

Georges Chahine, Ph.D.

Assistant Professor

O: FE.070

T: 09.218950, Ext. 2076

E: gchahine@ndu.edu.lb

Biography

Georges Chahine is an Assistant Professor in Mechanical Engineering. He holds a Master's degree in Robotics from the American University of Beirut (AUB) and a Ph.D. in Robotics from the Georgia Institute of Technology, where he specialized in developing portable sensor suites, sensor fusion, and temporal alignment algorithms.

Following his Ph.D., Georges conducted postdoctoral research in Europe under the Horizon 2020 (H2020) program, focusing on autonomous robotic inspection of ship hulls.

Georges later joined Exxact Robotics, where he developed perception algorithms for autonomous tractors designed for narrow vineyard rows. He then served as a High-Precision Localization Engineer at Valeo, working on advanced driver assistance systems (ADAS) for autonomous vehicles.

Through his company, Sensor Fusion Innovations, Georges provides perception and localization solutions for autonomous maritime platforms and consults for manufacturers of robotic appliances in household and gardening markets.

Peer-reviewed Journals

- Chahine G., Pradalier C. Semantic-aware spatio-temporal Alignment of Natural Outdoor Surveys, *Field Robotics*, 2, 1819–1848, 2022.
- Chahine G., Schroeffer P., Ouabi O., Pradalier C. A Magnetic Crawler System for Autonomous Long-Range Inspection and Maintenance on Large Structures, *Sensors* 2022, 22, 3235.
- Chahine G., Vaidis M., Pomerleau F., Pradalier C. Mapping in unstructured natural environment: a sensor fusion framework for wearable sensor suites, *Springer Nature Applied Sciences*, 2021.
- Griffith S., Chahine G., Pradalier C. Symphonie Lake Dataset, *International Journal of Robotics Research (IJRR)*, 2017.

Peer-reviewed Conference Proceedings

- Al-Ozaibi Y., Chahine G., El-Hamzaoui O. Monocular ORB-SLAM and Pose Retrieval for Autonomous Driving, *The 21st IEEE International Conference on SmartCity*, 2023, Melbourne, Australia.
- Schroeffer P., Chahine G., Pradalier C. 6-DoF State Estimation with a Mesh Constrained Particle Filter For Wheeled Robots., *56th International Symposium on Robotics (ISR Europe)*, 2023, Stuttgart, Germany.
- Chahine G., Wishon M., Detecting Overlapping Semiconductor Nanopillars and Characterization. *IEEE 3rd International Multidisciplinary Conference on Engineering Technology (IMCET) - Computer Systems and Applications*, 2021, Beirut, Lebanon.
- Chahine G., Pradalier C. Laser-Supported Monocular Visual Tracking for Natural Environments. *19th International Conference on Advanced Robotics (ICAR)*, 2019, Belo Horizonte, Brazil.

- Chahine G., Pradalier C. Survey of Monocular SLAM Algorithms in Natural Environments. Conference on Computer and Robot Vision (CRV), 2018, Toronto, Canada.
- Chahine G., Asmar D., Antoun M., Shammass E., Elhajj I., Ask the OWL: Object detection constrained by a probabilistic ontological model, IEEE International Conference on Robotics and Biomimetics, 2017, Macao, China.

CV

<https://www.ndu.edu.lb/Library/Assets/Files/Documents/NDUFacultyProfiles/NDUFacultyCVs/Georges%20Chahine.pdf>