



Course Code	:	CA706
Course Title	:	DEEP LEARNING LAB
Type of Course	:	PC / PE / OE
Prerequisites	:	
Contact Hours	:	10 Sessions
Course Assessment Methods	:	Continuous Assessment, End Assessment

Course Learning Objectives (CLO)

CLO1	To introduce basic deep learning techniques.
CLO2	To develop the skills in using recent deep learning software for solving practical problems in high-performance computing environment.
CLO3	To develop the skills in applying appropriate deep learning algorithms for solving practical problems.

Lab Experiments:

- Problem Selection
- Data Collection & Generation
- Data Preprocessing Techniques
- Design and Develop Deep Learning Models
 - CNN based Models
 - RNN based Models
 - Deep Q-learning & SARASA learning models
 - Reinforcement Learning Models (Q-Learning, SARASA learning)
 - GAN & VAE Models
- Model Evaluation Metrics
- Model Deployment

Course Outcomes (CO)

At the end of the course student will be able

CO1	Implement and apply deep learning algorithms to solve problems.
CO2	Use deep learning techniques in a high-performance computing environment to solve real-world problems