ELECTRA IC
Design & Verification

Safety Based System Development Lifecycle Training Course

⏳ 3 Days

Objectives

- Manage system development activities in aviation projects
- Understand SAE-ARP-4754A & SAE-ARP-4761 content
- Gather relations between safety and system development
- Informed about the key issues for an airworthy product design

Intended Audience

- Project Managers
- System Engineers
- System Design Engineers
- Process Assurance Engineers

aeros
Training Partner

3 Days of intensive training

Day	Program
1	- General overview of SAE-ARP-4754A & SAE-ARP-4761 - System Development Lifecycle - Safety Process
2	- System Development Process - FDAL &IDAL - Requirement Capture - Verification - System Architecture
3	- Integral Processes - Case Studies

Detailed Agenda

Knowledge and application on SAE-ARP-4754A & SAE-ARP-4761

System Engineering Lifecycle

Relation between safety and system development

Importance of safety activities

SAE-ARP-4761 General View

Flight Safety & System Safety Approach

Hazards & Failures (definitions, failure modes, detection methods, examples)

Safety Criteria & Risk Based Approach

Functional Hazard Analysis (methods, applications, examples)

System Safety Assessment (Fault Tree Analysis, Dependency Diagrams)

Common Cause Analysis (PRA, ZSA, CMA)

Relation between safety and item development

SAE-ARP-4754A General View

SAE-ARP-4754A Activities
- Planning system development activities based on safety criticality
- Functional Definition
- Requirement generation, validation, management and traceability (checklists and examples)
- Requirement types and examples
- System Architecture and Allocation
- FDAL &IDAL related with safety activities
- System Integration & Verification activities

Integral Processes
- Configuration Management
- Process Assurance
- Certification Liasion

SAE-ARP-4754A objectives

Case studies (defining a system from specifications)