CEN-5120 Expert Systems

Catalog Description
Introduction to expert systems, knowledge representation techniques and construction of expert systems. A project such as the implementation of an expert system in a high level AI-language is required. (3 credits)

Prerequisites
COP 3530 or permission of Instructor

Type
Elective for MSCS, Ph.D. in CS, MS in CS for current CS undergraduate students (4+1 Program).

Course Objectives
A thorough presentation of the steps needed to develop an expert system: the components of an expert system, knowledge representation, knowledge accquisition, reasoning, methods for dealing with uncertainty, and validation. The students will use an expert system language like prolog or a shell like CLIPS.

Topics
what is an expert systems, types of expert systems, its components
knowledge representation
methods of inference
reasoning with uncertainty
the design of an expert system
learning the expert system language or the expert system shell
writing an expert system

Textbook
Joseph Giarratano and Gary Riley Expert Systems : Principles and Programming, Fourth Edition (Thompson, Course Technology, 2005)

Last Update
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