



# Julien Dupeyroux

MSc, Ph.D.



Birth: October 20, 1991



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## About me

Deeply interested in AI-powered autonomous navigation and control for robots, drones and vehicles in general, I am looking for a position dedicated to the development of such novel, ground-breaking solutions towards a complete, robust and reliable autonomy of these systems.

## Skills

Robotics

Embedded Electronics

Matlab

Programming Python, C & C++

Computer Vision

## Experience

- since 2021 Assistant Professor at the Micro Air Vehicle laboratory  
Section Control and Simulation - Department Control and Operations  
Faculty of Aerospace Engineering, Delft University of Technology
- 2019-2021 Postdoctoral researcher at the Micro Air Vehicle laboratory  
Section Control and Simulation - Department Control and Operations  
Faculty of Aerospace Engineering, Delft University of Technology
- 2015-2018 PhD fellow in Biorobotics  
Supervisors : Stéphane Viollet and Julien Serres.  
ISM - Biorobotics Lab., CNRS, Aix Marseille Univ., Marseille, France.
- 2015 Research Internship - 9 months  
*Hand gripping ability development for a humanoid hydraulic robot.*  
ETIS CNRS UMR 8051 - Neurocybernetics Team, Cergy, France.

## Education

- 2015-2019 Ph.D. degree in Bio-Inspired Robotics  
*Bio-inspired autonomous navigation applied to a hexapod robot.*  
Aix-Marseille University, Institute of Movement Sciences, Biorobotics Dpt., Marseille, France.
- 2017 Neuromorphic Vision Engineering Workshop  
Telluride, Colorado, USA.
- 2014-2015 MSc Degree in Artificial Intelligence and Robotics  
University of Cergy-Pontoise, Paris Area, France.
- 2012-2015 MSc Degree in Electronics and Computer Sciences  
ENSEA, French Engineering School, Paris Area, France.

## Teaching Activities

- since 2019 Supervision of 9 master students  
TU Delft – Faculty of Aerospace Engineering  
MAVLab, Delft, The Netherlands.
- 2018 Supervision of 1 master student  
Aix-Marseille University, Faculty of Sport Sciences  
ISM Biorobotics Lab., Marseille, France.
- 2015-2018 Teacher in Signal Processing, Motion Capture and Web Design  
64hours/year for master students  
Aix-Marseille University, Faculty of Sport Sciences, Marseille, France.

## Selected Publications

- 2021 Neuromorphic control for optic-flow-based landings of MAVs using the Loihi processor. IEEE ICRA 2021, 1-7.
- 2020 Dispositif de détection du cap d'un véhicule par détection de photons polarisés linéairement. Patent FR 3 086 088.
- 2019 AntBot: A six-legged walking robot able to home like desert ants in outdoor environments. Science Robotics, 4(27), eaau0307.
- 2019 Polarized skylight-based heading measurements: a bio-inspired approach. Journal of the Royal Society Interface, 16(150), 20180878.
- 2019 An ant-inspired celestial compass applied to autonomous outdoor robot navigation. Robotics and Autonomous Systems, 117, 40-56.

## Awards

- 2020 Winner of the 7th International Bionic Award.
- 2020 Winner of the PhD Prize of Aix-Marseille University.
- 2020 2nd Best PhD Prize of the French Research Robotics Network (CNRS).
- 2019 Winner of the Embedded IoT Prize – Embedded France.
- 2018 Best paper award – Living Machines Conference, Paris, France.
- 2017 Best paper award – European Conf. on Mobile Robotics, Paris, France.