### **Emerging Technologies**



### **Course Description**

# MACHINE LEARNING USING PYTHON

### TOPICS TO BE COVERED

#### 1. INTRODUCTION

- Supervised unsupervised Machine Learning and Reinforcement Learning
- ANN Architecture
- DL Architecture and Framework
- Application areas of DNN
  - 2. COVOLUTION NEURAL NETWORK
- CNN Architecture and Convolution layer
- Handwriting Digital Classification using
  TOPED LEADNING MODELS WITH

### 3. DEEP LEARNING MODELS WITH TENSOR FLOW & KERAS

- Building Deep Learning Models
- Digital Classifier
- DL for Face Recognition
- Deep Learning for Speech Processing
- Emotion Recognition

#### Who Should Join

Faculties, Students, and Industry Professionals

## **DATA ANALYTICS**

### TOPICS TO BE COVERED

- Introduction to R Studio
- Data Structure in R
- Loading Data into R
- Working with Packages
- Cleaning of Data and Visualisation
- Probability and statistical parameters from data
- · Relationship among variables
- Bayesian Methods
- Time series Analysis of data
- Regression models
- Classification of data
- · Clustering analysis
- Neural Network Models
- Evaluating and Improving model performance

# NATURAL LANGUAGE PROCESSING

### TOPICS TO BE COVERED

- Introduction of Natural Language Processing
- Tokenization
- Stemming Lemmatization
- Deviding Text Data into Chunks
- Bag of words Model
- · Building a category predictor
- · Constructing a gender identifier
- · Sentiment Analysis
- Topic Modeling using Latent DirichletAllocation

## **CLOUD COMPUTING**



### TOPICS TO BE COVERED

- Introduction of Cloud Commuting
- Cloud Models
- Cloud Characterstics and capacity planning
- Workflow Scheduling
- Resource Provisioning
- Introduction to Amazon Web Servicesv(AWS)
- Introduction to Google Cloud Platform(GCP)
- Miscellenious Topics