AIB504 Machine Learning in Business

Level: 5

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY REGULAR SEMESTER

Synopsis:

The rise of machine learning applications has changed the ways different business activities are performed today. This course AIB504 Machine Learning in Business covers popular machine learning techniques and algorithms in business applications, such as customer segmentation, click-through rate (CTR) prediction, churn prediction, customer lifetime value (CLV) prediction, recommendation engines, and machine learning models for time series data. Students will learn about training data, and how to use a set of data to discover potentially predictive relationships.

Topics:

- Data preprocessing for Machine Learning
- Designing Machine Learning Workflows
- Supervised vs Unsupervised Learning
- Customer Segmentation
- Market Basket Analysis
- Click-through Rate (CTR) Prediction
- Churn Prediction
- Customer Lifetime value (CLV)
- Content-Based Recommendations
- Collaborative Filtering
- Machine Learning for Time Series
- Use Cases and Decision-Making

Textbooks:

Aurélien Géron: Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow: Concepts, Tools, and Techniques to Build Intelligent Systems (3rd Edition) 3rd O'Reilly Media, Inc
ISBN-13: 9781098122461

Learning Outcome:

- Prepare data for machine learning models
- Design machine learning workflows
- Predict business output variables using machine learning methods
- Formulate appropriate machine learning models in business
- Evaluate the performance of machine learning models
- Improve business decision making via machine learning applications

Assessment Strategies - Regular Semester (Evening Class):

Components	**Description**	**Weightage Allocation (%)**
Overall Continuous Assessment	PRE-CLASS QUIZ 1	10
	PARTICIPATION 1	15
	GROUP BASED ASSIGNMENT 1	25
Overall Examinable Components	ECA	50
Total		**100**

*The information listed is subject to review and change.