

## SOLIDWORKS Flow Simulation – 2 days (14h)

### 1. Creating a SOLIDWORKS Flow Simulation Project

- Model Preparation
- Post-Processing

### 2. Meshing

- Computational Mesh
- Basic Mesh
- Initial Mesh
- Geometry Resolution
- Result Resolution/Level of initial Mesh
- Control Planes

### 3. Thermal Analysis

- Fans
- Perforated Plates

### 4. External Transient Analysis

- Reynolds Number
- External Flow
- Transient Analysis
- Turbulence Intensity
- Solution adaptive Mesh refinement
- Two-dimensional Flow
- Computational Domain
- Calculation control options
- Time animation

### 5. Conjugate Heat Transfer

- Conjugate Heat transfer
- Real Gases

### 6. EFD Zooming

- EFD Zooming

### 7. Porous Media

- Porous media
- Design modification

### 8. Rotating Reference Frames

- Rotating reference frame
- Averaging
- Noise Prediction
- Sliding Mesh
- Tangential faces of rotors
- Time step

### 9. Parametric Study

- Parametric analysis
- Steady state analysis

### 10. Free Surface

- Free Surface

### 11. Cavitation

- Cavitation

### 12. Relative Humidity

- Relative Humidity

### 13. Particle Trajectory

- Particle Trajectory

### 14. Supersonic Flow

- Supersonic Flow

### 15. FEA Load Transfer

- FEA Load Transfer

**Course Objectives :** At the end of each course, students will know the capabilities of the software and will be able to use the learned features.  
**Training Course :** Training is given in class at SolidXperts or online where each student has access to a workstation or online product version.  
**Methodology :** Training is based on case studies demonstrated by the instructor. At the end of each lesson, time will be given for exercises.  
**Competences Evaluation :** During the classwork, the instructor will correct the exercises on-demand and explain the solutions to the entire class if needed.  
**Instructor :** SolidXperts trainers are Certified SolidWorks Instructors (CSWI) and authorized by Emploi-Québec.  
**Course Materials :** One or more training manuals are included with the training course.  
**Attestation :** A certificate will be given to each student at the end of the course to attest to the successful completion of the requirements for the course.

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