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FM03 International F1/10 Autonomous Racing Demo supported by IEEE CEDA

FM03

International F1/10 Autonomous Racing Demo supported by IEEE CEDA

Session Type: Fringe Meeting

Date: Friday, March 29, 2019

Time: 10:00-15:00

Location / Room: between rooms 1 and 4

Organisers

Paolo Burgio, University of Modena and Reggio Emilia, IT ([Contact Paolo Burgio](#) [1])

Marko Bertogna, Modena and Reggio Emilia, IT ([Contact Marko Bertogna](#) [2])



The F1/10 is an open-source, affordable, and high-performance 1/10 scale autonomous vehicle testbed. The F1/10 carries a full suite of sensors, perception, planning, control, and networking software stacks that are similar to full scale solutions. The F1/10 testbed enables research and education in autonomous and cooperative systems, making autonomy more accessible.

Indeed, a F1/10 vehicle featuring most advanced sensors can be set-up in on week with few thousands euros following our tutorials, and is currently used by universities around the world to do research in the field of computer vision, machine learning, real-time systems, autonomous systems, vehicle dynamics control, highly-cooperative fleets of vehicles and drones.

During the event, the High-Performance Real-Time Lab (HiPeRT - <https://hipert.unimore.it/> [3]) from University of Modena and Reggio Emilia will bring its fully autonomous F1/10 prototypes, and perform demo sessions of:

- Single-lap time trials, where the goal of vehicles is to complete a single lap alone, in the shortest time possible
- Long-stint sessions, where the goal of the vehicle is to complete as many laps as possible in 3 minutes, i.e., where the crashes hazard must be minimal, and driver reliability is the key
- Head-to-head race sessions, where two or more vehicle exercise their algorithms for object tracking and collision avoidance in a complex and challenging scenario

These vehicles will participate in the 4th F1/10 International Autonomous Racing Competition (<http://f1tenth.org/> [4]), which gathers researchers and makers from all around the world in two days of challenges and networking, fostering the exchange of ideas and cooperations in the community.

The competition is held twice per year between Europe and North America, and now is at its fourth edition. Last event was in Turin, and the next one will take place in Montreal, Canada in April 2019.

Join the community!

Agenda

Time	Sessions
10:00 - 10:30	Session 1
12:00 - 13:00	Session 2
14:30 - 15:00	Session 3

The demo sessions will take place during the break times of the Friday Workshops.

All participants, who are registered for one of the Friday Workshops, are cordially invited to join the presentation area in front of Room 1.

Source URL: <https://past.date-conference.com/conference/fringe-meeting-fm03-0>

Links:

[1] https://past.date-conference.com/user/881200/contact_form

[2] https://past.date-conference.com/user/20439/contact_form

[3] <https://hipert.unimore.it/>

[4] <http://f1tenth.org/>