EXPERT SYSTEM FOR SELECTION OF ACADEMIC PROGRAMME (ESSAP)

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EXPERT SYSTEM FOR SELECTION OF ACADEMIC PROGRAMME (ESSAP)

A thesis submitted to the Graduate School in partial fulfillment of the requirement for the degree Master of Science (Intelligent System) Universiti Utara Malaysia

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ABSTRAK

Sistem pakar adalah salah satu applikasi penting yang berasaskan cabang-cabang Kepintaran Buatan. Pada permulaan pembangunan sistem pakar dalam pendidikan, bidang yang dipilih adalah applikasi untuk pemilihan program akademik. ESSAP merupakan sebuah sistem berasaskan web yang berbeza daripada program komputer konvensional yang mana ia mampu menyelesaikan masalah dengan meniru.mimik proses penaakulan manusia, bergantung kepada logik, keyakinan, "rules of thumbs", pandangan dan pengalaman. Sistem ini menyediakan program akademik bagi Sekolah Sains Maklumat & Kejuruteraan (SISE) di Kolej Universiti Teknologi & Pengurusan Malaysia (KUTPM). Bahasa-bahasa pengaturcaraan web yang digunakan adalah PHP, Javascript dan CSS. Pangkalan pengetahuan adalah menggunakan pelayan pangkalan data MySQL. Sistem ESSAP menyediakan cadangan dan nasihat bagi program akademik kepada para pelajar berdasarkan minat dan juga kelayakan akademik mereka. Daripada minat, sistem akan mengenalpasti jenis personaliti pelajar mengikut theori Holland J.

ABSTRACT

Expert system is one of the important application oriented branches of Artificial Intelligence. At the beginning of development expert systems in education, the area selected is application to selection of academic programme. ESSAP is a web-based system that are different from conventional computer programs as they can solve problems by mimicking human reasoning processes, relying on logic, belief, rules of thumb, opinion and experience. This system provides academic programme for School of Information Sciences & Engineering (SISE) at University College of Technology & Management Malaysia (KUTPM). The web programming languages of system implementation are PHP, JavaScript, and CSS. The knowledge base was created using MySQL database server. ESSAP system provides advisory and recommendation for academic programme for the students based on their qualification and interests. The system would determine type of student's personalities from their interest, using Holland J. Theory.

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CHAPTER 1

INTRODUCTION

1.1 Overview

Many college students do not know what they wish to study in. Effective academic program advising is important because students who are clear of their needs and the institution's offering (academic programme) and resources are (a) more likely to enrol, (b) less likely to take classes that do not contribute toward graduation, (c) more likely to enjoy college, and (d) more likely to graduate. Academic advising is labour intensive, because it generally requires at least one hour of counselling session for each student and often several sessions are required. Academic advising is important because it educates students to select academic programmes and identifies appropriate majoring.

According to Oliveras (2002) advisory systems are in the fields of expert systems and artificial intelligence (human cognitive science). Expert systems can be developed for two purposes: either to replace a human decision-maker or to support a human decision-maker. In the former case, the expert system can be regarded as a part which is liaising within a complex control system and hence being a part of the control system. In the latter case, an expert system is designed to obtain advice with the aim to support and improve decision-making effectiveness for human users. It is in this case that an expert system is regarded as an advisory system.

The contents of the thesis is for internal user only

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