Faculty of Engineering & Technology

Machine Learning and Pattern Recognition

Information :

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

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.