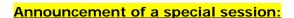**6th EUROSIM Congress on Modelling and Simulation**
**September 9-13, 2007**
**Ljubljana, Slovenia**

http://www.eurosim2007.org

# *Multidisciplinary Design Optimization*

Multidisciplinary Design Optimization (MDO) is considered a methodology for the design of complex engineering systems and subsystems that coherently exploits the synergism of mutually-interacting phenomena. The MDO community has traditionally placed greater emphasis on the performance of engineering systems, whereas the Modeling and Simulation (MS) community has focused more on the interactions between humans and systems, particularly for command and control.

Interest in MDO has intensified in recent years and the practical application of optimization technology to carry out design of systems requires the integration of capabilities from many different disciplines. Recent advances in computational technology have presented significant opportunities to solve MDO problems and currently many topics of common interest between MDO and MS research streams are emerging, such as modeling and optimization methodologies, uncertainty and robustness analysis, integration techniques, visualization tools, and approximation methods.

Eurosim2007 provides the MDO and MS communities with the opportunity to explore new perspectives and receive a feedback from the field to advance the "state-of-the-practice". Our intention is to organize a session on issues in practice of simulation methods in multidisciplinary system design optimization dealing with

- development of suitable formulation of multidisciplinary design problems;
- optimization algorithms incorporating structural design and analysis;
- dynamic simulation;
- physical analysis and behavior;
- design sensitivity analysis
- reliability and durability analysis.

Possible applications include (without limiting to) robotics and automation, micro-electromechanics, biomechanics, automotive, and aerospace.

**Session organizers:**

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**Deadlines:**

Announcement of a contribution (to facilitate session organization):
**15 March 2007** (by E-mail to session organizers)

Submission of 2 page extended abstract or draft paper:
**9 April 2007** (by E-mail to session organizers)

Acceptance notification after paper review:
**30 May 2007**

Full paper (camera ready) due to:
**30 June 2007** (to the conference server with copy to session organizers)

See also instructions: http://www.eurosim2007.org/Instructions.html