Machine Learning

From fundamentals to applied models

Duration:	3 months
Starting Date:	Available Now
Price:	PKR. 8,000

MEET YOUR INSTRUCTOR

Dr. Muhammad Hamid is an Assistant Professor at GC Women University, Sialkot. He has 12+ years of teaching and research experience in Artificial Intelligence and Software Engineering. He has also published 30+ research papers and worked on projects in Canada during his Ph.D. His interests include AI, Software Engineering, and Intelligent Diagnosis.

Course Outline

MODULE	LEARNING OUTCOMES
Welcome to Machine Learning	Welcome to the course on Machine Learning! In this module you will learn about what Machine Learning is? Who is this course for? What this course contains and how will you be able to benefit from this course.
Introduction to Machine Learning	This module will uncover the wonderful world of machine learning, demonstrating its ubiquity in our lives and explaining its underlying concepts.
Supervised Learning	Supervised learning is one of the fundamental techniques in Machine Learning. This module will equip you with the foundational knowledge and practical skills necessary to apply supervised learning algorithms to real-world problems.
KNN	K-NN is a non-parametric method used for both classification and regression tasks. This module will familiarize you with the underlying principles, implementation, and evaluation of the K-NN algorithm.
Evaluation of Classifiers	The module provides a comprehensive understanding of essential evaluation metrics for classification tasks.
Linear Regression	In this module, you will gain a comprehensive understanding of linear regression, a widely-used technique in predictive modeling. You will learn the fundamental principles and assumptions of linear regression, including linearity and independence.
Logistic Regression	Logistic regression is a powerful tool used to predict the probability of a binary outcome based on a set of input variables. In this module you will cover the underlying concepts and assumptions of logistic regression, including the logistic function and loss function.

Linear Regression	In this module, you will gain a comprehensive understanding of linear regression, a widely-used technique in predictive modeling. You will learn the fundamental principles and assumptions of linear regression, including linearity and independence.
Neural Networks	The module on Neural Networks provides you with an introduction to this powerful machine learning technique that mimics the structure and functioning of the human brain. Neural networks are composed of interconnected nodes, or artificial neurons, organized in layers that process and transform data.
Support Vector Machines	The module on Support Vector Machines (SVM) offers an introduction to this powerful supervised learning algorithm used for classification and regression tasks.
Bayes Theorem	This module provides you with an introduction to Bayes Theorem, a fundamental concept in probability theory and statistics. Bayes Theorem allows us to update our beliefs about the probability of an event based on new evidence or information.
Naive Bayes Classifier	This module introduces the Naive Bayes classifier, a simple yet effective probabilistic algorithm used for classification tasks.
Responsible AI and Machine Learning for Development	This module aims to unveil the 'black box' nature of artificial intelligence and machine learning models, enabling deeper understanding of their inner workings and addressing the multifaceted issues related to AI.