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Call for Papers for the IFAC Intelligent Autonomous Vehicles Symposium (IAV2016)

http://iav2016.inf.h-brs.de/ June 29 - July 1, 2016 Leipzig, Germany

Co-located with 20th anniversary of RoboCup 2016 world championships

#### :: Important Dates

Paper submission: November 1, 2015
Acceptance notification: February 15, 2016
Final paper submission: March 15, 2016

## :: Objectives and Scope

The symposium addresses topics in the field of Intelligent Autonomous Vehicles (IAV). It aims at the presentation of methods and/or innovative techniques to solve typical problems, to exemplify successful test cases or to document operational applications. Modalities extend from land, sea, air and reach as far as space. Involved target systems have been designed as multi vehicle compounds, swarms or networked platoons as well as individual carriers. The systems may perform domestic, service, field, maritime, ocean, air or even outer space related tasks.

The subjects of IAV expand from onboard control over interaction with its environment up till auxiliary support systems.

- :: Key topics include but are not limited to
- Navigation, Guidance and Control, e.g. motion control, controller design, modeling, stability analysis, trajectory tracking, path following and pose regulation.
- Sensing and Perception, e.g. sensors, including smart and networked sensors, integration of sensors, localization including SLAM, map building, recognition.
- Planning and Mission Control, e.g. local and global roadmap planning, task and motion planning, decision support systems, driver support systems, advanced driver assistance systems.

- Architectural Aspects of IAVs, e.g. for individual vehicles, for teams and swarms.
- Communication, Cooperation and Networking, e.g. multiple-vehicle systems, platoons and teams, vehicle to vehicle communication, operator or infrastructure communication, human-vehicle interaction.
- Applications, Execution and Use, e.g. transportation systems, land and ocean exploration, air and space applications, remote control, remote and local monitoring, tele-operation, fault detection, diagnosis and removal.

#### :: Submission Procedure

To submit a paper, please follow the link "CONTRIBUTION" located on the top line of the conference website.

## :: Sponsor

IFAC Technical Committee 7.5 on Intelligent Autonomous Vehicles (IAV)

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The complete list of IPC and NOC members is available on the conference website under "COMMITTEES".

For further information on IAV2016 please contact one of the co-chairs paul DOT ploeger AT h-brs DOT de, oriolo AT dis DOT uniromal DOT it or contact marcel DOT zimmerling AT h-brs DOT de

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