



A Siemens Business

## Most Efficient Use of CFD for Design Award

Mentor Mechanical Analysis (part of Siemens PLM) is sponsoring the “Most Efficient Use of CFD for Design” Award. 3,000 Euro total award to recognize the Top 2 teams (2,000 and 1,000 Euro) who have used the most professional engineering practices, and document their use of CFD for design methodology thoroughly for team members and for judges.

[www.mentor.com/mechanical](http://www.mentor.com/mechanical) for information on engineering software tools.

[Leigh\\_Anderson@mentor.com](mailto:Leigh_Anderson@mentor.com) for applying for grants of software to select Formula Student teams.

We are looking for teams who used Mentor’s FloEFD and/or FloMASTER simulation tools to develop, improve, optimize and verify the fluid flow and/or heat transfer performance of their designs.

### Award Criteria for Using FloEFD

- Use of parametric or optimization studies (FloEFD feature or coupling with optimization tools)
- Demonstration of the process to optimize the design and showing the improvement progress of the design optimization (e.g. drag reduction, pressure drop reduction, temperature reduction, etc.)
- Using FloEFD results as loads for structural simulations
- Most impressive post processing visualization (image or video)

### Award Criteria for Using FloMASTER

- Analyzing of a fluid system in steady state and/or transient cases
- Component sizing strategy for thermal and fluid system optimization
- Strategy and result of coupling FloMASTER with other tools or simulation tools (e.g. Excel, MATLAB Simulink, etc.)
- Use of optimization studies with the DoE or parametric studies of FloMASTER
- Programming of own FloMASTER components or control strategies

### Award Criteria for Using a Combination of FloEFD and FloMASTER

- The combination of 1D and 3D CFD simulations with the help of the Simulation-based Characterization (SBC) functionality of FloEFD and FloMASTER

### Prizes

2,000 Euro for 1<sup>st</sup> place, 1,000 Euro for 2<sup>nd</sup> place.

### How to Apply

All Formula Student teams (Electric and Combustion) can apply.

To apply, simply send an email to [info@fsaustria.at](mailto:info@fsaustria.at) subject “Mentor Efficient CFD Award” and let us know that you would like to participate. If you send relevant documentation by July 16<sup>th</sup>, 2018, that will be taken into consideration.

The judging will take place during the Formula Student Austria event at the Red Bull Ring.

