

Training Opportunity for Portuguese Trainees

Reference	Title	Duty Station
PT-2015-EOP-SEP	Synergistic use of satellite data over land	ESRIN
<p>Overview of the Unit missions:</p> <p>The Data User Element (DUE → http://due.esa.int) of the ESA Earth Observation Envelope Programme brings together scientists, user communities and EO experts for developing and demonstrating tailored EO applications. Its main mission is to “bridge the gap between research projects and the sustainable provision of EO application products that respond to the operational needs of user communities”.</p> <p>Many applications e.g. biomass estimations and permafrost monitoring require multi-sensor approaches to make full use of the various sensor capabilities and maximise the retrieval of their information content. The challenge is the integration of EO data, in-situ measurements and appropriate models to advance the information. DUE will start large global projects on biomass retrieval, wetlands in Africa and permafrost monitoring. Additionally a call on small innovative projects shall foster the use of Sentinel data.</p> <p>With the launch of Sentinel-1 on 3 April 2014 Europe entered into a new age for Earth Observation (EO). Sentinel-2 will join next year, and both satellites will provide operationally large amounts of data, which opens new ways for EO to serve user needs. You will be working on the development of advanced multi-sensor remote sensing techniques for dedicated applications, with a particular focus on the Copernicus missions Sentinel-1 and Sentinel-2.</p>		
<p>Overview of the field of activity proposed:</p> <p>In support to synergistic use of satellite data over land:</p> <ul style="list-style-type: none"> • Development and demonstration of use cases for Sentinel-1 and Sentinel-2 land applications with a particular focus on biomass, wetlands and permafrost. • Support to the development, benchmarking and validation of interferometric processing for deformation mapping in permafrost zones, wetlands and biomass estimation from various SAR sensors (with emphasis on Sentinel-1). • Support to the development, benchmarking and validation of multi-sensor and multi-temporal algorithms for land cover monitoring (forestry, wetlands, permafrost) and potential synergistic use for Sentinel-1 and -2. • Support to D/EOP-SEP related projects • Preparation and participation to project meetings with stakeholders and users (within DUE projects) 		
<p>Required Education: Degree in remote sensing / environmental sciences.</p>		