



## Special Session

### *“Assessment, Analysis and Retrofitting of Structures”*

**E.J. Sapountzakis**

Professor NTUA

e-mail: [cvsapoun@central.ntua.gr](mailto:cvsapoun@central.ntua.gr)

web page: <http://users.ntua.gr/cvsapoun>

and

**I.G. Spinasas**

Dr Ing. ENPC

e-mail: [igspinasas@tee.gr](mailto:igspinasas@tee.gr)

### **SPECIAL SESSION OBJECT**

The aim of this special session is to constitute a forum for the exchange of recent research developments, experience and innovative ideas of researchers, designers and contractors, concerning the presentation of analytical / numerical methods for the analysis of structures that can be used in practice and the assessment and retrofitting of the infrastructure towards its protection and maintenance.

The topics to be covered concerning **analysis of structures** will include, but not limited to, Linear or nonlinear analysis of structures; Computational analysis by FEM, BEM, Mesh free, analytical or semi-analytical methods; Time or frequency domain analysis; Free or forced vibrations; Geometrical or material nonlinearities; Structures made from classic or composite materials; Viscoelastic beams; Dynamic response of piles; Dynamic inelastic analysis of structures; Earthquake response; etc.

Moreover, the topics to be covered concerning **assessment and retrofitting of structures** will include, but not limited to, Issues as procedures and methods of assessment; Strengthening; Durability; Codes for assessment; Structural verification; Load carrying capacity; Monitoring; Sensing; Probabilistic analysis methods; Modeling and prediction of durability; Service life modeling; Performance-Based Design of structures; Rehabilitation and retrofitting techniques; Repair materials and strategies; Innovative materials; Specifications for repair materials; Structures of historic and architectural value; Global maintenance strategy of bridges; Reliability levels for the evaluation of existing bridges; Fatigue assessment; Fatigue evaluation of strengthened steel bridges etc.

It is anticipated that the special session will promote the dissemination of research results, experience and ideas on assessment, analysis and retrofitting of structures and their applications.