Malaysia Institute of Aviation Technology (MIAT)

Professional Short Course

Finite Element Modelling (FEM) and Finite Element Analysis (FEA) for Aircraft Structure Modifications and Repairs

(2 days)

Description

This course covers the Malaysian civil aviation framework, which begin from Civil Aviation Act. The Civil Aviation Act gives the power to the Minister to make regulations, Civil Aviation Regulation (CAR). There are 5 documents issued to enhance the regulations; NOTICE, DIRECTIVES, INFORMATION, CIRCULARS and REQUIREMENTS issued under the Civil Aviation Act. All these regulations are flown down from ICAO.

Course Learning Outcomes

By the end of the course given lecturers and case study the participants will be able understand the Malaysia civil aviation legal framework including the obligations and penalty associated with violations.

Course Contents

It is a 2-days course in a classroom. The trainers will explain the legislation framework in Malaysia as a state, the rectification of Malaysia as ICAO member states and the obligation of Malaysia as a state towards ICAO an d international aviation safety.

Day 1

- Malaysia legal framework
- ICAO Convention
- ICAO Articles
- ICAO Annexes and SARPs
- Civil Aviation Act
- Malaysia Civil Aviation Regulations

Day 2

- Notices, requirements, circulars, information and requirements
- Industry obligations
- ICAO USOAP
- FAA and EASA assessment

Target Audience

Designed for all personnel involve in Civil Aviation industry.

Availability and Fee

Please contact the Head of Advanced Continuing Education (ACE), UniKL MIAT;

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Trainers Profile

Abu Hanifah Haji Abdullah, PEng., PTech. He spends his 30 years of his career in aviation industry after graduation from University with double degree in BSc. in Aerospace Engineering and BSc. in Aeronautics (Aircraft Maintenance Engineering). He also completed his FAA A&P Program, while doing his double bachelor's degree programs. Later in 2002, he went to the Cranfield University in the UK for postgraduate study, and in 2004 he graduated in MSc. Aerospace Vehicle Design (AVD). Upon graduation in 1989, his broad knowledge in aviation allowed him to secure a job at Airod Sdn Bhd, which is only six months after his graduation. From mid-1989 to the early 1994, he rose up the position of Senior Aeronautical Engineer. His job at Airod was designing structure repair, repair processes for engine and its components, prepare work package to recover damage aircraft for the Royal Malaysian Air Force (RMAF) and United States Air Force (USAF). He has design approval for the Lockheed C130 by the USAF Logistics Centre, Warner Robins, USA. He was also granted the approval as competent engineer in measuring the wing joint fitting using Optical Transit (Brunson Instrument).

In early 1994, he moved to Australia to work for Eagle Aircraft Pty. Ltd. He was one of the engineers responsible for design, certification and production of the fully composite aircraft, Eagle 150B. Started as Design and Certification engineer, he rose to the position of Project Manager for Certification of Eagle 150B stall certification. He was also the Acting Engineering Manager for the CASA (Civil Aviation Safety Agency) DOA (Design Organization Approval).

In the early 1995, the DCA (Department of Civil Aviation) DCA, which is CAAM (Civil Aviation Authority Malaysia) embarking into aircraft design, certification and manufacturing. In late 1996, he resigned from the Eagle and he joined the DCA as Assistant Director of Airworthiness (Airworthiness Design Surveyor). At the DCA, he was involved in design and certification of the two Malaysian aircraft; Eagle 150B and SME MD3-160. He was also responsible for several organization approval; DOA, POA, MRO, ATO. He was also in several aircraft type validation projects; helicopter Dragon Fly 333, helicopter MI-171, helicopter DHRUV. He was also in the aircraft Type Acceptance project; Airbus A320, A330, A340, DA 40D, DA 42, Agusta A109, 119, Eurocopter Super Puma. In addition to aircraft design, certification and organization approval, he was also assigned several times as the Aircraft Accident and Incident Inspectors to work under the Chief Inspector of Aircraft Accident and Incident under the Ministry of Transport.

In 2009, he took optional retirement and joined academic institutions, University Kuala Lumpur (UniKL), Malaysian Institute of Aviation Technology (MIAT) as an Associate Professor. At UniKL MIAT, he held several positions; Head of Research Cluster, Head of Project Management Office (PMO), and now as the Head of Quality Department and Engineering Manager for UniKL MIAT Part 147. As an academia, research and consultation are part of the KPI. He was the HODO for one of UniKL Design Office, he was the CVE for CTRM Sdn Bhd. He also the airworthiness advisor for G7 Aerospace Sdn Bhd., Airgo Seats Sdn Bhd, Ikramatic Sdn Bhd. In research he won several medals under the innovation and he has coached a group of UniKL Students and was one of the five best team in the world and was given free trip to Paris Airshow in 2011.

In 2014, we lost the MAS MH370, to comply with the ICAO Annex 13 requirements, Malaysia as a state, established am independent investigation team. The Ministry of Transport Malaysia draft him to be in the investigation team. Another tragedy struck Malaysia in 2016, we lost a helicopter 9M-IGB carrying prominent and senior politician and once again Abu Hanifah was drafted into the team investigating the loss of the 9M-IGB. His vast knowledge and experience have helped to prepare the investigation reports.

He was also one of the coaches for the EPP8 project, to develop Small Medium Enterprise (SME) for Aerospace for the last three programs. He was the trainer for the UniKL MIAT, Advanced Continuing Education (ACE), on several professional short courses in DOA, POA, MCAR 2016, Aircraft Structure Modification and Repair, SMS, Design and Certification of UAS, Aerospace QMS (AS9100 and NADCAP).