Over recent years, embedded systems have gained an enormous amount of processing power and functionality. Many of the formerly external components can now be integrated into a single System-on-Chip. This tendency has resulted in a dramatic reduction in the size and cost of embedded systems. As a unique technology, the design of embedded systems is an essential element of many innovations.

Embedded systems meet their performance goals, including real-time constraints, through a combination of special-purpose hardware and software components tailored to the system requirements. Both the development of new features and the reuse of existing intellectual property components are essential to keeping up with ever demanding customer requirements. Furthermore, design complexities are steadily growing with an increasing number of components that have to cooperate properly. Embedded system designers have to cope with multiple goals and constraints simultaneously, including timing, power, reliability, dependability, maintenance, packaging and, last but not least, price. The significance of these constraints varies depending on the application area a system is targeted for. Typical embedded applications include multi-media, automotive, medical, and communication devices.

The goals of the International Embedded Systems Symposium are to present exchange and discuss the state of the art, novel ideas, actual research results, and future trends in the field of embedded systems. Contributors and participants from both industry and academia are encouraged to take active part in this symposium.

Topics
- Specification and modeling of embedded systems
- Design methodology for embedded systems
- Validation and verification of embedded systems
- New technologies and trends for embedded systems
- Hardware/software co-design
- Re-configurable architectures and applications
- Software synthesis for embedded systems
- Distributed and modular controller architectures
- Network and communication systems
- Dependability and fault tolerance
- Power management and optimization
- Visualization for embedded systems
- Automotive, Avionic and Medical applications
- Case studies of innovative embedded systems

Submission
For further details on submission see: www.iess.org

Paper Submissions: December 23, 2012

Location
The conference will be held in "Heinz Nixdorf Museum" (HNF), the largest computer museum in the world, see also www.hnf.de