

RESEARCH AND DEVELOPMENT PROJECT MANAGEMENT.

TRAINING AND PROFESSIONAL DEVELOPMENT

Institution of
**MECHANICAL
ENGINEERS**

1–2 December 2010
1 Birdcage Walk
London SW1H 9JJ

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**BRILLIANT
COURSE.**

ENGINEERS WILL LEARN TO:

- Effectively manage R&D projects
- Clarify scope of work required to meet project objectives
- Ensure resources for research and development are properly identified, costed and allocated
- Plan and schedule activities to meet deadlines
- Better deal with project risk and uncertainties

WHO SHOULD ATTEND:

- Project managers
- Research and Development Engineers
- Technical and design professionals

Endorsed by:

The National
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Improving the world through engineering

DAY 1

Session 1:

Aims and Introductions

- Outline of the workshop; discussion of objectives
- Delegate introductions and personal objectives

Key Concepts

- The world of R&D; particular challenges of R&D projects
- Projects and project management; the 'triangle of balance'
- Key phases in an R&D project lifecycle; the 'STAR' stage-gate process
- Success and failure: the critical factors and role of the project leader
- The key management roles and responsibilities

Session 2:

Defining Projects

- Developing project strategy; linking long term and short term goals
- Defining the deliverables for each phase; using scope charts
- Converting customer needs into a design brief; the role of specifications
- Setting priorities for development; the needs/benefit matrix

- Detailing the work to be done; using 'rapid team thinking'
- Defining 'who does what'; identifying resource requirements

Session 3:

Planning the Work

- Avoiding the classic pitfalls, especially 'hopeless optimism'
- Planning the plan: choosing the format and deciding the level of detail
- Mapping out the logical sequence; creating the summary Gantt chart
- Estimating activity durations, resource requirements and costs
- Alternative methods for dealing with estimating uncertainties
- 'Concurrent engineering' – challenges and benefits

Session 4:

Initiating Projects

- Opportunity appraisal and validation; getting early decisions right
- Getting organised: identifying and managing project stakeholders
- Understanding and managing expectations; articulating project goals
- Preparing preliminary estimates of time and cost; recognising risk

- Financing the work; estimating the costs, cash flow and financial risks
- Project leadership, sponsorship and team structures

DAY 2

Session 1:

Review of Day 1

- Review and consolidation of key points from Day 1

Identifying and Managing Project Risks

- Understanding and defining risk; focusing on the risks that matter
- Classifying risks and agreeing boundaries for risk ownership
- Identifying risks (and opportunities); deciding how to best manage them
- Monitoring and controlling risk exposure; keys to successful risk transfer

Session 2:

Exploiting the Results of R&D

- Defining the boundaries between R&D and operations departments
- Managing the transitions between conceptual design and manufacture

- Planning for scale-up; involving production departments and suppliers
- Managing/supporting commissioning activities; resolving problems
- Transferring know-how to operations groups; planning an exit strategy
- Completing and closing projects; de-briefing the team

Session 3:

Project Execution, Monitoring and Control

- Initiating work assignments and mobilising resources; delegating tasks
- Pro-active and re-active control – striking the right balance
- Minimising 'scope-creep' and managing change
- Monitoring for pro-active control; avoiding blame culture mentality
- Creating a systematic control process; project reviews and meetings
- Tracking performance; trend monitoring techniques that give early warning

Session 4:

Project Leadership and Teamwork

- The teamwork challenges of a typical R&D multi-project environment

- Defining team member roles and responsibilities; the team leader's role
- Building effective communication throughout the project team
- Understanding team dynamics and building team performance
- Developing and using the most appropriate project leadership style
- 'Managing upwards' – working with and influencing senior stakeholders

BOOKING FORM

One form per person only (forms may be photocopied)

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Family Name _____ Title (Mr, Mrs, Miss etc) _____

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Registration fees include tuition, refreshments, lunches and a printed copy of the training manual.

	Fee	VAT	Total	£
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Venue

This event will be held at One Birdcage Walk, Westminster, London SW1H 9JJ. Details will be sent upon registration.

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