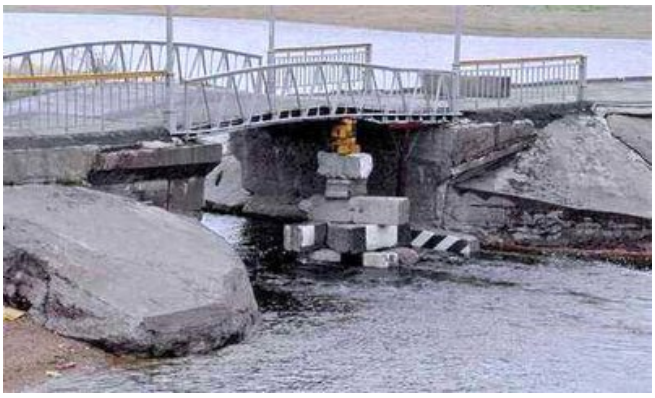
Η Γενική Συνέλευση των Εθνικών Ευρωπαϊκών Ενώσεων Μελών της International Society for Soil Mechanics and Geotechnical Engineering, που διεξήχθη την Τρίτη 25 Σεπτεμβρίου 2007 στα πλαίσια του XIVth EUROPEAN CONFERENCE ON SOIL MECHANICS AND GEOTECHNICAL ENGINEERING στην Μαδρίτη, απεφάσισε να διοργανώση η ΕΕΕΕΓΜ το XVth EUROPEAN CONFERENCE ON SOIL MECHANICS AND GEOTECHNICAL ENGINEERING στην Αθήνα από τις 13 έως τις 19 Σεπτεμβρίου 2011.

Αντίπαλος της ΕΕΕΕΓΜ και της Αθήνας ήταν η British Geotechnical Association και το Edinburgh και επί 31 ψηφισάντων η ΕΕΕΕΓΜ έλαβε 22 ψήφους και η BGA 9 ψήφους.

Το θέμα του συνεδρίου είναι "Geotechnics of Hard Soils – Weak Rocks". Το συνέδριο θα διεξαχθή στο Συνεδριακό Κέντρο του Μεγάρου Μουσικής Αθηνών.

Πιστεύουμε ότι την επιτυχία της διεκδίκησης της διοργάνωσης του XVth ECSMGE θα ακολουθήση η επιτυχής διοργάνωση του ίδιου του συνεδρίου, για την οποία θα πρέπει να συμβάλουν όλα τα μέλη της ΕΕΕΕΓΜ, την βοήθεια των οποίων προσδοκούμε.

Π Ε Ρ Ι Ε Χ Ο Μ Ε Ν Α



Υποστηρίξεις ...

ΑΝΑΣΚΟΠΗΣΗ ΓΕΓΟΝΟΤΩΝ ΓΕΩΤΕΧΝΙΚΟΥ ΕΝΔΙΑΦΕΡΟΝΤΟΣ

Council Meeting of European Societies of ISSMGE
Madrid, 25 September 2007

Κύριο θέμα της Γενικής Συνέλευσης ήταν η ανάδειξη της Εθνικής Ένωσης – πόλης που θα διοργανώση το επόμενο - XVth ECSMGE το 2011. Δεδομένης της υποψηφιότητας από δύο ενώσεις, την ΕΕΕΕΓΜ και την BGA, έγινε μυστική ψηφοφορία μεταξύ των παρισταμένων 31 εκπροσώπων Εθνικών Ενώσεων, η οποία, όπως προαναφέρθηκε, έδωσε το αποτέλεσμα 22 – 9 υπέρ της ΕΕΕΕΓΜ.

Η αντιπροσωπεία της ΕΕΕΕΓΜ στη Γενική Συνέλευση: Μ. Παχάκης, Α. Αναγνωστόπουλος και Χ. Τσατσανίφος.

Η προετοιμασία της ΕΕΕΕΓΜ για την διεκδίκηση της διοργάνωσης του XVth ECSMGE άρχισε τον Μάιο 2006 με την αποστολή επιστολών προς τα 25 τότε μέλη του συνδέσμου των εταιρειών που διοργανώνουν συνέδρια (HAPCO) με αίτημα την υποβολή προσφορών για την σύνταξη φακέλλου διεκδίκησης του συνεδρίου και στη συνέχεια για την διοργάνωση του συνεδρίου. Στην πρόσκληση ανταποκρίθηκαν αρκετές εταιρείες, αλλά λεπτομερείς προσφορές απέστειλαν μόνο 5. Λόγω της σημαντικής απόκλισης μεταξύ των προσφερομένων υπηρεσιών από την κάθε εταιρεία, θεωρήθηκε σκόπιμη η σύνταξη λεπτομερών προδιαγραφών, επί τη βάσει των οποίων ζητήθηκε τελική προσφορά από τις εταιρείες TRIAENA TOURS & CONGRESS A.E. και AC&C INTERNATIONAL A.E. και τελικώς επελέγη η εταιρεία TRIAENA τον Μάιο 2007.

Προετοιμάστηκε ο φάκελλος διεκδίκησης, εξαιρετικός κατά την άποψη πολλών εκπροσώπων Εθνικών Ενώσεων, ο οποίος απεστάλη στις 35 χώρες στις αρχές Σεπτεμβρίου 2007. Ο φάκελλος περιείχε τεύχος με λεπτομερείς πληροφορίες για την διοργάνωση του συνεδρίου (bid book), το προηγούμενο Τεύχος Αρ. 9 του περιοδικού μας, που για τον λόγο αυτό ήταν συντεταγμένο στην αγγλική γλώσσα, ένα διαφημιστικό της Ελλάδας DVD του Εθνικού Οργανισμού Τουρισμού, το βιβλίο του Μανώλη Κορρέ «From Pentelicon to the Parthenon» και ένα μικρό αναμνηστικό δώρο.

Κατά την διάρκεια της Γενικής Συνέλευσης ζητήθηκε από τις δύο διεκδικήτριες ενώσεις να παρουσιάσουν την υποψηφιότητά τους μέσα σε 15΄. Η ελληνική παρουσίαση έγινε από τον Αντιπρόεδρο της ΕΕΕΕΓΜ Χρήστο Τσατσανίφο. Ο φάκελλος της ΕΕΕΕΓΜ παρουσιάστηκε και κατά την Συνεδρία Λήξης του XIVth ECSMGE από τον Ηλία Μιχάλη.

XIVth European Conference on Soil Mechanics and Geotechnical Engineering

Το συνέδριο πραγματοποιήθηκε στην Μαδρίτη, Ισπανία από τις 24 έως τις 27 Σεπτεμβρίου 2007 με γενικό θέμα «Geotechnical Engineering in Urban Environments» και επί μέρους θεματολογία ως εξής:

Main Session 1: Foundation in urban areas. Codes and standards
- Discussion Sessions
  - 1.1. Implementation of Eurocodes (EC-7 and EC-8)
  - 1.2. Proactive foundation design. Observational method
  - 1.3. Foundation incidents and failures

Main Session 2: Deep excavations and slopes
- Discussion Sessions
  - 2.1. Effect of open excavations on nearby structures and facilities
  - 2.2. Dealing with groundwater
  - 2.3. Permanent protection of slopes against erosion. Rivers and shorelines

Main Session 3: Underground works
- Discussion Sessions
  - 3.1. Use of underground space
  - 3.2. Ground deformations associated with urban tunnelling
  - 3.3. Innovative tunnelling construction methods

Main Session 4: Rehabilitation of buildings and infrastructures
- Discussion Sessions
  - 4.1. Allowable movements of old and modern structures
  - 4.2. Underpinning of existing foundations. Case histories
  - 4.3 Preserving cities and monuments

Main Session 5: Ground improvement
- Discussion Sessions
  - 5.1. Settlement compensation by grouting
  - 5.2. Static and dynamic methods for soil improvement
  - 5.3. Soil reinforcement

Main Session 6: Site investigation and mapping
- Discussion Sessions
  - 6.1. New techniques for site investigation in urban areas
  - 6.2. Mapping and geotechnical data management
  - 6.3. Site investigations in harbour and shoreline environment

Παράλληλα με το συνέδριο διοργανώθηκαν τα παρακάτω Workshops των Technical Committees της ISSMGE:

TC3 - Geotechnics of Pavements
"Management of materials for infrastructures in urban environments"

TC16 - Ground Properties Characterization from In-Situ Tests

TC17 - Ground Improvement - Hosting TC9

TC34 - Prediction and Simulation Methods in Geomechanics

TC38 - Soil-Structure Interaction

ERTC7 - Numerical Methods in Geotechnical Engineering

ERTC12 - Evaluation Committee for the Application of EC8

Danish Geotechnical Society
ERTC10 - Evaluation Committee for the Application of EC7
TC23 - Limit State Design in Geotechnical Engineering
"Spirit of Krebs Ovesen Session - challenges in geotechnical engineering"

Οι Μ. Παχάκης και Αθ. Πλατής κατά την εναρκτήρια συνεδρίαση.

Συμμετείχαν 830 σύνεδροι και μεταξύ αυτών τα μέλη μας Α. Αναγνωστόπουλος, Γ. Αναγνωστόπουλος, Π. Βέττας, Γ. Βλαβιανός, Ι. Μάρκου, Ε. Μαυρογένης, Η. Μιχάλης, Αθ. Μπαλτζόγλου, Ν. Μπούσουλας, Γ. Μυλωνάκης, Γ. Ντούλης, Κ. Παπαντωνόπουλος, Μ. Παχάκης, Σ. Σχινά και Χ. Τσατσανίφος, καθώς και οι εγκατεστημένοι στο εξωτερικό συνάδελφοι Γ. Αναγνώστου, Χ. Βρεττός και Χατζηγεώργος.

Vlasta Szavits-Nossan, Πρόεδρος Croatian SSMGE, Pedro Sêco e Pinto, Πρόεδρος ISSMGE, Ανδρέας Αναγνωστόπουλος.

Ο Α. Αναγνωστόπουλος συμμετείχε στην International Scientific Committee του συνεδρίου.

Ο Χ. Τσατσανίφος ήταν ο General Reporter στην Main Session 4 με τίτλο της ανακοίνωσης "Contribution of geotechnical engineering in the rehabilitation of buildings and infrastructures".

Χρήστος Τσατσανίφος - General Reporter Main Session 4.

Ο Γ. Αναγνώστου ήταν panelist στην Discussion Session 3.1. Επίσης, panelists στις Discussion Session 1.1 και Discussion Session 4.3 είχαν ορισθή οι Γ. Γκαζέτας και Γ. Αθανασόπουλος, αντιστοίχως, οι οποίοι, όμως, δεν μπόρεσαν να παρευρεθούν στο συνέδριο.

Γιώργος Αναγνώστου - Panelist στην Discussion Session 3.1

Τα μέλη μας Γ. Μπουκοβάλας και Κ. Πιτιλάκης συμμετείχαν στο Workshop της ERTC12 την 25η Σεπτεμβρίου.

ERTC 12 Workshop. Γιώργος Μπουκοβάλας, επάνω, Κυριαζής Πιτιλάκης, κάτω.

Τέλος, υποβλήθηκαν και δημοσιεύθηκαν στα πρακτικά του συνεδρίου τα παρακάτω άρθρα μελών της ΕΕΕΕΓΜ:

A. Alexandris, P. Vettas, A. Aranitis, S. Notarianni, K. Boronkay "*Design and Construction Aspects of a Large Metro Station Cavern in Urban Environment*"

A. Arapakou & V. Papadopoulos "*Analysis of the behaviour of a deep excavation project with restraint bored piles*"

G. D. Bouckovalas, A. G. Papadimitriou, D. K. Karamitros "*Compatibility of EC-8 ground types and site effects with 1D seismic wave propagation theory*"

S. D. Costopoulos & N. Makris "*Parametric analysis of a prestressed tie-back*"

I. Mihalis, A. Anagnostopoulos, G. Anagnostopoulos, G. Doulis "*Estimation of ground surface settlements due to tunneling in weak rock conditions based on Tunnel Stability Factor*"

G.E. Mylonakis, C.I. Papantonopoulos & D.A. Chrysikos "*New analytical solutions for retaining structures under static and dynamic loads*"

Τα άρθρα των Ελλήνων συνέδρων θα δημοσιευθούν σταδιακά στο περιοδικό μας.

Ο Θανάσης Πλατής και η Σταυρούλα Σχινά στο Practitioner – Academic Forum.

Ανδρέας Αναγνωστόπουλος και Κυριαζής Πιτιλάκης στην Main Session 3.

Ε. Μαυρογένης, Στ. Σχινά, Γ. Αναγνωστόπουλος και Αθ. Μπαλτζόγλου στην Main Session 3.

ERTC 7 Workshop. Κώστας Παπαντωνόπουλος, Χρήστος Βρεττός και Νίκος Μπούσουλας.

Νίκος Μπούσουλας, Σταυρούλα Σχινά και Βαγγέλης Μαυρογένης στην Δεξίωση.

Μέλη της Ελληνικής αντιπροσωπείας στην καλλιτεχνική εκδήλωση

Χ. Τσατσανίφος, Α. Αναγνωστόπουλος και Γ. Αναγνωστόπουλος σε κάποιο γεύμα.

Ε. Αναγνωστοπούλου, Α. Αναγνωστόπουλος και Χ. Τσατσανίφος στο Galla Diner.

ΠΡΟΣΕΧΕΙΣ ΓΕΩΤΕΧΝΙΚΕΣ ΕΚΔΗΛΩΣΕΙΣ

Για τις παλαιότερες καταχωρήσεις περισσότερες πληροφορίες μπορούν να αναζητηθούν στα προηγούμενα τεύχη του «περιοδικού» και στις παρατιθέμενες ιστοσελίδες.

5th International Symposium on Roller Compacted Concrete (RCC) Dams, November 2 ÷ 4, Guiyang, China - www.chincold.org.cn

Workshop : The GGOS Contribution to GEOSS and an Observing System for Geohazards and Disaster Prevention, November 5 ÷ 6, 2007, Frascati, Italy - earth.esa.int/workshops/2007Geohazards

"Tunnels, drivers of change", November 5 ÷ 7, Madrid, Spain - www.congresoaetos.es

Geosynthetics and Environment, Geotechnical Engineering Conferences of Torino, 21st Edition, 27the and 28th November 2007, Torino, Italy - www.cgttorino.org/uk/default.asp

International Conference on Ground Anchorages and Anchored Structures in Service, 26 27 November 2007, London, United Kingdom – www.groundanchorages2007.com

5th Internatinal Conference on Earth Reinforcement - New Horizon in Earth Reinforcement, 14 – 16 November 2007, Fukuoka, Japan - www.nda.ac.jp/cc/users/miyamiya/iskyushu07

14th African Regional Conference for Soil Mechanics and Geotechnical Engineering, 26 – 30 November 2007, Yaounde, Cameroon - www.cra-yde-2007.org.cm

www.stuva.de

Το συνέδριο θα διεξαχθή από τις 27 έως τις 29 Νοεμβρίου 2007 στο Congress-Centrum Koelnmesse, στην Cologne, Germany με το παρακάτω θεματολόγιο:

- International Projects
- Mechanised Tunnelling
- Safety during Construction and Operation
- Research and Development
- Fire protection
- Tunnelling in Difficult Ground Conditions
- Legal, Contractual and Insurance Issues
- Underground Construction in Cologne

International Symposium on Geotechnical Engineering, Ground Improvement and Geosynthetics for Human Security and Environmental Preservation, 6 – 7 December 2007, Bangkok, Thailand - www.set.ait.ac.th/acsig/conference

International Workshop on Earthquake Hazards and Mitigations (EHAM-2007), 7 – 8 December 2007, Guwahati, Assam, India – www.iitg.ernet.in/civil/raman2007/index.html

2007 International Forum on Landslide Disaster Management,10 - 12 December 2007, University of Hong Kong, www.hkieged.org/LDM2007/forum.htm

13th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering, Kolkata, India, 10 – 14 December 2007 - www.13arc2007.com

"Thinkdeep – Amsterdam" International Symposium on Underground Space Challenges in Urban Developments, 28 -30 January 2008, Amsterdam, Holland - www.thinkdeep.nl

GeoAmericas 2008 – The First Pan American Geosynthetics Conference and Exhibition, 2 – 5 March 2008, Cancun, Mexico - www.geoamericas.info

GeoCongress 08 – The Challenge of Sustainability in the Geoenvironment, 9 – 12 March 2008, New Orleans, USA - www.geocongress.org

International Conference on Geotechnical Engineering ICGE'08, 28 – 30 March 2008, Tunis, Tunisia - www.enit.rnu.tn/fr/manifestations/ICGE08/index.html

3rd International Conference on Site Characterization, 1 - 4 April 2008, Taipei, Taiwan.

6th International Symposium "Geotechnical Aspects of Underground Construction in Soft Ground – IS - Shanghai 2008", 10 – 12 April 2008, Shangai, China - www.tc28-shanghai.org

www.isrm.net/eduacation

Το συμπόσιο διοργανώνεται από την Chinese Society for Rock Mechanics and Engineering με το παρακάτω θεματολόγιο:

- Site investigation and field instrumentation
- Rock and rock mass properties testing
- Numerical modelling and artificial intelligence techniques in rock engineering
- Rock engineering in hazardous geoenvironments
- Advanced excavations techniques in rock
- Underground storage of petroleum, gas and nuclear waste disposal
- Recent practices and case studies in rock engineering
- Advanced ideas and experiences in education of rock mechanics

Symposium secretariat: Prof. J. A. Wang, School of Civil and Environmental Engineering, University of Science and Technology Beijing, Xueyuan Rd. 30, Haidian District,

100083 Bijing, CHINA, Tel/Fax (+86) 10 62334098, e-mail wjaroc@ces.ustb.edu.cn.

Geotechnical Earthquake Engineering and Soil Dynamics IV, 18 – 22 May 2008, Sacramento, Ca., USA – www.geesd.org

DEVELOPMENT OF URBAN AREAS AND GEOTECHNICAL ENGINEERING
INTERNATIONAL GEOTECHNICAL CONFERENCE
Saint Petersburg, 16–19 June 2008
www.georec.spb.ru/eng/conf/080616

CONFERENCE TOPICS
- Soil-structure interaction;
- Soil characterization for geotechnical and geoenvironmental purposes in urban areas as a basis for geotechnical design;
- Geotechnical aspects of reconstruction of historical cities and monuments preservation;
- Geotechnical challenges in high-rise and underground construction;
- Application of state-of-the-art geotechnologies in congested urban areas. Use of monitoring and the observational method.

2nd International Conference on Geotechnical Engineering for Disaster Mitigation and Rehabilitation (GEDMAR08), May 30 – June 2 2008, Nanjing, Chine - www.geohohai.com/news/english/2008/1.shtml

First International Conference on Education and Training in Geo-Engineering Sciences: Soil Mechanics and Geotechnical Engineering, Engineering Geology, Rock Mechanics Constantza, Romania, 2 - 4 June 2008 - www.ppm.ro/srgf

Development of Urban Areas and Geotechnical Engineering, 16 - 19 June 2008, Saint Petersburg, Russia - www.georec.spb.ru/eng/conf/080616/

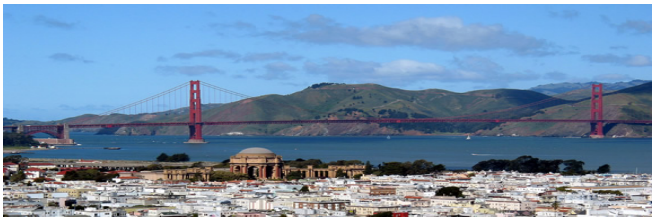
Geosynthetics Asia 2008, 17 – 20 June 2008, Shangai, China - www.4acg-2008sh.com

JOURNEES NATIONALES de GEOTECHNIQUE et de GEOLOGIE de L' INGENIEUR JNGG'08
INSERTION DES GRANDS OUVRAGES DANS LEUR ENVIRONNEMENT
18 – 19 – 20 Juin 2008, Nantes, France
www.ec-nantes.fr/jnggo8

Το συνέδριο θα δεξαχθή από τις 18 έως τις 20 Ιουνίου 2008 στην Nantes, Γαλλία με την παρακάτω θεματολογία:

- Terrassements, amélioration et renforcement de sols et des roches
- Ouvrages en terre, fondations, soutènements
- Ouvrages souterrains, stockages, mines et carrières
- Ouvrages géotechniques en site maritime ou fluvial
- Moyens d'essai exceptionnels, caractérisations géologique et géotechnique des terrains
- Incertitudes, risques naturels et anthropiques, dans la conception des ouvrages
- Ouvrages en site sismique, sollicitations cycliques et dynamiques
- Impacts sur l'environnement

2nd BGA International Conference on Foundations – ICOF 2008 "Founded on Research, Design and Practice, 24 – 27 June 2008, Dundee, Scotland, United Kingdom - www.dundee.ac.uk/civileng/icof2008



San Francisco 2008
42nd U.S. Rock Mechanics Symposium
2nd U.S.-Canada Rock Mechanics Symposium
www.armasymposium.org

Το συνέδριο θα διεξαχθή από τις 29 Ιουνίου έως τις 2 Ιουλίου 2008 στο San Francisco, CA, USA και θα πραγματευθή τα παρακάτω θέματα:

- Lab and in situ testing, characterization, upscaling
- Fractured rock, discontinuities, rock masses
- In situ stress measurement, prediction, and modeling
- Weak rocks, shales, granular materials
- Numerical/analytic/constitutive modeling of rock processes
- Salt and creeping materials
- Rock excavation and breakage, dynamic loading
- High- and low-temperature geomechanics
- Rock physics and geophysics
- Stability/support of underground openings (all sizes)

- Slope and open pit stability, foundations, dams
- Fracture mechanics and fracture propagation
- Coupled processes, flow and transport
- Remote sensing, monitoring, seismicity
- Compaction, yielding, pore collapse, plasticity
- Waste disposal, seal integrity, underground storage
- Uncertainty/stochastics/probability

10th International Symposium on Landslides and Engineered Slopes, June 30 to July 4 2008, Xi'an, China, www.landslide.iwhr.com

6th International Conference on Case Histories in Geotechnical Engineering and Symposium in Honor of Professor James K. Mitchell, 11 – 16 August 2008, University of Missouri – Rolla - www.6icchge2008.org

2nd International Workshop on GEOTECHNICS OF SOFT SOILS
3 – 5 September 2008
University of Strathclyde, Glasgow, Scotland
www.iwgss.org

Workshop Aims

Construction activities increasingly take place in poor ground conditions. Often ground improvement is required. Although new construction and field observation techniques have been developed to ensure that geotechnical structures such as embankments, tunnels and deep excavations can be built safely under these difficult conditions, design is still predominantly based on empirical rules and simplifying assumptions. The EC-funded Research Training Network "Soft Clay Modelling for Engineering Practice" (SCMEP) was set up to develop improved constitutive and numerical models to assist in geotechnical design on soft clays. During its operation in 2000-2004, the SCMEP network made significant advances in theory backed up with substantial experimental programmes. The 1st International Workshop on Geotechnics of Soft Soils - Theory and Practice, held in Noordwijkerhout, the Netherlands, 17-19 September 2003 was organized by SCMEP provide a forum for an intensive exchange of ideas with other research groups. The over 130 participants represented both industry and academia and contributed to the successful event.

AMGISS (Advanced Modelling of Ground Improvement on Soft Soils) is an EC-funded Marie Curie Research Training Network, which continues the research by SCMEP network, focussing on modelling ground improvement systems. The aim of the network is to develop advanced numerical modelling techniques for analysing the coupled hydro-mechanical behaviour of ground improvement systems on soft soils utilising advanced constitutive modelling, physical modelling and 2D and 3D numerical modelling techniques. The aim of the 2nd International Workshop on Geotechnics on Soft Soils - "Focus on Ground Improvement" is to disseminate the research done by AMGISS to research students, academics and practitioners, as well to get together the professional working on geotechnical design on soft soils to discuss the current state-of-the-art in modelling and design, with particular emphasis on ground improvement applications.

Workshop Topics
Modelling
- Constitutive modelling
- Numerical modelling
- Physical modelling

Design and Application
- Embankments and foundations
- Slopes
- Tunnels
- Excavations

Ground Improvement
- Preloading and consolidation methods
- Column methods (stone columns, deep mixing, etc.)
- Piles and micropiles
- Other ground improvement methods

EuroGeo4 - 4th European Geosynthetics Conference, 7 – 10 September 2008, Edinburgh, Scotland, United Kingdom - www.eurogeo4.org

"Stress Wave", 8 – 10 September 2008, Lisbon, Portugal, www.stresswave2008.org

5th International Geotechnical Seminar "Deep Foundations on Bored and Auger Piles", September 8 ÷ 10, 2008, Ghent, Belgium - terzaghi.ugent.be

1st International Conference on Transportation Geotechnics - www.nottingham.ac.uk/ncg

11th Baltic Sea Geotechnical Conference "Geotechnics in Maritime Engineering", 15 – 18 September 2008, Gdansk, Poland - www.11bc.pg.gda.pl

ITA – AITES World Tunnel Congress and 34th General Assembly of ITA – AITES, 19 ÷ 25 September 2008, Agra, India - www.cbip.org

content.asce.org/conferences/KARST08/call.html

Το συνέδριο διοργανώνεται από την American Society of Civil Engineers και θα διεξαχθή στην Tallahassee, Florida, U.S.A. από τις 22 μέχρι τις 26 Σεπτεμβρίου 2008 με το παρακάτω θεματολόγιο:

Karst Development & Mapping
- The Formation of Karst and Sinkholes
- Applications of Geophysics for Investigating Karst
- New Geotechnical Investigation Techniques for Karst
- GIS Mapping and Computer Databases of Karst Features
- Karst Imaging and Videography (*Special Session*)

Pro-Active and Remedial Engineering in Karst Terrain

- Foundation Design and Construction, Shallow or Deep
- Dams and Impoundments
- Engineering Man's Infrastructure in Karst
- Sinkhole Mitigation and Repair
- Grouting Techniques
- Low Permeability Barriers

Karst Water Resource Management

- Hydrology of the Woodville Karst Plain and Water Resources Management
- Groundwater Tracing
- Storm Water & Waste Water Management
- Contaminant Monitoring and Remediation in Karst
- Modeling Groundwater Flow in Karst
- Planning and Regulation

The 12th International Conference of IACMAG - International Association for Computer Methods and Advances in Geomechanics, 1 ÷ 6 October 2008, Goa, India

AFTES – International Congress "Building underground for the future", 6 – 8 October 2008, Monaco - www.aftes.asso.fr

NUCGE 2008 – International Conference on Numerical Computation in Geotechnical Engineering, October, 27-29 2008, Skikda, Algeria - www.univ-skikda.dz/conference/accueil1.html

14th World Conference on Earthquake Engineering (14WCEE), 12-17 October 2008, Beijing, China - www.14wcee.org

ICSE-4 Fourth International Conference on Scour and Erosion, Tokyo, 5 - 7 November, 2008 - icse-4.kz.tsukuba.ac.jp

3ο Πανελλήνιο Συνέδριο Αντισεισμικής Μηχανικής και Τεχνικής Σεισμολογίας, 5 – 7 Νοεμβρίου 2008, Αθήνα – www.civil.ntua.gr/3-PCEEES

The First World Landslide Forum - Implementing the 2006 Tokyo Action Plan on the International Programme on Landslides (IPL) - Strengthening Research and Learning on Earth System Risk Analysis and Sustainable Disaster Management within UN-ISDR as Regards "Landslides", 18-21 November 2008, United Nations University, Tokyo, Japan - www.iclhg.org

"Safe Tunnelling for the City and Environment" ITA-AITES **World Tunnel Congress 2009** and the 35th ITA-AITES General Assembly, Budapest Congress and Word Trade Center, Budapest, Hungary, 23 - 28 May 2009 - www.wtc2009.org

Géotechnique

SYMPOSIUM IN PRINT 2009

May 2009

www.geotechnique-ice.com

The ground has always been considered as a source of energy in those seismically active areas of the world where it has been possible to harness geothermal energy. The temperature reduces towards the surface of the earth, becoming constant in the top 100 m, as it is maintained by the balance of solar energy and radiation into space. There has always been an interest in this zone because of the effect the ground has upon the dissipation or conservation of heat from sub-surface structures and the impact the upper layers have upon vegetation. This zone has attracted much interest in recent years because of its potential as a heat source or sink.

This Symposium will be of interest to anyone involved with thermal properties of soils and rocks, including those working with the ground as a source of energy, agricultural engineers, soil scientists, pipeline engineers, nuclear engineers, power engineers and engineers working in areas of permafrost. It is an opportunity to bring together engineers and scientists from a number of disciplines to exchange ideas and share best practice.

This is a call for abstracts on a wide range of topics which will lead to a collection of published papers in Géotechnique covering the following.

SCIENTIFIC DEVELOPMENTS

- Developments in the measurement of thermal properties of soils and rocks, thermal gradients and terrestrial heat flux
- Numerical studies of heat fl ow coupled to free and forced convection and groundwater flow
- Environmental impact of heat on groundwater
- Effects of heat on soil behaviour

APPLICATIONS

- Ground energy: energy piles; open and closed systems; trench systems
- Ground freezing
- Pipelines
- Power cables
- Underground infrastructure
- Nuclear disposal
- Growth of vegetation
- Impacts of climate change on behaviour of the ground

Key dates : Abstracts by 1 December 2007; full papers by 1 May 2008; publication early 2009; Symposium May 2009

IS-Tokyo 2009 "International Conference on Performance-Based Design in Earthquake Geotechnical Engineering - from case history to practice", 15 – 17 June 2009, Tokyo, Japan

17th International Conference on Soil Mechanics and Geotechnical Engineering "Future of Academia & Practice of Geotechnical Engineering", 5 – 9 October 2009, Alexandria, Egypt - www.2009icsmge-egypt.org

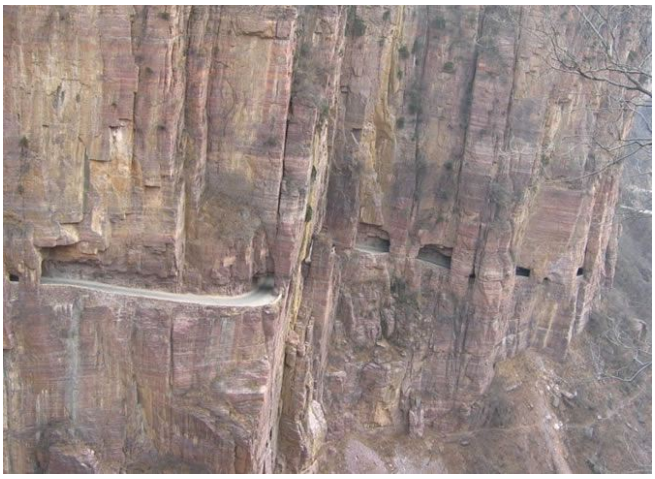
IX International Conference on Geosynthetics, Brazil, 2010 - www.igsbrasil.org.br/icg2010

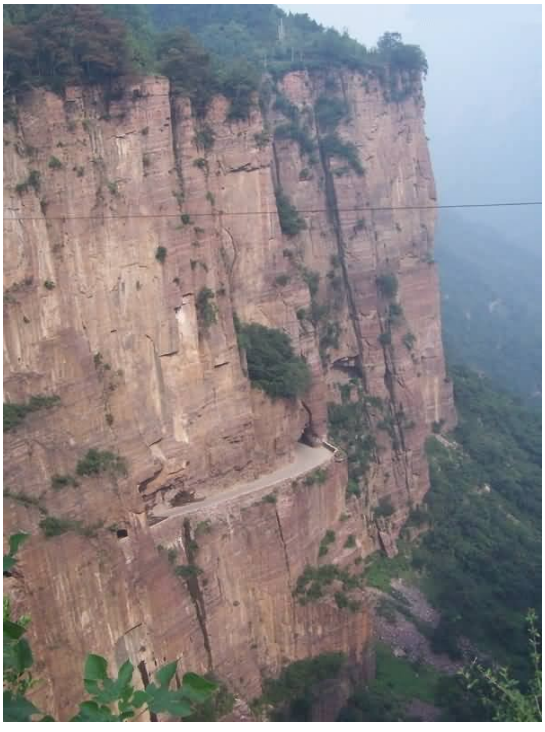
XVth European Conference on Soil Mechanics and Geotechnical Engineering, 13 – 19 September 2011, Athens, Greece.

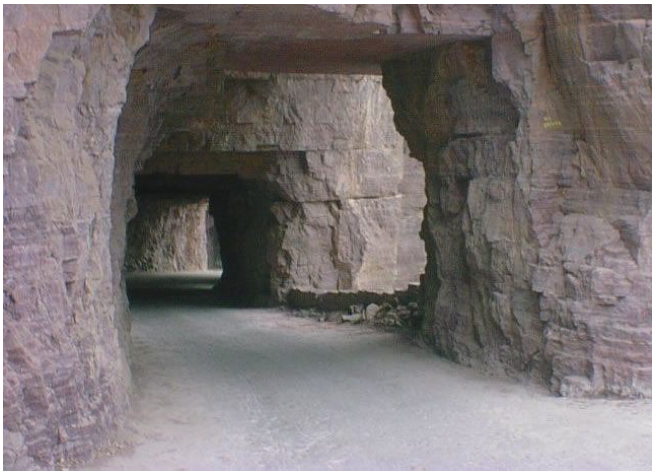
ΑΞΙΟΠΕΡΙΕΡΓΑ

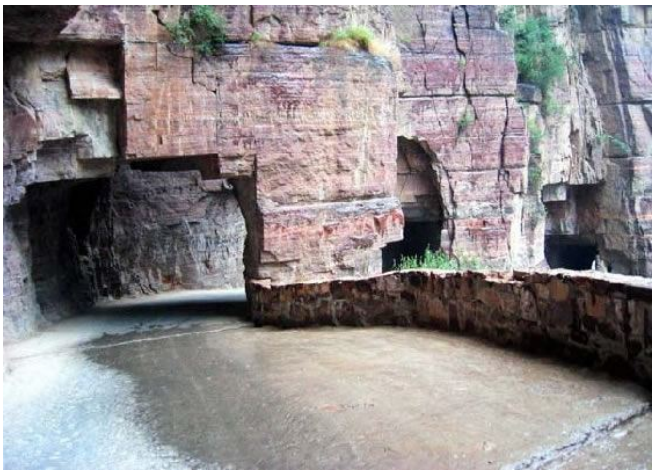
Driving in Bolivia

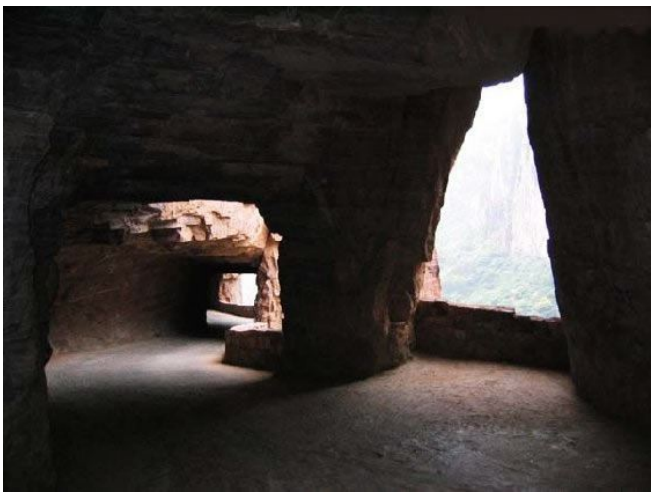
Stremnaya Road is nicknamed “the road of death” and it’s situated in Bolivia …



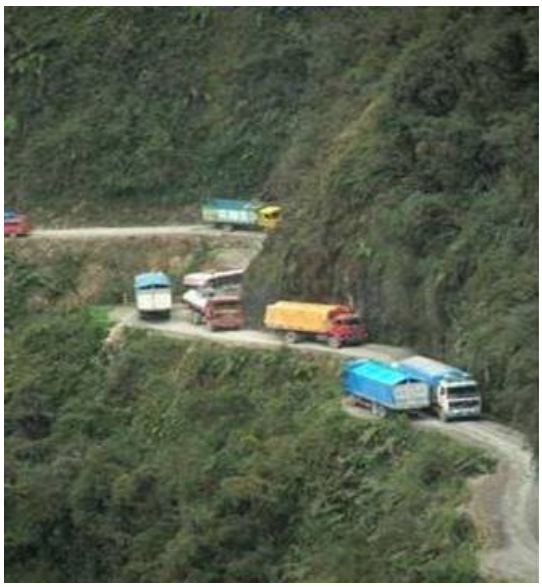








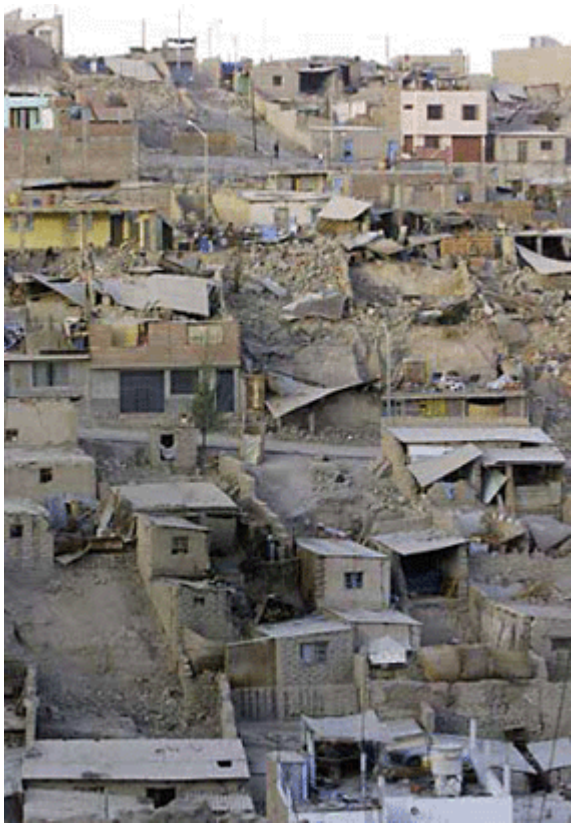
Or, there's always… α mountainous highway in Bolivia.



Δοκιμαστική εφαρμογή των νέων στάσεων των μέσων μαζικής μεταφοράς στην Αθήνα…

ΝΕΑ ΑΠΟ ΤΟΝ ΚΟΣΜΟ

Peruvian reconstruction to cost US$ 220 million



Rebuilding towns along Peru's central coast following last week's earthquake will cost about US$ 220 million, said Peru's economy minister Luis Carranza.

Speaking on Radioprogramas radio he said that while this was a "preliminary figure", strong economic growth this year would help foot the bill.

The US$ 220 million is seen as the estimated cost of new housing, energy, transportation, education and health care infrastructure, he added.

About 40000 homes were destroyed by the August 15, magnitude-8 quake that killed more than 500 people. Mr Carranza said he expects Peru's economy to grow +7.2% this year, helping the government pay for the extra expenses.

Meanwhile, the UN assistant secretary-general Margareta Wahlstrom, the deputy emergency relief coordinator, said a UN appeal will be launched this week for about US$ 38 million to help the quake victims.

The Washington Post reported that Peru's president, Alan Garcia, has personally coordinated much of the relief effort. The government is now shifting its focus to the cleanup and rebuilding phase, and President Garcia has announced plans to appoint a "reconstruction czar."

To help the families who lost their homes, the government has issued emergency decrees providing them with US$ 1900 each. Those whose relatives were injured or killed are also eligible for emergency funds.

The destruction of farms and many small and medium-sized businesses, which provided incomes for many newly homeless people, is also complicating the areas recovery. Thousands of people who had been employed in the area's garment production factories remain out of work, according to production minister Rafael Rey. The government has initially budgeted US$ 100 million for cleanup and reconstruction, said Mr Rey.

Bolivian President Evo Morales, accompanied by Health Minister Nila Heredia, has visited the Peruvian city of Pisco to deliver humanitarian aid to thousands left homeless by the earthquake. He is the second South American president to visit Peru with pledges of solidarity since the earthquake, following Colombian President Alvaro Uribe who landed in Pisco the week before.

The Bolivian president brought a total of 19 tonnes of medicine, blankets and drinking water in two Hercules cargo aircraft, after another Bolivian Airforce cargo plane landed in Peru last week with 12 tonnes of food and provisions.

Peruvian Civil Defense officials have issued a plea for more tents and blankets to help quake survivors. "We need mattresses, blankets, tents, so that the children do not suffer in the cold," a resident of Pisco told RPP radio.

At least two people - a two year-old girl and an elderly man - died as a result of sleeping outside in the cold, officials said.

(INTERNATIONAL CONSTRUCTION, August 28, 2007, Editor: Richard High)

Trump's Palm Tower plans

Japan's Taisei Corporation is among the companies chasing the contract to build Nakheel's Trump Tower on The Palm Jumeirah, according to local news agency Arabian business.

The AED 2.2 billion (US$ 600 million) Palm Trump International Hotel and Tower will be the first joint venture between Nakheel and The Trump Organisation.

According to a news report, a spokesman at the Trump Tower development team said progress is being made with the shortlist and a main contractor is expected to be appointed in November.

During the summer, Arabian Forasol Foundations started enabling works on the 61-storey structure, which will form the centrepiece of the Golden Mile on the Palm Jumeirah, the report said.

Consultant Halcrow is carrying out the third party structural review of the project, while Leslie Robertson of US-based engineering consultancy, LERA, is conducting a peer review of the project, the report added.

The project has been designed by Atkins, while BBGM has been appointed to complete the interiors of both the hotel and the apartments, the report said.

It added the development will be made up of a 378-room five-star hotel and 397 residential apartments.

According to the report, the building has vertically mounted solar panels to generate energy as well as pipes running through the external skin of the building, which heat water.

(INTERNATIONAL CONSTRUCTION, October 5, 2007, Editor: Becca Wilkins)

Fraud widespread in construction

Some 77% of construction companies have suffered from corporate fraud in the past three years, according to a survey by risk consultant Kroll. The report also says 87% of companies surveyed felt their exposure to fraud had increased over the past three years, with an average loss of US $4.5 million per company during that period.

The report found the main reasons for the higher risk of fraud in construction are high staff turnover, entry into new markets and increased joint-venture work.

According to Kroll, the construction industry suffers from a much higher incidence of corporate fraud than other industries. Theft of physical assets, corruption and bribery, financial mismanagement and regulatory and compliance breaches are cited as the areas of frequent loss.

“The risks of fraud for business are greater today than in the past,” said Andres Antonius, President of Kroll’s Consulting Services Group. “Even the whiff of a fraud may sometimes be sufficient to place a company under severe scrutiny or in financial distress.”

The report draws on a survey by the Economist Intelligence Unit of 900 senior executives worldwide.

(INTERNATIONAL CONSTRUCTION, October 8, 2007, Editor: Chris Sleight)

Bitumen Cartel fined € 184 million

The European Commission has announced fines totalling € 184 million to a group of five bitumen suppliers accused of operating a cartel in the Spanish bitumen market between 1991 and 2002. The companies named in the cartel were BP of the UK, Spain’s Repsol and Cepsa, Nynäs of Sweden and Portugal’s Galp. Repsol, Cepsa and Galp say they will appeal against the fines.

The commission says that the five companies established market quotas and allocated sales volumes in the Spanish bitumen market for 12 years between 1991 and 2002. It estimates that in the market was worth € 286 million in 2001.

Its investigation was launched in October 2002, following an application for immunity from BP under the Commission’s leniency rules. By reporting the cartel BP was excused any financial penalty for its participation in the cartel.

According to the Commission Repsol and Cepsa were the leaders of the cartel, and their fines were increased by +30%. Confusingly though, both these companies later qualified for a reduction in their penalties under leniency rules for co-operating with the investigation.

Cepsa received the heaviest fine - € 83,9 million, similar to Repsol’s € 80,5 million fine. Nynäs and Galp were penalised less heavily at € 10,6 million and € 8,7 million respectively. In total the fines come to € 183,7 million. The Commission has waived a further € 148 million of fines under its leniency programme including all of the € 66,4 million penalty that could have been imposed on BP.

Appeals

Cepsa, Galp and Repsol all say they will appeal against the fines. A statement from Cepsa said it was not responsible for the cartel and described its fine as “unjustified and disproportionate.” Galp took a similar stance, while Repsol cites its co-operation with the investigation as a mitigating factor.

However, a statement from Nynäs was conciliatory. “Unfortunately our own investigation also shows that some mistakes were made in Spain, which we have admitted to the Commission. I regret that our systems then in place had deficiencies that allowed us to get involved in the business culture that then prevailed in the Spanish bitumen market,” said company president Staffan Lennström. Nynäs said it is awaiting the full text of the Commission’s judgement before considering its next step.

Repeat offenders

A year ago the Commission fined a cartel of 14 companies active in the Dutch bitumen market a total of € 267 million. BP and Nynäs were also included in that group, although once again BP’s fines were waived under leniency rules because it informed the Commission of the cartel’s existence. Nynäs was fined € 20,3 million for its part in the Dutch cartel.

(CONSTRUCTION EUROPE, October 10, 2007, Editor: Chris Sleight)

Nagoya bid riggers sentenced

Japan’s Nagoya District Court has sentenced five ex-employees of five major construction companies to suspended prison terms for antitrust violations in a series of rigged bids for the Nagoya subway extension projects.

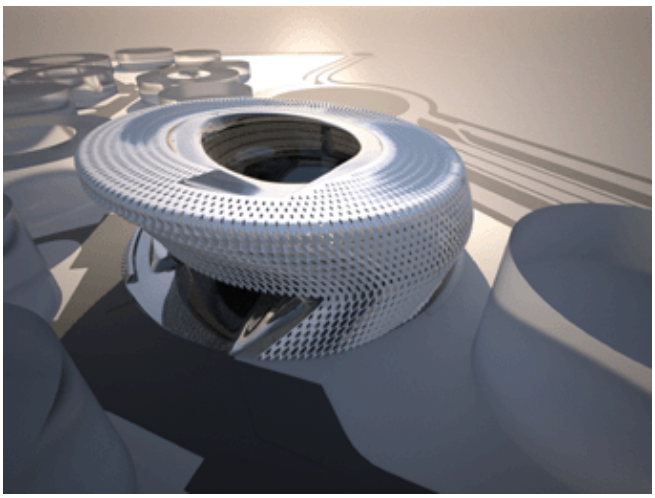
Masahiro Shibata, 71, a former adviser to Obayashi Corp's Nagoya branch, was sentenced to three years in prison, suspended for five years, for coordinating the bid rigging.

The four others at Kajima Corp, Shimizu Corp, Okumura Corp and Maeda Corp each received 18 months, suspended for three years, for conspiracy.

The court also imposed fines of YEN 200 million (US$ 1.7 million) on Obayashi and YEN 100 to 150 million (US$ 850000 to 1.3 million) each on the other four companies.

(INTERNATIONAL CONSTRUCTION, October 15, 2007, Editor: Richard High)

Zaha Hadid wins in Spain



Zaha Hadid Architects has won an international competition to design a new Civil Courts of Justice in Madrid, Spain.

The building will be the “pivoting point” serving as “a reference that provides structure and organises the entire urban masterplan” for the city’s Campus de la Justicia area.

The envelope of the Civil Court of Justice is composed of a double-ventilated façade, the exterior layer of which is composed of metallic panels that “respond to environmental and program conditions”.

These panels shift from open to closed, and from flat to extended depending on the circumstances affecting them. It is also envisaged that the metallic panels on the rooftop will incorporate photovoltaic cells.

Inside the building, a spiralling semi-circular atrium is contains a public courtyard, which serves as an “instant reference point” for visitors to move around the building. This extends to the lower ground floor, providing natural to the courtrooms located at that level.

(INTERNATIONAL CONSTRUCTION, October 15, 2007, Editor: Richard High)

ΔΙΑΚΡΙΣΕΙΣ

Το άρθρο του καθηγητού του ΕΜΠ και μέλους της ΕΕΕΕΓΜ Ιωάννη Βαρδουλάκη «The thickness of shear bands in granular materials», με συσυγγραφέα τον H. B. Muhlhaus, που δημοσιεύτηκε στο περιοδικό «Géotechnique» το 1987, χαρακτηρίστηκε σαν ένα από τα δέκα πρώτα άρθρα του περιοδικού, στα οποία έγιναν οι περισσότερες αναφορές από το 1970. Παραθέτουμε την σχετική ανακοίνωση από την ιστοσελίδα του «Géotechnique» (http:// www.thomastelford.com/journals/JournalContentPage.asp?JournalSetionID=228&JournalTitle=Géotechnique&JournalID=7&JournalMenu=true).

GÉOTECHNIQUE
Facts, figures and history

The following is a selection of 'classic' papers from *Géotechnique* that have had a lasting impact on soil mechanics theory and practice. Rankine Lectures, and any papers published in the last five years, have been deliberately excluded from this list.

- **Roscoe K. H., Schofield A. N. and Wroth C. P. (1958) On the yielding of soils. Vol. 8, No. 1, 22-53.**
  The first paper from Cambridge setting out the ideas that later became established as Critical State Soil Mechanics.

- **Bishop A.W. and Morgenstern N. (1960) Stability coefficients for earth slopes. Vol. 10, No. 4, 129-150.**
  Presents what is now just known as 'Bishop's method' of slope stability analysis, and also charts of factors of safety for slopes.

- **Davis E.H. and Booker J.R. (1973) The effect of increasing strength with depth on the bearing capacity of clays. Vol. 23, No. 4, 551-563.**
  Shows with rigorous analysis how the standard bearing capacity factors have to be modified if the strength of a clay increases with depth.

- **Wroth C. P., Hughes J. M. O. and Windle D. J. (1977) Pressuremeter tests in sands. Vol. 27, No. 4, 455-477.**
  Presents an elegant analysis of pressuremeter tests in sand, and compares with data.

- **Davis E. H., Mair R. J., Gunn M. and Seneviratne N. (1980) The stability of shallow tunnels and underground openings in cohesive material. Vol. 30, No. 4, 397-416.**
  Sets out a stability analysis of tunnels, using lower and upper bound methods, and makes comparisons with experiments on the centrifuge.

The top ten most-cited papers since 1970 (as listed by the ISI Web of Knowledge) are as follows. The first of these has been cited in no fewer than 1147 other publications! Three of the following are Rankine Lecture papers.

1. **Cundall P. A. and Strack O. D. L** (1979) Discrete numerical-model for granular assemblies. Vol. 29, No. 1, 47-65.
2. **Muhlhaus H. B and Vardoulakis I.** (1987) The thickness of shear bands in granular materials. Vol. 37, No. 3, 271-283.
3. **Bolton M. D.** (1986) The strength and dilatancy of sands. Vol. 36, No. 1, 65-78.
4. **Roscoe K. H.** (1970) The influence of strains in soil mechanics. Vol. 20, No. 2, 129-170.
5. **Been K. and Jefferies M. G.** (1985) A state parameter for sands. Vol. 35, No. 2, 99-112.
6. **Burland J. B.** (1990) On the compressibility and shear-strength of natural clays. Vol. 40, No. 3, 329-378.
7. **Alonso E. E., Gens A. and Josa A.** (1990) A constitutive model for partially saturated soils. Vol. 40, No. 3, 405-430.
8. **Ishihara K.** (1993) Liquefaction and flow failure during earthquakes. Vol. 43, No. 3, 351-415.
9. **Madsen O. S.** (1978) Wave-induced pore pressures and effective stresses in a porous bed. Vol. 28, No. 4, 377-393.
10. **Leroueil S. and Vaughan P. R.** (1990) The general and congruent effects of structure in natural soils and weak rocks. Vol. 40, No. 3, 467-488.

ΜΕΤΑΠΤΥΧΙΑΚΕΣ ΣΠΟΥΔΕΣ ΓΕΩΤΕΧΝΙΚΟΥ ΕΝΔΙΑΦΕΡΟΝΤΟΣ

International School
LAndslide Risk Assessment and Mitigation
www.laram.unisa.it

LARAM SCHOOL, Ravello, Italy
LARAM is an International School on "LAndslide Risk Assessment and Mitigation" founded by the University of Salerno.

The School is directed at 40 PhD students selected every year among those working in the field of Civil Engineering, Environmental Engineering, Engineering Geology or with similar Engineering background.

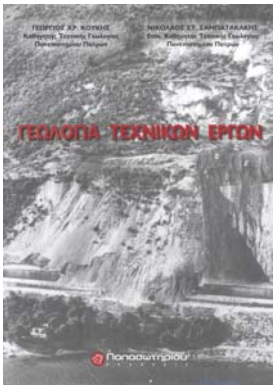
The Scientific Committee comprises international experts in the field of Landslide Risk coming from 14 different Countries.

The selected students will participate to the School free of charge (accommodation and meals included).

TOPICS OF THE SCHOOL

- Geomechanical perspectives for landslide analysis
- Enviromental issues
- GIS and monitoring systems
- Numerical methods for susceptibility/hazard assessment
- Risk management and control works
- Risk zoning at different scales
- Geotechnical landslide characterisation
- Risk Analysis: basic concepts and methods

ΝΕΕΣ ΕΚΔΟΣΕΙΣ ΣΤΙΣ ΓΕΩΤΕΧΝΙΚΕΣ ΕΠΙΣΤΗΜΕΣ

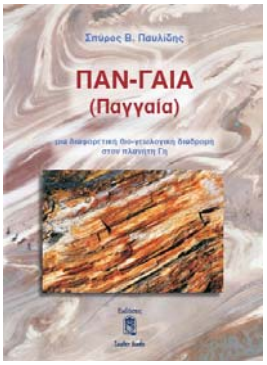


Γεωλογία Τεχνικών Έργων

Γ. Κούκης και
Ν. Σαμπατακάκης

Το βιβλίο αυτό αποτελεί το δεύτερο από τους δύο τόμους της σειράς Τεχνική Γεωλογία και Γεωλογία Τεχνικών Έργων και καλύπτει διεξοδικά ειδικά κεφάλαια του αντικειμένου που έχουν σχέση με τους γεωλογικούς παράγοντες που επηρεάζουν το σχεδιασμό, την κατασκευή και τη λειτουργία των διάφορων τεχνικών έργων καθώς και την εκδήλωση καταστροφικών γεωλογικών φαινομένων, όπως οι κατολισθήσεις. Αναλύονται αρχικά τα συστήματα ταξινόμησης βραχομάζας (RMR, Q, GSI κ.λπ.) καθώς και η εφαρμογή τους στα τεχνικά έργα ενώ στη συνέχεια εξετάζονται διεξοδικά τα κατολισθητικά φαινόμενα, με βάση τη Διεθνή και Ελληνική εμπειρία, όσον αφορά στις βασικές αρχές, τα συστήματα ταξινόμησης, τα αίτια, το μηχανισμό εκδήλωσης, τις επιπτώσεις και τα μέτρα αντιμετώπισης καθώς και την κατανομή – εξάπλωσή τους στον Ελληνικό χώρο. Επίσης εξετάζονται λεπτομερειακά οι τεχνικογεωλογικές συνθήκες που οριοθετούν το σχεδιασμό φραγμάτων και σηράγγων ενώ δίνονται χρήσιμα στοιχεία για τα χαρακτηριστικά και τον τρόπο κατασκευής των μεγάλων αυτών τεχνικών έργων. Τέλος, περιγράφονται η καταλληλότητα και οι χρήσεις των γεωϋλικών και κυρίως των αδρανών υλικών στα τεχνικά έργα ενώ δίνονται τα βασικά στοιχεία σχετικά με τις χρήσεις και τον ποιοτικό έλεγχο των γεωσυνθετικών υλικών.

(Εκδόσεις ΠΑΠΑΣΩΤΗΡΙΟΥ, 2007)

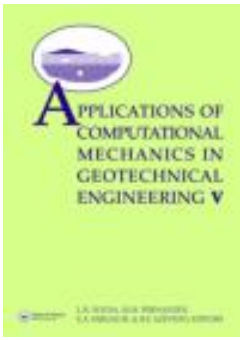


ΠΑΝ-ΓΑΙΑ (Παγγαία)
μια διαφορετική
βιογεωλογική διαδρομή στον πλανήτη Γη

Σπύρος Παυλίδης

Το βιβλίο «*ΠΑΝ-ΓΑΙΑ*» αποτελεί μια προσπάθεια μετάδοσης γνώσης και προβληματισμού για την κατανόηση του φυσικού μας κόσμου και ιδιαίτερα του γήινου συστήματος, όπως προκύπτει από το σημερινό επίπεδο των γεωεπιστημών. Προσπαθεί να επισημάνει και να συμπυκνώσει μερικές σημαντικές, ακόμη και ριζοσπαστικές ή αιρετικές απόψεις, που συνέβαλαν σημαντικά στην εξέλιξη της ανθρώπινης σκέψης και βοήθησαν να κατανοηθεί καλύτερα το περιβάλλον και οι μεγάλες διαχρονικές μεταβολές του. Δίνει με απλό, κατανοητό τρόπο έμφαση στη βιογεωλογική ενότητα του κόσμου μας και την πολυπλοκότητά του, διατρέχοντας την εξέλιξη των ιδεών για τη Γη και τις διεργασίες της, από τη μυθολογία μέχρι τη σημερινή αντίληψη της Γαίας. Εξετάζονται με μια φιλοσοφική διάθεση, η διάσταση του γεωλογικού χρόνου, ο ρόλος και η πορεία του ανθρώπου μέσα σ' αυτόν, η αέναη κινητικότητα του φλοιού της Γης, η μουσική που παράγει, η αδιάρρηκτη σχέση ζωντανής και ανόργανης ύλης στην οικολογική της προσέγγιση.

(Εκδόσεις LEADER BOOKS, Οκτώβριος 2007)

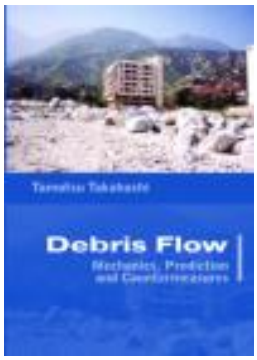


Applications of Computational Mechanics in Geotechnical Engineering V
Proceedings of the 5th International Workshop, Guimaraes, Portugal 1–4 April 2007

Luvs Ribeiro e Sousa, M.M. Fernandes, Eurvpedes Vargas Jr., Robero Azevedo (Editors)

Geotechnical works involve complex geo-engineering issues, which are reviewed in this volume presenting the very latest research and practice in computational mechanics in geotech-nical engineering. *Application of Computational Mechanics in Geotechnical Engineering V* contains contributions on soil and rock excavations, underground structures and ground rein-forcement; and on the construction of dams, embankments and rail track. Other papers consider the geomechanics of oil exploration and rock mechanics in mining; while environ-mental contributions include groundwater management. A wide range of methodologies are discussed: inversed method-ologies, artificial intelligence and computational systems, which highlight future trends in the area of computational me-chanics applied to geotechnical problems. The book will be of interest to researchers, academics, students, software devel-opers, and practical engineers across the field of geotechnics.

(Taylor and Francis, 2007)



Debris Flow

Mechanics, Prediction and Countermeasures

Tamotsu Takahashi

A comprehensive account, treating both theoretical and applied aspects of debris flow. The text begins with a discussion of fundamental mechanical aspects, such as flow characteristics, type classification, mechanics, occurrence and development, fully-developed flow and deposition processes. The second part of the book sheds light on the application of theory in relation to computer-simulated reproductions of real disasters. Attention is paid to debris flow con-trolling structures, design effective-

ness and performance, soft countermeasure problems, such as identification of debris flow prone ravines and the prediction of occurrence by the concept of precipitation threshold. The qualitative and fundamental character of this book makes it an excellent textbook for graduate courses in debris flow and it is recommended reading for professionals in engineering, geosciences and water resources who are concerned with mechanics and countermeasures of debris flow.

(Taylor and Francis, 2007)

Handbook of Geotechnical Investigation and Design Tables

Burt G. Look

This practical handbook of properties for soils and rock contains, in a concise tabular format, the key issues relevant to geotechnical investigations, assessments and designs in common practice. In addition, there are brief notes on the application of the tables. These data tables are compiled for experienced geotechnical professionals who require a reference document to access key information. There is an extensive database of correlations for different applications. The book should provide a useful bridge between soil and rock mechanics theory and its application to practical engineering solutions.

The initial chapters deal with the planning of the geotechnical investigation, the classification of the soil and rock properties and some of the more used testing is then covered. Later chapters show the reliability and correlations that are used to convert that data in the interpretative and assessment phase of the project. The final chapters apply some of these concepts to geotechnical design.

This book is intended primarily for practicing geotechnical en-gineers working in investigation, assessment and design, but should provide a useful supplement for postgraduate courses.

(Taylor and Francis, 2007)

Sprayed Concrete Lined Tunnels

Alun Thomas

Practising engineers on site, in the design office or in client organizations will find this book an excellent introduction to the design and construction of sprayed concrete lined (SCL) tunnels. The complex behaviour of the early age behaviour of the sprayed concrete requires careful management. This book covers all aspects of SCL tunnelling – from the constituents of sprayed concrete to detailed design and management during construction. Although there is a close interdependence between all the facets of sprayed concrete, few engineers have the right breadth of experience and expertise, and this urgently needs to be transferred to the wider engineering community.

Disseminating essential information for tunnelling engineers, *Sprayed Concrete Lined Tunnels* is key reading for all involved in or studying the process.

(Taylor and Francis, 2007)

Mechanized Tunnelling in Urban Areas

Vittorio Guglielmetti, Ashraf Mahtab, Shulin Xu (Editors)

Internationally, the mechanized excavation of tunnels has intensified in the last two decades, as the number of tunnels being constructed for subways and railway underpasses increases. The subject of mechanized tunnelling in urban areas has not previously received the attention that it deserves, despite there being specific hazards associated with the construction of tunnels in metropolitan areas, including poor ground conditions, water tables higher than the level of tunnels, and subsidence leading to damage to the existing structures on the surface. The application of technologies for achieving the stability of the tunnel and for minimizing surface settlement is described in this book. Accurate characterization of the ground; rigorous assessment and management of risk from design to maintenance; the correct choice of a tunnel boring machine and a plan for the advancement of the tunnel; specific excavation procedures and real-time monitoring of excavation parameters are all discussed in this thorough work.

(Taylor and Francis, 2007)

Internal Erosion of Dams and their Foundations

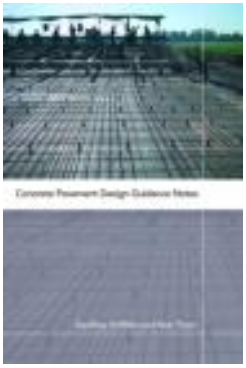
Selected and Reviewed Papers from the Workshop on Internal Erosion and Piping of Dams and their Foundations, Aussois, France, 25–27 April 2005

Robin Fell, Jean-Jacques Fry (Eds)

Internal erosion and piping in embankments and their foundations is the main cause of failures and accidents to embankment dams. For new dams, the potential for internal erosion and piping can be controlled by good design and construction of the core of the dam and provision of filters to intercept seepage through the embankment and the foundations. This book presents selected and reviewed papers from the Work-shop on Internal Erosion and Piping of Dams and their Foundations, which was held from 25 to 27 April, 2005 in Aussois, France. The book covers the whole internal erosion process, from initiation of erosion, continuation, progression to form a pipe, and formation of a breach. An overview paper based on the papers and discus-

sion at the Workshop describes the state of the art and research needs. *Internal Erosion of Dams and their Foundations* will be most valuable to dam engineers, researchers and students who are involved in assessing the safety of embankment dams from internal erosion and piping.

(Taylor and Francis, 2007)



Concrete Pavement Design Guidance Notes

Geoffrey Griffiths, Nick Thom

This comprehensive design guide summarizes current developments in the design of concrete pavements. Following an overview of the theory involved, the authors detail optimum design techniques and best practice, with a focus on highway and infrastructure projects.

Worked examples and calculations are provided to describe standard design methods, illustrated with numerous case studies. The author provides guidance on how to use each method on particular projects, with reference to UK, European and US standards and codes of practice.

Concrete Pavement Design Guidance Notes is an essential handbook for civil engineers, consultants and contractors involved in the design and construction of concrete pavements, and will also be of interest to students of pavement design.

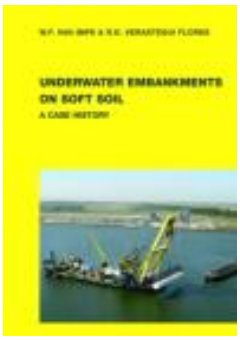
(Taylor and Francis, 2007)

Manual on Deformation Controlled Densified Stone (DDS) Columns

Author(s) - R.K. Katti, A.R. Katti, D.R. Katti, Suprakash Choudhry, Prashant Navalakha, Zeeshan Shaikh

Combining principles of Newtonian mechanics and Terzaghian soil mechanics with principles of earth sciences, thermodynamics, physical sciences and wave mechanics, the author and his team have devised a road map for a logical approach to soil as particulate matter in modern geotechnical engineering. This manual explains the analysis and design aspects of a range of DDS columns and discusses the resolution of foundation problems in so-called treacherous expansive soil deposits by the development of cohesive non-swelling soil technology. This manual will assist consulting engineers in designing DDS systems, enabling contractors to provide competitive bidding and aid in teaching the subject with greater clarity.

(Taylor and Francis, 2007)



Underwater Embankments on Soft Soil: A Case History

William F. Van Impe, R. Daniel Verastegui Flores

Ground improvement is an established technique in foundation engineering. In recent decades, modern methods of ground improvement have utilised explosives, impact energy, thermal treatment of the soil, vacuum consolidation, vibratory compaction technologies, stabilization and solidification of soft soils, as well as combined systems of ingenious grouting systems and deep mixing technique. Internationally, deep mixing techniques are often the chosen method for dealing with increasingly-demanding foundation problems. Initial experiences, using inventive new developments of soft soil deep mixing technologies and various advanced high pressure mixing methods, have proved successful both onshore and off-shore. This publication illustrates a challenging example, sited in the Port of Antwerp, Belgium, of the design and construction of a large underwater embankment on very soft soil. This text will be a valuable reference case history for the geotechnical engineer, both from the academic's as well as from the practitioner's point of view.

(Taylor and Francis, 2007)

Reliability-Based Design in Geotechnical Engineering: Computations and Applications

Kok-Kwang Phoon (Editor)

Reliability-based design is the only engineering methodology currently available which can ensure self-consistency in both physical and probabilistic terms, and which is compatible with the theoretical basis underlying other disciplines such as structural design. It is especially relevant as geotechnical design becomes subject to increasing codification and to code harmonization across national boundaries and material types, and as it begins to conform to an umbrella framework predominantly established by structural engineers. Already some codes of practice describe the principles and requirements for safety, serviceability, and durability of structures, and thereby establish the basis for their design and verification. These codes also give guidelines for related aspects of structural reliability. A major challenge is to encourage geotechnical engineers to apply reliability-based design in a realistic context that recognizes the complex variabilities in geomaterials and model uncertainties arising from a profession steeped in empiricism. This book presents practical computational methods in concrete steps that can be followed by engineers and students. It also provides geotechnical examples illustrating reliability analyses and design. By focusing on learning through computations and examples, this book serves as a valuable reference for engineers and a resource for students.

(Taylor and Francis, 2007)

Concrete Pavement Design, Construction, and Performance

Norbert Delatte

Addressing the interactions between the different design and construction variables and techniques this book illustrates best practices for constructing economical, long life concrete pavements.

The book proceeds in much the same way as a pavement construction project. First, different alternatives for concrete pavement solutions are outlined. The desired performance and behaviour parameters are identified. Next, appropriate materials are outlined and the most suitable concrete proportions determined. The design can be completed, and then the necessary construction steps for translating the design into a durable facility are carried out. Although the focus reflects high-ways as the most common application, special features of airport, industrial, and light duty pavements are also addressed.

Use is made of modeling and performance tools such as HIPERPAV and LTPP to illustrate behavior and performance, along with some case studies. As concrete pavements are more complex than they seem, and the costs of mistakes or of over-design can be high, this is a valuable book for engineers in both the public and private sectors.

(Taylor and Francis, 2007)

Advanced Soil Mechanics 3rd Edition

Braja Das

This revised and updated edition of Advanced Soil Mechanics presents a step-by-step guide to all aspects of the subject to students, and addresses a wide range of topics in a logical and extensively illustrated approach, including:

- grain-size distribution
- the nature of water in clay
- consistency of cohesive soils
- weight-volume relationships
- soil classification systems
- concepts of elasticity
- equations of equilibrium.

The book is illustrated with mathematical derivations and clear diagrams, problems and examples are provided throughout and each chapter concludes with a list of references for further in-depth review or research. Advanced Soil Mechanics is valuable not only for upper-level undergraduate and graduate level students of civil engineering, engineering mechanics, and soil mechanics, but also as a reference for professionals working in these fields.

(Taylor and Francis, 2007)

The Mechanics of Soils and Foundations 2nd Edition

John Atkinson

Ideal for undergraduates of geotechnical engineering for civil engineers, this established textbook sets out the basic theories of soil mechanics in a clear and straightforward way; combining both classical and critical state theories and giving students a good grounding in the subject which will last right through into a career as a geotechnical engineer.

The subject is broken down into discrete topics which are presented in a series of short, focused chapters with clear and accessible text that develops from the purely theoretical to discussing practical applications. Soil behaviour is described by relatively simple equations with clear parameters while a number of worked examples and simple experimental demonstrations are included to illustrate the principles involved and aid reader understanding.

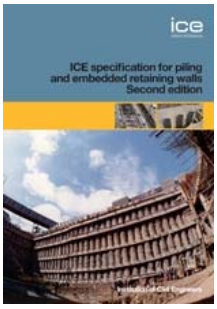
(Taylor and Francis, 2007)

Underground Space – The 4th Dimension of Metropolises: Proceedings of the World Tunnel Congress 2007 and 33rd ITA/AITES Annual General Assembly, Prague, May 2007

Jirv Bartak, Ivan Hrdina, Georgij Romancov, Jaromvr Zlamal (Editors)

The so-called fourth dimension of a metropolis is the underground space beneath a city which typically includes structures such as tunnels, which facilitate transport and provide gas, water and other supplies. Underground space may also be utilised for living, working and recreational facilities and Indus-trial storage. These volumes focus on underground city design and planning; geotechnical survey and improvement of ground mass; and research, development and design of underground constructions in built-up areas. Also covered is the construction and monitoring of urban tunnels, including underground constructions executed from the surface; distribution and management of risks and accidents during tunnelling; tunnel equipment; fire and operational safety. This collection of papers will be invaluable to researchers, scientists, engineers and professionals working in the underground space.

(Taylor and Francis, 2007)



ICE Specification for Piling and Embedded Retaining Walls 2nd edition

The Federation of Piling Specialists, In Association with BGA and ICE

The new ICE Specification for Piling and Embedded Retaining Walls is designed to be used as the new technical specification for piling and embedded walling works either on land or near to shore. It documents the latest piling techniques and procurement methods used in the foundations sector whilst incorporating the changes introduced by the new European Standards.

Earlier editions of the specification have been very influential in raising piling standards in the UK and in other places where it is used. The existence of a standard agreed way of executing piling works helps to reduce conflict on site and enables consultants to design more economically by having confidence in how site works will be carried out.

The new document comprises three parts:

Part A – General Requirements
Part B – Specification
Part C – Guidance Notes

PART A: General requirements
This part of the document contains the general guidance describing the requirements typically necessary for the successful construction of piling and embedded retaining walls. It includes information on the tendering process, design, and on issues such as safety, quality and the environment.

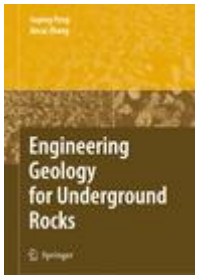
PART B: Specification requirements for piling and embedded retaining walls
This part of the document is the main technical specification advocated for use on piling and embedded walling works in the UK. It comprises 19 Sections covering the main piling and embedded walling methods, and the most common testing methods and materials used in these types of foundation works.

PART C: Guidance notes on specification requirements for piling and embedded retaining walls
This part of the document provides specific guidance on the use of each of the 19 Sections within the Specification Part B. The guidance collates the experiences of contractors and consultants involved with piling and embedded retaining walls over many years.

This document has been designed for use with common practices, but is not intended to inhibit innovation. Novel solutions, such as the use of ribbed piles, piles with shaft enlargements or enlarged heads to piles, can be used with this specification provided that additional clauses are included in the project specification (containing the details described within each of the Sections in Part B) which will ensure that the final product is constructed in accordance with the design requirements. In addition, by referring to this document, Specifiers don't have to reproduce its standard clauses for every contract.

This is a major advance on earlier editions of the document. In addition to numerous updates and changes accounted for in this new edition, it also incorporates the essential commentary produced by the Federation of Piling Specialists ("the essential guide" from 1999) so, contained in one authoritative document are all the guidance documents needed to prepare and work to this piling and embedded walling specification.

(Thomas Telford, 2007)



Engineering Geology for Underground Rocks

Peng, Suping, **Zhang**, Jincai

Engineering geology for underground rocks is a sub-discipline of engineering geology for describing and solving geological engineering problems encountered in underground mining, petroleum and civil engineering. It covers rock mechanics for underground rocks, rock hydraulics, wellbore mechanics, mine geology and mine hydrogeology.

This book clearly and systematically explains underground engineering geology principles, methods, theories and case studies, depicts engineering problems in underground rock engineering and how to study and solve them. It specially emphasizes mechanical and hydraulic couplings in rock engineering for wellbore stability, mining near aquifers and other underground structures where inflow is a problem. Using the methods and models given in this book, the reader is able to analyse underground geological engineering problems and also for the design of underground structures.

Professionals and students in engineering geology, geological, mining, petroleum, civil engineering, rock mechanics, and mine geology will find this an essential reference.

Written for:

Libraries, researchers, institutes, scientists

(Springer, 2007)

Probabilistic Methods in Geotechnical Engineering

Series: CISM International Centre for Mechanical Sciences , Number 491

Griffiths, D. V.; Fenton, G. A. (Eds.)

Because soils and rocks are among the most variable of engineering materials, they are highly amenable to a probabilistic treatment. This text therefore presents state-of-the-art probabilistic techniques for solving problems in geotechnical engineering. The authors introduce you to the underlying theories and provide you with a wealth of practical applications.

The book begins with a review of the statistical theories needed to develop the methodologies and then interpret the results of probabilistic analysis. Next, the authors explore established probabilistic methods of analysis, such as the first order second moment method, the point estimate method, the first and second order reliability methods, and random set theory. The book also describes numerical methods of probabilistic analysis based on the finite element method, such as the stochastic finite element method. Lastly, you learn about important new developments concerning the random finite element method.

Throughout the book, practical examples and case histories guide you step by step in applying probabilistic methods to solve particular problems in geotechnical engineering.

Written for:

Practitioners and researchers in geotechnical engineering

(Springer, 2007)

Bodenmechanik und Groundbau

Das Verhalten von Böden und Fels und die wichtigsten grundbaulichen Konzepte

Lang, H.-J., Huder, J., Amann, P., Puzrin, A.M.

Die übersichtliche Gliederung, die Anwendbarkeit von Berechnungsverfahren mit Tabellen und die Beispiele mit ausgearbeiteten Lösungen für Übungen zeichnen dieses kompakte Buch aus. Die Autoren beschreiben das Verhalten von Böden und Fels sowie die wichtigsten grundbaulichen Konzepte. Das Buch beruht auf einem durchgehend grundbaulichen, d.h. praxisorientierten Konzept und geht nicht von der "üblichen" Trennung in Bodenmechanik und Grundbau aus.

Es ist "normenfrei" und kann daher in allen Ländern genutzt werden. Es wendet sich an Praktiker, Wissenschaftler, Dozenten und Studierende des Bauingenieurwesens, wobei die Schwerpunkte auf Boden- und Felsmechanik, Grundbau, Spezialtiefbau und Geotechnik liegen. Anhand der Beispiele lassen sich Überlegungen und Berechnungen anschaulich und praxisnah nachvollziehen.

Das Buch enthält nach wie vor das Grundwissen, das universitär diplomierte Ingenieure beherrschen sollten - unabhängig von den Veränderungen der Studienstufen und Bezeichnung der Abschlüsse. Das Buch ist in den Prüfungen an der ETH-Zürich als Lösungshilfe zugelassen. In der Oberstufe dient es als Nachschlagewerk und ist um aktuelle Themen und Forschungsergebnisse ergänzt.

Geschrieben für: Wissenschaftler, Praktiker, Dozenten und Studenten

(Springer, 2008)

Submarine Mass Movements and Their Consequences

Series: Advances in Natural and Technological Hazards Research , Vol. 27

V. Lykousis, D. Sakellariou & J. Locat, Jacques (Editors)

This book provides a world-wide perspective of submarine mass movements and their consequences. This has been made possible by assembling excellent contributions from active researchers, groups, or institutions, thus providing full coverage of the many scientific and engineering aspects of this type of marine and coastal geo-hazard. It covers fundamental as well as site specific studies from many areas including the Atlantic and Pacific Oceans, inner seas such as the Mediterranean Sea, and fjords using the most recent technologies from multibeam sonar imaging techniques, 3D seismic analysis, slope stability analysis, to debris flow and tsunami modeling.

This book is of interest to any researcher in the field of marine and coastal geo-hazards. It will be useful for planners, scientists and engineers involved in the development of offshore and near-shore resources and also to those in charge of the management and mitigation of coastal hazards. For graduate students, this book provides an up-to-date vision of the process of submarine mass movements and their consequences from both a scientific and an engineering standpoint, and it includes a unique collection of the existing literature on marine geo-hazards.

This volume contains a DVD-ROM with full color images which are printed in black-and-white in the book.

The book is of interest for earth scientists interested in geohazards in general, and offshore geohazards in particular; research centres; oil companies operating in deep-water areas; universities (staff and students).

(Springer, 2007)

Soil Stress-Strain Behavior: Measurement, Modeling and Analysis

A Collection of Papers of the Geotechnical Symposium in Rome, March 16-17, 2006
Series: Solid Mechanics and Its Applications, Vol. 146

H. I. Ling, L. Callisto, D. Leshchinsky, & J. Koseki (Editors)

This book has grown out of the proceedings of the Geotechnical Symposium in Rome, held in 2006 in the Italian capital.

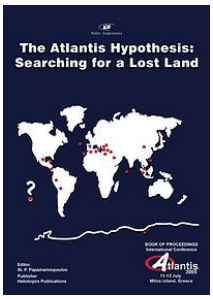
The valuable contributions contained in its pages reflect the importance of the symposium, which was organized to celebrate the 60th birthday of Prof. Tatsuoka as well as honoring his research achievement. The publications are focused on the recent developments in the stress-strain behavior of geomaterials, with an emphasis on laboratory measurements, soil constitutive modeling and behavior of soil structures (such as reinforced soils, piles and slopes).

The latest advancements in the field, such as the rate effect and dynamic behavior of both clay and sand, the behavior of modified soils and soil mixtures, and soil liquefaction, are all addressed. A special keynote paper by Prof. Tatsuoka is included along with three other keynote papers (presented by Prof. Lo Presti, Prof. Di Benedetto, and Prof. Shibuya).

Written for:

Researchers and engineers in the field of civil engineering, mechanics of granular materials

(Springer, 2007)



The Atlantis Hypothesis: Searching for a Lost Land

Proceedings of the International Conference, 11-13 July 2005 Milos, Greece

St.P.Papamarinopoulos (Editor)

This Conference aimed to serve as a forum for the presentation and constructive discussion of all the issues related to the hypothesis of the lost land of Atlantis. The purpose of the meeting was to gather specialists of all the different disciplines involved in highlighting the scientific aspects of this fascinating subject.

Scientific approaches to the three main questions: **if, when, and where** based on research and evidences related to the following disciplines:

- Plato and History, Plato and Myth
- Archaeology, Archaeometry,Maritime Archaeology, Geoarchaeology
- History, Mythology, Geomythology
- Geography, Physiography
- Cartography
- Geology, Geophysics
- Seismology, Palaeo-seismology, Geodynamics
- Tectonics, Palaeomagnetism
- Meteors, Impactors
- Geochemistry
- Oceanography, Palaeoceanography, Palaeoclimatology
- Philosophy, Philology
- Volcanology

(Heliotopos Publications, 2007)

ΗΛΕΚΤΡΟΝΙΚΑ ΠΕΡΙΟΔΙΚΑ

SIMSG ISSMGE

ISSMGE Bulletin

Volume 1, Issue 3
September 2007

International Society for Soil Mechanics and Geotechnical Engineering
www.issmge.org

Κυκλοφόρησε το Τεύχος V. 1 / I. 3 του ISSMGE Bulletin (Σεπτέμβριος 2007) με ενδιαφέροντα άρθρα και πληροφορίες για τις δραστηριότητες των Technical Committees της ISSMGE και για άλλα τα θέματα της γεωτεχνικής μηχανικής.

geo engineer

Κυκλοφόρησε το Τεύχος #34 του Newsletter του Geoengineer.org (Οκτώβριος 2007) με πολλές χρήσιμες πληροφορίες για όλα τα θέματα της γεωτεχνικής μηχανικής. Υπενθυμίζεται ότι το Newsletter εκδίδεται από τον συνάδελφο και μέλος της ΕΕΕΕΓΜ Δημήτρη Ζέκκο [secretariat@geoengineer. org].

ΕΕΕΕΓΜ
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