Hashemite University
College of Engineering , Department of Mechatronics
Artificial Intelligence 110405532, (3 Credit Hours)

Instructor

Name	Dr. Mohammad Abu mallouh
Email:	mmallouh@hu.edu.jo
Office:	3129
Office hours:	Sunday @ 3:00-5:00pm Also other time can be arranged

Grading info

Midterm exam	40
Others: (Project, HW, quiz)	20
Final	40

Class Info

Days	**Sun+Tue+ Thur**
Time	10:00-11:00
Location	Online MS teams

Course Number: 110405532

Prerequisite:	(110405331)
Textbook:	Michael Negnevitsky (2005). Artificial Intelligence: A guide to intelligent systems, 2nd edition. Addison Wesley .
Course Description (as in the catalog):	Introduction to intelligent systems and their application in modeling and control, basic concepts of fuzzy logic elements, design, tuning and operation, basic concepts of neural network elements, architecture, and training, basic concepts of genetic algorithms.
Specific Outcomes of Instruction (Course Outcomes):	CLO (1) : Understand history, definition and applications of intelligent systems in engineering.(j) CLO (2): Build and analyze a fuzzy logic system. (a, e, g, k) CLO (3): Analyze a neural network system (a, k) CLO (4): Analyze a hybrid Artificial intelligent systems (a, k) CLO (5): Understand the basic concepts of genetic algorithms (k)
References:	• Timothy J. Ross, Fuzzy logic with engineering applications, Wiley, 2004, Second Edition . • Fausett, Laurene , Fundamentals of neural networks : architectures, algorithms, and applications , Prentice-Hall, 1994 . • S. Russell and P. Norvig Artificial Intelligence: A Modern Approach Prentice Hall, 2003, Second Edition

Grading Plan:

Midterm exam	(40 Points)	**Thursday** 8/4/2021 @ 10:00-11:00
HW+ Quizzes	(20 Points)	TBD
Final Exam:	(40 Points)	Will be announced by the registrar

Major Topics Covered and Schedule in Weeks:

Topic	**# Weeks**	**# Contact hours**
1. Introduction (Chapter 1)	1,2	6
2. HW 1		
3. Fuzzy expert systems + (Matlab) (Chapter 2)	3,4,5,6	12
4. Quiz 1		
5. Artificial neural networks + (Matlab) (Chapter 3)	7,8,9,10	12
6. Hybrid intelligent systems + (Matlab) (Chapter 4)	11,12,13	9
7. Basic concepts of genetic algorithms (Chapter 5)	14,15,16	9
Total		48

Course Policy

Attendance is mandatory and absence is allowed up to 15% lectures

Dr. Mohammed Abu mallouh 20/2/2021