



**DESIGN AND FABRICATION OF ACTIVATED CARBON  
BASED OF NATURAL GAS VEHICLE CONTAINER**

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A thesis submitted in partial fulfillment of the requirements for the  
award of Bachelor Engineering (Hons) (Mechanical)

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**SEPTEMBER 2002**

“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.”

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## **ABSTRACT**

The main purpose of this project is to develop the design and fabricate the low pressure adsorb natural gas container. By understand the main property of natural gas and the characteristics of the compress gas, further detail design of the pressure vessels had been developed to give sufficient driving range as a Compress Natural Gas (CNG) and petrol usage vehicle.

The pressure vessels had been designed accordance with Pressure Vessel ASME Code Section VIII Division 1 and are able to withstand pressure up to 130 bars. The pressure vessels is unfired type and also been fixed with thermocouple, temperature controller, pressure relief valve, heating rod and filling valve to meet the design requirement.

This project is based on design and collective information. The main activities of this project are including technical aspects and the design requirement.

From information gathered (Industrial visit + book reading), a discussion is made based to the design requirement and technology involved in Adsorbed Natural Gas (ANG). Finally, conclusions are made on the current status of the ANG technology and its future development.

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