

## Training opportunity for graduates/young professionals from Switzerland

Reference	Title	Duty Station
CH-2020-OPS-SD	Space debris and space safety	ESOC
<p><b><u>Overview of the unit's mission:</u></b></p> <p>The Space Debris Office is part of the Space Safety Programme Office in the Directorate of Operations. The Space Debris Office is coordinating the Agency's space debris research activities and is responsible for all space debris operational and analysis services in support of ESA missions, programs, and of ESA cooperation at inter-agency level. The work of the Space Debris Office is based on a large set of operational and scientific analysis software that are developed, maintained and operated under its control. The office is strongly involved in supporting ESA's Space Safety programme. The goal of the Space Safety Programme is to contribute to the protection of our planet, humanity and assets in space and on Earth from threats originating in Space and to contribute to Europe providing safety from such threats as a service to its society.</p>		
<p><b><u>Overview of the field of activity proposed:</u></b></p> <p>You will be involved in activities of the Space Debris Office in the area of analyses on the status and future evolution of the space debris environment and supporting missions. You will be assigned to topics in the areas of analysis of mitigation and remediation techniques, evaluation of new concepts and the development and application of the necessary means to verify and qualify such concepts.</p> <p>You will support the definition of study work in that field and contribute to the technical follow-up of such studies. You will attend regular team meetings and support the coordination of activities within a group of experts. You will be required to contribute to updating existing analysis tools.</p> <p>Working in a small team, you will have the opportunity to actively contribute to on-going projects and research activities, develop new tools as well as present results to an international community.</p> <p>You will contribute in particular to two ongoing projects</p> <ul style="list-style-type: none"> <li>• Analysis and Implementation of Improvements to ESA's Reporting on Compliance with Space Debris Mitigation Guidelines and support to the development of tools for environment impact assessment</li> <li>• Improvements to ESA's collision avoidance process in view of growing orbital population, better situation knowledge and extended data sources, as well as emerging automation needs, e.g. under the CREAM cornerstone of the Space Safety Programme</li> </ul> <p>You are encouraged to visit the ESA website: <a href="http://www.esa.int/esa">www.esa.int/esa</a>.</p>		
<p><b><u>Required education:</u></b></p> <ul style="list-style-type: none"> <li>• Master-level degree in a technical or scientific discipline, such as aerospace engineering, mathematics, physics, or related areas;</li> <li>• Good knowledge of orbital mechanics and mathematics in general;</li> <li>• Familiarity with LINUX operating environments and with scientific programming (e.g. programming in Python);</li> <li>• Good experience in system and software engineering;</li> <li>• Spirit for defining, organising and following up study work and proven documentation skills;</li> <li>• Basic knowledge in project management will be considered as an asset;</li> <li>• Good interpersonal and communication skills;</li> <li>• Ability to work in a multicultural environment, autonomously and as part of a team;</li> <li>• Fluency in English and/or French, the official languages of the Agency;</li> </ul>		