

HAT-TYPE STEEL SHEET PILE TECHNOLOGY FOR IMPROVEMENT OF CONSTRUCTION PRODUCTIVITY



by Ir. Chong
Chee Meng

The Civil & Structural Engineering Technical Division (CSETD) organised an evening talk titled Hat-type Steel Sheet Pile Technology For Improvement Of Construction Productivity in Malaysia. The speaker was Dr Kazutaka Otsushi, a senior manager with Nippon Steel Southeast Asia Pte. Ltd. and the talk was held on 14 November 2019 at Malakoff Auditorium, Wisma IEM.

Dr Kazutaka is in charge of research and development, market development in ASEAN and technical support of steel sheet pile technology, design and construction in Singapore. He divided his talk into 5 sections:

1. Concept of reduction factor for ERSS design in MS EN code
2. Introduction of hat-type steel sheet pile
3. Actual scale field test in ASEAN to verify the validity of reduction factor
4. Hat-type sheet pile as development technology and track records of hat-type sheet pile.

In section 1, he talked about the reduction factors required by the Eurocode 3 for 'U' type sheet pile due to interlock slippage. Hat-type sheet pile doesn't require any reduction factors.

Section 2 was about the advantages of hat-type sheet pile and the installation method. The advantages are reduction of number of sheet pile, shortening of construction period, reduction in the number of interlocks and higher water tightness performance.

Dr Kazutaka explained that horizontal loading test is carried out at field to verify the reduction factor and FEM (Finite Element Method which refers mostly to complex mathematical procedures used in an application solver) analysis is carried out to verify the field test result. After that he shared some project references with the audience.



Ir. Chong presenting a token of appreciation to Dr Kazutaka

At the end of the talk, Dr Kazutaka answered questions raised by the audience in greater detail. CSETD chairman Ir. Chong then presented a token of appreciation to Dr Kazutaka. ■

UPCOMING ACTIVITIES

2-Day Course on "A Comparative study of Project Management Approaches"

Date	: 7 - 8 April 2020 (Tuesday to Wednesday)
Time	: 9.00 a.m. - 5.00 p.m.
Venue	: Wisma IEM
Approved CPD	: 13.5
Speaker	: Mr. Robert Gan