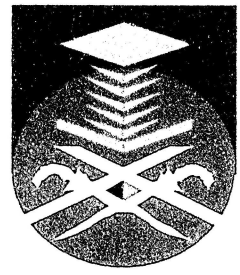

EMISSION PRODUCTS ANALYSIS ON 2 STROKE INTERNAL COMBUSTION ENGINE SINGLE POWERED BY HYDROGEN GAS

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"I declare that this thesis is the result of my own work except the ideas and summaries which I have clarified their sources. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any degree."

Signed : .....

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ABSTRACT

The objective of this project is to evaluate the exhaust product/gas emitted from an internal combustion engine fueled by hydrogen gas.The other purpose of this project is analyze whether an internal combustion engine can operate by using hydrogen gas.Hydrogen as new alternative fuel provides the potential for a sustainable development particularly in the transportation sector.Hydrogen can be converted in 2 method. These method are combustion and electromechanical conversion in fuel cell.These project use combustion method as medium to operate an internal combustion engine.In hydrogen combustion engine,The hydrogen is combusted in engine fundamentally the same method as traditional internal combustion engine.The scopes of this project are to find detail for evaluation exhaust product emitted fom an internal combustion engine fueled by hydogen,estimate the air/fuel ratio of hydrogen fuel mixtures,and to determine the combustive of hydrogen that relate to its use as a combustive fuel.The equipment use in this project is Kane Automotive Gas Analyser.Kane Automotive Gas Analyser measure carbon monoxide (CO),and unburnt hydrocarbons (HC), with Oxygen (O_2) and carbon dioxide (CO_2) added to four-gas models and nitric oxide (NO) included in five-gas variants.The experiment carried out by insert probe of gas analyser into exhaust pipe.Data for the testing has taken and calculated.Based on the result emission product,It is shown that theoritical result and experimental result was identical.

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