Reliability Engineering and Asset Management

Professional Development Programme

CPD/PGCert/PGDip/MSc

IMechE accredited REAM MSc meets the current requirements and challenges of improving Reliability and Maintenance of industry through the development of maintenance engineers, professionals and practitioners that can make the difference in competitiveness on a global scale for any industry.

www.mace.manchester.ac.uk/ream-pdp
Reliability Engineering and Asset Management (REAM™) PDP

The University of Manchester’s REAM Professional Development Programme is accredited by I Mech E for experienced maintenance and reliability engineers, practitioners and new graduates in any industry. It is an engineering-based maintenance programme. Participants have the option to study for either an MSc, a postgraduate diploma or postgraduate certificate qualification either as full-time (1 year) or Part-time (3 year as face-to-face direct-taught or web-based off-campus Distance-Learning).

Plant Reliability, Maintenance and Asset Management are critical fields of managerial and technical importance to any industry including service sectors. Significant cost is generally spent every year to improve reliability and to maintain plant. Improved Reliability & Maintenance can make the difference in competitiveness, on a global scale for any industry by minimising the maintenance cost, plant downtime and improving reliability and safety. REAM-PDP is fully focused and committed to improve the industrially applicable skills and knowledge in these areas.

REAM-PDP was started in 1997 and was previously known as Maintenance Engineering Asset Management (MEAM). A number of experienced professionals from more than 150 industries across the globe and fresh graduates have already graduated from this course. Many of them are now in senior management roles in their organisations. The course provides a flexible and tailored format for those seeking to enhance their skills whilst fitting this in around their current work life. The degree and individual modules are accredited by the I Mech E.
Breadth of learning, depth of expertise

Our Reliability Engineering and Asset Management [MSc] is the only course in the world that offers a complete spectrum of education with real industrial applications in this field; ranging from maintenance systems and modelling, audit maintenance, turnaround management, reliability and maintainability, approaches in condition monitoring (CM) and maintenance in design.

The lecturers on this course are experts in their field and associated with industrial companies. Our teaching style is unique compared to other postgraduate engineering courses. All of the units are explained through industrial case studies, and our teaching often takes place at plant sites to demonstrate the real world application of theory.

REAM-PDP units/modules include:

Core Units:
- M01: Asset Management & Maintenance Strategy
- M02: Maintenance Organisation
- M03: Asset Maintenance Systems
- M04: Condition Monitoring

Elective Units:
- M05: Design for Reliability and Asset Management
- M06: Auditing Asset Management & Maintenance Organisations
- M08: Turnaround Management
- M13: Reliability, Maintainability & Risk
- M14: Machinery Vibration Monitoring & Analysis

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KEY FEATURES AND BENEFITS

• Industry led
• Flexible learning
• Tailored education
• Collaboration and knowledge transfer
• Selected Achievements and Publications
**Industry Focus**

“Engineering-based” Programme

- No previous education on plant maintenance at the undergraduate level is required. REAM-PDP has developed 9 unique units/modules to meet the complete spectrum of plant maintenance and its reliability.

- Follows a holistic systematic approach in teaching that provides best practice in maintenance engineering and related management knowledge transfer to enhance plant and system reliability to any industry including service sectors.

- Lecturers are experts in their field and associated with industrial companies, so that they understand the Industrial Culture, Requirements and Language.

- Students are generally professionals already working in industry.

- Students are encouraged to focus their dissertation projects and unit assignments on real industrial problems from their parent industry to solve/address existing industrial problems during their study. As a result, most of them are able to contribute significantly to their organisation throughout their studies and beyond.

- The learning outcomes of each unit are directly transferrable to Industry.

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**Flexible learning**

- Courses are designed so that participants can study along with their work commitments.
- Time benefits afforded by e-learning technology and mentoring by email, telephone and possible video conferencing.

*Virtual Learning Environment*
Tailored education

- The teaching style is concerned with knowledge transfer of concept, case studies using theory. Teaching often takes place at the plant site to demonstrate the real application of the classroom work.
- The course bridges the GAP between Book Knowledge and Industrial Practice.
- Course units may be taken as a stand-alone short course for CPD purposes and are also recognised by IMechE.
**Collaboration and knowledge transfer**

- Collaborative industrial research and projects encouraged.
- Customised CPD courses at plant site to enhance the knowledge and techniques in Maintenance and Reliability.
- Assignments and Dissertation projects are mainly focused on participant’s real industrial maintenance and reliability problems.
- Major industries regularly use this MSc course for their engineers to enhance their knowledge.
- REAM is expanding globally with delivery in South America, Middle East, Singapore.

**Selected Achievements and Publications**

- Received “EFNMS Excellence Award for Best Master Thesis in Maintenance” from the European Federation of National Maintenance Societies.
- A number of papers and books published from the Dissertation projects by professional students.
The programme has one intake per year in September, however units can be taken as CPD throughout the year in line with timetabled sessions.

If you are interested in sponsoring a participant or applying for the programme yourself please contact the programme administration team on:

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† Earlier known as Maintenance Engineering and Asset Management (MEAM).