DAMS AND LEVEES – Joint meeting of ISSMGE TC201 and TC210, ICOLD TC E and TC LE

"Internal stability – liquefaction – modelling and experiments - centrifuge and more "

Date: 14h to 16h September 26th 2021

Location: Hungarian Academy of Sciences or Budapest or Budapest Congress Centre

This workshop aims to promote research dissemination of earlier and current research related to damages of dikes and dams and some new river dyke failure modes. Only lecture (with abstract) and lecture with paper (ISC6) are possible options. We expect some of the contributions related to dam and dyke failure modes, experimental testing including centrifuge, and particle movement phenomena (piping, internal erosion, liquefaction, filtering and segregation).

DISSIPATION TEST - workshop

"Towards standardisation"

Date: 16h to 18h September 26th 2021

Location: Hungarian Academy of Sciences or Budapest or Budapest Congress Centre

TOPICS :

The evaluation of the various kinds of dissipation tests (CPT- CPTu-DMT-PMT), including:

- Soil identification, soil parameters
- Modelling of penetration and dissipation tests
- Evaluation
- Dissipation test results in silt and OC clays
- the similarity of DMT and qc dissipation test
- the hydraulic fracturing during pushing in some soils before pore water pressure dissipation tests
- standards, evaluations and new types of dissipation tests, simulataneous dissipation tests

GRADING CURVE workshop

"Particle shape, particle size distribution and their link to geotechnical behaviour"
Date: 18h to 20h October 1st 2021

Location: Hungarian Academy of Sciences
TOPICS

- internal stability, internal structure, particle migration, filtering, segregation
- soil properties and behaviour in relation to grain and pore size distribution, particle shape
- particle breakage, degradation, the entropy principle, applications

Significant advance has been made to recognise the effect of particle distribution and the shape characteristics on the mechanical behaviour of geomaterials. The grading entropy coordinates enable to represent (entire) particle size distributions by two statistical variables; a mean log diameter and a generalised uniformity coefficient.
Representing each grading curve by these two grading entropy coordinates in a 2-dimensional space, suffusion and internal stability, filtering and segregation criteria were postulated.
Particle breakage / degradation affects shearing behaviour and critical states because of evolving particle size distributions as well as particle shape.
The entropy principle through the grading entropy may control breakage and critical states. Similarly, it has been shown that entropy parameters can be used to represent the grading curve changes under mechanisms involving mass loss, such as biodegradation and dissolution.
Finally, it has been well documented that the physical properties (e.g. permeability of granular materials) depend on the particle size distribution and can be approximated through the grading entropy parameters. However, particle shape may modify these relations.

SPECIAL SOILS hybrid workshop
Tentative date: 18h to 20h September 30th 2021

Location: Hungarian Academy of Sciences

The workshop aims to promote dissemination of earlier and current research related to special (saline, quick, peat, special mineral and volcanic etc.) soils or special soil properties.

MSW - Landfill energy – biogas hybrid workshop

"MSW/environmental/energy/biogas engineering"
Tentative date: 16h to 18h September 30th 2021

Location: Hungarian Academy of Sciences or Obuda University Budapest.

1. Soils pollution, IBPs, LFMSF, sludge, sediments etc. for developing and developed countries: way forward' or 'Manmade soils: Future of sustainable infrastructure development'
2. Sustainable MSW management: Past, Present and Future, the missing link

- In-situ and laboratory testing: strengths and limitations
- Case studies of landfill failure, retrofitting, reclamation, (bio)mining: learning
- Coupled phenomena in Bioreactor landfills
- Accelerated decomposition and methane generation from MSW
- Heat, Solar end Wind energy related to MSW landfill hills, MSW properties/ MSW complex energy utilisation with renewable energy sources, energy storage
- Biocover
- ….

Professor László Rétháti memory workshop

"Case studies, data, measurements, calibration, DEM"

Date: 14h to 16h September 30th

Location: Hungarian Academy of Sciences, Budapest.

GRAVITATION AND TECTONICS/SYMMETRY workshop

"Gravitation (tide) effects in the measurements of tectonics and groundwater data"

14h to 16h, October 1, 2021

Location: Hungarian Academy of Sciences, Budapest.

TOPICS :

- Space Mechanics – Controlled by The Symmetries in Physics
- Effect of Gravity : Tide in Tectonics and GWL
- Eotvos torsion balance measurements

This workshop aims to promote research dissemination of earlier and current research related to how gravitation effects the measurement of tectonic table motions, earthquakes, air pressure and GWL.

Presentation topics:

History, measurement now (Eötvös Torsion Balances all over the world)

Lab measurement of in situ data in KFKI

Evaluation of various data, inverse problem solution, errors

INVERSE PROBLEMS workshop
"Parameter identification, model validation, real-time systems"

Date: Date: 16h to 18h October 1 2021

Location: Hungarian Academy of Sciences

The evaluation of tests usually needs the identification of parameters. The model validation, model calibration or model building entails the fit of 'measured' and computed data. These problems are commonly referred as the solution of an inverse problem. In the linear case automatic solutions are available. The non-linear inverse problems is either solved with local minimisation combined with a trial and error procedure. The parameter error, the goodness of fit (and uniqueness of the solution in the non-linear case). Alternatively, learning algorithms are used.

This workshop aims to promote research dissemination of earlier and current research related to the non-linear inverse problem solution including methods like neural network and AI.

TOPICS
In relation to non-linear inverse problem solution:

- model fitting methods related to various physical, biological, technical problems
- reliability testing methods (parameter error estimation, uniqueness, goodness of fit)
- real-time test evaluation

Day	09.26.2021.				09.30.2021.	10.01.2021.
12h-14h						
14h-16h	Joined TC201…				Rétháti	Gravity-Symmetry
16h-18h	Dissipation				MSW	Inverse
18h-20h					Special	Grading