



## SWARMS Conference on Novel Solutions for Underwater Vehicles in Autonomous Sea Operations

### Date and Venue

June, 11<sup>th</sup> 2018 at Centre for Robotics and Intelligent Systems, University of Limerick, Ireland (co-located with EMRA-2018: Workshop On EU-funded Marine Robotics and Applications -12<sup>th</sup> and 13<sup>th</sup> June, 2018-). Registration is free but mandatory. You can find more information here: <http://swarms.eu/conference.html>

### Topics

We invite submissions in the area of solutions for underwater vehicles in autonomous sea operations, including (but not limited to) the following topics:

- Development methodologies and novel designs for autonomous maritime missions including HMI designs, data formatting and transfer challenges.
- Distributed platform and architectures for integrating and coordinating underwater robotics vehicles: data modelling and context awareness, Industrial IoT middleware solutions.
- New solutions for sensors and processing algorithms for underwater environments: data processing, 3D mapping, landmark extraction, map matching, relocation.
- New solutions for underwater communication systems: advanced networking, integrated over and underwater communications, high speed underwater communication, integration of heterogeneous underwater communication systems.
- Design and development of embedded architecture and mission management solutions: mission management (planning, re-planning, monitoring, etc.), software architecture and its evaluation over simulated, experimental or real scenarios.
- Autonomous navigation and semi-autonomous manipulation: simulation tool for underwater vehicles, motion planning, hybrid acoustic and radio frequency communication and control for homing applications.

### Submission Guidelines

- Submission system: <https://easychair.org/conferences/?conf=swarmsconf2018>
- Submission deadline: April, 30<sup>th</sup>
- Paper acceptance notification: May, 7<sup>th</sup>

### Organizing Committee (not definitive list):

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| - <u>Dr. José-Fernán Martínez-Ortega</u> (Chairman)<br>Associate Professor<br>ETSI y Sistemas de Telecomunicación<br>DTE, Universidad Politécnica de Madrid | - <u>Dr. Raúl Mario del Toro Matamoros</u><br>GRyS Researcher<br>ETSI y Sistemas de Telecomunicación<br>DTE, Universidad Politécnica de Madrid |
| - <u>Dr. Pedro Castillejo Parrilla</u><br>GRyS Researcher<br>ETSI y Sistemas de Telecomunicación<br>DTE, Universidad Politécnica de Madrid                  | - <u>Joaquim Manuel C. S. Bastos</u><br>Researcher, IT-Aveiro<br>Instituto de Telecomunicações - Aveiro  |