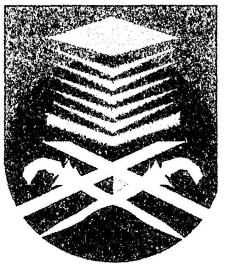

DESIGN AND ANALYSIS OF HHO ELECTROLYZER

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

Signed : .....

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ABSTRACT

The project is concentrated specifically on the oxyhydrogen gas (HHO) production and factors which influenced the production. The HHO production is done by using electrolyzer part or in detail explanation is electrolysis process of water as electrolyte, stainless steel as electrode and potassium hydroxide as additive. The production analysis is using custom-made analyzer which designed base on Faraday's Law of electrolysis. The production analysis involves voltage, current and temperature as well as volume flow rate and power for its result. The proper specification of each factor is important to ensure its efficiency. Structural analysis is involving the analysis of the principal of Faraday's Law, electrochemical concept and also the power requirement of the electrolyzer part. The analysis is fully conducted semi-electronically or in other word by using the manual installment and some electronic compartment for result reading which equipped with custom-made analyzer. The analysis of the analyzer part is concentrated on the analysis of the critical factors of the electrolysis base on Faraday's Law and electrical principle.

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