



### Call for Contributions

## 12<sup>th</sup> ERCIM/EWICS/ARTEMIS Workshop on “Dependable Smart Embedded Cyber-physical Systems and Systems-of- Systems” at SAFECOMP 2017 (DECSoS '17)

at SAFECOMP 2017 – Trento, Italy, Sept. 12, 2017, <http://safecomp17.fbk.eu>

**Co-hosted by the H2020 Innovation Action CP-SETIS and the ARTEMIS/ECSEL projects EMC<sup>2</sup>, ARROWHEAD, AMASS, ENABLE-S3, IoSENSE, Semi40, AutoDrive, Productive4.0 and AQUAS**

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This workshop at SAFECOMP follows already its own tradition since 2006. In the past, it focussed on the conventional type of “embedded systems”, covering all dependability aspects (in the meaning of IFIP WG 10.4, defined by Avizienis, Laprie, Kopetz, Voges and others). To emphasize more the relationship to physics, mechatronics and the notion of interaction with a somehow unpredictable environment, the terminology changed to “cyber-physical systems”.

In a highly interconnected world, a finite number of independently operable and manageable systems are networked together for a period of time to achieve a certain higher goal as constituent systems of a so-called “system-of-systems”. Examples are the smart power grid with power plants and power distribution and control, smart transport systems and autonomous vehicles (rail, automotive, traffic management with V2V and V2I facilities, air traffic control systems, construction engines), advanced manufacturing systems, mobile co-operating autonomous robotic systems, smart buildings up to smart cities, in short all “Smart Anything Everywhere”, somethings summarized under IoT – Internet of Things). Contributors are particularly encouraged this year to submit papers on ongoing research work or already available initial experience in the area of “systems of cyber-physical systems”, but all other smart embedded systems areas are welcome as well.

The impact on society as a whole is considerable - thus dependability (safety, reliability, availability, security, maintainability, etc.) evaluated in a holistic manner becomes an important issue, including resilience, robustness, and sustainability. CPSs are a targeted research area in Horizon 2020 and public-private partnerships such as ECSEL (Electronic Components and Systems for European Leadership), which integrates the former ARTEMIS, ENIAC and EPoSS efforts.

The already well-established ***ERCIM/EWICS/ARTEMIS Workshop on Dependable Embedded Cyber-physical Systems and Systems-of-Systems***” of the ERCIM DES-Working Group is again taking place on the Workshop-Day **Sept. 12, 2017!**

Sessions are planned on

- Dependable and resilient embedded systems,
- Highly automated (autonomous) Systems and Robotics,
- Smart Anything Everywhere, IoT Internet of Things
- Systems - of- Cyber-Physical Systems,

Particularly addressing thematic topics such as

- Multi-core platforms and mixed criticality systems,
- Safety and security co-engineering,
- Validation and Verification
- Domain-specific critical applications (industrial demonstrators)
- Standardization (interoperability, cyber-security aware safety) and certification,

covering aspects from design, development, verification and validation, certification, maintenance, standardization and education & training. This is a workshop, and to be distinct from the SAFECOMP conference mainstream, it allows reports on on-going work aiming at hopefully fruitful discussions and experience exchange.

***Reports on European or national research projects (as part of the required dissemination) as well as industrial experience reports from work in progress are welcome.***

**You want to present your ideas and results? What do you have to provide?**

Workshop proceedings will be provided as complementary book to the SAFECOMP Proceedings in Springer LNCS. Please keep your paper format according to SPRINGER LNCS style guidelines (<http://www.springer.com/computer/lncs?SGWID=0-164-6-793341-0>) (use Microsoft Word if possible).

**Papers (8 - 12 pages)** will be reviewed by at least three reviewers.

Submission is via EasyChair: <https://easychair.org/conferences/?conf=decsos17>

Deadlines:

- **Full paper submission:** 24 May 2017
- **Notification of acceptance:** 5 June 2017
- **Camera-ready submission:** 12 June 2017

The International Programme Committee is composed of selected EWICS and ERCIM members, led by the workshop organizers.

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