

HANDS ON SEMESTER LONG PROGRAM
ON
ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

From 12th JANUARY 2018

About the course

Machine learning is the science of getting computers to act without being explicitly programmed. In the past decade, machine learning has given us self-driving cars, practical speech recognition, effective web search, and a vastly improved understanding of the human genome. In this class, you will learn about the most effective machine learning techniques, and gain practice implementing them and getting them to work for yourself. More importantly, you'll learn about not only the theoretical underpinnings of learning, but also gain the practical know-how needed to quickly and powerfully apply these techniques to new problems.

Expected outcomes

After successful completion of the course every participant is expected to achieve the following outcomes

This course provides a broad introduction to machine learning, datamining, and statistical pattern recognition. Topics include:

- (i) Classification of unknown data using Machine Learning with Supervised Learning like Support vector Machine
- (ii) Classification of unknown data using Machine Learning with Unsupervised Learning
- (iii) Python Programing
- (iv) Prediction/Regression Methods – Linear and Logistic Regressions
- (v) Probabilistic Method – Naive Bayesian
- (iv) Data Pre- Processing

Date	Hours	Topic
Day 1	2 hr	Python Programming
Day 2	2 hr	Introduction to Libraries , Pandas , Data Preprocessing , Taking Excel

		data, analyzing Excel data,saving data to excel.
Day 3	2 hr	Introduction to Machine Learning – Linear Regression . Predicting a stock market Price. Predicting room temperature.
Day 4	2 hr	Logistical Regression – Classifying number of students based on performance from a progress report
Day 5	2 hr	Support Vector Machine - Predicting behavior of a human being from historical behavior
Day 6	2 hr	Nave Bayesian Probability Analysis - Predicting behavior of a human being from historical behavior by giving importance to his last state of operation
Day 7	2 hr	Clustering - KNN Algorithm - Classifying number of students based on performance from a progress report and adding them to groups based on their nearest performance
Day 8	2 hr	Random Forest - Classifying number of students based on performance from a progress report and adding them to groups based on their performance different activities
Day 9	2 hr	Support Vector Regression - Predicting behavior of a human being from a number of user traits
Day 10	2 hr	A joined Program of all systems

Time : 4.30 to 6.30pm

Venue : Research lab EEE

Contact us:

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