

Universiti Teknologi Malaysia (UTM) has proudly hosted an International Webinar on Marine Environment: Facilitating Marine Environmental Awareness through Research and Education. This webinar was jointly organized by Marine Technology Center, School of Civil Engineering and School of Education, UTM. The webinar reached 2.3K views in FB Live session.



The webinar is part of activities conducted under an Erasmus project, Marine Coastal and Delta Sustainability for Southeast Asia (MARE), which is co-funded by the Erasmus+ Programme of the European Union with partners from Germany, Malaysia, Estonia, Italy, and Vietnam. UTM is one of Malaysia partners, along with Universiti Kuala Lumpur (UniKL), Universiti Teknologi PETRONAS (UTP) and Universiti Malaysia Terengganu (UMT).

The concept of MARE is to facilitate the marine environmental awareness in higher educational institution through research and education activities. For education, it is very crucial to match the syllabus offered by universities with the rules, guidelines and technologies implemented by the government and industries. Therefore, the objective of this webinar is to collect the information from the respectable speakers about the environmental action.

The opening remark for the event was delivered by Dean of Faculty Engineering, Profesor Dato' Ir. Dr. Mohammed Rafiq Bin Abdul Kadir.



The second lecture was delivered by Miss Cheryl Rita Kaur. She is the Head of Centre for Coastal and Marine Environment, Maritime Institute of Malaysia (MIMA). MIMA is a policy research institute set up by the Malaysian Government to look into matters relating to Malaysia's interest at sea and to serve as a national focal point for research in the maritime sector. She shared about the current Maritime Environmental Policies in Malaysia including the issues and challenges in introducing policy in term of economic, environment and the effective enforcement.



The third speaker was Mr. Mohd Fairoz bin Rozali, Senior Principal Assistant Director, Safety, Security & Environment (Planning) Division for Marine Department Malaysia. Marine Department prepare and enact new and existing laws, regulations, rules and guidelines at the National level based on applicable International legislation. Mr. Fairoz presented about Marine Environmental Enforcement in Malaysia. Mr. Fairoz talked about the challenges in marine environmental enforcement which make it difficult to prevent the marine pollution in Malaysia. He highlighted new area and future collaboration should be explored in marine environmental issues.



The last keynote lecture was given by Mrs Norlin binti Jaafar from Department of Environment (DOE), Ministry of Environment and Water, Malaysia. The main function of the DOE is to prevent, eliminate, control pollution and improve the environment, consistent with the purposes of the Environmental Quality Act 1974 and the regulations thereunder. Mrs Norlin shared about water quality management and marine water quality monitoring in Malaysia. She also shared the forward initiative which is planned by DOE including Hydrocarbon Fingerprinting System,

new regulation in enhancing marine enforcement, training for oil spill responders, and enhancing Communication Education Public Awareness Program. She listed the recommendation for collaboration with other institutions include modelling for water quality and sediments transport and study on the Estuary Water Quality.



The session was continued with a short question and answer session to collect feedback and suggestion from the three panels about the environmental related content in the courses under MARE Project. This will help in development or improvement of the courses and identifying which research area that should universities focus in enhancing maritime environmental awareness. Prof Adi Maimun from UTM was the moderator for the session.



First, Prof Adi presented the courses offered by UTM, UniKL, UTP and UMT under MARE project. All **panels agree** that the courses are relevant and will bring impact to the maritime environmental awareness in higher education institutes in Malaysia. The comments from panels are as following.

1) Mrs Cheryl

Its nice to see all partners already going a step ahead of the required courses which touch marine or maritime environment aspect.

When considering broader aspect like training the human resources in marine field, we need to consider also **maritime economic, maritime security or any other issues which represent the real-life problem**.

2) Mr. Fairoz

The course coordinator should look in term of what happen after completion the course and how it supports the **career development**.

The **application of knowledge** is also important as the content should in line with any marine pollution regulation listed in International maritime organization (IMO). We have a lot of initiatives, but it is more on national policy. The students should be trained to use the initiatives as their reference in doing any decision making in the future.

**The industrial activities discussed in the courses should be related** to the correct regulation and policy in IMO.

Also, it is important for the course to prepare the student who can become policy officer in government sector.

3) Mr Mohd Hidzir (Department of Environment)

DoE want the students who can apply the knowledge and skill they go from environmental courses in all planning, operation, development, and enforcement stage.

In development stage, graduated should have capability in conducting **environmental impact assessment**.

In operational stage, especially for engineering course, the student should be trained to ensure the design they proposed can be operated properly while considering the marine environmental factors.

For closure plan, the students should learn the element of **waste management/ schedule waste during dismantling**/shut-down stage, as how to remove out the remaining structure.

The important point to be highlighted is the environmental sensitive index, water quality not only to monitor water quality but also can predict/hydrodynamic **modelling of sediment** movement. This may be a potential area for collaboration in engineering research project.

Question: What are the gaps in the present curriculum? What is lacking in our graduate knowledge related to marine environment?

- Mrs Cheryl: They know the surface/theory but need training to understand the practical knowledge. The application Law/Convention it still lacking, course owner should go a bit more in depth of the law or regulation which related to the marine environment such as IMO. The Malaysia partners should grab the aspect which suitable with the university strength.
- 2) Mr. Mohd Hidzir: The students should be familiar with on site parameters and ensure they condut accurate analyzing process using the correct measured data. Studdents should be introduced to the standard /actual protocol and instrument in monitoring environmental quality.
- 3) Mr. Fairoz: We need to get more involvement from researchers to expose students on the environment knowledge or problems which they should consid when working in industry/government sector. Also, lecturers should think the way to improve the human sense and awareness in students. The course coordinator also should do mapping to relate the course content and regulation of IMO or environmental policy.

Prepared by,

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