



IT174: Artificial Intelligence Essentials: *Achieving More with Less Effort*

Training Description:

Artificial Intelligence is the ability to rationally act and think. Applied AI is achieved when one can think and act/react in daily business. Artificial Intelligence has invaded everywhere both in personal and business life. It achieves pleasing results without costing excess effort or money. It is a must now to know how wisely to manage business operations; and be able to deliver them in the most optimized and efficient fashion. In this course the essential concepts of artificial intelligence are being demonstrated as well as how and when to employ them.

This intensive training course has been designed to develop the insight of the participants on Artificial Intelligence. Participants will learn how to build Artificial Intelligence applications. The training modules will enable the participants to understand the theories of Artificial Intelligence and help them to understand how to solve real-world problems using a number of carefully chosen case studies.

This training course will highlight:

- Understanding the value of AI applications over other applications
- Learning how to analyze daily business problems and create Artificial Intelligence solutions
- Gaining a deeper understanding of the latest innovative technologies and apply them to business
- Knowing the success and failure factors in AI related projects

Training Objectives:

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

- ✓ Develop necessary AI
- ✓ Understand how to plan and analyze using logic
- ✓ Explain how to imitate human in clustering and classification
- ✓ Understand how to design a Machine Learning based applications
- ✓ Analysis and Design AI Applications

Training Designed for:

This course is intended for Quality, Safety, Reliability and Security officers, Project Managers, Executive Managers, Marketing Managers, Instrumentation, process, systems, electrical and mechanical Engineers Finance, Budget-planner, Decision takers and Policy makers and those professionals who are interested in enhancing business, decision makers, marketing, finance, engineering and other competing technologies.

Training Program:

DAY ONE:

- ❖ Pre-Test
- ❖ **An Overview of Artificial Intelligence**
 - Introduction to AI and Success Stories
 - Human Intelligence vs Artificial Intelligence
 - History of AI
 - Intelligent Agents and Their Roles
 - Limits of Artificial Intelligence
 - Intelligent Decision Making



DAY TWO:

❖ Intelligent Agents

- Introduction to Agents
- Different Types of Agents
- Knowledge-base and Data Base
- Logic Reasoning
- Unification
- Deduction Processes

DAY THREE:

❖ Machine Learning

- Supervised and Unsupervised Learning
- Classification and Clustering
- Artificial Neural Networks
- Learn by Examples
- Object Recognition
- Features and Classes

DAY FOUR:

❖ Fuzzy Logic

- Introduction to Fuzzy Thinking
- Fuzziness vs Probability
- Fuzzy set and Fuzzy Rules
- Importance of Fuzzy logic
- Real example of Fuzzy Controllers
- Building a Tiny Machine Learning Application

DAY FIVE:

❖ Genetic Algorithm

- Overview of Genetic Algorithms
- The Need for Optimization, Maximization, and Minimization
- How GA Work and Evolve
- Genetic Algorithm Chromosomes, Genes, Selection, Mutation and Crossover
- Dimension to Use Genetic Algorithm
- Real Genetic Algorithm Examples to Optimize Business Processes

❖ Course Conclusion

❖ Final Examination and EVALUATION

Training Requirement:

"Hand's on practical sessions, equipment and software will be applied during the course if required and as per the client's request."

This training course is available upon request in English or Arabic. Content, location and duration can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client's learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Methodology:

This training course will utilise a variety of proven adult learning techniques to ensure maximum understanding, comprehension and retention of the information presented. This will combine presentations and workshops (computer-based activities) with instructor-guided interactive discussions between participants relating to their individual interests, Practical exercises, video material and case studies aiming at stimulating these discussions and providing maximum benefit to the participants will support the formal presentation sessions. Above all, the training instructor will make extensive use of case examples and case studies of issues in which he has been personally involved. Most of the computer-based activities will not involve programming so AI concepts will be clearly elaborated for non-technical delegates.

Training Certificate(s):

Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

As per the course location - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:30	Recess (Prayer Break & Lunch)
13:30 - 16:00	Last Session

For training registrations or in-house enquiries, please contact:

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Training & Career Development Department