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CALL FOR APPLICATIONS 2026 – FELLOWS

Supervisor	DINH Thach
Supervisor page	https://sites.google.com/site/ngoatchachdinh/
Host Institution	Conservatoire national des arts et métiers https://www.cnam.eu/site-en/
Research Lab	Center for Studies and Research in Computer Science and Communication https://cedric.cnam.fr/welcome/
Research Team	Electronics and signal processing https://cedric.cnam.fr/teams/laetitia-en/

Project Title

Distributed Estimation and Control for Cooperative Underwater Target Tracking

Project Description

This project addresses the localization and pursuit of an unknown moving underwater target using multiple cooperative autonomous vehicles equipped with range-only measurements. Existing approaches such as Kalman filtering rely on linearization and provide only local convergence guarantees. We propose a global observer that avoids linearization by combining distributed interval estimation with cooperative control. The resulting framework enables robust target localization and coordinated pursuit.

Keywords

distributed control, cooperative vehicles, localization

Description of the Host Research Lab

The Center for Studies and Research in Computer Science and Communication (Centre d'études et de recherche en informatique et communications, CÉDRIC) brings together research activities in digital sciences carried out at the prestigious French Higher Education and Research Institution, Conservatoire national des arts et métiers (Cnam). The permanent researchers at CÉDRIC are also teachers of computer science, applied mathematics or electronics.

To submit your application, please fill in the survey at the following link:

<https://msca-pf.sorbonne-universite.fr>