Faculty of Power and Aeronautical Engineering
WARSAW UNIVERSITY OF TECHNOLOGY

LOCKHEED MARTIN

Spacecraft dynamics modelling and simulation research project

Division of Automation and Aeronautical Systems invites students to participate in a research project in the field of spacecraft dynamics modelling and simulation sponsored by the Lockheed Martin Corporation as part of the *Specific Scholarship/Research Award Grant*.

Project topics include:

- Gravity gradient torque modelling
- Spacecraft aerodynamics modelling
- Interpolation methods using spherical harmonics functions
- Earth's atmosphere modelling
- Spacecraft aerodynamics coefficients estimation based on free molecular flow theory

Participants will be responsible for preforming research in selected topics, preparing reports and developing mathematical models along with their implementation in MATLAB.

Students are encouraged to prepare intermediate projects or diploma thesis as a result of the project. Work in the project can be used to fulfil obligatory student internship requirements.

Project duration: 2021.05.17 – 2021.12.31

Salary: (pl: *umowa zlecenie*) the amount depends on the scope of work and time commitment

Application deadline: 10.05.2021 09:00.

Online interviews with selected applicants will be held on 11-14.05.2021 (date may change).

Requirements:

- enrolled as engineering or master's degree student at Warsaw University of Technology in the field of: Aerospace, Automation and Robotics or other relevant
- fluent English (all documentation have to be prepared in English)
- knowledge of MATLAB programming language
- interest in research work
- good academic record

Additional strengths:

- demonstrated knowledge of space related technologies
- basic knowledge of orbital mechanics and space environment
- research projects experience
- fluent Polish

Required documents (in English):

- motivation letter
- CV

Required documents should be submitted by email to mateusz.sochacki@pw.edu.pl.

For further information please contact M.Sc. Eng. **Mateusz Sochacki**; Faculty of Power and Aeronautical Engineering, Institute of Aeronautics and Applied Mechanics, room NL138; phone: 022 2345981 (not recommended due to home-office); email: mateusz.sochacki@pw.edu.pl.