Project Type: TFG

Python-based Automatic Test system

Short Description

The ICAS group of the IMB-CNM is working in the emerging printed-electronics technologies and capabilities with a variety of projects with different goals and requirements: from simple conductive to single interdigitated capacitive/amperometric sensors, passive and active devices such as Organic Thin Film Transistors (OTFTs) or even interfacing hybrid circuits. Low-cost flexible substrates based printed technologies opened a new universe of applications not feasible neither viable with rigid high-cost silicon technologies by using printing and additive manufacturing technologies such as inkjet printing.

The purpose of this Bachelor Thesis is the development of the required Python-based software system for the test and characterization of electronic devices and circuits. The resulting system should be scalable enough to meet the future demands of the Master and PhD researchers.

Background & skills required

- Electronic, Telecommunications or Computer Engineering (or any similar curriculum) covering the following topics: Python programming.
- Basic knowledge of electronic devices.
- Capability of working as a team.
- Good spoken and written English.

Tasks

The development of the proposed system involves the design of different Python-based scripts in order to automatize the semi-automatic characterization probe station and the electronic equipment for the electrical characterization, as well as the programming of the corresponding data processing and user interface in Python language.

Contact

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