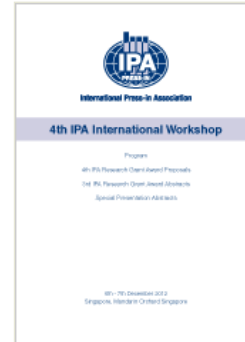


# Event Report

## 4th IPA International Workshop

### Event Report Part 1

Updated: 18 Jan 2013



Date: 6 - 7 Dec 2012

Place: Singapore

Venue: Mandarin Orchard Singapore

Organizer: IPA Committees and Secretariat

Participant: approximately 200 academics and engineers from 6 countries.

**Programme:**

- Special Presentation of the Press-in Engineering
- Research Presentation by the 3rd Grant Award Winners
- Award Ceremony and Proposal Presentation for 4th Grant Award Winners
- Tour of Press-in Construction Sites
- Reception and Banquet

**Supporters:**

National University of Singapore  
Geotechnical Society of Singapore  
Giken Seisakusho Co., Ltd.  
THL Foundation Equipment Pte Ltd  
HG Metal Manufacturing Limited  
Oriental Sheet Piling Sdn.Bhd.  
CSC Holdings Limited  
Eng Lee Engineering Pte Ltd  
Guan Chuan Engineering Construction Pte Ltd  
ATSUNEW GIKEN PTE.LTD.  
Fuchi Pte Ltd.  
NIPPON STEEL & SUMITOMO METAL CORPORATION  
JFE Steel Corporation



The 4th IPA International Workshop was held at a hotel in Singapore, Mandarin Orchard Singapore, on December 6 and 7. About 240 researchers and engineers from 6 nations participated. With great supports from National University of Singapore, Geotechnical Society of Singapore, major construction engineering companies, general contractors, subcontractors, trading companies and manufacturers of the steel products, the conference was completed with substantial content and size.

In the workshop, a variety of presentations were made from different point of views; fundamental researches on press-in engineering theories, press-in construction examples and so on. On the final day, a tour of two press-in construction sites - a private construction site of a highrise condominium and a public construction site of a drainage - was hosted by two local enterprises, where all the participants felt in their bodies the superiority of the Press-in Method that obeys Five Principles of Construction. The research grant award ceremony and research presentations by the previously granted three investigators were held as well, in accordance with custom. The participants enjoyed these programs of uniting the theory and the practice, which is the essence of IPA.

Singapore has been rapidly developing as a core country of Asia and is an international city that is playing an important role in information transmission as well as in economical activities. It can be expected that this opportunity of transmitting the latest information on press-in engineering should promote the recognition of press-in engineering and the speedy progress of the researches.

## Opening



Opening Remarks by  
Prof. Hajime Okamura  
(Honorary Member)



Welcome Address by  
Prof. Leung Chun Fai  
(Director)



Speech by President  
Akio Kitamura  
(Honorary President)



Moderator of Opening  
Dr Tadahiko Okumura  
(Secretary General)



Conference

## Special Presentation Part 1



Prof. Malcolm Bolton (Chairman)  
and Dr Stuart Haigh (University of Cambridge)  
Identifying ground interaction mechanisms for Press-in Piles  
<Abstract>



Prof. Masanori Hamada (Waseda University)  
Lessons Learned from the 2011 Great East Japan  
Disaster and Measures against Future Earthquakes  
<Abstract>

## Special Presentation Part 2



Dr Goh Teik Lim (ATSUNEW GIKEN PTE. LTD.)  
Applications of Press-in Piling in South-East Asia Countries  
<Abstract>



Mr KamSoon Phang (Oriental Sheet Piling Sdn.Bhd.)  
Steel Sheet Piles Market in Asian



### Special Presentation Part 3



Mr Yukihiro Ishihara (Giken Seisakusho Co., Ltd.)  
PPT Technique to Obtain Subsurface Information  
[<Abstract>](#)



Dr Yoshihiko Fukuchi (Giken Seisakusho Co., Ltd.)  
Assessment for Implant Structure based on Five Principles of  
Construction and Lessons Learned from Great East Japan  
Earthquake  
[<Abstract>](#)



Mr David Liaw Wie Sein  
(Guan Chuan Engineering Construction Pte Ltd)  
The application of Crush Piling in Singapore and briefing of the  
press-in piling construction site  
[<Abstract>](#)



Mr Bong Saik King (Eng Lee Engineering Pte Ltd)  
Briefing of the Crush piling construction site

### » 3rd IPA Research Grant Award / Presentation of Research Result



### » 4th IPA Research Grant Award / Award Ceremony



**Tour of press-in construction site (1)** Construction site of highrise condominium (December 7, 2012)

Name of construction:  
Construction of Highrise Condominium with 27 Stories

Main contractor:  
V3 CONSTRUCTION PTE LTD

Piling contractor:  
Guan Chuan Engineering Construction Pte Ltd

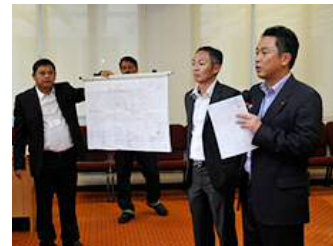
Objectives of construction:  
Temporary retaining wall for constructing underground car park(B1)

Press-in machine:  
Silent Piler SCU-ECO400S, SA150

Press-in material:  
Sheet pile type IIIA, L=9.0-12.0m, N=600

On December 7, the second day of the workshop, a tour of two press-in construction site was held. The first site was the construction site of a highrise condominium, where press-in piling was conducted by Guan Chuan Engineering Construction Pte Ltd, one of the supporters of this IPA workshop. Sheet piles were pressed-in to build the temporary retaining wall for the construction of the underground car park. Due to the conditions that the site is in the city area and that the subway is running about 18m below the adjacent street, the environmentally friendly Press-in Method had been adopted.

Although it was not possible to get into the site, the participants were able to observe the whole site from the fourth story of the church beside the site, through the courtesy of that church. The general information of the construction was provided by President David Liaw Wie Sein, and lively questions and answers followed. Two press-in machines (a machine for standard press-in and a machine for Hard Ground Press-in Method) were placed together, so that the difference of the two penetration systems could be easily understood.





## Tour of press-in construction site (2) Construction site of drainage (December 7, 2012)



Name of construction:  
Drainage Construction at Tuas

Main contractor:  
SHANGHAI TUNNEL ENGINEERING CO LTD

Piling contractor:  
Eng Lee Engineering Pte Ltd

Objectives of construction:  
Temporary retaining wall for constructing drainage

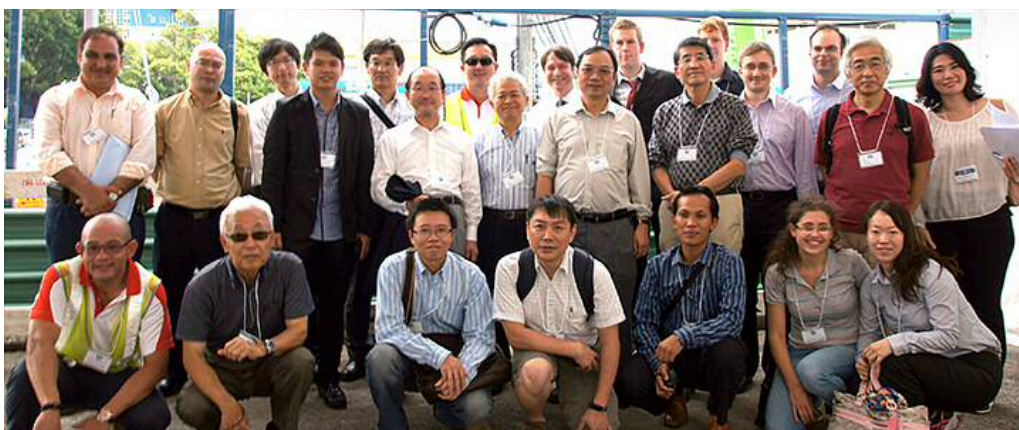
Press-in machine:  
Silent Piler SCU-400M

Press-in material:  
Sheet pile type IV, L=9.0-12.0m, N=6,000

The second site was the public construction site of a drainage, where the press-in piling was conducted by Eng Lee Engineering Pte Ltd, one of the supporters of this IPA workshop. A temporary retaining wall to replace the existing channel with a larger box culvert is under construction as a countermeasure against flood. The construction area had been restricted due to the adjacent factory and trunk road. The Press-in Method was adopted because it is environmentally friendly, requires no temporary works and assures safety. The Crushpiler, the press-in machine for Hard Ground Press-in Method, was being in operation, as the ground condition was hard with the layer of sandy silt with N value over 50.

The site was faced with a trunk road with a lot of traffic, and any passersby could see the piling work through fences around the site. The participants were able to observe close up in detail the process of press-in piling from pre-augering to pressing-in of a sheet pile, thanks to a special tent. In both sites, being filled with lively atmosphere, the participants were impressed with the superiority of the press-in machines, with its safe and silent motion, with its ability to save space and with its swift operation.

It was a rainy season in Singapore. The tour event had a narrow escape from a rain, but the staffs at sites had experienced squalls with thunders during preparation until the previous day. Their dedication is really appreciated.



**Reception (December 5, 2012)****At Grange Ballroom, Main Tower Level 5, Mandarin Orchard Singapore**

On December 5, participants from different countries gathered in a welcome reception. The hall was filled with a congenial atmosphere, with newcomers introducing themselves to each other and with familiar faces informing each other of their recent conditions or sharing information.

**Official banquet (December 6, 2012)****At Imperial Ballroom, Orchard Wing Level 35, Mandarin Orchard Singapore**

The final event of the first day was the IPA official banquet, which is one of the pleasures for the participants. Genuine Guangdong dishes were served at Imperial Ballroom which is on the highest story of Mandarin Orchard Singapore.

Following the opening remarks by IPA Director, Prof. Osamu Kusakabe, and the toast by IPA Chairman, Prof. Malcolm Bolton, the participants enjoyed excellent dishes with sea basses, shrimps, sea cucumbers etc. that prove Singapore as the center of the food culture of Asia.



In addition, wonderful performance of a harmonica was made by President Hiroshi Kajikawa of Kajikawa Construction Co., Ltd, a corporate member of IPA. The atmosphere was congenial and the ballroom was filled with smiling faces.

Closing remarks were given by IPA Director, Prof. Yoshiaki Kikuchi, one of the winners of the fourth IPA research grant award, with a Japanese-style clapping called 'Ippon-jime'. Then the lively ceremony was closed.

It was impressive that a variety of researchers and engineers from different countries with different ages and genders gathered around the tables to communicate with each other and



The international city with a variety of races and cultures which has developed as a global hub and has attracted people all over the world. Sophisticated landscape with the world class city beauty as a tourist city. Unique areas appealing differently with their own unique atmosphere and food. Singapore was the place beautifully brightening with lively people in the daytime and with Christmas illuminations in the night time. It is the place to visit again.