## SPLIT SUMMER SCHOOL STSS2018

## COURSE: Numerical Optimization with Engineering and CFD Examples

Contact person: Boris Ljubenkov: boris.Jjubenkov@fesb.hr
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



Objective B


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: 03/09/2018-07/09/2018
Deadline for application: 01/08/2018
Confirmation of the course: 15/08/2018
Payment due by: 24/08/2018

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
Dr.sc. Ivo Marinić-Kragić
Teaching/research Assistant at the University of Split, Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture
Mag.ing. Josip Bašić
Teaching/research Assistant at the University of Split, Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture

