



Advanced Project & Construction Management



13 - 31 October 2024



Cairo (Egypt)

# Advanced Project & Construction Management

course code: P4101 From: 13 - 31 October 2024 Venue: Cairo (Egypt) - InterContinental Cairo Semiram course Fees: 3750 Euro

## INTRODUCTION

In the present competitive business environment, there is an ever-increasing emphasis on timely market introduction of products. Owners are extremely sensitive to global market forces, and are seeking to reduce project cost and duration. This then confronts Contractors and Suppliers with increased challenges to meet these demands without jeopardising their commercial positions. Contracts are the basis of all projects, and establish the responsibilities and rights of the parties. Once the contractual matrix is established, competent project planning and execution techniques are essential tools to achieve the goals of a project, particularly within compressed or accelerated conditions.

This highly interactive programme will provide a practical hands-on approach to effective creation of contracts, and the management of both the contract, and the project to which it relates. It will also offer techniques and contract strategies to assist this process, including establishing a risk management strategy with reference to contracts, and techniques for managing the planning, and developing good business practice to take advantage of opportunities, enhance efficiency and increase profitability. It will also enable delegates to:

- enhance leadership and management skills
- develop systems to reduce the frequency of contractual disputes
- to resolve such contractual disputes as do occur in an efficient fashion
- to manage contracts and projects from the pre-contract, contract through to the post-contract stage in accordance with best practices
- develop strategies for project execution
- select and manage modern tools for project management
- control project execution effectively and efficiently
- to enhance profitability, not only by increasing money coming 'in' from contracts, but also by preventing unnecessary sums 'going out' in operational disputes
- Explore the advanced practices generally viewed as leading to World-Class performance in contract management
- Enable participants can determine where they are now
- Help participants to begin immediate implementation of the steps needed to create maximum total value for their organization

## PROGRAMME OBJECTIVES

- understand necessary contractual and legal knowledge
- understand application of different types of agreements
- increase commercial awareness needed to enhance smooth running of contracts
- ability to identify and mitigate risk factors and associated commercial and programme implications
- understand importance of checklists, file-management and standardisation of documentation effectively to reduce the exposure to risk
- understand various project delivery systems
- increase understanding of commercial liabilities resulting from schedule changes and variations

- ability to conduct a cash flow analysis
- ability to apply Advanced Scheduling techniques
- methods to develop a Project Control System
- skills at handling both reactive and proactive project management techniques
- ability to analyse, negotiate and implement the most appropriate method of resolving disputes preventing escalation by early identification
- improved managerial approaches to both contract and project management

## **TRAINING METHODOLOGY**

The programme will combine conventional teaching with a high level of participation; including an interactive approach to involving participants in discussion of topics; exercises; and encouraging participants to bring their own experiences forward for discussion and debate. Project management techniques will be taught through computer-based exercises, and project videos will be used to promote discussion of “real life” issues.

## **PROGRAMME SUMMARY**

The first half of the programme will address the contracting process from tendering and award, through planning and management to close out and resolution of disputes. The intention is to develop general skills with application to a wide range of contractual situations, and to allow participants to have an awareness of practices in other areas and other industries which may add value to their own situations.

The second half of the programme will demonstrate how decisions made early in project development will have significant impact on subsequent project performance. Topics will demonstrate how to integrate project objectives, owner capabilities and project risks into a systematic approach to selecting delivery systems, contractor procurement, and project execution and monitoring.

## **PROGRAMME OUTLINE**

### **The Basis of Contracting**

- Principles of Good Contracting
- Why do we use contracts?
- Key steps in the creation of a Contract
- Essential elements of a valid Contract
- Overview of Tendering & Contract Award Process
- Advantages of tendering and some pitfalls to avoid
- Distinguishing price and values
- Other Types of Obligation Documents
- Bonds and guarantees
- Letters of intent and award - are they contractual?
- Letters of Comfort - Do they mean anything?
- Side letters - why they can be dangerous
- When to Obtain Legal Advice
- Law of Agency
- Authority to sign contracts
- Organising strategies for Contract Management
- Defining Contract Management Responsibilities
- Basic contract planning
- Communication and managing expectations

## Risks and selecting the right contract structure

- Assessing and allocating risk
- Identifying Risk
- Apportioning Risk
- Incorporating Risk Assessment and Management
- Selecting types of contract
- Traditional - lump sum, schedule of rates, reimbursable etc
- EPC
- BOT/BOOT
- Alliance/partnering
- Warranty Management

## Major Contract Terms to aid the handling of performance issues

- Effective handling of Contract Performance issues
- Design and Specification
- Work Ordering Process
- Obligation to perform work
- Transfer for ownership
- Risk of damage
- Contract Administration
- Reporting Mechanisms
- Cost Control
- Recovery Clauses - Acceleration
- Insurance and Indemnities
- Termination and suspension

## Managing Change within a Contract

- Understanding change
- Changes to the contract documents
- Variations in scope
- Increases and decreases
- Change in timing
- Change in method of working
- Managing change
- Risks of uncontrolled change
- Developing Contract Terms and Conditions
- Finding Contract Templates
- Using standard form documents
- Modifying standard forms
- Drafting special conditions
- Issues for subcontracts

## Resolution of Disputes

- Eliminating sources of Contract disputes
- Errors and omissions
- Anticipating and avoiding Conflicts
- Dealing with Unknowns
- Tracking Changes
- Managing Expectations

- Resolving disputes
- Negotiation
- Stage processes
- The need for compromise
- Negotiation techniques
- Litigation
- Arbitration
- Alternative Dispute Resolution
- Expert determination
- Early neutral evaluation
- Mini-Arbitration
- Mediation
- Med/Arb and Arb/Med
- Pendulum Arbitration
- Dispute Review Board and similar arrangements
- The future in the Middle East
- Revisiting Strategic Alliance and Partnering Agreements and BOT/BOOT
- Prime Contracting and other Consolidated Sourcing Contracts
- Online Contracting and e-tendering
- Contract Management Review and Summary
- Programme highlights and final observations
- Why do we do projects?
- What is a project?
- What is project management?
- Project Delivery Systems / Life-cycle Models
- Initiating
- Project selection
- Qualitative techniques
- Quantitative techniques - Economic Evaluation
- Selecting the right project manager
- Project Objectives and Stakeholder assessment - who wants what?
- Identification of stakeholders
- Stakeholder analysis
- Management of stakeholders

## Planning

- Task Characteristics and Duration Assessment
- Planning and Scheduling Methods
- Critical Path vs Critical Chain Scheduling
- Resource Allocation Methods
- Time-Cost Trade-off
- Lead/Lag Scheduling
- Critical Chain scheduling

## Proactive Project Risk Management

- What do we mean by risk?
- Risk vs. uncertainty
- Attitudes towards risk
- Risk identification, factors and sources
- Risk analysis approaches
- Qualification and quantification of probability and impact

- Dealing with subjective elements of risk
- Risk strategies

### **Executing**

- Lean Construction Strategies
- Staff Acquisition
- Team Development and Motivation
- Leadership vs Management
- Management styles and Conflict Handling

### **Monitoring and controlling**

- Using Earned Value to report accomplishment
- Implementing Risk strategies
- Project Closing