

First Announcement and Call for Papers

IASS Symposium 2007

Structural Architecture - Toward the future looking to the past

3 - 6 December 2007

Venezia, Italy

OBJECTIVES

Free - form design of shells and spatial structures, strongly influenced by modern IT resources, requires: technological innovation (know-how), to be driven by a confident conceptual design (know what) in a scientific engineering scenario (know why) addressed to re-set the design process reliability assessment due to innovation and complexity of new architectural morphologies.

In fact new architectural design trends, giving prevalence to aesthetic over the static rationality, will land to a future of generalized "free-form-buildings" (FFB) in contrast with the scientific philosophy inherited from Torroja, Maillart, Nervi and others, who designed quite sure that the observing static laws is "per se" a guarantee for achieved aesthetic results.

In the frame of the actual inter-trans and multidisciplinary design process between architecture and structural engineering, 2007 Venetian Symposium invites professionals, researchers and academics to update the "State of the Art" concerning the classic scientific and technical themes of the IASS.

THEMES

The scope of the symposium covers all aspects of shell and spatial structures and will include following topics:

- *Conceptual Design:*
Design of Shell and Spatial Structures: from the historical shell to free form design; Informatics Technology in Morphology; Form Finding and Optimization Design; Ethics & Esthetics in Modern Design Tendencies; Structural Architectural Typology
- *Mechanics and Structural Modelling:*
Stability and fracture behaviors; Geometric and Material Nonlinear Analyses; Static and Dynamic Non Linear Structural Response; Wind & Earthquake Engineering; Sensitivity and Reliability analysis; Structural Optimization
- *Materials:*
New Structural Materials; Material Modelling, Plasticity, Fracture, Damage, Fatigue; Smart Materials
- *Experimental Analysis and Control Methods:*
AI and expert systems; Automation and monitoring techniques; Repair and retrofit; Control & dynamic identification techniques; Failure and collapse diagnosis
- *Case Studies:*
Tensegrity, Membrane and Cable Structures; Free- form structures; Innovative Structures; Bridge Engineering; Planning, Financing and Maintenance,

CALL FOR PAPERS

Authors are welcome to submit abstracts of about 400 words on anyone of above-mentioned topics.

The full address, fax number and e-mail address of the principal author(s) should be given.

Only papers registered and approved by the Scientific Board will be included in the Symposium Proceedings.

DATE AND VENUE

December 3-6, 2007 Venezia - Italy

LANGUAGE

English will be the official language for both oral and written presentation and no simultaneous translation will be provided for the technical sessions.

PROCEEDINGS

The proceedings of the symposium will be published in book or CD-ROM and will be available at the time of registration.

TIME SCHEDULE

Submission of abstracts: March 15, 2007
Notification of preliminary acceptance: May 31, 2007
Submission of final papers: July 20, 2007
Notification of final acceptance: September 20, 2007

KEYNOTES AND INVITED SPEAKERS

A number of distinguished academics and engineers will be invited to deliver lectures related to the above-mentioned topics.

PRELIMINARY REGISTRATION

Those interested in participating in the Symposium are invited to contact the Secretariat.

CORRESPONDENCE

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