UNIVERSITI TEKNOLOGI MARA

# A FUZZY MULTIPLE ATTRIBUTE DECISION MAKING METHOD EXPERT SYSTEM FOR UNIVERSITY ADMISSION SELECTION

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BSc (Hons) Intelligent System

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**Universiti Teknologi MARA**

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# DECLARATION

I certify that this thesis and the research to which it refers are the product of my own work and that any ideas 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

The university admission selection process is a process that involves selecting and ranking based on the applicants academic and co-curriculum results and the choice of programs. The current practice of university admission selection process using the partially automated system, may lead to biases and errors. An alternative solution for the problem using artificial intelligence approach was applied in this research with the integration of Fuzzy Multiple Attribute Decision Making (MADM) and expert system. The main purpose of this research is to produce a system that will list out the programs and the ranking of its qualified students. Nine diploma programs from three different faculties were used as problem's alternatives while four subjects' components based on the SPM results were used as the problem's attributes. Other attributes such as co-curriculum results and quota were also considered in the selection and allocation process. A non-linear preference scale has been applied as a weight to represent the choice of programs by the students. The finding of this research reveals that fuzzy MADM can help to solve this problem effectively.

# CONTENTS