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Area: Advanced Materials for Energy

Group: Solar Energy Materials and Systems Group (SEMS Group)

Group leader: Prof. Alejandro Pérez-Rodríguez

The Solar Energy Materials and Systems Group (SEMS) announces one engineer position in the frame of the IN4CIS Project, in the research line of:

Development of in-line advanced optical multimodal tool for process monitoring of high efficiency CIGS industrial processes

Description

The engineer position will be developed in the framework of the European IN4CIS project. This project proposes the development of optical multimodal tool based in Raman and photoluminescence spectroscopy for the in-line process monitoring of the PDT process in high efficiency CIGS devices.

Tasks to develop: The candidates will carry out a multidisciplinary scientific activity centred in the development and optimization of a novel multimodal characterization tool based in Raman and photoluminescence spectroscopies. This includes the optical design of the tool, identification of the required industrial components, the development of methodologies, the implementation of the electronics and software required for autonomous operation of the system and the calibration of the system using reference patterns compatible with in-line process monitoring.

Requirements

The candidates need to be in possession of an engineering title in the field of applied physics or equivalent, and demonstrable knowledge:

- Development of optics instrumentation
- Installation and calibration of optical systems
- Optics simulation and design (Zemax...)
- Mechanical design (solidworks...)
- Electronics
- Programing (matlab, labview...)
- Coordination of projects
- Team management

Language skills in English, German, and Spanish and demonstrable experience in research activities will be very well evaluated.

Application

Send the CV, engineering records to Dr. Victor Izquierdo-Roca (vizquierdo@irec.cat) indicating "**In4CIS**" in the subject of the e-mail.

Deadline: 15th December 2019

Starting date: January 15th 2020

Contract: 12 months, possibility of renewable yearly