21ᵗʰ Euromicro Conference on Digital System Design

Prague, Czech Republic, Aug. 29-31th, 2018

Call for Papers

DSD 2018

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SPECIAL SESSION ON

ARCHITECTURES & SYSTEMS FOR AUTOMOTIVE, AERONAUTIC, SPACE & INTELLIGENT TRANSPORTATIONS (ASAASIT)

SPECIAL SESSION SCOPE

Digital systems in intelligent transportation systems (ITS) will play an important role and are becoming increasingly complex. New applications for these ITS have emerged to respond to people and societal needs and to ensure driver and passenger safety. Applications such as Driverless cars, Vehicle-to-X (V2X) communications, in-vehicle infotainment, and assistance for elderly and disabled drivers require powerful processing and communication capabilities. Moreover, modern transport tools play the leading role in strategically worldwide projects such as green and sustainable mobility in future smart cities and smart roads. To fulfill these tasks, the number and types of sensors in next generation of transportations tools will continually increase and requires significant computing power, low energy consumption and high reliability and security.

In addition to ITS, Digital systems are has become an ever more important in Aeronautics and Space applications, especially when the game changer now is the availability of powerful custom-of-the-shelf (COTS) processors and components developed for the consumer market. The roadmap for research institutes and space-based industrial partners strongly determine the need for new generations of high-performance general-purpose space proven digital signal processing's for future space missions.

The purpose of this special session is to look deeper into all these issues, and bring researchers and practitioners from industry and academia to explore and discuss recent progress, and stimulate the interaction between them through exchange of ideas and experience sharing.

Topics of interest include, but are not limited to:

- System architecture & software design for ITS: Multicore, FPGA, GP-GPU and heterogeneous system challenges.
- Safety, Security and Reliability. Assessment and detection of security threats and vulnerabilities.
- Designing architecture and software for security.
- Interfaces & Driver Assistance Systems, and in-vehicle networks (Most, Flexray, Can, Ethernet, etc.)
- Standards (AUTOSAR, ISO, EN, etc.) deployments.
- Development methods for advanced driver assistance systems.
- Design methods and tool-chains for embedded systems in autonomous vehicles and active safety.
- Architectural design and optimization for EVs and HEVs.
- Energy-efficient vehicles, connected vehicles and infrastructure design, energy generation and saving.
- Hardware and software solutions for run-time system management, self-diagnostics and repair.

SUBMISSION GUIDELINES

Authors are encouraged to submit their manuscripts to https://easychair.org/conferences/?conf=dsd2018. Should an unexpected web access problem be encountered, please contact the Program Chair by email (dsd2018@easychair.org).

Each manuscript should include the complete paper text, all illustrations, and references. The manuscript should conform to the IEEE format: single-spaced, double column, US letter page size, 10-point size Times Roman font, up to 8 pages. In order to conduct a blind review, no indication of the authors' names should appear in the manuscript, references included.

IEEE Conference Publishing Services (CPS) will publish accepted papers in the conference proceedings and the proceedings will be submitted to the IEEE Xplore Digital library and indexing services. Extended versions of selected best papers will be published in a special issue of the ISI indexed *"Microprocessors and Microsystems: Embedded Hardware Design"* Elsevier journal.

IMPORTANT DATES

Deadline for paper submission: April15th, 2018 (Extended)
Notification of acceptance: May 15ᵗʰ, 2018
Camera ready papers: June 15ᵗʰ, 2018

MORE INFORMATION (WEB PAGES)

- **DSD 2018:** http://dsd-seaa2018.fit.cvut.cz/dsd/
- **Euromicro:** www.euromicro.org