

UNIVERSITI TEKNOLOGI MARA

MEC 300

**PHOTO ANALYSIS OF A FULLY SUBMERGED
STATIC VEHICLE IN A FLOWING WATER**

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ABSTRACT

This project is presenting a hydrodynamic condition on a static vehicle which fully submerged in a circulating water channel. The hydrodynamic response of an object in an open-channel flow is experimentally investigated by considering the effects of the flow water, pressure distribution and the flow pattern which resulted in the experiment. The instrument design and characteristics have been discussed, also estimating the uncertainties of force and hydrodynamic coefficient's measurement. The tests were conducted under four Submerged Ratios (SR) such as the height of the pitot tube from the bottom, indicating that the water pressure and flow velocity changed. Then, to compare with two objects namely toy sport car and toy ambulance to see the difference in pressure and flow result. The effect of flow pattern on the vehicles used, namely sport car and ambulance were studied

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