

Training Opportunity for Luxembourgish Trainees

Reference	Title	Duty Station
LU-2019-OPS-OE	SMOS Payload Operations	ESAC
<p><u>Overview of the unit's mission:</u></p> <p>Launched in 2009, ESA's Soil Moisture and Ocean Salinity (SMOS) mission performs global observations of soil moisture over land and salinity over oceans. It carries a novel, L band, interferometric radiometer (MIRAS) to capture "brightness temperature" images and deriving from it maps of Soil Moisture and Ocean Salinity.</p> <p>The SMOS spacecraft is operated as collaboration between CNES (Toulouse), which controls the PROTEUS platform, and ESAC (Madrid), which controls and plans the MIRAS payload operations.</p> <p>At ESAC, the SMOS Flight Operations Segment (FOS) is a small multidisciplinary team providing onsite operational support during regular working hours, and on call support 24/7, and manages the SMOS payload operations. FOS operational tasks include maintenance of the ground segment, payload operations, mission planning tasks and developing of the SW operational tools.</p>		
<p><u>Overview of the field of activity proposed:</u></p> <p>Working as a member of the SMOS Payload Operations Team, the trainee will assist the Instrument Operations Manager in a number of operational activities linked to the operations of the SMOS Instrument Operations Segment (IOS), including among others:</p> <ul style="list-style-type: none"> ➤ Analyzing, assessing, implementing and testing the tools already available within SMOS IOS to support, evolve and enable operations automations. Further, the trainee shall investigate other tools and concepts that can be re-used within the SMOS operations to evolve the concepts. The tasks include research but mainly "training on the job", whereby the final objective of the trainee is to operationally deploy a system/set of systems developed during the trainee ➤ Learn and later support the day-to-day operations of the SMOS mission, being ready at the end of the trainee-ship to understand the operational concepts, use of procedures and databases linked to this and any similar Earth Observation mission within the Earth Observation Missions Division. ➤ Analyse instrument thermal anomalies and to simulate and provide future operational alternatives. 		
<p><u>Required education:</u></p> <p>Applicants should have just completed, or be in their final year of a University course at Masters Level (or equivalent) in a technical or scientific discipline (Engineering, Computer Science, Physics, etc).</p> <p>Good analytical mind and knowledge of high level programming languages such as Python or Java would be desirable.</p>		