25CE103: Inclusive Artificial Intelligence

w. e. f. Academic Year:	**2025-26**
Semester:	**2**
Category of the Course:	**Engineering Science**
Prerequisite:	Zeal to learn the subject
Rationale:	This course introduces foundational Artificial Intelligence (AI) concepts with a focus on inclusivity and ethical design. It equips students from all disciplines to understand AI's capabilities, limitations, and impacts on diverse populations. By fostering awareness of bias, fairness, and responsible development, the course prepares students to build AI tools that serve social good and promote equity.

Course Outcomes:

After Completion of the Course, Student will able to:

	Course Outcome (CO)	**RBT Level (Cognitive Domain)**
CO1	Understand foundational core AI concepts and identify inclusive AI use cases.	Understand
CO2	Explain and assess ethical and societal impacts of AI systems.	Remember, Understand
CO3	Apply no-code/low-code tools to develop AI-based prototypes.	Apply, Analyze
CO4	Analyze datasets and AI models for bias and fairness.	Analyze
CO5	Develop AI solutions to real-world inclusive problems using collaborative tools.	Apply, Create
CO6	Evaluate AI applications in terms of inclusivity, sustainability, and accessibility.	Evaluate

Teaching and Evaluation Scheme:

Teaching Scheme					**Examination Scheme**				
L	**T**	**P**	**C**	**Hrs/Week**	**IE**	**Theory**	**CIA**	**Practical**	**Total Marks**
-	-	02	01	02	-	-	30	20	50

IE: Internal Evaluation Theory: Theory Exam (End Semester)

CIA: Continuous Internal Assessment Practical: Practical Exam (End Semester)

List of Practical:

Sr.	**Aim**	**Hrs**
1.	Using AI tools like Teachable Machine to build a simple model.	03
2.	Explore Image Project using Teachable Machine	03
3.	Explore Audio Project using Teachable Machine	03
4.	Explore Pose Project using Teachable Machine	03
5.	Explore the fundamentals of Orange Data Mining Tool	03

6.	Explore Data Loading using Orange Data Mining Tool	03
7.	Explore Visualization in Orange Data Mining Tool	03
8.	Explore Basic Classification Model in Orange Data Mining Tool	03
9.	Explore Basic Clustering Model in Orange Data Mining Tool	03
10.	Explore sample for Train and Test the data in Orange Data Mining Tool	03
TOTAL HOURS		**30**

E-Resources:

1. https://teachablemachine.withgoogle.com/train
2. https://orangedatamining.com/examples/?tag=Visualization
3. https://orangedatamining.com/widget-catalog/

Course Outcomes Mapping:

CO	Course Outcome (CO)	POs/ PSOs Mapping	Cognitive Level (RBT)	Knowledge Category	Lectures (Hours)
CO1	Understand foundational core AI concepts and identify inclusive AI use cases.	PO1, PO2, PO12, PSO2	Apply, Create	Conceptual	6
CO2	Explain and assess ethical and societal impacts of AI systems.	PO1, PO2, PO5, PSO1	Apply, Analyze	Procedural	6
CO3	Apply no-code/low-code tools to develop AI-based prototypes.	PO2, PO3, PO5, PSO1	Apply, Analyze	Procedural, Conceptual	6
CO4	Analyze datasets and AI models for bias and fairness.	PO1, PO2, PO12, PSO2	Apply, Analyze, Create	Procedural	8
CO5	Develop AI solutions to real-world inclusive problems using collaborative tools.	PO1, PO2, PO3, PO5, PSO1	Apply, Analyze	Procedural	2
CO6	Evaluate AI applications in terms of inclusivity, sustainability, and accessibility.	PO2, PO5, PO10, PO12, PSO1, PSO2	Apply, Create	Procedural	2
Total Hour					30

Mapping of COs with POs & PSOs:

CO	PO												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	3	–	–	–	–	–	–	–	–	–	2	–	2
CO2	3	3	–	–	2	–	–	–	–	–	–	–	2	–
CO3	3	3	2	–	2	–	–	–	–	–	–	–	3	–
CO4	3	2	–	–	–	–	–	–	–	–	–	2	–	2
CO5	3	3	2	–	2	–	–	–	–	–	–	–	3	–
CO6	2	3	2	–	3	–	–	–	–	2	–	2	3	2

3: High, 2: Medium, 1: Low