

Announcements

2019 IPA Awards

IPA Award Committee

The Award Committee called for nomination of “Outstanding Project Award”, “Innovative Technology Award” and Distinguished Research Award” in January 2019. The committee made the decisions as follows through the strict judging. The Award ceremony was planned on the Second International Conference on Press-in Engineering (ICPE) which will be held in July 2021.

Outstanding Project Awards

Construction project of retaining wall adjacent to railway in Kyushu, Japan

Project team

Kyushu Railway Company, Japan (Project Owner),
SANKIKENSETSU, INC., Japan (Prime Contractor),
Tonichi Consultant, Japan (Design),
Kyushu Sales Office, GIKEN LTD., Japan (Planning)
Kansai Sales Office, GIKEN SEKO LTD. Japan (Pile Driving Contractor)

The reason for awarding

This was a very challenging project of installing a series of 1000 mm diameter steel tubular piles in very steep slope. The retaining wall was constructed to create a space for a new railway track. An extensive series of FEM analysis was conducted during the design stage to avoid excess movement of a large apartment building and houses that existed on the hill, which was cut to create the new space. An innovative design of a continuous beam attached to the sequence of tubular piles was adopted to improve the stiffness of the wall. The construction of the wall was executed successfully. The project deserves IPA award as it will be an excellent case study that demonstrates the use of innovative solution to create a new structure in densely populated urban area.



Innovative Technology Award

Development of “Headroom restriction clear Piler for ultra-low overhead clearance” and “steel sheet pile mechanical joint”

Development team

Japan Water Agency, Japan.
East Japan Railway Company, Japan,
TOTETSU KOGYO CO., Japan
GIKEN LTD., Japan

Outline of Innovative Technology and the reason for awarding

This project made three significant innovations:

- (1) Development of an ultra-low overhead clearance silent piler. The headroom has been reduced from a height of 1365mm for a conventional Clear Piler to 1080 mm for the ultra-low headroom piler.
- (2) Development of a special steel sheet pile to be fitted from lateral direction by horizontal feed joints in S-shape for the use with the ultra-low headroom piler.

(3) Application of the new equipment to the installation of a sheet pile wall under a bridge. The headroom was extremely small and the water flow velocity was up to 2 m/s. Considering the significance of the innovations and potential future applications of the technology, this project deserves an Innovative Technology Award.



Distinguished Research Contribution Award

Recent research into the behaviour of jacked foundation piles

Co-authored by

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Name of publication, volume, number, pages and year of publication

Advances in Deep Foundations, pp. 3-26, 2007.

Outline of the contribution and the reason of awarding

The paper was written in 2007 as a SOA report for Press-in Engineering.

The topics covered by the paper are:

- (1) Pile jacking technology and the environmental impact of pile jacking compared to alternative pile construction techniques;
- (2) Recent research into the fundamental mechanisms underlying the installation and loading of displacement piles;
- (3) Recent guidance for predicting the axial capacity and load-settlement response of piles, with emphasis on the differences between driven and jacked piles;
- (4) Recent research into the use of H-piles, focusing on differences in behaviour of jacked and driven piles due to plugging.

The paper is very accessible providing insight for both newcomers and those experienced in jacking technology. The paper is a valuable resource and certainly worthy of an award.