# Thesis Project Form

**Title (tentative):** 2D and 3D neuronal networks coupled to CMOS devices for electrophysiological recordings

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## Description

### Motivation and application domain

Neuroengineering, In vitro Neuronal Networks, Network dynamics, Brain -on-a-chip

### General objectives and main activities

Main objective is the development of experimental protocols and execution of experiments of 2D-3D neuronal networks coupled to high-density 4096 pixel CMOS devices. The student will perform experimental activities, take care of the data analysis and discuss results with PhD students and thesis advisors.

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

Electrophysiological systems, Experimental methods, Data Analysis

### Place(s) where the thesis work will be carried out:

Neuroengineering Lab @DIBRIS

## Additional information

**Maximum number of students:** 2