

Module: Risk and Reliability Engineering

Module Convenor: Dr A Kolios

Location: Stafford Crips building LR2

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Date	13 November 2017	14 November 2017	15 November 2017	16 November 2017	17 November 2017
Time					
09:00-10:00	Introduction to Risk and Reliability Engineering Dr A Kolios	Qualitative Reliability Analysis (FTA/ETA) Dr A Kolios	Risk Control and Decision Support Systems Dr A Kolios	Risk Based Inspection Dr M Shafiee	Workshop: Wind turbine/Propulsion system electromechanical assembly Risk/Reliability Assessment Dr A Kolios, Mr M Scheu
10:00-10:15	Break	Break	Break	Break	
10:15-11:15	Risk Management Process Dr A Kolios	Reliability Block Diagrams Dr A Kolios	Insurance and Certification of Energy Systems Dr A Kolios	Risk Based Inspection (practical) Dr M Shafiee	
11:15-11:30	Break	Break	Break	Break	
11:30-12:30	FMEA/FMECA, HAZOP Analysis Dr A Kolios	Systems Reliability Dr A Kolios	Risk Control and Decision Support Systems (practical) Dr A Kolios	Reliability Centered Maintenance Dr A Kolios	
12:30 - 14:00	Lunch	Lunch	Lunch	Lunch	
14:00-15:00	Reliability calculations Dr S Place	Quantitative Reliability Analysis (QRA) Dr A Kolios	Tutorial on Stochastic Modelling Using @Risk Dr A Kolios	Structural Health Monitoring Dr A Kolios	Course close Dr A Kolios
15:00-15:15	Break	Break	Break	Break	
15:15-16:15	Discrete Probability Distributions Dr S Place	Practical Session #1 (FMEA/HAZOP, QRA) Dr A Kolios	Tutorial on Stochastic Modelling Using @Risk Dr A Kolios	RAM Analysis Dr A Kolios	Break
16:15-16:30	Break	Break	Break	Break	
16:30-17:30	Continuous Probability Distributions Dr S Place	Practical Session #2 (System Reliability) Dr A Kolios	Tutorial on ETA Modelling Using @PrecisionTree Dr A Kolios	Case Study - Oil&Gas Platform Explosion Dr A Kolios	