

# Call for Papers

## *ENTERPRISE INFORMATION SYSTEMS*

### *Special Issue on*

### *Information Integration Infrastructures Supporting Multidisciplinary Design Optimization*

Global optimization over contradicting engineering objectives across multiple disciplines is required for developing complex products such as aircrafts, engines, vehicles, and power generation systems. Seamlessly integrating and efficiently processing engineering data among numerous heterogeneous data sources play an essential role in making trade-off optimization decisions. Hence, flexible information infrastructures become corner-stones supporting multidisciplinary analysis, design and simulations throughout product development cycles. Ubiquitous characteristics of data diversity, irregularity, redundancy, and heterogeneity distinctively differentiate engineering information integration from information integration in managerial domains, and therefore pose challenges to IT implementations in engineering-intensive enterprises.

This special issue intends to provide a forum for researchers and practitioners to discuss the state-of-the-art, current progress and future directions in Information Integration Infrastructures Supporting Multidisciplinary Design Optimization. We are inviting papers of academic research as well as related case-studies, but not limited, to the following topics:

- Information structure supporting engineering analysis, design and simulation
- Information technologies enabling multidisciplinary design optimization
- Multidisciplinary data mapping and transformation approaches
- Data storage and mining supporting engineering activities
- Interoperation among multiple engineering data sources
- Heterogeneous engineering application integration
- Engineering task and flow management
- Multidisciplinary data visualization
- Data processing approaches for approximate optimization
- Service oriented supporting platform for heterogeneous information integration
- Case studies

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## **Paper Submission**

All papers should be submitted through the EIS's Manuscript Central at <http://mc.manuscriptcentral.com/teis>. Please select "Special Issue" under Manuscript Category of your submission and identify this special issue in the cover page. All manuscripts must be prepared according to the EIS's author instructions.

## **Important Dates**

Submission of full papers: 30 November 2010  
Notification of review outcome: 28 February 2011  
Submission of revised manuscripts: 10 May 2011  
Expected publication: August 2011