

# 2<sup>ND</sup> INTERNATIONAL SEMINAR NAG2018 NUMERICAL ANALYSIS IN GEOTECHNICS 22 March 2018, Ho Chi Minh City, Vietnam

## **ORGANIZED BY**

- Vietnamese Society for Soil Mechanics & Geotechnical Engineering (VSSMGE), Vietnam
- Ho Chi Minh City University of Technology (HCMUT), Ho Chi Minh City, Vietnam
- National Taiwan University of Science and Technology (NTUST), Taiwan

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Co-chairman:	Chang-Yu Ou, National Taiwan Univ of Science and Technology, Taiwan
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#### **OFFICIAL LANGUAGE**

The conference official language is English.

#### **SEMINAR VENUE**

The seminar was held at the Conference Hall 110B6 (or Hall "Hòa Bình"), Building B6, the Faculty of Civil Engineering, Ho Chi Minh City University of Technology (HCMUT), 268 Ly Thuong Kiet Street, District 10, Ho Chi Minh City, Vietnam.

The Vietnamese Society for Soil Mechanics and Geotechnical Engineering (VSSMGE), the Ho Chi Minh City University of Technology (HCMUT) and the National Taiwan University of Science and Technology (NTUST) organized the second international seminar on Numerical Analysis in Geotechnics (NAG2018), on 22nd March 2018, in Ho Chi Minh City. A half-day site visit to HCMC Urban Railway Construction Project – Line 1 (Ben Thanh-Suoi Tien Section) was held on the day after the seminar, 23rd March 2017. This is the second time the international seminar NAG is organized in Vietnam. The first event NAG2015 was held on 20 August 2015 in Hanoi, with 135 attendees from seven countries and territories, including Singapore, Thailand, Taiwan, Canada, France, China and Vietnam.

This second seminar NAG2018 was again a great success with more than 120 attendees and authors from seventeen countries and territories, including Taiwan, Germany, Korea, Japan, Russia, India, Nepal, Gambia, Singapore, Korea, Hong Kong, Malaysia, Indonesia, Thailand, United Kingdom, China and Vietnam. NAG2018 created a forum, where the users of different numerical methods/computer codes can exchange their experience and knowledge relating to the use of numerical methods in geotechnical engineering, including engineering applications and scientific achievements.

In NAG2018, the following papers were presented:

- **1. Rolf Katzenbach & Steffen Leppla (Germany).** The important role of powerful numerical tools for highly qualified sustainable construction in geotechnical engineering.
- 2. Chang-Yu Ou (Taiwan). Application of numerical methods in the design of deep excavation.

- **3.** JaeSeok Yang (Korea) & Joseph Stuart Birnie (UK). Numerical analysis of the shaft excavation and the effects on adjacent structures.
- **4.** William Cheang (Singapore) & Phung Duc Long (Vietnam). Geotechnical analysis of soft soil foundations improved by PVDs and vacuum preloading.
- **5. Tsai, Yuan-Yao et al. (Taiwan).** Sophisticated soil sampling, finite element geotechnical analysis and nonlinear seismic design for underground structures in Jakarta MRT Project.
- 6. Phung Duc Long (Vietnam). Settlement analysis for piled raft foundations A case study
- 7. Tran Viet Thai & Huynh Quoc Vu (Vietnam). Back analysis of a deep excavation in the new alluvial sediment layer in Ho Chi Minh City.
- **8.** Takeshi Satoh (Japan). The analytical prediction by FEM and the observational procedure for the reclamation work at log pond adjacent to facilities.
- **9.** Syiril Erwin & Chang-Yu Ou (Taiwan). Study of Taipei MRT tunnel deformations due to adjacent excavation in 3D analysis.
- 10. Alvin K M Lam (Hong Kong). An engineering solution for a hillside development in Hong Kong.
- **11. Tomoya Tominaga et al. (Japan).** Verification of reduction factor of sectional properties of steel sheet pile due to lack of interlock integrity.
- 12. Phan Tran Thanh Truc (Vietnam) & Takenori Hino (Japan). Valuate the effect of embankment height and pile spacing to the behavior of the geosynthetic reinforced piled embankment using FEM.
- **13.** Nguyen Thi Yen et al. (Vietnam). Deep excavation design A case study in Hanoi Urban Railway.
- **14. Amadou Jallow et al. (Taiwan).** Analysis of creep and consolidation settlement induced by EPB shield tunneling.
- **15. Pham Huy Giao (Thailand).** Numerical analysis of Mekong delta land subsidence and possible different views between geotechnical engineers and journalists on this matter.
- 16. Le Ba Vinh et al. (Vietnam). Study on the settlement of raft foundations by different methods.
- **17. Kazuhiro Kaneda et al. (Japan).** Study of vertical bearing capacity of spread foundation using rigid plastic finite element method.
- 18. Nguyen Thuy Mai Khanh (Hong Kong). Numerical analysis What does the future hold?
- **19. Alieu Jagne & An-Jui Li (Taiwan).** Investigations of slurry supported trench stability under seismic conditions.
- 20. Sun Yue (Japan). Study on numerical analysis method of slope deformation due to rainfall.
- **21.** Alan Lolaev et al. (Russia). Application of numerical methods for the optimization of the technological parameters of the tailing dam alluvium in permafrost region.
- 22. Phan Dung & Nguyen Van Duyet (Vietnam). Nonlinear analysis of single pile under axial and lateral loading using p-delta curve by transfer matrix method.
- **23.** Akash Gupta et al. (India). Model experiments and numerical modeling of interference effect of square footings on geocell reinforced sand beds.
- **24. Duong Hong Tham (Vietnam).** A suggested numerical solution for non-linear consolidation settlement using second order Runga Kutta algorithm.
- **25.** Park Sung-Sik et al. (Korea). A coupled Eulerian-Lagrangian approach for large deformation of soils.
- 26. C.B. Qin & S.C. Chian (Singapore). Kinematic analysis of seismic slope stability using discretisation technique.
- **27. Hua Thanh Than et al. (Vietnam).** Effection of liquefaction by earthquake due to pore water pressure in sand.
- 28. S.C. Chian et al. (Singapore). Modelling of ground settlement using photogrammetry.

## **PICTURES**



NAG2018 attendees



Opening speech by Dr. Phung Duc Long, VSSMGE President



Audience



Invited lecture by Prof. Rolf Katzenbach (Germany)



Invited lecture by Prof. C.Y. Ou (Taiwan)



Presentation by Dr. William Cheang (Singapore)



Site visit TBM metro project in HCMC



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Dr. Pham Huu Duy Quoc, Shimizu Vietnam, led the site visit





Technical exhibition at NAG2018