2 Early Stage Research Positions for the MSCA-ETN Project MENELAOS NT

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CiTIUS is looking for 2 outstanding PhD researchers in the framework of the H2020 project MENELAOS NT: Multimodal Environmental Exploration Systems Novel Technologies.

MENELAOS^{NT} is a European Training Network (MSCA-ETN) which will train 15 Early-Stage Researchers (ESRs). The focus of MENELAOS^{NT} is to apply Novel Technologies to realize multimodal – multisensor data fusion to optimally combine the information "partititions", delivered by different sensors on different scales, with different resolutions and with different reliability. The project will address several societal key challenges such as sustainable agriculture and forestry, bioeconomy, environmental challenges, resource efficiency, protecting freedom and security of the European society.

MENELAOS^{NT} consortium includes 11 partners from 6 different European countries (Germany, Spain, Romania, Turkey, Israel and Switzerland) including 4 universities (Univ. of Siegen, Univ. Politechnica of Bucharest, Sabanci University of Istambul and CiTIUS-Univ. of Santiago de Compostela), 3 research centres (Fraunhofer, Technion and DLR) and 4 private companies (Insitu, pmdtechnologies, AMO and Gamma).

CiTIUS is a research centre specialised in Intelligent Technologies located in Santiago de Compostela, Spain. Currently, the Centre has a team of more than 100 researchers, including 31 senior researchers and more than 50 PhD researchers. In the last 4 years (2016-2019), CiTIUS published over 150 articles in indexed journals (SCI-Scopus) and defended 38 PhD thesis. In the same period, the Centre attracted funding of over 10,5M€, of which more than 2,7M€ correspond to projects in collaboration with the industry sector.

We are looking for outstanding and highly motivated candidates interested in developing a PhD in the area of CMOS sensors design. MENELAOS^{NT} project will provide a unique training programme both in scientific and transversal skills and an opportunity to get international and intersectoral secondments.

We offer 2 PhD positions in the following areas:

- ESR1: Fabrication of CMOS ToF sensors with 2D/3D capabilities
- ESR2: Design of an AIC CMOS vision system for spatio-temporal event detection

Position details

- Full-time employment contract for a period of three years.
- Gross salary of 2.347,50€/month (14 payments per year) if the researcher has no family or 2.661,70€/month (14 payments per year) if the researcher is married or has dependent children. It includes medical care coverage and work accident

insurance through the Spanish Health Care System, as well as retirement and unemployment benefits.

- The estimated starting date will be September 1st, 2020.

General eligibility criteria

- **Geographic mobility**: at the time of the recruitment, the researchers must not have resided or carried out their main activity (work, studies, etc.) in Spain for more than 12 months in the 3 years prior to the recruitment date. Time spent as part of a procedure for obtaining refugee status under the Geneva Convention is not taken into account.
- **Research career**: when starting their contract, expected in September 2020, selected candidates should be within the first four years of their research careers and not have been awarded a doctoral degree prior to the application.
- **Degree**: Master of Science in Electrical Engineering, Electronics Technology, Electrical Engineering Technology, Electrical and Computer Engineering, Physics, Industrial Engineering, Computer Science or related fields.
- **Languages**: good level of both written and spoken English.

Desirable skills

- Highly motivated and creative candidates.
- The ideal candidate will be organized, hard-working and have the ability to work in a team and in an interdisciplinary environment.
- Good communication skills.
- Specific knowledge (basic level): analog and digital CMOS circuit design with modern CAD tools like Cadence or similar frameworks; solid-state semiconductor devices and simulation frameworks (ATLAS, Sentaurus, …)
- Programming languages (basic level): C, C++, Python and Matlab.

Working at CiTIUS

CiTIUS provides a stimulating, interdisciplinary and cutting-edge scientific environment, where our researchers can start and foster their training and scientific career in an international team. Among others, we offer:

- State-of-the art research facilities and unique training opportunities.
- Work in an international research project
- Flexible working schedule. CiTIUS is committed to reconcile the work and family life of its employees.
- Training programme in scientific and transversal skills which aims to enhance future employability and career success of our researchers.
- Possibility to participate in dissemination events with industry and outreach activities with scholars, organised throughout the year.
- Access to university facilities: gym, sport activities, Spanish courses, etc.

Application

Candidates interested in these positions should fill in the online application form available for each position:

- **ESR1: Fabrication of CMOS ToF sensors with 2D/3D capabilities**

- **ESR2: Design of an AIC CMOS vision system for spatio-temporal event detection**

The application must include:

- Motivation letter (Research statement with respect to ESR topic, 1 page)
- Curriculum vitae including relevant skills, experience and publications list
- University transcripts and certificates: Bachelor and Master degrees
- Language proficiency certificates (e.g., TOEFL, IELTS, Cambridge or equivalent). This is not required in the case of native English speakers.
- Copy of personal identification card or passport

Optionally, you can add any other documents which you find relevant for the application such as reference letters, publications or project reports.

Estimated Starting Date: September 1st, 2020.

Deadline for submitting applications: 31 May 2020 | 23:59 CEST (UCT +02:00).

Candidates are encouraged to contact the Supervisor Prof. Dr. Paula López Martínez (p.lopez@usc.es) for assistance of for any doubt related to the application process.

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