This course will help you understand and know how to use advanced numerical methods and advanced techniques.

Highlights

- Explicit FEM models
- Particle techniques
- Transient & non-linear models

Prerequisites

- Knowledge of finite element technique

Learning objectives

After completing this course, participants will be able to:

- Understand the assumptions and fields of application of advanced techniques related to explicit finite elements in dynamics and particle techniques.

Key elements

Dates: 11 - 15 January 2021
Duration: 11 hours
For whom: recent graduates, jobseekers and experienced employees
Location: ISAE-SUPAERO, Toulouse
Course fees: 1 600 €
Language: English

Practical information and registration

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Course content

Explicit FEM models
- Explicit algorithms
- Matrix variability
- Material modelling
- Rapid dynamics

Particle techniques
- SPH method
- Fragmentation & fluid interaction

Teaching methods

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<thead>
<tr>
<th>Teaching methods</th>
<th>Yes</th>
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<tbody>
<tr>
<td>Lectures / tutorial</td>
<td>X</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>Project-based</td>
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<td>Simulation</td>
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Assessment

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