Call for Papers

Symposium on Virtual Prototyping in Mechatronics
as part of the 7th ASME/IEEE International Conference on
Mechatronic and Embedded Systems and Applications
August 29-31, 2011 Washington, DC, USA
http://iel.ucdavis.edu/mesa/MESA11/

Objectives: As intelligent mechatronic systems are becoming more prevalent in numerous application fields, the development process requires high efficiency, increased functionalities, reduced costs and optimized performance. Virtual Prototyping allows reducing consuming physical prototypes as well as improving system control before manufacturing. The simulation environment requires the cooperation among design team members introducing a distributed and collaborative paradigm for the design and development of complex systems in mechatronics. Virtual Reality (VR), Mixed Reality (MR) and Augmented Reality (AR) are human-computer interfaces improving the interaction between the user and the prototype to achieve a better understanding and cognition of mechatronic systems working conditions. Virtual Prototyping (VP) uses such technologies for product design and simulation. In this context manuscripts are solicited in the following topics but not limited to:

- VP-based design methods for intelligent mechatronics products
- Immersive modeling systems for mechatronics
- Advanced VP toolkits based on mechatronics solutions
- VP and Hardware-in-the-Loop testing and simulation
- Application of VR/MR/AR in mechatronics design and development
- Multimodal and multisensory interaction: advanced haptics, tactile, visual and audio displays
- Multi-user virtual environments
- Internet-based platforms based on AR/MR for mechatronics
- Tools and methods for multi-disciplinary and cooperative design in mechatronics
- Advanced applications of VP tools in mechatronics
- VP technology for manufacturing plants simulation
- Early testing and verification of mechatronics products
- Human-computer studies and validation of interaction

Paper Submission: Manuscripts shall be no longer than 10 pages and adhere to the ASME guidelines.

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Important Dates:

Submission of Abstract	11-02-2011
Submission of Full-Length Paper	18-02-2011
Author Notification of Acceptance	20-05-2011
Submission of Copyright Form	27-05-2011
Submission of Final Paper	30-05-2011

Technical Co-Sponsors:

ASME Division of Design Engineering
IEEE Intelligent Transportation Systems Society
IEEE Control Systems Society