

The **10th IFAC Symposium on Intelligent Autonomous Vehicles**,
which took place on **July 3–5, 2019** in Gdansk, Poland,
<http://www.konsulting.gda.pl/iav2019/web/>

In the current state of the art and interests of our TC, the generally accepted and invited **IAV-related areas** are: architectures for intelligent autonomous systems (land, marine, aerial and space); smart sensors, networks and sensor integration for autonomous vehicles and robots; navigation, guidance and control, motion control, controller design, stability analysis; fault detection and diagnosis in intelligent autonomous systems; decision making for autonomous driving in real-time; planning and mission control; multiple vehicle systems and networks of autonomous vehicles; human vehicle interaction; medical robots, domestic robots, service and rehabilitation robots; applications of Autonomous Intelligent Vehicles: case studies and test evaluations.

The **IAV topics** that were used in the IAV'2019 technical sessions are: Controller Design and Control Systems (CSD); Robot Vision (VIS); Estimation and Sensor Fusion (EST); Advanced Driver Assistance Systems (DAS); Intelligent Transportation Systems (ITS, more issues); Path Planning, Localization and SLAM (SLM, more issues); Robot Navigation and Sensors (NAV); Multi-Vehicle Systems (VEH). Moreover, there was a special session (on Mode Switching Strategies) and a Poster interactive session (submissions related to the accompanying IAV Student Workshop).

Subjects of the **plenaries**:

1. Autonomous Reaction Capabilities for Networked Control of Cooperating, Distributed Small Satellites
2. European Contribution for Autonomous Vehicles
3. Autonomous Underwater Vehicles and Aviation Robots
4. Building Polish Space Sector – from Small Islands of Excellence to a National Innovation Ecosystem
5. Agile Maneuvering with Intelligent Articulated Vehicles: a Look from a Control Perspective)
6. Industry4.0 in Agriculture

SUMMARY:

Participants came from 19 countries of the world representing 80 institutions (14 industrial and 66 scientific).

There was the implementation of IFAC prize programs, both in its main scientific track (the flagship IFAC award programs), as well as in the area of robot construction and proficiency competitions designed for youngest people (IAV Cup 2019 “Dron Race”).

Generally, in the scientific part of the IAV conference participated: 105 authors (out of 223 coauthors from), 21 others (including students), together about 140 participants, and the other 150 people participated in the one-day IAV Cup (including the Robot Exhibition and the Drone Race). Together, it was almost 300 people.