Academic Year 2023-2024 (ODD Semester)

USN: ᴦRV22AI007

Department of Artificial Intelligence and Machine Learning

Course Code: AI234AI
Sem: III Semester
Duration: 90 Minutes

Date: March 2024
Maximum Marks: 50

CIE-III

Foundation of Cyber-Physical Systems

SL. No		Questions	M	BT	CO
1	a)	Discuss the primary design consideration of Traditional Sensor networks and Wireless Sensor Networks (WSN).	5	2	1
	b)	Illustrate OODA Architecture with an example.	5	3	3
2	a)	Summarise the Sensor Performance Metrics.	5	2	2
	b)	Illustrate the IP based sensor Networks.	5	3	3
3	a)	Discuss Ubiquitous Sensor Networks.	5	2	3
	b)	What is an Actuator? Discuss the Characteristics of Actuators.	5	2	2
4	a)	Describe Typical Underwater Sensor System Architecture in detail.	5	2	3
	b)	Summarize the different types of Actuators.	5	2	2
5	a)	With an example discuss the different types of sensors in CPS.	10	2	2

Course Outcome	
CO1	Understand and apply the knowledge of engineering specialization to address the complex engineering problems
CO2	Analyze the various Cyber-Physical components used in solving the real-world problem
CO3	Design solution for complex engineering problem using Cyber Physical Systems
CO4	Communicate effectively and collaborate in group to carryout Cyber Physical System activities
CO5	Demonstrate design skills to solve inter-disciplinary problems using modern tools effectively by exhibiting teamwork through oral presentation and written reports.

M-Marks, BT-Blooms Taxonomy Levels, CO-Course Outcomes

	Particulars	CO1	CO2	CO3	CO4	L1	L2	L3	L4	L5	L6
Marks Distribution	Max Marks	5	20	20	-	-	40	10	-	-	-

-------------------- ALL THE BEST --------------------