

1 FLIGHT DYNAMICS ENGINEER

For a leader company in the aerospace sector, we are looking for a skilled and passionate Flight Dynamics Engineer.

In this role, you will be responsible for the preparation, execution, and monitoring of all activities related to Flight Dynamics. As a Flight Dynamics Engineer, you will play a crucial role in supporting our Flight Operations Team, collaborating with the System Engineering team, and ensuring the smooth implementation, usage, and maintenance of Flight Dynamics software. You will also have the opportunity to develop tools and scripts to enhance satellite system operations and integration with Mission Control Software.

DUTIES

- Prepare, execute, and monitor all Flight Dynamics activities, ensuring compliance with established standards and procedures.
- Support the Flight Operations Team on-console, in routine and special operations, providing expertise and assistance as needed.
- Collaborate with the Flight Operations and System Engineering teams to understand and address Flight Dynamics requirements, contributing to the overall success of satellite missions.
- Collaborate with the Project Management team to assess the project planning, risks, provide and review technical documentation, and manage resources.
- Implement, utilize, and maintain Flight Dynamics software, including troubleshooting and resolving any technical issues that may arise.
- Develop tools, such as scripts, to streamline satellite system operations and facilitate integration with Mission Control Software.
- Conduct thorough analysis and evaluation of Flight Dynamics data to ensure optimal satellite performance and trajectory accuracy.
- Stay up-to-date with industry trends, advancements, and best practices in Flight Dynamics and satellite operations, continuously enhancing your knowledge and skills.
- Collaborate with cross-functional teams to identify opportunities for process improvements and implement innovative solutions.
- Participate in system testing, simulations, and mission rehearsals to validate Flight Dynamics procedures and ensure readiness for real-time satellite operations.
- Provide technical expertise and guidance to other team members, fostering a collaborative and knowledge-sharing environment.
- Interface with customer or external stakeholders.

Perform Mission Analysis tasks:

Mission and Concept of Operations (ConOps) design, early-stage feasibility assessments
Maneuver strategy definition and delta-V budget for activities such as formation flight, phasing, constellation management, station keeping
Interplanetary transfers and flybys
Statistical analysis (sensitivity, Monte Carlo, etc.)



Collision Avoidance

Perform Spacecraft Navigation tasks:

Orbit Determination (measurement simulations and filtering, state estimation, covariance analysis)

Trajectory and maneuver optimization

Perform GNC tasks:

6DOF simulations (dynamics, sensors, actuators)

Guidance and Control algorithms

Generate and manage SPICE mission kernels.

Support the generation and submission of proposals to industry and institutional partners.

GENERAL REQUIREMENTS

- Master's degree in Aerospace Engineering, Physics, Mechanical Engineering, or a related field.
- Solid understanding of Flight Dynamics principles, including orbit determination, trajectory analysis, and orbit maneuvering.
- Previous and proven experience in the same role (at least 2 years)
- Experience in satellite operations, preferably in a Flight Dynamics capacity.
- Strong programming skills, with proficiency in languages such as Python, MATLAB, or C++.
- High flexibility and team-working capability
- Hands-on and proactive approach
- Ability to work with tight schedules
- Ability to coordinate a multidisciplinary and international team

REQUIRED EXPERIENCES & SKILLS

- Be fluent in English (written and verbal)
- Excellent problem-solving skills and the ability to analyze complex data sets.
- Strong communication and interpersonal skills, with the ability to collaborate effectively with cross-functional
- teams.
- Detail-oriented with a high level of accuracy in work output.
- Ability to work in a fast-paced environment and handle multiple tasks simultaneously.
- Flexibility to work outside of regular business hours when required, especially during critical satellite operations

ADDITIONAL ASSETS

Knowledge of MONTE or GODOT environments.

Knowledge of the Ground Segment utilization.

Knowledge of Mission Control Software and its integration with Flight Dynamics systems.

Familiarity with scripting and automation tools to develop custom solutions for satellite system operations.





PLACE OF WORK: Torino, Italy

WORK CONDITIONS: individual salary based on Italian National Collective Labor Agreement, experience and skills.

HOW TO APPLY:

If you are interested in this position, please send us your **CV and Cover Letter in English** to the e-mail eures.recruiting@agenziapiemontelavoro.it

