

ANNOUNCEMENT

(Marie Curie ITN H2020)

1 Early Stage Researcher Position in the framework of the

MarineUAS - INNOVATIVE TRAINING NETWORK ON AUTONOMOUS UNMANNED AERIAL VEHICLES FOR MARINE AND COASTAL MONITORING

at the Faculty of Engineering, University of Porto, Portugal

www.fe.up.pt

MarineUAS is an international research training program on “Autonomous Unmanned Aerial Systems for Marine and Coastal Monitoring” for highly motivated young scientists, where state-of-the-art research is combined with a comprehensive training program. MarineUAS (www.marineuas.eu) addresses the needs of European companies and society for unmanned aerial systems for marine and coastal monitoring, through training on cutting edge research in this rapidly emerging interdisciplinary field. The network is funded by the European Community’s Horizon 2020 Framework programme, under the Marie Skłodowska Curie Innovative Training Network scheme.

Ten partners from academia and industry, as well as four partner organizations will provide a multi-national and interdisciplinary training infrastructure, designed to equip the participating fellows with the necessary knowledge and set of tools to pursue successful careers.

We have openings for **one position as researcher** at the Department of Electrical and Computer Engineering at the Faculty of Engineering, University of Porto (UPORTO), Porto, Portugal. The position is for **3 months, eventually renewable, but never exceeding the maximum duration of the project** and focused on the research challenge of *“Cooperative motion control between Unmanned Aerial Systems (UAS) and marine robotic vehicles for plume tracing”*. The objective of the project is to develop and test high-level motion control strategies involving multiple autonomous robotic vehicles (UAS and marine robotic systems) to find, track and map plumes fronts in the ocean and estuaries. Key goals include the implementation and validation of the developed concepts through field tests with the robotic vehicles developed at Underwater Systems and Technologies Laboratory (LSTS), in marine science scenarios.

The work will also involve support activities related to innovation, patenting and publications. The assignment assumes participation in some training within the MarineUAS innovative training network. Moreover, the design, development and testing will in part be done in collaboration with the NTNU (Norwegian University of Science and Technology, Norway).

The research activities undertaken by the researcher will be carried out at the Underwater Systems and Technologies Laboratory (LSTS) at the Faculty of Engineering of the University of Porto (FEUP). FEUP is a public institution of higher education with statutory, scientific and financial autonomy. FEUP mission is to train world-class engineers in a R&D environment of excellence. Founded in 1926, FEUP is one of 14 faculties at the University of Porto, being the largest faculty of the University of Porto, with 3 Licenciaturas, 9 Integrated Master Programmes (5 years), 12 Master Programmes (2 years) and 22 Doctoral Programmes. FEUP has more than 8,000 students and 500 professors across 9 departments.

The LSTS is an interdisciplinary research laboratory established in 1997 with researchers drawn from Electric and Computer and Mechanical Engineering and from Computer Science. The LSTS is specialized on the design, construction and operation of unmanned vehicles and on the development of tools and technologies for the deployment of networked vehicle and sensor systems. LSTS has been involved in fostering and growing a world-wide research network in the area of networked vehicle systems with yearly conferences and workshops, and, more recently, with large scale exercises at sea. LSTS researchers are well connected (with frequent visitors, seminar exchanges, and tools exchanges) to research efforts as

collaborators on other projects and developments in Europe and in the United States of America. Currently the LSTS fleet includes ten autonomous underwater vehicles, two remotely operated vehicles, one autonomous surface vehicle, fifteen unmanned air vehicles and ten drifters. The LSTS has been demonstrating these vehicles and technologies in the Atlantic and Pacific oceans, and also in rivers, in Europe and in USA, and has a leading role in several national and EU projects that include Xpress (FP6), Con4Coord (FP6), PITVANT (Portuguese MoD), Raia (EU POCTEP), NOPTILUS (EU FP7), NECSAVE (EDA), NETMAR (EU Interreg), and BRIDGES (H2020). For further information please visit <http://lsts.fe.up.pt> .

1. Duration and regulations:

The **contract will be awarded for 3 months, eventually renewable, but never exceeding the maximum duration of the project and with a predicted starting date July, 2018** subject to the regulations of the Marie Skłodowska Curie Innovative Training Network Fellowships of the European Commission and in accordance with the work contract regulations of Portugal.

2. Qualifications & Nationality requirements:

The position concerns an Early stage researcher, which means a researcher who, at the time of recruitment by the beneficiary, has not yet been awarded the doctorate degree and is in the first 4 years of his/her research career. The researcher may be of any nationality. At the date of recruitment, the researcher must not have resided or carried out his/her main activity (work, studies, etc...) in Portugal for more than 12 months in the 3 years immediately prior to his/her recruitment under the project. The researcher should be a holder of a university degree, giving access to doctoral studies.

3. Scientific coordination:

Prof. António Pedro Aguiar and Prof. João Borges de Sousa.

4. Academic training:

Successful applicants must have a Masters degree in the field of Electrical and Computer Engineering, Computer Science, Applied Mathematics, or related fields. Applicants must have strong mathematical skills, in-depth knowledge of computer programming, Excellent English skills, written and spoken, are required.

5. Method of Selection:

The selection method will take into consideration the Curriculum Vitae of the candidates, taking into particular consideration the academic records, and a remote interview via video conference. The interview only takes place for the first top 2 candidates, which are screened based on the CV.

Detailed information about the selection criteria is available at: https://sigarra.up.pt/feup/pt/conteudos_service.conteudos_cont?pct_id=525739&pv_cod=20BVm7ObaEaC

6. Financial conditions:

- Type of contract: Employment Contract (Temporary), Full-time
- € 2.771,01/month
- Mobility allowance: € 600/ month
- Family allowance: €500/month (subject to family situation)

These amounts are gross amounts, subject to taxation according Portugal national law. Consequently, the net salary results from deducting all compulsory (employer and employee) social security contributions as well as direct taxes (e.g. income tax) and insurance from these gross amounts.

Successful applicants will have the opportunity to interact with world class researchers from around Europe and will be encouraged to promote collaborative work between the various partners of the MarineUAS project (<http://www.marineuas.eu>).

7. Documents of application:

The applications should be e-mailed to recursoshumanos@fe.up.pt mentioning the reference **FEUP-MarieCurie-MarineUAS** in the subject and to Professor A. Pedro Aguiar pedro.aguiar@fe.up.pt with a copy to the LSTS secretariat (sas.lsts@fe.up.pt), with the following data:

- i) Detailed biographical vitae, including a description of prior research
- ii) Names of two academic references (name, title, affiliation, e-mail and telephone number(s)) who are willing to provide detailed recommendation letters about the candidate
- iii) Declaration of honor regarding the residency for the last three years. Download the template at: https://sigarra.up.pt/feup/pt/conteudos_service.conteudos_cont?pct_id=525740&pv_cod=27valcaaZq8R

After a preliminary screening, the academic references will be contacted to independently provide confidential recommendation letters.

8. Deadline of the competition:

The competition is open from **14-05-2018 until 25-05-2018**.

9. Contacts:

A. Pedro Aguiar

Email: pedro.aguiar@fe.up.pt

URL: <http://paginas.fe.up.pt/~apra>

João Sousa

Email: jtasso@fe.up.pt