

General Sessions

3rd July (Wed) 2024 13:30-15:00

Main Hall (Auditorium 2)

Session A-1: Pile Performance/Piling Mechanism

CHAIR

Hidetoshi Nishioka (Professor, Chuo University)

A01 (13:30-13:45) Some peculiarities of U-shape sheet piles driven into sandy soil

Michael Doubrovsky (Odessa National Maritime University)

A02 (13:45-14:00) Experimental study on bearing behavior of a single model pile in unsaturated sandy ground with various groundwater levels

Xi Xiong (Kanazawa University)

A03 (14:00-14:15) Application of optical fibers to measuring horizontal deformation of sheet piles during static load tests

Koichi Okada (GIKEN LTD.)

A04 (14:15-14:30) Determination of the Optimal Angle between Vertical and Inclined Piles used for Embankment Protection during Earthquakes

Hemanta Hazarika (Kyushu University)

A05 (14:30-14:45) Finite element study on the response of screw pile with open and closed shaft in dense sand

Adnan Anwar Malik (The University of Newcastle)

A06 (14:45-15:00) Effect of pile embedment length on horizontal and vertical displacement of a pile under repeated lateral loading

Yoshiaki Kikuchi (Coastal Development Institute of Technology)

General Sessions

3rd July (Wed) 2024 13:30-15:00

Hall 1 (LT50)

Session B: Climate Change/Infrastructure Development

CHAIR

Jianfeng Xue (Associate Professor, The University of New South Wales)

B01 (13:30-13:45) Reuse of removed electric PC pole to ground reinforcing member

Takeshi Yamazaki (Tepeco Customer Service Co., Ltd.)

B02 (13:45-14:00) Improving performance of existing deep foundations

Andrew McNamara (City, University of London)

B03 (14:00-14:15) Advanced Construction Solutions in Thailand: The Pasak Riverbank

Protection Project from a Construction Perspective

Hiroki Kitamura (Giken Seisakusho Asia Pte., Ltd.)

B04 (14:15-14:30) Use of wider type of steel sheet piles for ERSS applications in Singapore

Goh Teik Lim (Atsunew Giken Pte. Ltd.)

B05 (14:30-14:45) Influence of sheet pile on stress distribution in non-invert tunnel: A centrifuge model study

Abdulaleem Omar Abdulaleem Dawood (Tokushima University)

B06 (14:45-15:00) Introduction of educational training and qualification systems for fostering press-in piling technicians in Japan

Daisuke Hirose (International Press-in Association)

General Sessions

3rd July (Wed) 2024 15:30-17:00

Main Hall (Auditorium 2)

Session C-1: Disaster Prevention and Mitigation

CHAIR

Yoshiaki Kikuchi (Advisor, General incorporated foundation Coastal Development Institute of Technology)

C01 (15:30-15:45) **Experimental and analytical study on liquefied sand behavior under an embankment with PFS Method**

Kakuta Fujiwara (Tokai University)

C02 (15:45-16:00) **Bearing capacity analysis of a shallow foundation with sheet piles under inclined loads by rigid-plastic finite element method**

Yuki Yamakuri (Chuo University)

C03 (16:00-16:15) **Case History: Press-in sheet pile on the collapsed riverbank**

Siriwan Waichita (Altemtech Co., Ltd.)

C04 (16:15-16:30) **Field reconnaissance insights from the 2024 Noto Earthquake**

Siavash Manafi Khajeh Pasha (GIKEN LTD.)

C05 (16:30-16:45) **Fundamental research on liquefaction countermeasures for double steel sheet pile quay walls using permeable sandbags**

Kojiro Okabayashi (National Institute of Technology, Kochi College)

C06 (16:45-17:00) **Development and Future Prospects of Waterproof Wall Method between Tubular Piles Based on the Gyropress Method**

Sayuri Tasaki (GIKEN SEKO CO., LTD.)

General Sessions

3rd July (Wed) 2024 15:30-17:00

Hall 1 (LT50)

Session D-1: Project Case Histories/Piling Mechanism

CHAIR

Mark Albert H. Zarco (Professor, University of the Philippines, Diliman)

D01 (15:30-15:40) **Rapid load test on a press-in steel pipe pile with Gyropress Method for confirmation of design bearing capacity**

Ram Krishna Mandal (Jibanshikenjo Co. Ltd.)

D02 (15:40-15:50) **Applicability on optical fiber sensors for stress evaluation of piles**

Akihito Nakazato (System Measure Co. Ltd.)

D03 (15:50-16:00) **Fundamental study of the effect of particle size distribution and shape of sand on the angle of repose test results**

Eri Kamegaya (Chuo University)

Q & A Session for D01-D03 (16:00-16:10)

D04 (16:10-16:20) **Comparison of CPT averaging methods for estimating the pile base resistance**

Chai Fei (UNSW Canberra)

D05 (16:20-16:30) **The first application of double hat-type sheet pile revetment installed by press-in method in Thailand: Pasak River Bank Protection Project**

Somma Chavalitjiraphan (Geo-Technology Consultants Co., Ltd.)

D06 (16:30-16:40) **Assessment of an SPT-based approach for predicting the axial bearing capacity of concrete pile foundations installed by the driving and press-in methods**

Sotheara Kong (Institute of Technology of Cambodia)

D07 (16:40-16:50) **Vertical load tests on zero sheet pile pressed-in into alluvial soft ground**

Yukinori Toda (GIKEN LTD.)

Q & A Session for D04-D07 (16:50-17:00)

General Sessions

4th July (Thu) 2024 11:00-12:30

Main Hall (Auditorium 2)

Special Singapore Southeast Asia Session

CHAIR

Muthusamy Karthikeyan (President, Geotechnical Society of Singapore)

AS01 (11:00-11:20) **From what we've done in the decade to see the future of silent piling market in Taiwan**

David Kuo-Wei LIN (Chuen Chang Enterprise Co., Ltd.)

AS02 (11:20-11:40) **Application of Silent Piler in Thailand**

Pastsakorn Kitiyodom (ATT Consultants Company Limited)

AS03 (11:40-12:00) **The future prospect of Press-in technology in Vietnam**

Vu Anh Tuan (Le Quy Don Technical University)

AS04 (12:00-12:20) **Pressed-in-Pile Engineering in the Philippines: Current Practices, Future Prospects**

Mark Albert H. Zarco (University of the Philippines, Diliman TBC)

General Sessions

4th July (Thu) 2024 11:00-12:30

Hall 1 (LT50)

Session E: Infrastructure Development

CHAIR

Michael Doubrovsky (Professor, Coastal and Marine Engineering Research Institute, Odessa National Maritime University)

E01 (11:00-11:15) **Opportunities and challenges of press-in piling for sustainable inner city quay wall development in Amsterdam**

Kevin Duffy (Delft University of Technology)

E02 (11:15-11:30) **Short- and long-term behaviours of cantilever-type large-diameter steel tubular pile wall embedded in soft rock against various loadings**

S M Shafi (Tokyo Institute of Technology)

E03 (11:30-11:45) **Protection of a tsunami refuge building with pressed-in sheet pile flood walls**

Takefumi Takuma (Giken America Corporation)

E04 (11:45-12:00) **Press-in piling applications: Social infrastructure development using the Implant Method**

Masafumi Yamaguchi (GIKEN LTD.)

E05 (12:00-12:15) **Model tests on the effects of head fixation and separation distances for double sheet pile earth retaining wall method**

Akihiro Kikuchi (Chuo University)

E06 (12:15-12:30) **Experimental study on the effect of penetration length and eccentricity of sheet pile foundation on bearing capacity**

Ryuto Shikakura (Chuo University)

General Sessions

4th July (Thu) 2024 13:30-15:00

Main Hall (Auditorium 2)

Early Career Engineer Presentation

CHAIR

Yukihiro Ishihara (Manager, GIKEN LTD.)

EC01 (13:30-13:50) **Case studies of ultimate compressive capacity prediction for precast jacked piles installed in the Philippines**

Buensuceso Bautista Benjamin III (BRB Solutions Inc.)

EC02 (13:50-14:10) **Challenge to clarify effectiveness and failure mode of levee reinforced with steel sheet piles against overtopping and scouring**

Yusuke Mochida (Nippon Steel Corporation)

Session A-3: Pile Performance/Piling Mechanism

CHAIR

Pastsakorn Kitiyodom (Managing Director, ATT Consultants Company Limited, Chief Operating Officer, TEAM Consulting Engineering and Management PCL.)

A13 (14:15-14:30) **Development of rapid load test device and its applicability to piles installed by Rotary Cutting Press-in**

Koichi Okada (GIKEN LTD.)

A14 (14:30-14:45) **Use of Press-in Piling Data for Construction on the Moon: Estimating Subsurface Information and Pile Capacity**

Yukihiro Ishihara (GIKEN LTD.)

A15 (14:45-15:00) **Simple static vertical and horizontal loading tests on small pipe piles using press-in machine**

Yukihiro Ishihara (GIKEN LTD.)

General Sessions

4th July (Thu) 2024 13:30-15:00

Hall 1 (LT50)

Session A-2: Pile Performance/Piling Mechanism

CHAIR

Kenichi Horikoshi (President & Representative Director, Seiwa Consultants Co., Ltd.)

A07 (13:30-13:45) **Evaluation of penetration resistance, vertical bearing capacity and pull-out resistance of small diameter spiral piles subjected to positive and negative alternating loads in unsaturated sandy ground**

Shah Faheem (Hokkaido University)

A08 (13:45-14:00) **Two-dimensional model experiments on the pile group effect on existing piles by using additional piles with different properties**

Tsubasa Ohata (Chuo University)

A09 (14:00-14:15) **Physical modeling on large diameter piles subjected to one-way cyclic loading in dense sand focusing on generalized scaling law**

Lao Yilun (Tokyo Institute of Technology)

A10 (14:15-14:30) **Regulation of tubular pile bearing capacity by internal diaphragm**

Michael Doubrovsky (Odessa National Maritime University)

A11 (14:30-14:45) **Plastic-deformation behavior of steel pipe piles based on large-deformation lateral-loading tests**

Taku Kobayashi (Nippon Steel Corporation)

A12 (14:45-15:00) **Experimental study on the effect of preloading on the horizontal displacement of steel sheet pile walls**

Nanase Ogawa (GIKEN LTD.)

General Sessions

4th July (Thu) 2024 15:30-17:00

Main Hall (Auditorium 2)

Session C-2: Disaster Prevention and Mitigation

CHAIR

Katsutoshi Ueno (Associate Professor, Tokushima University)

C07 (15:30-15:45) **Deformation suppression effect of double steel sheet pile method for river levee on soft ground against mega earthquake**

Kentaro Nakai (Nagoya University)

C08 (15:45-16:00) **Press-in technology to recover capacity of bridge pile foundation and application prospect in Vietnam**

Vu Anh Tuan (Le Quy Don Technical University)

C09 (16:00-16:15) **Analytical approach to analysis of piles in liquified sand using design geotechnical parameters predicted from field pile load tests**

Siavash Manafi Khajeh Pasha (GIKEN LTD.)

C10 (16:15-16:30) **Investigation of horizontal performance of levee consisting of double sheet pile walls and partition walls by 1-g model tests**

Kazunori Toda (GIKEN LTD.)

C11 (16:30-16:45) **Investigation into geotechnical parameters of liquefied sand by static pile load tests, cone penetration tests, and pressuremeter tests**

Kazunori Toda (GIKEN LTD.)

C12 (16:45-17:00) **Investigation into the performance of levees and embankments reinforced with sheet pile walls**

Joel N'Dah Koffi (GIKEN LTD.)

General Sessions

4th July (Thu) 2024 15:30-17:00

Hall 1 (LT50)

Session D-2: Project Case Histories/Quality Assurance

CHAIR

Shinji Taenaka (General Manager, Nippon Steel Corporation)

D08 (15:30-15:45) **Simultaneous pull-out filling method of retaining piles that contributes to the SDGs (GEOTETS method)**

Yasuhiko Nishi (Civil Assist Co., Ltd.)

D09 (15:45-16:00) **Potential of implementing cathode-ray tube (CRT) glass concrete piles in press-in engineering**

Kwong Soon Wong (Curtin University)

D10 (16:00-16:15) **Observation of soil behavior during pressing pile: considering the effect of multiple layer and particle size**

Naoki Suzuki (GIKEN LTD.)

D11 (16:15-16:30) **Construction example of a retaining wall by Combi-Gyro Method**

Kazuyuki Matsuzawa (ENFIVE PTE. LTD.)

D12 (16:30-16:45) **Construction of retaining walls on a steep slope by Gyropress Method**

Kazuyuki Matsuzawa (ENFIVE PTE. LTD.)

D13 (16:45-17:00) **Design aspects of hat type steel sheet pile for Pa Sak River Improvement Project in Thailand**

Woraphon Wiriyatharakij (ATT Consultants Co.,Ltd)

Video Presentation Session

Following pre-recorded video presentations can be viewed between 1st and 15th July at the URL below.

URL: <https://2024.icpe-ipa.org/video-presentation>

VP01 The application of partial floating end bearing sheet piles to mitigate liquefaction-induced foundation settlements

Md Kausar Alam Anik (University of Nevada Reno)

VP02 The Current status and future development of Press-in method in China

Min Xiang (Shanghai Zhexuan Trading Co., Ltd.)

VP03 FE analysis for estimating geotechnical parameters in liquefied sand from pile load test results

Tamboura Hamidou Hamadoum (GIKEN LTD.)

VP04 Numerical Investigation of Bearing Capacity of Pressed-in Piles for Earth-Based Innovations and Geotechnical Strategies for Construction Projects on the Moon

Tamboura Hamidou Hamadoum (GIKEN LTD.)

VP05 Research on liquefaction prevention methods for detached houses using glass granulated sand and sheet pile closing method

Hinata Otera (National Institute of Technology, Kochi college)

VP06 Case study of a back up dam built to bear dynamical loadings from tailings in Brazil

Bruno Novais (Fonntes Geotécnica)