**Operations Research Methods in Marketing**

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**Objective:** To provide Students with a working knowledge of quantitative methods and data mining applied to marketing and customer relationship management. The course reviews the theoretical aspects of different methods followed by case studies to illustrate the nuances and consideration that arise in practice, thus preparing the students for the job market.

**Prerequisite:** Working knowledge of Python, R, MATLAB, VBA or a similar language, courses in Probability and Statistics

**Topics:**

Clustering Methods:

Hierarchical

Non- Hierarchical

Clustering applied to Market Segmentation

Conjoint Analysis and Customer Preferences

Trade-Off Analysis

Attribute Importance

Product Design

Positioning

Forecasting

Market Share

Product Life Cycle

New Product

Customer Lifetime Value (CLV)

Equity Valuation

Nearest Neighbor, Discriminant Analysis, Decision Tree

Customer Churning

Customer Retention

Customer Credit

Revenue Management

Price and Advertising Elasticity

Resource Allocation and Return on Investment (ROI)

Economic Analysis of a Network and its Formation

Networked Markets