

Training opportunity for graduates/young professionals from Switzerland

Reference	Title	Duty Station
HRE-PE	System Engineering Support for ExoMars 2022	ESTEC
<p><u>Overview of the unit's mission:</u></p> <p>The 2022 ExoMars mission includes a Carrier Module and a Mars Rover developed by ESA, and a Descent Module including a Surface Platform developed by Roscosmos. The Descent Module includes as ESA contributions the On-Board Computer (OBC) and software with the navigation algorithms, the Parachute System, the Radar Doppler Altimeter, the Inertial Measurement Unit, the UHF transceiver and antenna.</p> <p>The goal of the 300kg-class Rover is to explore the surface and subsurface in the vicinity of the landing site to conduct geological investigations and to search for traces of past and present life for a nominal period of 218 sols. The ExoMars Rover will include a two-meter drill, the Pasteur payload provided by ESA, and Russian scientific instruments.</p> <p>The Surface Platform shall include a set of instruments for studying the environment and investigating the planet's internal structure for a nominal period of 218 sols. Once the Rover has egressed, the Surface Platform shall conduct its science mission.</p> <p><u>Overview of the field of activity proposed:</u></p> <ul style="list-style-type: none"> • General support the System Engineering activities, in particular regarding Space and Ground segments • General support to verification activities, in particular regarding SCC and operations • General support to review activities, in particular regarding SCC and operations • Support to the mission preparations and execution, in particular regarding the ground segment, launch, and early operations • Support to the review of system budgets, in particular regarding the link, mass and propellant budget • Support to the review of the mission timeline, in particular regarding operational aspects <p>You are encouraged to visit the ESA website: www.esa.int/esa</p> <p><u>Required education:</u></p> <ul style="list-style-type: none"> • Applicants should have just completed a University course at Masters level in a technical discipline • Applicants must be fluent in English, one of the official languages of the Agency • Applicants should have good interpersonal and communication skills and should be able to work in a multi-cultural environment, both independently and as part of a team • Applicants should be interested in a broad number of technical disciplines, preferably with experience or competence in Aerospace Engineering (ideally with some knowledge of Mission Requirements Analysis and Design, Verification Engineering Activities and Operations Preparation) • Knowledge of Russian language will be an advantage; • Good interpersonal and communication skills; • Ability to work in a multicultural environment, autonomously and as part of a team; • Fluency in English and/or French, the working languages of the agency. 		