



**SPLIT SUMMER SCHOOL STSS2018**

**COURSE: A GENTLE INTRODUCTION TO THE NUMERICAL METHODS IN ENGINEERING**

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Main topics:

- formulation of field problems: differential and integral approach, variational formulation
- common approach: 1D domain discretisation: FEM, BEM, meshless methods, isogeometry...
- extension to plane and space problems
- implementations in octave/matlab

Programme structure:

- 5-day course
- supported assignment solution
- lecture notes available as well as octave/matlab code of solved examples

**Important dates:**

Course dates: 03/09/2018 – 07/09/2018

Deadline for application: 01/08/2018

Payment due by: 15/08/2018

Confirmation of the course: 24/08/2018

Price of the course: 300 € (tax included)

Programme plan:

Day 1

- Conservation of momentum and formulations (3h)
- Individual work/exercise (1h)

Day 2

- Approximations of functions and solutions, FEM (3h)
- Individual work/exercise (1h)

Day 3

- Integral formulation and BEM (3h)
- Individual work/exercise (1h)

Day 4

- Isogeometry and meshless method (3h)
- Individual work/exercise (1h)

Day 5

- Students' final projects (3h)
- Final presentations (1h)

Programme lecturers:

Ph. D. Željko Lozina, Mech. Eng,  
Professor at the University of Split, Faculty of Electrical and  
Mechanical Engineering and Nav. Arch., Department of ME,  
Split, Croatia  
Anđela Bartulović, M.Mech:Eng.  
Research Assistant at the University of Split, Faculty of  
Electrical Engineering, Mechanical Engineering and Naval  
Architecture, Chair of Dynamic and Vibrations, Split, Croatia