

Research Group Profile

Ship and Offshore Technology Research Group (SOT)

UTM Faculty of Engineering research activities in naval architecture and ocean engineering is in line with the increasing demands of advanced new knowledge and well-trained professional experts in the maritime industry during the era of 4th industrial revolution. The Marine Technology Research group has its base in the Marine Technology Centre which hosts the largest towing tank for hydrodynamics testing in Malaysia, which has carried out more than 110 projects for both of the industrial needs and academic research in marine and offshore engineering. With more than 20 years' experience in the ship and offshore structure model testing and associated research and services, the team is equipped with international standard facilities and expertise in model testing, hydrodynamics, resistance and propulsion, ship design and structural analysis, wave-structure interaction, ocean renewable energy and marine transportation.

MEET OUR TEAM

RESEARCH GROUP LEADER

Dr. Siow Chee Loon

RESEARCH GROUP MEMBER

Dr. Kang Hooi Siang

RESEARCH GROUP MEMBER

Prof. Dr. Adi Maimun Bin
Abdul Malik

RESEARCH GROUP MEMBER

Dr. Mohd Hazmil Syahidy Bin
Abdol Azis

RESEARCH GROUP MEMBER

Dr. Arifah Binti Ali

RESEARCH GROUP MEMBER

Prof. Ab Saman Bin Abd Kader

RESEARCH GROUP MEMBER

Dr Nik Mohd Ridzuan Bin
Shaharuddin

RESEARCH GROUP MEMBER

Dr. Farah Ellyza Binti Hashim

RESEARCH GROUP MEMBER

Dr. Muhammed Amirul Asyraf Bin
Hasnan

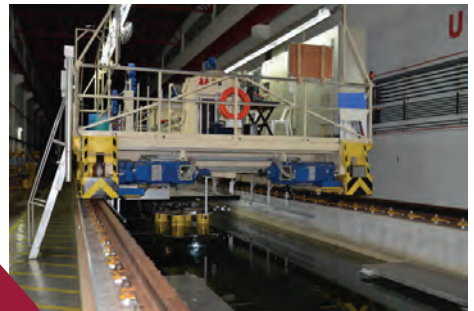
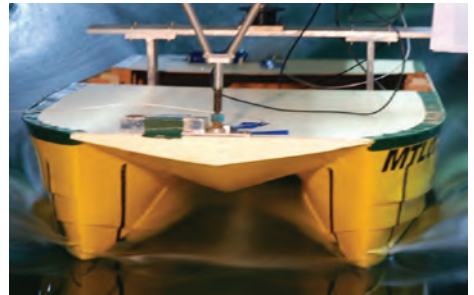
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NICHES AREA

FUNDAMENTAL RESEARCH

- Marine Hydrodynamics
- Fluid-Structure Interactions
- Dynamics of Marine Vessel
- Marine Transportation and Management
- Amphibious Technology
- Ocean Renewable Energy
- Fishery and Floating Farm
- Computational Fluid Dynamics
- Marine Structural Integrity
- Ship Resistance and Propulsion
- Vortex-Induced Vibration
- 3D Printing Model Making



APPLICATION AREAS

- Stability Integrity of Ship & Offshore Structure
- Seakeeping of Marine Structure
- Ship Hull Performance Optimization
- Disaster Relief Vehicle
- Deepwater Riser and Mooring
- Numerical Wave Tank
- Reliability & Safety Assessment
- Ocean Energy Converter
- Offshore Farming
- Structural Health Monitoring
- Hybrid Model Making and Rapid Prototyping



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PROJECT HIGHLIGHTS

Name of activity/project :

SHELL MALIKAI PROJECT

List of researchers/collaborators involved :

Shell Malaysia
Professor Dr. Adi Maimun bin Abdul Malik (adi@utm.my)
Dr. Kang Hooi Siang (kanghs@utm.my)

Executive Summary

This project is an effort to establish academic and research cooperation in Marine Technology between MTC, UTM and Technip. In this project, the collaboration is target to solve Vortex Induced Vibration (VIV) for Risers problem for Shell Berhad. This project is part of the Malikai Offshore Oil Well Project undertaken by Shell as a partner in Petronas.

Achievements/Output :

The first phase of the VIV project was successfully carried out at the Marine Technology Center (MTC) at the end of December 2011. The project has provided many experience to MTC staff in handling laboratory tests related to offshore structures such as Riser. After the success in phase one, Shell offered second phase of project with the value of RM1 million to MTC. The project is also run jointly with MTC with Technip. In this second phase, the experiments were conducted for VIV vertical riser and Vortex Induced Motion (VIM). Besides, the experiment also conducted to test the interaction between two floating structures there are Semi-submersible.

