



Machine Learning and Predictive Models



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Why Attend

Predictive models have become accessible to all users with the advancement of technology. This course offers a complete overview of supervised Machine Learning algorithms, and their role in the enhancement of predictions in most industries and by most organizations.

This course covers all models utilized under different technologies (SAS, Statistica and SPSS), enabling participants to become expert practitioners by evaluating and selecting appropriate solutions with suitable technical packages for their organizations.

Course Methodology

This course includes interactive discussion and the use of exercises and case studies. Each Machine Learning algorithm is supported by its own case study with step by step outputs that go in parallel with its multi stage analysis. All algorithms are detailed with sequential screen shot applications on comparative technologies such as SPSS, SAS, Statistica and Excel.

Course Objectives

By the end of the course, participants will be able to:

- Understand the true meaning of Machine Learning
- Comprehend the key differences between Data Analysis and Machine Learning
- Apply testing and validating samples into Machine Learning models
- Submit an overview of the best analytic solutions
- Implement fine tuned estimation with complete predictive models

Target Audience

Any level of professional interested in how Machine Learning can assist their organization, would benefit from this course. These include professionals from industries including, but not limited to, banking, insurance, retail, government, manufacturing, healthcare, telecom, and airlines.

Target Competencies

- Predictive Analysis
- Predictive Models
- Data Analysis
- Data Analytic Models

Course Outline

- Data Analysis and Simple Regression
 - Introduction to Data Analysis Logic
 - Testing two groups on their means and proportions
 - Profiling two groups in one single chart
 - Testing multiple groups on their means and proportions
 - Profiling multiple groups in one single chart
 - Simple regression
 - Regression vs. Correlation
 - Sensitivity analysis of quantitative variables

- Multiple and Logistic Regressions
 - Introduction to Machine Learning
 - The Gradient Descent logic
 - Multiple Regression vs. Simple Regression
 - Variability analysis for estimations
 - Dummy variables



- Similarities and differences between Logistic and Multiple regressions
- Simplifying complex models
- Stepwise regression

- Discriminant Analysis
 - Optimized Profiling
 - Two-Group Discriminant Function
 - Attribution of Cases
 - Model Evaluation
 - Classification Functions
 - Mahalanobis Squared Distances
 - Probability Method
 - Model's Reduction
 - Generalized Discriminant Analysis

- Decision Trees
 - What are Decision Trees?
 - Binary Trees
 - Quality of a decision tree
 - Rules of pruning
 - CART: Classification Tree
 - CART: Regression Tree
 - CHAID tree
 - Random Forest tree

- Nearest Neighbor, Bayesian, Neural Network and Deep Learning
 - Conditional probabilities
 - Prediction by probabilities
 - Distance from neighbors
 - K nearest distances from neighbors
 - Weights in a Neural Network model
 - Hidden layers role
 - Neural Network pros and cons
 - Deep Learning
 - Introduction to Big Data



Location & Date

3 - 7 Nov, 2019

English

Dubai

Novotel Al Barsha

Fees: US\$ (including coffee breaks and a buffet lunch daily)

Per participant - 2019

US\$ 4800

Fees + VAT as applicable

UAE Tax Registration Number 100239834300003



Courses in Digital Innovation and Transformation

Dates	Course Name	Language	Location	Fees
10 - 12 Nov, 2019	Blockchain Masterclass 	English	Dubai	US\$ 3600



Meirc Timeline

2018

Meirc celebrates its 60th anniversary

2015

Meirc relocates to its newly acquired HQ office in Bay Square, Business Bay, Dubai

2014

Meirc adds PLUS Specialty Training, a new division providing technical and industry-specific courses

2007

Meirc opens an office in Jeddah, Saudi Arabia

2004

Meirc opens an office in Abu Dhabi, UAE

1997

Meirc is the 1st training company in the region to have its own website

1991

Meirc becomes headquartered in Dubai, UAE

1988

Meirc celebrates its 30th anniversary with its advisory committee (Aramco, Bapco, KOC, QPC)

1967

Meirc builds its own office building in Beirut

1958

Meirc is founded in Beirut by the late Simon Siksek

