Browse Conferences > Information Society (i-Societ...

CAES: A model of an RBR-CBR course advisory expert system

Author(s)
Emebo Onyeka ; Daramola Olawande ; Ayo Charles
View All Authors

-

Abstract:
Academic student advising is a gargantuan task that places heavy demand on the time, emotions and mental resources of the academic advisor. It is also a mission critical and very delicate task that must be handled with impeccable expertise and precision else the future of the intended student beneficiary may be jeopardized due to poor advising. One integral aspect of student academic advising is course registration, where students make decisions on the choice of courses to take in specific semesters based on their current academic standing. In this paper, we give the description of the design, implementation and trial evaluation of the Course Advisory Expert System (CAES) which is a hybrid of a rule based reasoning (RBR) and case based reasoning (CBR). The RBR component was implemented using JESS. The result of the trial experiment revealed that the system has high performance/user satisfaction rating from the sample expert population conducted.

1. Introduction

Advising plays an essential role in the retention and graduation of students in the university. One of the difficult and time-consuming tasks that university students and their advisors face today is individual course scheduling (assigning students to courses that satisfy their respective curricula). As the session progresses, the task becomes more complex due to the increase in the number of sequencing rules (e.g., prerequisites) that need to be satisfied by an

advisee. Such a complex advising process may lead to decisions that can later inhibit a student from timely graduation. Thus, there is a need for a system that automates and simplifies the process for both students and advisors. It is important to realize that the course advisory expert system was not developed to replace the advisor but rather, it removesthe time consuming tasks associated with course registration and allows advisor to concentrate on more complex advising functions.

Read document

Keywords

- **IEEE Keywords**

  Expert systems, Engines, Educational institutions, Registers, Databases, Cognition, Humans

Authors

Emebo Onyeka
Department of computer and information sciences, Covenant University, Nigeria
Daramola Olawande
Department of computer and information sciences, Covenant University, Nigeria
Ayo Charles
Department of computer and information sciences, Covenant University, Nigeria

Related Articles

AALRES: An intelligent expert system for realization of Adaptive Autonomy using Logistic Regression
A. Fereidunian; M.A. Zamani; F. Boroomand; H. R. Jamalabadi; H. Lesani; C. Lucas
Fuzzy Knowledge Learning via Adaptive Fuzzy Petri Net with Triangular Function Model
J.C. Canales; Xiaoou Li; Wen Yu
Developing an expert system for diet recommendation
Gergely Kovasznai
A blackboard model of an expert system for failure mode and effects analysis
D.J. Russomanno; R.D. Bonnell; J.B. Bowles
Implementation of the inference engine based on molecular computing technique
J.J. Mulawka; P. Weglenski; P. Borsuk
Muhadith: A Cloud Based Distributed Expert System for Classification of Ahadith
Kashif Bilal; Sajjad Mohsin
A fuzzy logic based handwritten numeral recognition expert system
M.M. Sadok; A.T. Alouani
LEADS-II. A knowledge-based system for ranking DfE-Options
J.P. Rombouts
Verifying and testing expert system conceptual models
A.D. Preece; R. Shinghal
A solving module of an expert system for nonlinear beam dynamics
S. Andrianov; A. Dvoeglazov

-
-

IEEE Account