Artificial Intelligence
Applications in Project Management

تطبيقات الذكاء الاصطناعي في إدارة المشاريع

19 – 23 January 2020

Dubai / United Arab Emirates

Introduction

The availability of Artificial Intelligence/Expert System software for personal computers provides an opportunity to "capture" the experience of project managers in a form that can be used to share these experiences with other project managers, new project team leaders, students of project management and even project sponsors. AI is also a vehicle for transmitting the Body of Knowledge of the Project Management Institute to users in a customized mode.

This course pointed out that artificial intelligence and machine learning should be considered a key trend that will be breaking into project management throughout the next few years. We can't image a project manager who grows his or her career without having enough knowledge, skills and experience in AI techs.

This course briefly explain the principles of Artificial Intelligence/Expert Systems, comments on a few AI "shells" for personal computer use, discusses the creation of a knowledge base, suggests ways to apply this to project management, and, finally, mentions a project management AI application package designed for this purpose.

The course gives an overview of how AI technologies can support decision making across any number of business sectors and project management entities.

Objectives

- How Artificial Intelligence has the capability to bring about a remarkable transformation in project management.
- Learning the potential savings that can be attributed to the proper utilization of AI far outweigh its cost.
- Discovering that AI can "predict" a given project's future and improve its visibility for project teams and managers.
- AI Eliminates Repetitive Administrative Tasks.
- Enhancing visibility for Early Risk Detection.
- Raising awareness in the organizations towards the latest developments in achieving the AI applications.

Who Should Attend?

- Project management teams,
- IT Management staff,
- Developers,
- Planners
- Business analystes

Course Outlines

DAY 1:
Construction of the Expert Systems
- Course Introduction
- Overview of Project management and Decision Making
- What It All Means: AI vs. ML
- Building of an Expert System
- Artificial Neural Networks (ANN)
- Define the issues in the process.
- Identify the factors and values of the factors that affect the resolution of the issue.
- Determine the set of possible results or advisories regarding the resolution of the issues.
- Provide a set of examples to calibrate the model (factors, values and results).
- Induce the rule (logic tree) using the inference engine in the software.
- Provide text to make the query of the rule understandable and meaningful for the user.

DAY 2:
AI application in Project Planning phase
- Preparing a business justification for the project.
- Building an effective project team.
- Selection of project team leaders.
- Determining special training needs.
- Project planning with AI-enabled process automation
- Accurately estimate project duration and resource requirements for project activities.
- Automation of project activity sequencing based on the functional requirements
- Determination of the project priorities in the Portfolio management processes
- Probability distributions to assess risks in construction projects.

DAY 3:
AI application in Project executing phase
- Developing a list of project concerns.
- Selecting project planning software.
- Preparing an optimum project schedule and budget.
- Performing Value and Risk analysis.
- Designing for quality, safety and reliability.
- Applied intelligence to performance monitoring tools
- AI Risk Estimation indicates the degree of confidence in a project.
- Real-time information on resource engagement
- AI predictive forecasting for cost and schedule

DAY 4

AI application in Project monitoring and control phase
- Diagnosing and solving technical and personal problems.
- Improving project performance and leadership effectiveness.
- Calculating/awarding performance bonuses.
- AI and Performance Management
- Reporting Advanced Visualization

Day 5

AI applications - Future Possibilities
- AI/Expert Systems provide a way for valuable project-related experience
- Augmented Reality and AI in construction works.
- BIM and AI interface in M&O works.
- The AI Development Lifecycle

Training Method

- Pre-assessment
- Live group instruction
- Use of real-world examples, case studies and exercises
- Interactive participation and discussion
- Power point presentation, LCD and flip chart
- Group activities and tests
- slides and handouts
- Post-assessment

Program Support

This program is supported by interactive discussions, role-play, case studies and highlight the techniques available to the participants.

Schedule

The course agenda will be as follows:
- Technical Session   08.30-10.00 am
- Coffee Break   10.00-10.15 am
- Technical Session   10.15-12.15 noon
- Coffee Break   12.15-12.45 pm
- Technical Session   12.45-02.30 pm
- Course Ends   02.30 pm

Course Fees*

- **2,950USD**
  VAT is Excluded If Applicable