HAD501 – Payload & sensors for UAVs
From the MS HADA
(Helicopter, Aircraft and Drone Architecture)

Key elements
Dates: 25 - 29 January 2021
Duration: 21 hours
For whom: recent graduates, jobseekers and experienced employees
Location: ISAE-SUPAERO, Toulouse
Course fees: 2 000 €
Language: English

Highlights
• EO/IR sensors for UAVs
• laser imaging techniques
• navigation through vision

Learning objectives
After completing this course, participants will be able to:
• Recognize different kinds of sensors for UAVs;
• Use laser imaging techniques.

Prerequisites
Master level

Practical information and registration
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Course content

- Introduction to usual sensors and payload for UAVs
- Review of EO/IR sensors, radars
- Review of laser range finders, LiDAR, laser imaging techniques
- Review of passive imaging techniques
- Image processing
- Autonomous navigation based on visual sensors: an introduction to navigation through vision and SLAM
- Payload and sensors for UAVs: Applications
- Visit of DELAIR company

Teaching methods

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

- Written exam