

Postdoctoral Fellowships

Université de Technologie Compiègne

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CALL FOR APPLICATIONS 2025 - FELLOWS

Supervisor Laurent Petit

Supervisor page https://uteam.fr/index.php/consultant/presentation/laurent-petit

Host Institution Université de Technologie Compiègne (UTC)

https://www.utc.fr/en/

Research Lab Laboratoire Roberval

https://roberval.utc.fr/

Research Team Équipe Mécatronique, énergie, électricité, intégration

https://roberval.utc.fr/recherche/equipes-de-recherche/equipe-

mecatronique-energie-electricite-integration/

Project Title

Optically controlled micro-robotic system for micro-manipulation tasks

Project Description

This project aims at developing a micro-robotic system composed of a micro-actuator, based on the diamagnetic levitation principle, capable of generating planar motions. This system will be controlled, powered and localized wirelessly using laser signals. The wireless principle of this system and its high performance in terms of positioning, repeatability and stability make it an excellent choice, especially for applications such as micro-organism micromanipulation and active microfluid mixing.

Keywords

microrobotic system, diamagnetic actuation, optical localization

Description of the Host Lab

The mission of the Laboratoire Roberval is to develop innovative experimental and numerical methods for the analysis, modeling and design of mechanical structures and systems.