

Young Members Column

Experiencing Press-in Technology for the First Time

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I'm Nur Liyana bte Mohd Nor, a final year student at Universiti Tun Hussein Onn Malaysia (UTHM). I was first introduced to Press-in technology by my final year project supervisor, Dr. Nor Azizi Yusoff who are actively promoting Press-in technology at our university and Malaysia. I decided to engage and learn this technology. I was assigned to make a case study related to Mass Rapid Transit (MRT) construction that use silent piling technology in Malaysia. For that reason, I was attached to Koye (M) Sdn. Bhd. who are the contractor for the previous MRT project and supervised by Dato' Sri Chung Kian Wai and Mr. Alvin Low.



Fig. 1. The author(left) with Mr. Alvin at the KOYE office



Fig. 2. Sheet pile work on construction site

At the early stage of the industrial attachment, I was introduced with an introduction to the construction of MRT Line 1 (SBK Line) and Line 2 (SSP Line), followed with the construction of the MRT Bukit Bintang and SSP Line MRT. Next, I was introduced with a more technical document including the soil profile of both MRT project, geotechnical site investigation, the construction site layout related to the sheet pile construction and the machine used for the installation. Later, I had been given a chance to experience real life project in Malaysia. For the start, the city drainage upgrading project in Kajang, Selangor is among the first site for me to experience. For this project, the sheet pile was needed to make a cofferdam as a temporary barrier for the project.



Fig. 3. A braced cut excavation by using a sheet pile



Fig. 4. Sheet pile installation under MRT Line

After the site visit at Kajang, I visited the yard, which is where the machineries were kept. The location of the yard was at Sungai Buloh, Selangor. During the visit at the yard, the Standard Press-in machine and Super Crush Piler can be seen in real life. For me, it is my very first time to see this. I was excited that the operator had given me a chance to experience operating these innovative machines. Now, I realize that these machines were equipped with high-end technology. All movements could be controlled by using a remote radio controller. At the same time, the machine operator also demonstrated the pile installation by using a conventional vibratory method. Based on Press-in technology and vibrohammer method, it is easy to recognize how Press-in technology could be able to provide such a low noise and vibration on the construction site.

Generally, the Press-in method does not use much human energy as the machine itself has remote to control the movement to drive the sheet pile into the ground. Once the initial piling has been set up which need to operate reaction stand to support the machine, the remote to control the operation of the pile can be used. The radio controller is applicable for all operation in Standard Mode, Water Jetting Mode as well as Super Crush Mode. I enjoy to learn this great technology. I imagine, the construction work will be more efficient and safe by using this machine. I hope I could learn more this technology in the near future.



Fig. 5. Operating the Standard Press-In machine for the first time



Fig. 6. Photo with Super Crush piler

Announcements

The Second International Conference on Press-in Engineering (ICPE) 2021, Kochi: Call for Abstracts

IPA Secretariat

ICPE 2021 will be held from 19 (Sat) to 21 (Mon) June 2021 in Kochi, Japan organized by ICPE2021 Organizing Committee and International Press-in Association (IPA). ICPE Organizing Committee are calling for abstracts as follows.

■ Submission of abstracts/full papers

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| 1. Call for Abstracts | 01 Nov 2020 |
| 2. Submission of Abstract | 26 Apr 2020 |
| 3. Notice of acceptance of abstract | 31 May 2020 |
| 4. Submission of full paper | 30 Sep 2020 |
| 5. Submission of revised final paper | 15 Jan 2021 |



Approximately 400 words, mailed to Assoc. Prof. Katsutoshi Ueno (E-mail: icpe2021@gmail.com)
Submitted papers shall be peer-reviewed, and one registration is required for each paper.
Note: The registration fee will be announced on the ICPE2021 / IPA website shortly.