



Title of special session:

Computational BioEngineering

Aim and objectives:

The major advancements in understanding of biological and biomedical processes can only be made when we can integrate the work from researchers in different scientific fields. Computational Bioengineering is a specific discipline which uses computer simulations for the study and prediction of chemical, biological and biomedical processes. Particularly it helps to understand complex dynamic, such as chemical, biological, and biomedical processes. Computer simulations are indispensable in testing hypotheses and putting information in a quantitative context. The purpose of special session Computational Bioengineering is to attract physicians, bioengineers, mechanical and biomechanical engineers, clinicians in cardiology and other cardiovascular specialties, vascular surgeons, radiologists, biologists, biochemists, chemists, biophysicists together on the same place in order to find fresh ideas for understanding behavior of human organism.

Short CV of the organizers:

Nenad Filipovic is Professor of Biomechanics and Informatics at the Faculty of Engineering at University of Kragujevac (Serbia) and Research Associated at Harvard School of Public Health at University of Harvard (USA). His research interests are in the area of fluid mechanics, coupled problems; fluid-structure interaction, heat transfer; biofluid mechanics; biomechanics, multi-scale modeling, discrete modeling, molecular dynamics, computational chemistry and bioprocess modeling. He is author and co-author 6 textbooks and 1 monograph on English language, over 80 publications in peer review journals and over 5 software for modeling with finite element method and discrete methods from fluid mechanics and multiphysics. He is Director of Center for Bioengineering at University of Kragujevac and leads joint research projects with Harvard University and University of Texas in area of bio-nano-medicine computer simulation. He also leads a number of national and international projects in area of bioengineering. He was awarded with Young Scientist Award on the Second MIT Conference on Computational Fluid & Solid

Mechanics, (Ed. K.J. Bathe), Boston, USA. He is a Managing Editor for Journal of Serbian Society for Computational Mechanics and member of European Society of Biomechanics (ESB) and European Society for Artificial Organs (ESAO).

Contact details of the organizers:

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