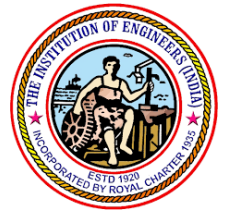




Engineering Staff College of India
Autonomous Organ of The Institution of Engineers (India)
(An ISO 9001:2015 Certified, AICTE & CEA Recognized Institution)
Old Bombay Road, Gachibowli, Hyderabad, Telangana – 500 032, India



Industrial Training Cum Internship on **ARTIFICIAL INTELLIGENCE**

Predicting the future isn't magic, it's AI.



INFORMATION TECHNOLOGY DIVISION

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Introduction

Humans have developed the power of computer systems in terms of their diverse working domains, their increasing speed, and reducing size with respect to time. Since the invention of computers or machines, their capability to perform various tasks has experienced an exponential growth. Today's world aims at the science and engineering of making intelligent machines, especially intelligent computer programs. A branch of Computer Science that pursues creating the computers or machines as intelligent as human beings is named 'Artificial Intelligence'.

Artificial Intelligence (AI) is a way of making a computer, a computer-controlled robot, or a software think intelligently, in the similar manner the intelligent humans think. AI is accomplished by studying how human brain thinks and how humans learn, decide, and work while trying to solve a problem, and then using the outcomes of this study as a basis of developing intelligent software and systems.

The primary goals of AI include deduction and reasoning, knowledge representation, planning, natural language processing (NLP), learning, perception, and the ability to manipulate and move objects. Long-term goals of AI research include achieving Creativity, Social Intelligence, and General (human level) Intelligence.

Industrial Training Course Coverage

Basic concepts of AI.

- Getting started with Python
- Types of Machine Learning
- Data Preparation
 - Data Preprocessing
 - Labelling the Data

Supervised Learning: Classification

- Building a Classifier in Python
- Logistic Regression
- Decision Tree Classifier
- Random Forest Classifier

Supervised Learning: Regression

Unsupervised Learning: Clustering

- Principal Component Analysis

Natural Language Processing

- Working with NLTK Package
- Tokenization, Stemming, Lemmatization,
- Bag of Word(BoW) Model

Analyzing Time Series Data

- Working with Python Pandas
- Extracting Statistic from Time Series Data

Speech Recognition

- Building a Speech Recognizer
- Visualizing Audio Signals
- Feature Extraction from Speech
- Recognition of Spoken Words

Neural Networks

- Artificial Neural Networks(ANN)
- Perceptron based classifier
- Single & Multilayer Neural Networks

Computer Vision and Deep Learning

- Computer Vision vs Image Processing
- Edge, Face and Eye Detection

Deep Learning

- Convolutional Neural Network
- Linear Regression using ANN.
- Image Classifier using Deep Learning.

Internship Details:

Duration: 2 Weeks Hands - on Training + 2 Week Project Development

Venue: Online

Fee: Rs.4500/- (Inclusive of 18% GST)

Assessment & Certificate: ESCI and Technology Partner

Internship Dates - 09 May - 04 Jun 2022 06 June – 02 July 2022 04 – 08 July 2022