

Centres Of **EXCELLENCE**

Annual Report 2009



Coastal And Offshore Engineering Institute (COEI)



The Coastal and Offshore Engineering Institute (COEI) was officially established by Universiti Teknologi Malaysia (UTM) in 1990. It is the first R & D institution specialising in the discipline of coastal and offshore engineering to be set up in Malaysia. The initial formation of COEI started in 1984 when a group of staff at the Department of Hydraulics and Hydrology, Faculty of Civil Engineering, UTM worked together in research and consultancy projects in this field.



The COEI provides specialised training to students and the professional community. Through their well established links with international experts and organisations, they were able to broaden and enhance the local scope and knowledge in this field. The research and consultancy services provided by COEI include the development of coastal protection and computer modelling systems, and the applications of computer simulation and physical modelling for feasibility studies, hydraulic and coastal designs and impact assessment studies. The COEI clients include various government agencies and local authorities, private developers and consulting firms, port and highway authorities, local universities and multi-national companies.



The COEI also provide technical advisory services to the government pertaining to the evaluation of Environmental Impacts Assessment reports, involved in training technical staff from other agencies and play a major role in drafting various national guidelines and policies pertaining to the practice of coastal and hydraulic engineering in Malaysia. COEI has extensive experience in hydraulic and coastal site investigation and data collection, development and applications of physical and mathematical models and conducting comprehensive hydraulic and coastal studies.

A total of seven research projects were carried out by COEI in the areas of the Tsunami wave energy dissipation, enhancing coral growth, modelling of mangrove roots, laboratory testing and deployment together with testing of Hydro- Cheese System. COEI has also applied for grants from MOSTI. Other grants are obtained from JPS, FRIM, LADA and Johorland.

Various Memorandum of Understanding (MOU) and Memorandum of Agreement (MOA) were signed between COEI and Jabatan Pengairan dan Saliran Malaysia, Jabatan Laut Semenanjung Malaysia, General Authority of Marinewealth (GAM), Libya Mutiara Goodyear, Zenith Project Management and Dorken Reef Resources.



MOU AND MOA

1. Tsunami Modelling and Impact on the North West Coast of Peninsular Malaysia
 - October 2008 with Jabatan Pengairan dan Saliran Malaysia
 - Active - On-going project activities

2. Hydraulics and sedimentation studies to determine the dredging needs at ports and river estuaries.
 - January 2009 with Jabatan Laut Semenanjung Malaysia
 - Active - On-going project activities

3. Cooperative relations and training in the field of coastal and maritime engineering and management
 - December 2008 with the General Authority of Marinewealth (GAM), Libya
 - Active – Course proposals submitted to GAM for approval.

4. Proposed design, installation and commissioning of engineered reef for coastal protection in Terengganu Darul Iman
 - February 2009 between COEI, Mutiara Goodyear, Zenith Project Management and Dorken Reef Resources
 - Becoming dormant – project presentation was made to Terengganu Inc but with no positive outcome

5. Cooperative agreement for R & D in artificial reef development and product testing
 - February 2009 between COEI and Dorken Reef Resources
 - Active – several joint proposals were submitted to MOSTI and joint monitoring projects for existing deployment are ongoing.

