Mechatronics and Control Engineer – Space Robotics (M/F)

2020-007-BE-SYS-RMS-MCE

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SERVICES

Space Applications Services is a company based in the Brussels area (BE) that provides products and services for the space sector in many areas from Avionics, Robotics, Human Exploration, Science and Earth observation.

The successful candidate will be based in our main office at Sint-Stevens-Woluwe (Brussels Area).
The position is in the Systems Department, Robotics, Mechanisms & Structures Team (comprises of 9 persons).
The candidate will mainly report to Robotics, Mechanisms & Structures Team Lead.

Tasks and Responsibilities

The initial work assignation will cover the development of control software components for terrestrial and space robotics applications, in challenging ESA and/or EC funded projects. These projects in particular include (1) the development of control strategies for force feedback exoskeleton technology, (2) the implementation of visual servoing control software for on-orbit servicing applications and (3) the development of low level control algorithms for a bespoke robotic arm.

Tasks include:
• Analysing potential control strategies, carrying out trade-offs accounting for hardware components (motors, sensors, electronics) and taking into account mission requirements
• Developing simulation (software with or without hardware in the loop) to test and validate the control strategies
• Developing hardware and software test setups to validate the suitability of the control strategies
• Supporting the end-to-end implementation, testing and optimisation on target robot architectures
• Generating the technical documentation required all along the process.

Qualifications and Experience

• MSc or PhD in relevant fields (Control Theory, Electrical Engineering or Robotics)
• Proficiency with robust control algorithms, ideally related to robotic manipulation, haptics or visual servoing
• At least 2 years of professional experience involving software development for control in robotics is required
• Professional experience with C++ and Python
• Hands-on experience with complex software architecture, deployment and testing
• Proficiency with technical documentations production.

The following skills and experience will be considered as assets:

• Robotics software developments and frameworks (ROS, OROCOS, Gazebo,…)
• Real-time operating systems and low-level communications protocols (CAN, EtherCAT, …)
• Continuous Integration processes and agile software development
• Spacecraft communication buses (SpaceWire, TTE)
• Spacecraft GNC architecture and constraints

Space Applications Services NV/SA
Leuvensesteenweg 325
1932 Sint-Stevens-Woluwe
(Brussels Area)
Belgium

+32 (0)2 721 54 84

info@spaceapplications.com
jobs@spaceapplications.com

www.spaceapplications.com
www.icecubesservice.com
www.aerospaceapplications-na.com

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The successful candidate will have the following skills

• A proactive approach, with initiative and ability to work independently
• A hands-on mentality
• Ability to:
- Synthesise, summarise and draw conclusions
- Adhere to strict standards of confidentiality
- Work in distributed international teams
• Strength to cope with schedules and deadlines
• Excellent organisational, analytical and communication skills
• Excellent written and spoken English
• Flexible and capable to work in a fast-paced environment.

What Do We Offer?

• Working in a growing company with Staff located in Belgium, Germany and the Netherlands
• A professional, pleasant atmosphere with motivated and passionate staff, where autonomy and initiatives are encouraged
• An interesting remuneration package with a relocation allowance, if applicable
• A full time position with an indefinite contract of employment.

How To Apply?

➢ Please send your CV and Motivation Letter (both in English) to **jobs@spaceapplications.com**,
to the attention of Mr. Jeremi Gancet.

The candidate shall be eligible to work in the European Union or in possession of a European Blue Card for two or more years.

We are looking for someone to start as soon as possible.