THE4 - Helicopter avionics systems

From the MS HADA
(Helicopter, Aircraft and Drone Architecture)

Key elements

Period: March
Estimated duration: 30 hours
For whom: recent graduates, jobseekers and experienced employees
Location: AIRBUS HELICOPTERS, Marignane
Language: English

This module provides an overview of all helicopter avionics systems.

Highlights

• Helicopter Avionics Systems
• Cockpit Cognitive Ergonomics
• Helicopter flight control systems

Learning objectives

After completing this course, participants will be able to:

• Describe and explain the design methodology for avionic systems and the cockpit cognitive ergonomics.

Prerequisites

• Basics of aerospace engineering

Information and registration

info.exed@isae-supaoer.fr
THE4 - Helicopter avionics systems
From the MS HADA
(Helicopter, Aircraft and Drone Architecture)

Course content
- Helicopter systems
- Evolution of systems on helicopter
- Definition of an architecture
- System tools and methodology
- Presentation of various helicopter systems
- Operating safety
- Maintainability/testability
- Flight control
- Civil missions and associated systems
- Automatic pilot
- Fly-by-wire control
- Generalized active control
- Cockpit ergonomics
- Display & dialog resources
- Compatibility with the use of light-intensifier tubes
- Piloted simulation / training-test simulation
- Navigation - Air control
- Navigation and guidance for helicopters
- Radio communication, navigation and identification
- System tests
- Helicopter environment
- Equipment / Qualification
- System integration testing

Teaching methods

<table>
<thead>
<tr>
<th>Teaching methods</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lectures / tutorial</td>
<td>X</td>
</tr>
<tr>
<td>Collaborative learning</td>
<td></td>
</tr>
<tr>
<td>Flipped classroom</td>
<td></td>
</tr>
<tr>
<td>Blended learning (online and face to face)</td>
<td></td>
</tr>
<tr>
<td>Learning by doing</td>
<td>X</td>
</tr>
<tr>
<td>Project-based</td>
<td></td>
</tr>
<tr>
<td>Simulation</td>
<td></td>
</tr>
<tr>
<td>Case study</td>
<td>X</td>
</tr>
</tbody>
</table>

Assessment
Written exam