

**KONGUNADU ARTS AND SCIENCE COLLEGE**

**(AUTONOMOUS)**

**COIMBATORE – 641 029**



**DEPARTMENT OF INFORMATION TECHNOLOGY (UG)**

**Certificate Programme in Artificial Intelligence and  
Machine Learning**

**COURSE OUTCOMES**

**For the students admitted in the**

**Academic Year 2022 - 2023**

**CAI- 2****Sub. Code: 22CAI101**

<b>Programme Code: 12</b>	<b>CERTIFICATE PROGRAMME IN ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING</b>		
<b>Title of the Paper: Core Paper 1 – Python with Data Science</b>			
<b>Batch</b>	<b>Hours / Week</b>	<b>Total Hours</b>	<b>Credits</b>
<b>2022-2023</b>	<b>3</b>	<b>45</b>	<b>2</b>

**Course Objectives**

1. To demonstrate the use of built-in objects of Python
2. To implement numerical programming, data handling through NumPy Modules.
3. To Visualize through Matplotlib modules.
4. To Manipulate Pandas Data Frame.

**Course Outcomes (CO)**

<b>K1 to K5</b>	CO1	Implement the concepts lists, tuples and dictionaries
	CO2	Understand the use of built-in objects of Python
	CO3	Implement numerical programming, data handling through NumPy Modules
	CO4	Applying Matplotlib modules on data sets for visualization
	CO5	Manipulating Pandas Data Frame and Summarize Data

**CAI- 3**

Sub. Code: 22CAI102

<b>Programme Code:12</b>	<b>CERTIFICATE PROGRAMME IN ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING</b>		
<b>Title of the Paper: Core Paper 2 – Machine Learning</b>			
Batch	Hours / Week	Total Hour	Credits
<b>2022-2023</b>	<b>3</b>	<b>45</b>	<b>2</b>

**Course Objectives**

1. To explain about the types of machine learning.
2. To learn and understand the concept of neural networks
3. To understand classification and clustering techniques
4. To understand evolutionary models

**Course Outcomes (CO)**

<b>K1 to K5</b>	CO1	Understand the basic techniques and types of machine learning
	CO2	Build neural networks using algorithms
	CO3	Implement applications with clustering and classification techniques
	CO4	Analyze tree and probabilistic models
	CO5	Understand evolutionary models

**CAI- 4****Sub. Code: 22CAI103**

<b>Programme Code : 12</b>	<b>CERTIFICATE PROGRAMME IN ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING</b>		
<b>Title of the Paper: Core Paper 3 – Artificial Intelligence &amp; Knowledge Representation</b>			
<b>Batch</b> <b>2022-2023</b>	<b>Hours / Week</b> <b>3</b>	<b>Total Hours</b> <b>45</b>	<b>Credits</b> <b>2</b>

**Course Objectives**

1. To understand concepts of Artificial Intelligence and characteristics of intelligent agents
2. To learn the different search strategies in AI
3. To understand various knowledge representation techniques
4. To understand the concepts of Planning and uncertainty
5. To learn the concepts of learning in AI

**Course Outcomes (CO)**

<b>K1 to K5</b>	CO1	Understand the characteristics of intelligent agents
	CO2	Understand and implement the Informed search strategies
	CO3	Able to Represent a problem using first order logic.
	CO4	Apply the Baye's rule to solve the problem
	CO5	Analyze the different learning systems to solve a given problem.

**CAI- 5****Sub. Code: 22CAIICL**

<b>Programme Code : 12</b>	<b>CERTIFICATE PROGRAMME IN ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING</b>		
<b>Core Practical 1 –Programming Lab - Python with Data Science</b>			
<b>Batch</b>	<b>Hours / Week</b>	<b>Total Hours</b>	<b>Credits</b>
<b>2022-2023</b>	<b>3</b>	<b>45</b>	<b>2</b>

**Course Objectives**

1. To gain knowledge about the concepts of Built-in functions and User-defined functions.
2. To understand the concepts of Numpy and Pandas.
3. To learn Python Programming and Key Python Libraries related to AI.
4. To implement classification, clustering and regression algorithms in Python.
5. To develop programs using Matplotlib.

**Course Outcomes (CO)**

<b>K3 to K5</b>	CO1	Implement the concepts of built-in functions in python programming.
	CO2	Implement various machine learning algorithms using python programming.
	CO3	Understand the basics of Matplotlib.
	CO4	Analyze the concept of Decision Tree.
	CO5	Implement the concepts of Numpy and Pandas.