COURSE: **Numerical optimization with engineering and CFD examples**

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Main topics:
- Practical applications of Computational Fluid Dynamics (CFD)
- Engineering optimization models for decision making
- Computer Aided Design (CAD) methods for engineering optimization
- Constructing a numerical optimization workflow for the optimization

Programme structure:
- 5-day course
- Sample files will be provided for practice
- Lecture notes will be available both in on-line and printed forms

**Important dates:**
- Course dates: 31/08/2020 – 04/09/2020
- Deadline for application: 01/08/2020
- Confirmation of the course: 15/08/2020
- Payment due by: 24/08/2020

Price of the course: 300 € (tax included)

Programme plan:

Day 1
- Introduction to engineering optimization (3h)
- Examples of engineering optimization problems (1h)
- Individual work/exercise (1h)

Day 2
- Basics of CAD in engineering optimization (1h)
- Application of CAD in engineering optimization software (3h)
- Individual work/exercise (1h)

Day 3
- Fundamental basis of CFD (1h)
- Engineering application of CFD with examples (3h)
- Individual work/exercise (1h)

Day 4
- Setup of a numerical workflow for shape optimization (4h)
- Individual work/exercise (1h)

Day 5
- Students’ final projects (4h)
- Final presentations (1h)

Programme lecturers:
- Prof. dr.sc. Damir Vučina
  Full professor at the University of Split, Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture
- Doc.dr.sc. Ivo Marinić-Kragić
  Teaching/research assistant at the University of Split, Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture
- Dr.sc. Josip Bašić
  Teaching/research assistant at the University of Split, Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture