

# 4th International Workshop on Safety and Security of Intelligent Vehicles

Co-located with the **48th Annual IEEE/IFIP International Conference on Dependable Systems and Networks**  
**June 25, 2018 – Luxembourg City, Luxembourg**

[www.lsec.icmc.usp.br/ssiv](http://www.lsec.icmc.usp.br/ssiv)

## WORKSHOP DESCRIPTION

Over the last years, aerial and ground vehicles as well as mobile robot systems have been receiving an increased number of electronic components, connected through wireless networks and running embedded software. This strong integration between dedicated computing devices, the physical environment and networking, composes a Cyber-Physical System (CPS).

CPS have thus become part of common vehicles, accessible to everyone, such as automobiles or unmanned aerial vehicles (UAVs). Furthermore, as processing power increases and software becomes more sophisticated, these vehicles gain the ability to perform complex operations, becoming more autonomous, safe, efficient, adaptable, comfortable and usable. These are known as Intelligent Vehicles.

This will be the fourth edition of the workshop, aiming at continuing the success of previous editions. The vast range of open challenges to achieve Safety and Security in Intelligent Vehicles (with or without connection with the Internet) is a fundamental reason that justifies the numerous research initiatives and wide discussion on these matters, which we are currently observing everywhere. Therefore, the workshop will keep its focus on exploring the challenges and interdependencies between security, real-time, safety and certification, which emerge when introducing networked, autonomous and cooperative functionalities.

## NON-EXHAUSTIVE LIST OF TOPICS OF INTEREST

- Architecture, design, implementation and management of safe and secure intelligent vehicles
- Functional safety, standards and certification
- Security threats to cyber-physical systems
- Secure data communication in vehicular networks
- Collision prediction and avoidance
- Safety and security issues in ADAS
- Real-time perception and sensor fusion for safe autonomous driving
- Internet of (Secure) Things (flying, driving, floating, diving, etc)
- Safe integration of Artificial Intelligence in intelligent vehicles
- Advanced hardware for self-driving car and their impact on safety/security
- Regulation issues in intelligent vehicles
- Practical experiences and testbeds related with safety and security of intelligent vehicles
- Industrial experiences and best practices relevant to safety and security of intelligent vehicles

## WORKSHOP ORGANIZATION

- João Carlos Cunha, (jcunha@isec.pt), Instituto Politécnico de Coimbra, Portugal
- Kalinka Branco (kalinka@icmc.usp.br), Universidade de São Paulo, Brazil
- Michaël Lauer (mlauer@laas.fr), LAAS-CNRS, France

## IMPORTANT DATES

- Paper submission – **April 1, 2018**
- Author notification – **TBD**
- Final version – **TBD**

## PAPER SUBMISSION AND PUBLICATION

Submissions are accepted in IEEE two-column conference style in two formats:

- **short papers** (no more than 4 pages) and
- **full papers** (no more than 8 pages)

Authors of accepted full papers will have 30 minutes for presentation and discussion during the workshop, while authors of short papers will have 15 minutes. At least one author of an accepted paper must register at the workshop.

Accepted papers will be published in the DSN supplemental volume and made available in **IEEE Xplore**.

Templates and submission website:

- [http://www.ieee.org/conferences\\_events/conferences/publishing/templates.html](http://www.ieee.org/conferences_events/conferences/publishing/templates.html) (US letter)
- <https://easychair.org/conferences/?conf=ssiv2018>

## SPECIAL ISSUE

Selected papers will be considered for a **Special Issue** in an International Journal in connection with this workshop. We will issue an open call after the workshop, submissions will go through a separate peer review process.

## PROGRAM COMMITTEE

- Alex Sandro Roschildt Pinto, UFSC, Brazil
- Catherine Dezan, UBO, France
- Daniel Schneider, Fraunhofer IESE, Germany
- Istvan Majzik, BUT, Hungary
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