



UNIONE EUROPEA

**PON** Ricerca e  
2014- 2020 **Innovazione**



## PhD position (3 years)

DING - Università degli Studi del Sannio in Benevento, Italy  
Doctorate School in "*Information Technologies for Engineering*"  
Innovative Industrial Doctorates

Supervisor: Prof. Luigi IANNELLI - DING Benevento, Italy

<http://www.ing.unisannio.it/iannelli>

Supervisor: Dr. Antonio FRANCHI - LAAS-CNRS Toulouse, France

<http://homepages.laas.fr/afranchi/robotics/>

Industrial Partner: TopView s.r.l., San Nicola la Strada (CE), Italy

[http://topview.it/home\\_en](http://topview.it/home_en)

Part of the activities will be carried out abroad and in industry

## Project title: iMOTUS - innovative MODular Tethered UAV System

**Activities:** Research activities are aimed to the design and development of an automatic control system for managing unmanned aerial vehicles (drones) that are tethered to the ground station. In particular the final objective consists of developing a "smart" ground station that, together with the tethered UAV, will achieve features like safety, autonomy, stability and positioning accuracy.

It is expected to spend a period of **14 months** at the company **TopView** in San Nicola la Strada, **Caserta**. During such period the PhD student will work on modeling and simulation of the aerial vehicle, and then the activity will be focused on the development of the first level prototype.

A further period of **10 months** (split into two phases) of study and research will be carried out at the **LAAS** - Laboratoire d'analyse et d'architecture des systèmes of **CNRS**, in **Toulouse, France**. During such period the student will work in the research group of Dr. Antonio Franchi, with the aim of investigating the specific problem of tethered UAVs control with application to the systems developed by TopView.

**Candidate profile:** The successful candidate should have a Master degree in computer engineering, electrical engineering or mechanical engineering with a strong expertise in avionics and flight control. Skills and practical experience regarding coding and software projects development and the knowledge of numerical platforms for dynamic simulation will be considered, as well.

**Scholarship information:** It is available a scholarship for all three years, according to Italian doctorate rules. It has to be considered a further increase of 50% for the period spent abroad (ten months).

**Contacts and info:** The call for position with all details for the application will be available by March 2018. The starting date is expected to be June 2018.

All interested candidates are encouraged to send their updated CV (with contact details and academic references) to Prof. Luigi IANNELLI, e-mail: [luigi.iannelli@unisannio.it](mailto:luigi.iannelli@unisannio.it).