

Course Description Form

1. Course Name:	
Soft Computing	
2. Course Code:	
CSCS4223	
3. Semester / Year:	
2 nd – 2023/2024	
4. Description Preparation Date:	
1/10/2023	
5. Available Attendance Forms:	
Attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
2 Theoretical + 2 Lab.	
7. Course administrator's name (mention all, if more than one name)	
Name: Prof. Dr. Ahmed T. Sadiq Email: ahmed.t.sadiq@uotechnology.edu.iq	
8. Course Objectives	
Course Objectives	<ol style="list-style-type: none"> 1. Learn what artificial neural networks are 2. Study 5 types of artificial neural network algorithms 3. Learn about genetic algorithms 4. Study the details of the genetic algorithm
9. Teaching and Learning Strategies	
Strategy	
10. Course Structure	

Week	Hours	ILOs	Unit/Module or Topic title	Teaching Method	Assessment Method
1	2	1,2,5	Concept of ANN	Mix	Discuss
2	2	1,2,5	ANN Properties	Mix	Discuss
3	2	1,2,5	ANN Components	Mix	Discuss

4	2	1,2,5	Hopfield NN	Mix	Discuss
5	2	1,2,5	BAM NN	Mix	Discuss
6	2	1,2,5	Single Layer NN	Mix	Discuss
7	2	1,2,5	BP – NN	Mix	Discuss
8	2	1,2,5	BP – NN	Mix	Discuss
9	2	1,2,5	Kohonen - NN	Mix	Discuss
10	2	1,2,5	Kohonen – NN	Mix	Discuss
11	2	3,4,5	GA Concepts	Mix	Discuss
12	2	3,4,5	GA Components	Mix	Discuss
13	2	3,4,5	GA Parameters	Mix	Discuss
14	2	3,4,5	Examples	Mix	Discuss
15	2	1,2,3,4,5	Examination	Mix	Examination

11. Course Evaluation

15 Exam.
10 Assessment
15 Lab.
60 Final Exam.

12. Learning and Teaching Resources

Required textbooks (curriculum books, if any)	
Main references (sources)	Teaching lectures Book (Intelligent Systems and Machine Learning) Artificial Neural Nets book. Genetic Algorithms book
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	