

## **11<sup>th</sup> Symposium IFAC/IFIP/IFORS/IEA Symposium on Analysis, Design, and Evaluation of Human-Machine Systems**

31<sup>st</sup> August - 3<sup>rd</sup> September 2010, Valenciennes, France

### **Scope and Aim:**

The 11<sup>th</sup> Symposium IFAC/IFIP/IFORS/IEA Symposium on Analysis, Design, and Evaluation of Human-Machine systems was held successfully at the Phenix theater of Valenciennes, France from the 31<sup>st</sup> of August to the 3<sup>rd</sup> of September 2010.

This international event for scholars and experts is prestigious and continues a tradition started in 1982: Seoul (Korea in 2007), Atlanta (USA, 2004), Kassel (Germany, 2001), Kyoto (Japan, 1998), Boston (USA, 1995), The Hague (Netherlands, 1992), Xi'an (China, 1989), Oulu (Finland, 1988), Varese (Italy, 1985) and Baden-Baden (Germany, 1982). The objective of this symposium is to exchange ideas and further understanding in the areas of Human-Machine Systems, Human-Computer Interaction (HCI), Intelligent and Autonomous Systems and Decision Support Systems. The symposium especially highlights the paradigm shifts in research and practice and the gathered academic and industrial communities related to the human-machine systems based researches and applications.

### **Participants, Program and Papers**

The program of this 11<sup>th</sup> symposium was very rich and proposed new advances of technology designed for human and interacting with human. It concerned new theoretical contributions such as human automation, human-centered design, human reliability, cooperative system, remote control, resilience engineering, cybernetics, cognitive system engineering, and decision support system. The applications focused mainly on transportation, but other domains like medical engineering, manufacturing system, robotics or agriculture are also treated.

143 researchers and industrials from 18 countries attended this symposium. Upon 123 received papers, 90 were accepted as regular papers but 88 were included into the final program. Most of the papers were reviewed by 3 referees. Other 17 additional papers were presented and discussed during workshops or round tables. The program also proposed five plenary interesting sessions:

- Prof. Y. Sankai, University of Tsukuba, Japan: "Leading edge of Cybernetics: Robotics that suit you"
- Prof. C. Jonker, TU Delft, Netherlands: "The challenges of creating a negotiation support system for bilateral multi-issue bargaining"
- Prof. D. Gillet, EPFL, Switzerland: "Engineering Education 2.0: At the intersection of the Web of People and the Internet of Things"
- Prof. K. Bengler, TU München, Germany: "Have It or Test It. On the Necessity of Valid Digital Human Models for Ergonomics of Future Products"
- Dir. D. Miglianico, ALSTOM, France: "Human factors and the design of railway system"

Due to the excellent quality of the selection and of the papers, several awards were distributed:

- The best contributing teams on Human-Human Systems based research (i.e., The "Human-Machine Systems" team of Valenciennes and the "Control and Simulation" team of Delft).

- The best young researcher paper award allocated to: "A Semiotic Characterization of the Process of Teaching and Learning a Skilled Motion Taking Wok Handling as an Example", H. Mizuyama, K. Yamada, A Maki, K. Tanaka.
- The best theoretical paper award allocated to: "Revolutionizing the way people work with medical technology", A. Freudenthal, M. van Stuijvenberg, J.B. van Goudoever.
- The best applicative paper award allocated to: "Suitability of multiple correspondence analysis for a database exploration before inference analysis", P. Simon, P. Loslever, J.-C. Popieul, M. Rötting, A. Todoskoff.

Several social events were organized to extend scientific discussions in a more fun and unformal content (welcoming session cocktail, visit of the mining history center of Lewarde, gala dinner, bowling party, visits of the LAMIH).

The next important meeting for Human-Machine Systems community is the 12th symposium planned in USA in 2013 and will be organized by Dean S. Narayanan from Write University, Dayton, Ohio. The place has to be defined: Las Vegas, Hawaï or Chicago.

So see you soon for another interesting and excellent symposium!

Frédéric VANDERHAEGEN, NOC Chair  
Peter WIERINGA, IPC Chair

Some photos of the 11<sup>th</sup> symposium on Analysis, Design, and Evaluation of Human-Machine Systems



*The IPC (on the left) and NOC (on the right) chairs of the 11th IFAC HMS during the visit of the mining history center of Lewarde.*



*Some of the 11th IFAC HMS participants.*



*The 11<sup>th</sup> IFAC HMS opening session by IPC chair.*



*Group picture in front of the Phénix Theater*



*Gala dinner*