



Digital Transformation and Innovation

Artificial Intelligence and Future Foresight in Engineering

Course Introduction

Artificial intelligence (AI) is increasingly finding its way into industrial and manufacturing contexts. There are even AIs being used to conduct high-frequency trading on the stock market. AIs have a great deal to offer the world of engineering. Some of the most exciting current and prospective uses of artificial intelligence are within the field of engineering. With the rapid evolution of technology, there will be an increased need for engineers to research, create and test AI systems.

Concepts of Artificial Intelligence

This training course is designed to provide participants with the various concepts of Artificial Intelligence like Machine Learning with Python, Deep Learning with TensorFlow, Artificial Neural Networks, Statistics, Data Science, SAS Advanced Analytics, Tableau Business Intelligence, Python and R programming, Build Chatbots with Watson Assistant, and MS Excel through hands-on projects. This course will also provide an overview of future foresight and the concepts that will help participants gain knowledge and skills in futures studies in a visionary and futures-oriented way.

Target Audience

- Business and technology leaders
- Business Unit Managers
- Business Development Consultants
- General Managers / Regional Managers
- Senior and mid-level leaders
- individual leaders of all levels in the organization
- Art Director
- Marketing Consultants
- Marketing Development Manager

Learning Objectives

- Gain a comprehensive understanding of Artificial Intelligence in Engineering and future foresight concepts.
- Recognize the efficient designs of machine learning systems.
- Build Artificial Neural Networks and Statistical Models
- Know and apply Deep Learning techniques and working with TensorFlow
- Learn the benefits of systematic futures thinking
- Understand the basic futures studies methodologies

Course Outline

- **Day 01**

- Introduction to the Artificial Intelligence domain**

- How Data science and Artificial Intelligence overlap
 - Importance of Python coding for data analytics

- **Day 02**

- The efficient design of Machine Learning systems**

- SAS tool for data analytics, modeling and visualization
 - Working with Tableau interactive dashboard and reports

- **Day 03**

- MS Excel calculations, tables and formulae**

- R Statistical computing for Data Science
 - Building of Artificial Neural Networks and Statistical Models

- **Day 04**

- Deep Learning techniques and working with TensorFlow**

- Origins and development of futures thinking
 - Role of foresight in today's world

- **Day 05**

Key concepts of foresight

- Scenario planning, horizon scanning, megatrends, weak signals and wild cards
- Ethics of foresight
- How to apply foresight methods in our work

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
April 7, 2025	April 11, 2025	5 days	4950.00 \$	England - London
May 26, 2025	May 30, 2025	5 days	4950.00 \$	England - London
Aug. 18, 2025	Aug. 22, 2025	5 days	2150.00 \$	Virtual - Online
Nov. 24, 2025	Nov. 28, 2025	5 days	4250.00 \$	UAE - Dubai