

CEN 457
First Semester 1429/1430 H
 Intelligent systems and their applications in computer engineering

Sections: 22210,
Time: Saturday, Monday and Wednesday: 11:00-11:50 AM @ A027
Instructor: Dr. Hedjar Ramdane
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Text: “Neural networks: A comprehensive foundation” Simon Haykin, 2nd Edition 1999, Prentice Hall.

References: 1. “A first course in Fuzzy logic” by H. T. Nguyen and E. A. Walker, 2nd Edition 2000, Chapman & Hall/CRC .

Grading:	Home Work, Quizzes:	10%
	Attendance:	10%
	2-Midterms (20% each)	40%
	Final	40%

Course Outline

	Topic
1	- Introduction to AI - Knowledge representation.
2	- Artificial Neural networks (introduction).
	2-1 Artificial intelligent and neural networks 2-2 Learning processes. 2-3 Single layer perceptrons. 2-4 Multi layers perceptrons.
	Mid Term 1 : Saturday 24/11/1429 - 24/11/2008
	2-5 Applications (Signal processing and Control).
3	- Fuzzy logic: 3-1 Fuzzy sets & Fuzzy relations 3-2 Approximate reasoning. 3-3 Knowledge based systems for process control (Design parameters).
	Mid Term 2: Wednesday 26/12/1429 - 24/12/2008
4	Search techniques.
5	Genetic algorithms.
6	Intelligent agents
7	Internet applications.