

Training Opportunity for Luxembourgish Trainees

Reference	Title	Duty Station
LU-2022-TEC-MMA	Space Automation and Robotics	ESTEC
<p><u>Overview of the mission</u></p> <p>The Mechatronics and Optics Division provides engineering support for space projects and executes technology developments in the areas of Automation and Robotics, Mechanisms, Life and Physical Sciences Instrumentation, Optics and Opto- Electronics.</p> <p>One of the Sections of this Division, the Automation and Robotics Section, is the focal point in ESA for matters relating to the design, engineering and verification of space Automation and Robotics (A&R) systems (i.e. manipulation systems, mobility systems and payload automation systems). For these the Automation and Robotics Section is responsible for:</p> <ul style="list-style-type: none"> • conception of novel uses and novel designs in space missions, [SEP] • definition, design and engineering, [SEP] • breadboarding and demonstration, [SEP] • analysis, and verification, [SEP] • technology development in the fields of: 1) robot perception, [SEP]2) control, autonomy and intelligence, [SEP]3) motion and actuation, [SEP]4) robot-user interfacing, 5) robot ground-testing [SEP] 		
<p><u>Overview of the field of activity proposed</u></p> <p>You will contribute to one or more tasks pertaining the responsibilities and needs of the Section within the fields of orbital robotics, planetary robotics and human robotics interaction.</p> <p>With the assistance of ESA engineers working in the Section, as well as with the support of other ESA specialists, you may work on: [SEP]</p> <ul style="list-style-type: none"> • feasibility assessments of new space A&R concepts; [SEP] • breadboarding and demonstration of A&R systems (e.g. robots, rovers and supporting technologies) and their [SEP]subsystems and interfaces to users in the A&R laboratories [SEP] • verification of existing A&R systems; [SEP] • mathematical modeling and simulations; [SEP] • operational readiness, organisation and extension of the lab facilities. 		
<p><u>Required education and skills</u></p> <ul style="list-style-type: none"> • Master's degree in a technical or scientific discipline • Good interpersonal and communication skills • Ability to work in a multi-cultural environment, both independently and as part of a team • Fluency in English and/or French, the working languages of the Agency 		