MEC_9

Title of the doctoral program

Mechanical Engineering

Title of the research activity

Design of robot for spacecraft applications

Short description of the research activity

The candidate will develop a simulation environment for analysis, functional design and performance evaluation of different robotic devices based on a spacecraft and intended for space operations between either spacecrafts or spacecraft and non-cooperating natural or artificial objects. Examples of applications are docking between two spacecrafts, berthing or manipulation tasks, debris removal.

The candidate will also analyze different strategies for both attitude control of the spacecraft and control of the robotic device according to its operating task.

Scientific responsible (name, surname, role, email)

Stefano Pastorelli, associate professor, stefano.pastorelli@polito.it

Number of vacancies for XXXI cycle (3 years program)

1

Specific requirements (experiences, skills)

Master Degree in Mechanical or Aerospace Engineering are preferred

Experience in simulation of mechanical systems could be useful

Website of the research group (if any)

http://www.dimec.polito.it/en/research/research_groups/mechatronics_and_servosystems