



## Thesis Project Form

**Title (tentative):** Conductive polymers based-actuators for network computing and neuromorphic applications.

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### Description

#### Motivation and application domain

Neuroengineering and Neurotechnologies with focus on neuromorphic devices

#### General objectives and main activities

The aim of this project is to synthesize and characterize PEDOT:PSS-based linear and rotary actuators, capable of high precision movement on the microscale. These devices offer all the advantages of micro positioning devices, along with high electrical conductivity and the possibility to operate in aqueous environments. The resulting material would lead to the prototyping of smart devices (neuromorphic devices, PLAs).

#### Training Objectives (technical/analytical tools, experimental methodologies)

Technology development, characterization of neuromorphic devices

**Place(s) where the thesis work will be carried out:** IIT, Lab of Tissue Electronics, CABHC@CRIB Napoli

### Additional information

**Maximum number of students:** 1