

COURSE OVERVIEW TM0207
Certified RCA Leader

Advanced Root Cause Analysis (RCA) Methods & Leadership

Course Title

Certified RCA Leader: *Advanced Root Cause Analysis (RCA) Methods & Leadership*

Course Date/Venue

December 08-12, 2024/Markab Meeting Room, Al Bandar Rotana, Dubai Creek, Dubai, UAE

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs



Course Reference

TM0207

Course Description



This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.



This course is designed to provide participants with an advanced overview of root cause analysis (RCA) methods and leadership. It covers the successful and unsuccessful results, human behavior, accountability, investigator attitude (mindset), investigation steps, job task analysis and the seven-step methodology; the investigation of the factors in evidence preservation, preserve and control evidence collect physical evidence, documentary evidence and human evidence and witness recollection statement; the lines of inquiry, individual mindset, personal and organizational accountability, management control elements and pareto analysis; and establishing contributing factors and validating underlying factors.



During this interactive course, participants will learn to plan corrective actions; carryout report writing by preparing report template, sample incident analysis report template, grade cards/scoresheets and root cause analysis; apply the principles and techniques of effective team management and leadership and investigation of organization and management team; implement action plan follow up; and employ other methodologies on root cause analysis.

Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Get certified as a “*Certified RCA Leader*”
- Discuss root cause analysis (RCA) covering successful and unsuccessful results, human behavior, accountability, investigator attitude (mindset), investigation steps, job task analysis and the seven-step methodology
- Identify the scope of problem comprising of problem statement, problem description, difference mapping and extent of condition review
- Investigate the factors in evidence preservation, preserve and control evidence, collect physical evidence, documentary evidence and human evidence and witness recollection statement
- Employ lines of inquiry, individual mindset, personal and organizational accountability, management control elements and pareto analysis
- Illustrate fault tree analysis, task analysis, critical activity charting and actions and factors charting
- Establish contributing factors and validate underlying factors
- Plan corrective actions through action planning, change management, S.M.A.R.T.E.R., safety precedence sequence, barriers and aids analysis, solution selection tree and matrix, contingency plan, effectiveness review and performance indicator development
- Carryout report writing by preparing report template, sample incident analysis report template, grade cards/scoresheets and root cause analysis
- Apply the principles and techniques of effective team management and leadership as well as investigation of organization and management team
- Implement action plan follow up through verification of action plan, documentation, line management accountability, key performance indicators, goal setting and action plan effectiveness verification
- Employ other methodologies on root cause analysis consisting of HSYS, checklists, assessment of safety significant teams (ASSET), safety through organizational learning (SOL) and PROACT™

Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive “Haward Smart Training Kit” (H-STK®). The H-STK® consists of a comprehensive set of technical content which includes **electronic version** of the course materials, sample video clips of the instructor’s actual lectures & practical sessions during the course conveniently saved in a **Tablet PC**.

Who Should Attend

This course provides an advanced overview of root cause analysis (RCA) methods and leadership for those who are responsible for others in the workplace such as managers, engineers, supervisors, team leaders, HSE engineers, senior HSE officers, foremen and junior production operation staff.

Course Certificate(s)

(1) Internationally recognized Competency Certificates and Plastic Wallet Cards will be issued to participants who completed a minimum of 80% of the total tuition hours and successfully passed the exam at the end of the course. Successful candidate will be certified as a "Certified RCA Leader". Certificates are valid for 5 years.

Recertification is FOC for a Lifetime.

Sample of Certificates

The following are samples of the certificates that will be awarded to course participants:-



- (2) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course.

* Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology *



Haward Technology Middle East

Continuing Professional Development (HTME-CPD)

CEUs

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CEU Official Transcript of Records

TOR Issuance Date: 12-Oct-17

HTME No. PAR11317

Participant Name: Atif Al Harbi

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
TM0207	Certified RCA Leader: Advanced Root Cause Analysis (RCA) Methods & Leadership	October 08-12, 2017	30	3.0

Total No. of CEU's Earned as of TOR Issuance Date **3.0**

TRUE COPY



Maricel De Guzman
Academic Director

Haward Technology has been approved as an Authorized Provider by the International Association for Continuing Education and Training (IACET), 1760 Old Meadow Road, Suite 500, McLean, VA 22102, USA. In obtaining this approval, Haward Technology has demonstrated that it complies with the ANSI/IACET 1-2013 Standard which is widely recognized as the standard of good practice internationally. As a result of their Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for programs that qualify under the ANSI/IACET 1-2013 Standard.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking Continuing Education Units (CEUs) in accordance with the rules & regulations of the International Association for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology is accredited by










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Certificate Accreditations


Certificates are accredited by the following international accreditation organizations: -

- 
The International Accreditors for Continuing Education and Training (IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units (CEUs)** in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

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British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

Course Fee

US\$ 5,500 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



Mr. John Burnip, EHS, SAC, STS, NEBOSH-ENV, NEBOSH-IGC, NEBOSH-IFC, NEBOSH-PSM, NEBOSH-IOG, TechIOSH, is a **NEBOSH Approved Instructor** and a **Senior HSE Consultant** with over **50 years** of practical **Offshore & Onshore** experience within **Oil, Gas, Refinery, Petrochemical** and **Nuclear** industries. His wide experience covers **NEBOSH International General Certificate in Occupational Health & Safety, NEBOSH National Certificate in Construction Health & Safety, NEBOSH Certificate in Process Safety Management, NEBOSH Environmental Management Certificate, NEBOSH Certificate in Fire Safety, NEBOSH International Oil & Gas Certificate, Root Cause Analysis (RCA), PHA, HAZOP, HAZCOM, HAZMAT, HAZID, Hazard & Risk Assessment, Emergency Response Procedures Behavioural Based Safety (BBS), Confined Space Entry, Fall Protection, Emergency Response, H₂S, Safety Management System (ISO 45001), Accident/Incident Investigation System and Report PSM, Risk Assessment, SCE FMEA Failure Investigations, Site Management Safety Training (SMSTS), Occupational Health & Safety and Industrial Hygiene, Crisis Management & Damage Control in Oil & Gas Industry, Enhancing HSSE Safety Performance & Effectiveness, Overhead & Gantry Crane Safety, HSSE Principles & Practices Advanced, Lifting & Rigging Equipment Lifting Tackles Inspection License/Relicense, API 780 Security Risk Assessment Methodology for Petroleum & Petrochemical, Advanced Process Safety Management with PHA, Quantitative and Qualitative Risk Assessment, IADC/API Mobile Drilling Rig Inspections, Maintenance and Audits, H2s Training and Rescue with Respiratory Equipment, Job Safety Analysis (JSA), Work Permit & First Aid, Project HSE Management System, Health & Hygiene Inspection, PTW Control, Process Modules Fire & Gas Commissioning, MSDS, Ergonomics, Lockout/Tagout, Fire Safety & Protection, Spill Prevention & Control, Tower & Scaffold Inspection, Scaffolding Operations, Scaffolding Equipment, Bracket Scaffolds, Scaffolding Labelling, Pre-fab Scaffolding; Erecting, Maintaining & Dismantling Scaffolding in accordance with the British Standards Code of Practice 5973; Heavy Lifting operations, Cantilevered Hoists, Offshore Operations, Offshore Construction, Basic Offshore Safety Induction & Emergency Training (BOSIET), Onshore Fabrication & Offshore Pipelaying & Hook-Up, Crane Inspection, Crane Operations, Oilfield Startup & Operation, Steel Fabrication, OSHA, ISO 9001, ISO 14001, OHSAS 18001 and IMO (SOLAS) Regulations. Mr. Burnip has greatly contributed in upholding the highest possible levels of safety for numerous International Oil & Gas projects, Generation Systems & Platform Revamp, LPG & Gas Compression, Marine, Offshore and Power Plant Construction. Currently, he is the **HSE Advisor** of Solvay wherein he is responsible in planning and implementation of the corporate safety program (OSHA codes).**

During Mr. Burnip's long career life, he had successfully carried out numerous projects in **Europe, North America, South America, Southeast Asia, Middle East** and the **North Sea**. He had worked for Delta Offshore Group, Solvay Asia Pacific, Likpin Dubai, SADRA/DOT, ZADCO, McDermott International (USA, Qatar, Egypt, India, Oman, Dubai and Abu Dhabi), PDO, Shell, ARAMCO, Salman Field, Leman Offshore Gas Field, GEC, Harland & Wolff PLC Belfast in North Ireland, Howard Doris – Kishorn in Scotland, Westinghouse Electric in Brazil and South Korea and Chevron Oil in Scotland as the **Commissioning Project Engineer, Project & Safety Engineer, Estimating Engineer, Senior Instrument Engineer, Instrument Field Engineer, Lead Instrument Engineer, Instrument Engineer, Engineer, Emergency Response Training Manager, HSE Advisor, HSE Instructor, HSE Supervisor, Instrumentation Supervisor, Instrumentation Specialist, Project Coordinator, Instrumentation Technician and Tank Farm Instrumentation Technician**.

Mr. Burnip has a **Bachelor's degree in Business Studies** from the **Somerset University (UK)**. He is a **Certified/Registered Tutor** in **NEBOSH Certificate in Environmental Management, NEBOSH International General Certificate, NEBOSH International Certificate in Fire Safety & Risk Management, NEBOSH Process Safety Management Certificate and NEBOSH International Oil & Gas Certificate**; a **Certified Safety Auditor (SAC)**; a **Certified ISO 45001 Auditor**; an **Environmental Health and Safety Management Specialist** on Fall Protection, Elevated Structures, Material Handling, Trenching & Excavations; a **Welding Brazing Safety Technician**; a **Certified Safety Administrator (CSA)** - General Industry; a **Safety Manager/Trainer** – General Industry; a **Petroleum Safety Manager (PSM)** - Drilling & Servicing; a **Petroleum Safety Specialist (PSS)** - Drilling & Servicing; a **Safety Planning Specialist**; a **Safety Training Specialist**; a **Certified Instructor/Trainer**; a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management (ILM)** and further holds a **Certificate in Mechanical Engineering Craft Practice** from the **City & Guilds of London Institute**; a **NEBOSH Level 3 Construction Certificate (UK)**; and holds a **Cambridge Teaching Certificate**. He is a well-regarded member of the **National Association of Safety Professionals, the Association of Cost Engineers (UK), Institution of Occupational Safety & Health (TechIOSH)** and an **Associate Member of World Safety Organization**. Further, he has conducted innumerable trainings, workshops and conferences worldwide.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1: Sunday, 08th of December 2024

0730 – 0800	<i>Registration & Coffee</i>
0800 – 0815	<i>Welcome & Introduction</i>
0815 – 0830	PRE-TEST
0830 – 0930	Introduction to Root Cause Analysis (RCA) <i>Defining Cause Analysis • Successful and Unsuccessful Results • Human Behavior • Accountability • Investigator Attitude (Mindset) • Investigation Steps • Job Task Analysis • The Seven-Step Methodology</i>
0930 – 0945	<i>Break</i>
0945 – 1100	Step 1: Scope the Problem <i>Problem Statement • Problem Statement Examples • Problem Description • Problem Description Examples • Difference Mapping • Difference Mapping Examples • Extent of Condition Review • Extent of Condition Review Examples</i>
1100 – 1230	Step 2: Investigate the Factors <i>Evidence Preservation • Preserve and Control Evidence • Collect Physical Evidence • Collect Documentary Evidence • Collect Human Evidence • Witness Recollection Statement • Interviewing</i>
1230 – 1245	<i>Break</i>
1245 – 1420	Step 2: Investigate the Factors (cont'd) <i>Lines of Inquiry: Question Generators • Question Generator: Individual Mindset • Question Generator: Personal and Organizational Accountability • Question Generator: Management Control Elements • Pareto Analysis • Pareto Chart Template • Pareto Analysis Examples</i>
1420 – 1430	Recap <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow</i>
1430	<i>Lunch & End of Day One</i>

Day 2: Monday, 09th of December 2024

0730 – 0930	Step 3: Reconstruct the Story Fault Tree Analysis • Fault Tree Example • Task Analysis • Task Analysis Example • Critical Activity Charting (Critical Incident Technique) • Critical Activity Chart Example • Actions and Factors Charting • Actions and Factors Chart Example • Notes
0930 – 0945	Break
0945 – 1100	Step 4: Establish Contributing Factors Contributing Factor Test • Five WHYs • Five WHYs Example • Exxon-Valdez Oil Spill Example • Tokai-Mura Criticality Incident Example • Reactor Trip Example • Cause and Effect Trees • Cause and Effect Tree Examples
1100 – 1230	Step 4: Establish Contributing Factors (cont'd) Difference Analysis (a.k.a Change Analysis) • Broken Back Example • Falling Objects Example • Breaker Trip Example • Defense Analysis (a.k.a Barrier Analysis) • Breaker Fire Example • Structure Tree Diagrams • Fishbone (Ishikawa) Diagram
1230 – 1245	Break
1245 – 1420	Step 4: Establish Contributing Factors (cont'd) Forearm Fracture Example • Poor Safety Culture Example • Defense -in-Depth Analysis • MORT Analysis • Mort Maintenance Example • Production/Protection Strategy Analysis • Safety Culture Analysis
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Two

Day 3: Tuesday, 10th of December 2024

0730 – 0930	Step 5: Validate Underlying Factors Support/Refute Methodology • Truck will not Start Example • Crane Incident Example • WHY Factor Staircase • Lost Time Away Injury Example • Criticality Incident Example • Broken Back Example • Root Cause Test
0930 – 0945	Break
0945 – 1100	Step 5: Validate Underlying Factors (cont'd) Course Evaluation Matrix • Dump Truck Example • Extent of Cause Review • Example 1: Flood Protection Strategy Inadequate • Example 2: Leak Due to Stress Corrosion Cracking • Example 3: Rental Car Flat Tire • Example 4: Waste Not Labeled as Required
1100 – 1215	Step 6: Plan Corrective Actions Action Plan • Change Management • S.M.A.R.T.E.R. • Safety Precedence Sequence (Hierarchy of Corrective Action Effectiveness) • Barriers and Aids Analysis (Pros and Cons) • Solution Section Tree • Solution Selection Matrix
1215 – 1230	Break
1230 – 1420	Step 6: Plan Corrective Actions (cont'd) Contingency Plan • Lessons to Be Learned Communication Plan • Institutionalization/Active Coaching Plan • Effectiveness Review • Performance Indicator Development
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Three

Day 4: Wednesday, 11th of December 2024

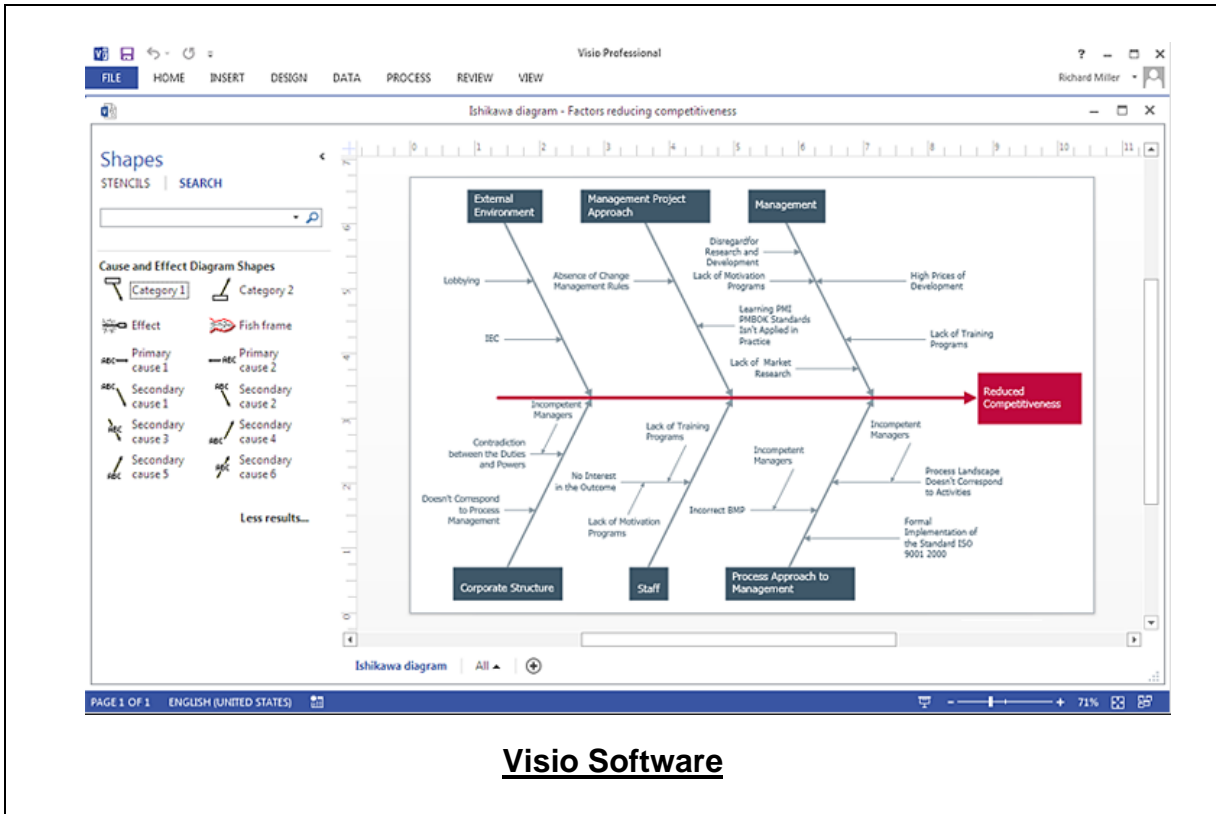
0730 – 0930	Step 7: Report Writing <i>Preparing to Create Your Report • Report Template • Sample Incident Analysis Report Template • Grade Cards/Scoresheets • Root Cause Analysis – Sample Organizational Learning Scoresheet</i>
0930 – 0945	<i>Break</i>
0945 – 1100	Team Management <i>Principles & Techniques of Effective Team Management & Leadership</i>
1100 – 1230	Team Management (cont'd) <i>Organization & Management of the Investigation Team, From Start to End</i>
1230 – 1245	<i>Break</i>
1245 – 1420	Action Plan Follow Up <i>Verification of Action Plan Implementation • Documentation • Line Management Accountability</i>
1420 – 1430	Recap <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow</i>
1430	<i>Lunch & End of Day Four</i>

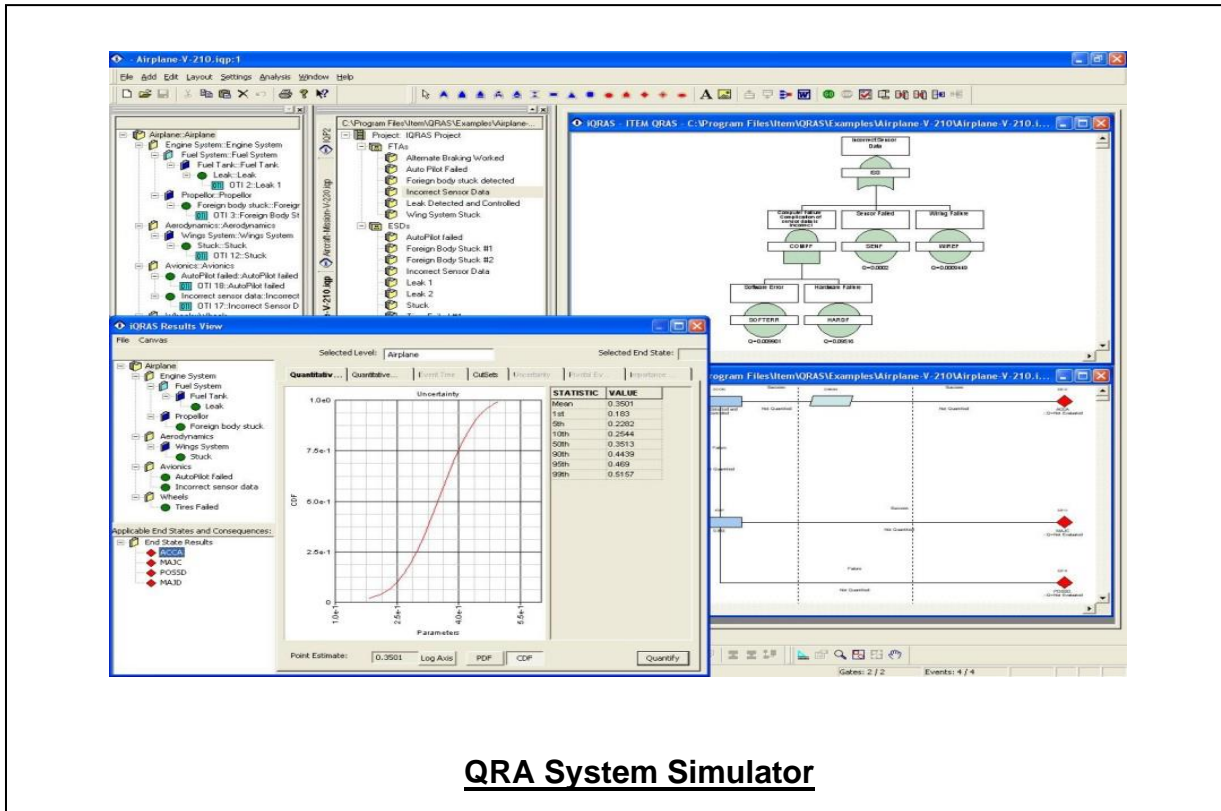
Day 5: Thursday, 12th of December 2024

0730 – 0930	Action Plan Follow Up (cont'd) <i>Key Performance Indicators • Goal-Setting • Verification of Action Plan Effectiveness</i>
0930 – 0945	<i>Break</i>
0945 – 1100	Root Cause Analysis – Other Methodologies <i>Introduction • American Institute of Chemical Engineers Review • HSYS • Checklists • Assessment of Safety Significant Teams (ASSET) • Safety Through Organisational Learning (SOL) • PROACT™</i>
1100 – 1215	Practical Exercise on Root Cause Analysis <i>Formation of Investigation Teams • Setting the Scene – Video and Team Discussion • Question Session – Gathering of Information • Team Investigation – Analysis of Information • Team Discussion – Identification of Risk Control Measures</i>
1215 – 1230	<i>Break</i>
1230 – 1300	Practical Exercise on Root Cause Analysis (cont'd) <i>Producing a Basic Report, A Team Summary Report • Recommendations for Change – Creation of Action Plan • Corrective Actions • Preventive Actions • Implementation Stage</i>
1300 – 1315	Course Conclusion <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course</i>
1315 – 1415	COMPETENCY EXAM
1415 – 1430	<i>Presentation of Course Certificates</i>
1430	<i>Lunch & End of Course</i>

Simulator (Hands-on Practical Sessions)

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using our state-of-the-art simulators “Visio Software”, “Mindview Software” and “QRA”.





QRA System Simulator

Course Coordinator

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