

Training Opportunity for Belgian Trainees

Reference	Title	Duty Station
BE-2018-HRE-XE(2)	Spaceship EAC – Additive Manufacturing	EAC
<p><u>Overview of the unit's mission:</u></p> <p>Within the Directorate of Human Spaceflight and Robotic Exploration, the European Astronaut Centre (EAC) at Cologne, Germany, hosts the European astronaut corps and is responsible for astronaut training and astronaut medical operations. In order to prepare for future (human) space exploration missions, EAC created the “Spaceship EAC” project, which aims at developing technologies and concepts relevant for exploration on the Moon.</p> <p>The implementation of related projects is often done in cooperation with institutes of the German Aerospace Center (DLR), which has its headquarters and major facilities surrounding the EAC in Cologne, and with other external European partners.</p>		
<p><u>Overview of the field of activity proposed:</u></p> <p>The focus of the proposed National Trainee (NT) activity is to support EAC activities within the frame of the "Spaceship EAC" initiative in particular in the area of additive manufacturing for human exploration and EAC. These activities are in line with future exploration roadmaps and exploration scenarios related to possible human exploration beyond LEO. This opportunity would expand upon the past activities at the centre focusing on recycling of thermoplastic material and functional materials for space. The NT activity will encompass:</p> <ul style="list-style-type: none"> • Familiarisation with the "Spaceship EAC" project and – as far as relevant – with ESA's technology programme and exploration strategy; • Support the ongoing 3d printing activities at EAC, as well as initiating new projects within this domain in line with Spaceship EAC objectives • With the Spaceship EAC team, investigate new concepts around functional 3d printing and recyclability <p>Many of the activities under the “Spaceship EAC” initiative are executed by a team of students under the supervision of dedicated ESA personnel and with support from the greater EAC team. The successful candidate would be integrated into the Spaceship EAC team, and experience a dynamic innovative working environment focusing on enhancing and enabling the centre to address future exploration challenges.</p>		
<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.</p> <p>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.</p> <p>Skills of particular interest are in the area of mechatronics, additive manufacturing and CAD tools, such as AutoCAD or Solidworks. Hands on experience with 3d printing technology and its applications is advantageous.</p> <p>Applicants must be fluent in English and/or French, the working languages of the Agency. A good proficiency in English is required.</p>		