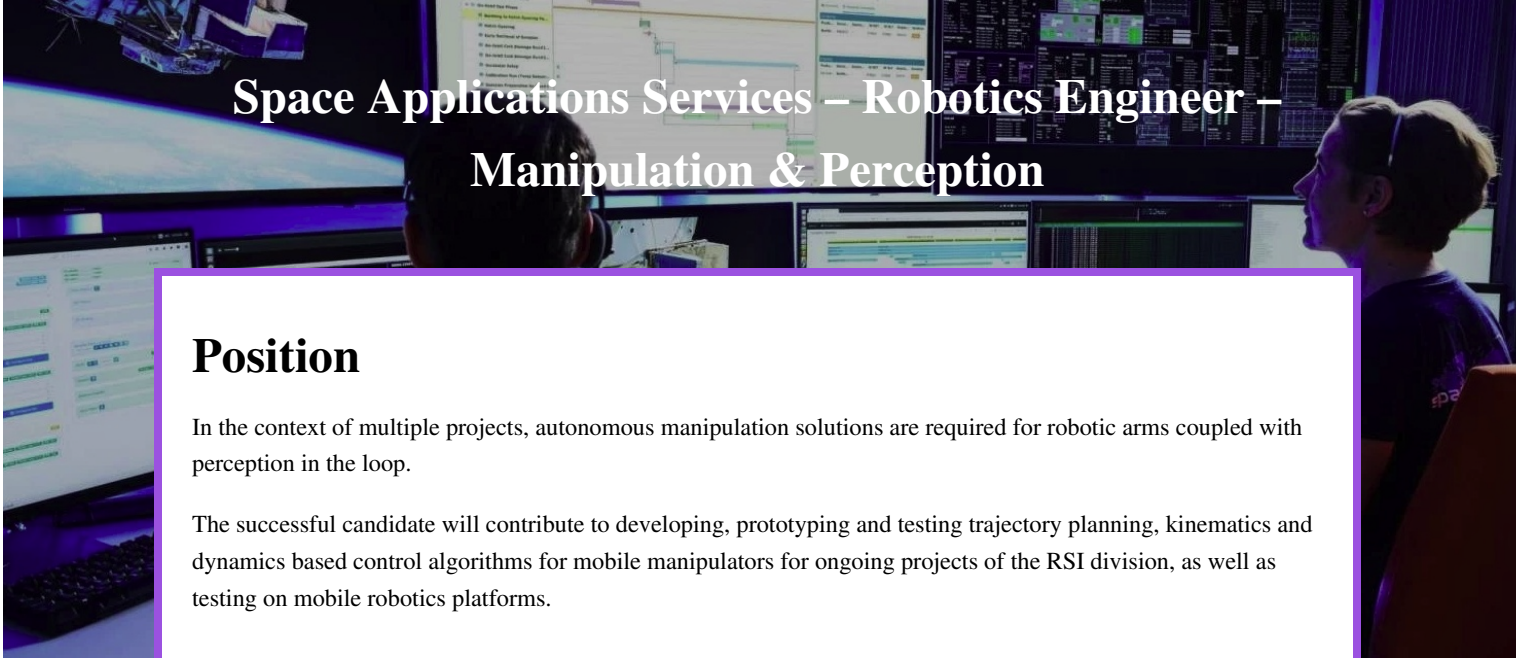


A background image showing two people in a control room or office setting, looking at multiple computer monitors displaying various data and graphs. The text 'Space Applications Services – Robotics Engineer – Manipulation & Perception' is overlaid in white.

Space Applications Services – Robotics Engineer – Manipulation & Perception

Position

In the context of multiple projects, autonomous manipulation solutions are required for robotic arms coupled with perception in the loop.

The successful candidate will contribute to developing, prototyping and testing trajectory planning, kinematics and dynamics based control algorithms for mobile manipulators for ongoing projects of the RSI division, as well as testing on mobile robotics platforms.

- **Location:** Sint-Stevens-Woluwe (Brussels Area)
- **Start date:** At the earliest.

Tasks and Responsibilities

- Analyse project requirements from use cases
- Identify solutions from the State-of-the-Art manipulation strategies linked with perception of the environment
- Design software architecture, software development of algorithms and testing with simulated and real data sets
- Integrate hardware updates to existing manipulators in terms of sensors and effectors
- Develop and evaluate software for autonomous manipulation modalities for diverse end effectors in unstructured environments
- Participate to end-to-end implementation, testing, integration and optimisation on target robot architecture and simulated twin
- Willingness to commit and take major responsibilities in challenging robotic field test campaigns

Skills and Experience

- MSc or PhD in relevant fields (robotics, automation & control, computer science, mechatronics, software engineering)
- At least 2-3 years of demonstrable experience in industrial and/or research domains of mobile manipulation control

- Strong theory and experience in trajectory planning/generation, kinematic and dynamics solvers and control of manipulators, end effectors and/or mobile robots
- Good background in computer vision – Mapping/3D reconstruction, object detection, tracking, 3D pose estimation of targets
- Manipulator control coupled with Vision - visual servoing, tracking targets etc
- Very strong programming skills (C++, Python) on Linux environment, Git tools and docker
- Good experience of robotics software development in ROS/ROS2, kinematics/dynamics frameworks (Ex. MoveIt2)
- Proven experience on integration and testing of developed SW, Drivers and HW components on real robots - industrial setting or field testing and validation campaigns
- Good proficiency with technical documentation
- Strength to cope with schedules and deadlines
- Good written and spoken English.

Our Offer

- Working within an exceptional sector with Staff located in Belgium, Germany and the Netherlands
- A professional and modern working environment with motivated Administrative Staff, Engineers, Astronaut Training Instructors and Scientists coming from all different horizons and countries with a common passion for space and their own expertise
- A full-time position with an indefinite contract of employment
- A competitive remuneration package and good working conditions
- Working from home in part can be a possibility
- An individualised training and development programmes.