



The Institution of Engineers, Malaysia

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Talk on A Holistic Approach in Coastal Management – The Experience in the Beach Rehabilitation at Teluk Tekek, Pulau Tioman

(Organised by the Water Resources Technical Division, IEM)

Date : 27th September 2010 (Monday)
Time : 5.30 pm – 7.30 pm (Refreshment would be served at 5.00 pm)
Venue : IEM C&S Lecture Room, 2nd Floor, Wisma IEM, Petaling Jaya
Speaker : Ir. Khor Chai Huat and Dr. Lim Foo Hoat

BEM Approved
CPD/PDP Hours: 2
Ref No: IEM10/HQ/239/T

SYNOPSIS

Pulau Tioman is one of Malaysia's premier tourist locations that are well known internationally. Its beaches were depicted in the 1958 movie, *South Pacific* as *Bali Hai*. In the 1970s, *TIME Magazine* selected Tioman as one of the world's most beautiful islands [source: Wikipedia]. Teluk Tekek is the main settlement and gateway to Pulau Tioman. Sadly, the conditions at Teluk Tekek over the years has degenerated to a sorry state due to general neglect, uncontrolled developments, squatters, serious river and sea pollution. Hence, instead of being awed by breathtaking scenic beauty upon their arrival by sea or air, the tourists are greeted with an eyesore. This also affected the local economy and livelihood of the locals especially the youth, as visitors shun the area, thus, affecting business and income.

Realizing this the Malaysian government, has embarked on the project to rehabilitate the Teluk Tekek area. The project has brought about dramatic change to coastal zone at Teluk Tekek. This project is significant since for the **first time** in Malaysia coastal management issues have been addressed **concurrently** in a **holistic** manner. In the past, each coastal issue has been treated in isolation from one another. For example, rock revetment while effective in protecting a beach from erosion does not cater for recreational requirements and does nothing to address the water pollution problem. This project, therefore, represents a major shift in the way coastal management issues are being addressed in Malaysia. The solutions implemented are able to concurrently resolve all the related issues covering **engineering, environmental** and **social** problems plaguing the area in **one single project** and in an integrated manner.

From the aspect of originality and innovation, this is the first time in Malaysia that the **cascading granite rock revetment** has been used. Other than being an effective coastal protection measure, it is highly conducive for recreation as it allows close and direct contact with the sea and is aesthetically pleasing to the eye. This project demonstrates that this pioneering and innovative approach and the solutions adopted have successfully resolved the multitude of complex coastal issues in Teluk Tekek. This paper will discuss the approach, methodology and the technical, social and environmental issues related to the implementation of the beach rehabilitation project.

BIODATA OF SPEAKER

Ir. Khor Chai Huat holds a Master degree in Civil Engineering and is presently the principal of Angkasa Consulting Services Sdn Bhd. He has over 30 years of experience in engineering consultancy works. He has experience with overseas projects in Philippines, China, Vietnam, Laos and Brunei.

His Masters Degree Thesis on the 'Finite Element Modeling of the Kaipara River, New Zealand' dealt with the problem of flooding in the river basin and development of a numerical model to simulate unsteady flow of the river with overbank flow.

His main areas of interest and expertise are water resources, dam engineering and stormwater management. He has carried out research on control of leakage in embankment dams. Ir. Khor has published a number of papers in both local and international journals and has addressed many conferences on subject matter pertaining to water resources, water supply, dam and stormwater management. He was ex-council member of Malaysian Water Association and Association of Consulting Engineers Malaysia.

Dr. Lim Foo Hoat earned his M.Eng and PhD from Nanyang Technological in 1995 and 1998 respectively. Dr. Lim specializes in hydraulic engineering. After graduation, he joined Penta Ocean Construction Co Ltd as a civil engineer. He was in-charged of the design and construction of coastal protection works undertaken by the company. He joined SSP Professional Services Sdn. Bhd. in 1998 and was involved in flood mitigation studies and detailed design of river protection works and breakwaters (the latter includes also contract administration). During this period Dr. Lim earned extensive experience in numerical simulation using MIKE 11, XPEtran and Flow Master.

Since joining ACS, Dr. Lim has undertaken numerous projects involving coastal engineering, dam hydraulic, water resources studies, hydrology, and river and canal improvement works. He is the designer for the Kuala Sg Pahang, Sg Mersing, Teluk Tekek, Tioman and Sg Kuantan river rehabilitation projects which include breakwaters, revetment, dykes, etc.

Ir. Assoc. Prof. Dr. Marlinda A. Malek
Chairman
Water Resources Technical Division, IEM

Announcement to note:

1. Talk is **STRICTLY** for IEM members only (walk in)
2. Limited seats available on a "first come first served" basis. (maximum 110 participants)
3. No telephone and/or fax reservation will be entertained.
4. Latecomers will not be allowed entrance, if the lecture hall is full.
5. Please bring along this flyer and membership card for confirmation of attendance (CPD purpose).

For IEM members, membership cards **MUST** be presented for identification purpose. Members who fail to show their membership card will be charged a fee of RM20.00.

FUNDS FOR IEM NEW BUILDING

Kindly be informed that IEM will be charging participants RM10.00 administrative fee to evening talks organized by IEM. The fee would be used for overhead costs, building maintenance expenses as well as to support the purchase of the new building.

Students are however exempted. Your understanding is greatly appreciated.

CPD HOURS CONFIRMATION

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M' ship No:

Signature:

Date: