Faculty of Engineering & Technology

Machine Learning and Pattern Recognition

Information :

Course Code :	EED472	**Level**	:	Undergraduate	**Course Hours :**	3.00- Hours

Department :	Computer & Intelligent Systems Engineering

Instructor Information :

Title	Name	Office hours
Professor	Aly Mohamed Ibrahim Mohamed El Semary	

Description :

Introduction to Machine Learning: Concepts, Instances, Attributes, Simple Examples,
Application Domains. Machine Learning and Statistics. Data Pre-processing and
Exploration: Sampling, Principal Component Analysis, Feature Extraction, Exploratory
Data Analysis. Fundamental Classification Strategies. Clustering Techniques. Statistical
and structural pattern recognition approaches. Bayesian decision theory. Maximum   Likelihood and Bayesian
parameter estimation. Nearest neighbour rule. Non-parametric
classifiers. Linear discriminate functions. Non-linear classifiers. Multi-layer neural
networks. Features selection. Template matching. Unsupervised learning and Cluster
analysis. Supervised learning.