



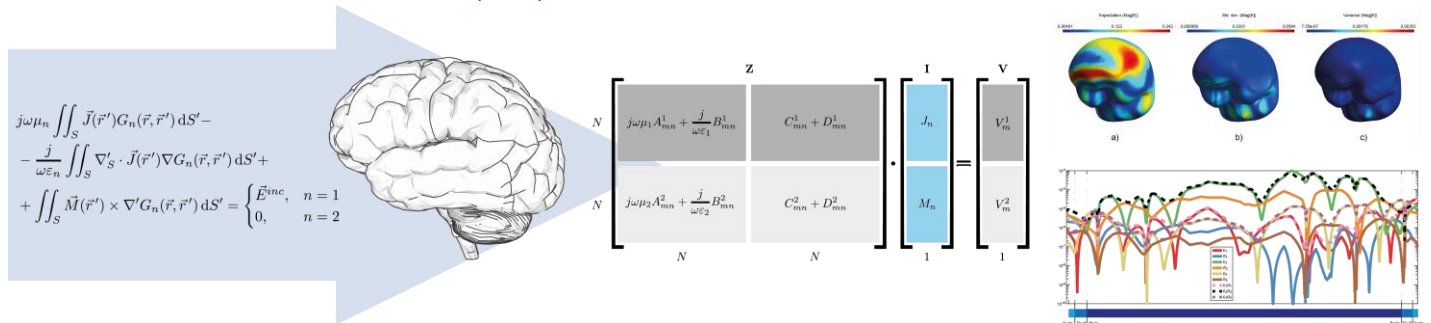
SPLIT SUMMER SCHOOL STSS2021

COURSE: NUMERICAL METHODS IN ELECTROMAGNETICS

Contact person: **Dragan Poljak** dpoljak@fesb.hr
phone: +385 91 4305 698

Main topics:

- Introduction to Computational Electromagnetics (CEM)
- Domain discretisation methods, Finite Differences, Finite elements
- Boundary discretisation methods, Boundary Elements
- Integral equation methods, Method of Moments
- Stochastic Collocation Method (SCM)



Programme structure:

- 5-day course
- Sample data will be provided for practice and for final presentation
- Every student gets lecture notes bound into a booklet, as well as a CD containing a digital version of the booklet

Important dates:

Course dates: 30/08/2021 – 03/09/2021
Deadline for application: 01/08/2021
Confirmation of the course: 15/08/2021
Payment due by: 23/08/2021

Price of the course: 300 € (tax included)

Programme plan:

- Day 1
- Introduction to domain, boundary and source discretization methods, Finite Difference Method (FDM), Finite Difference Time Domain (FDTD) method (3h)
 - Individual work/exercise (1h)
- Day 2
- Finite Element Method (FEM), Boundary Element Method (BEM), Hybrid Element Methods (HEM) (3h)
 - Individual work/exercise (1h)
- Day 3
- Integral Equation Method, Method of Moments (MoM) (3h)
 - Individual work/exercise (1h)
- Day 4
- Stochastic Collocation Method for Uncertainty Quantification and Sensitivity Analysis (3h)
 - Individual work/exercise (1h)
- Day 5
- Students' final projects (3h)
 - Final presentations (1h)

Programme lecturers:

- D.Poljak, Ph, D,
Full Professor at the University of Split, Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture, Split, Croatia.
- M. Cvetković, PhD
Assistant Prof, at the University of Split, Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture, Split, Croatia.
- Anna Šušnjara, PhD Student,
Teaching/research assistant at the University of Split, Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture, Split, Croatia.