

**UNIVERSITI TEKNOLOGI MARA**

**GENERATING DRIVER PRIORITIZATION FOR  
JABATAN PERKHIDMATAN AWAM (JPA) –  
MALAYSIA FORESIGHT INSTITUTE (MFI)  
COLLABORATION SCENARIO BUILDING  
WORKSHOP USING BAYESIAN TECHNIQUE**

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**BACHELOR OF COMPUTER SCIENCE (Hons.)**

**JULY 2015**

**Universiti Teknologi MARA**

**Generating Driver Prioritization for Jabatan  
Perkhidmatan Awam (JPA) – Malaysia Foresight  
Institute (MFI) Collaboration Scenario Building  
Workshop Using Bayesian Technique**

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**Thesis submitted in fulfillment of the requirements for Bachelor of  
Computer Science (Hons) Faculty of Computer and Mathematical  
Sciences**

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## **SUPERVISOR'S APPROVAL**

### **GENERATING DRIVER PRIORITIZATION FOR JABATAN PERKHIDMATAN AWAM (JPA) – MALAYSIA FORESIGHT INSTITUTE (MFI) COLLABORATION SCENARIO BUILDING WORKSHOP USING BAYESIAN TECHNIQUE**

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This report was prepared under the supervision of the project supervisor, Mr. Mohamad Hafiz Bin Khairuddin. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfillment of the requirements for the degree of Bachelor of Computer Science (Hons).

Approved by

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Project Supervisor

JULY 30, 2015

## **STUDENT'S DECLARATION**

I certify that this report and the project to which it refers is to the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

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## ABSTRACT

Foresight is a systematic attempt of decision making process which will look at the long-term vision regarding the development from the technology, economy and social aspect. For Malaysia context, there are many foresight methodologies that have been implemented since the first involvement of Malaysia in foresight back in the 90s. This project will focus on only prioritization of drivers in a foresight study within the scenario building or prognosis phase under the myForesight approach. Scenario building is a support tool used in the decision making process for the environments of the possible future. Drivers of a foresight study are obtained from the horizon scanning or the diagnosis phase. In Malaysia's foresight environment, the organization responsible for the nation's foresight practice is the Malaysian Industry-Government Group for High Technology (MIGHT). Therefore, this project will develop a web-based system that will support the process of prioritizing drivers of a foresight study in Malaysia for the purpose of improving the decision making process in the foresight exercise. This project will apply the use of adaptive Bayesian network algorithm as it is more efficient and the most suitable than some of the possible techniques which have been studied.

Keyword: *Foresight, scenario building, drivers, driver prioritization, web-based System*