

Full time/ permanent contract

Modelling & Simulation Engineer (m/f/d)

DESCRIPTION

We are looking for a passionate Modelling & Simulation Engineer to join our young and growing team. As Modelling & Simulation Engineer, you will create mathematical representations of various components within our simulation framework of the overall flight dynamics and aircraft systems. You will work in strong collaboration with experts in the respective fields, such as aerodynamics, structure & load, and electrical & battery engineers. You will support the validation of the models against data from our testing facilities. Furthermore, you will implement analysis tools which evaluate simulation models to support our technical disciplines with the validation of requirements and design choices, e.g., regarding flight mechanics and handling qualities. In the process, you will closely communicate with the design teams and help them make informed decisions and negotiate the best solution.

All in all, you will get the chance to learn something new every day, work with many different disciplines and teams and actively contribute to shaping tomorrow's aviation.

YOUR TASKS

- Derive, implement, and test component models and maintain our overall system simulation
- Contribute to our code base for model evaluation and analysis as well as report generation
- Perform structured software testing on your and your colleagues' implementations and maintain code structure and documentation
- Collaborate with technical experts in model derivation and validation and include data and model structure updates
- Perform system identification for component and overall models based on test data
- Support other technical teams using our models, e.g., for verification of the flight control software or concept design studies
- Continuously challenge and improve technical concepts, tools, and methods

YOUR SKILLS

- Hold Master's degree in Aerospace Engineering or a related field
- Have at least 2 years of experience in working with flight dynamics simulation models in MATLAB/Simulink
- Already be proficient in the discipline of flight mechanics
- Have good software development and coding skills

- Have strong motivation to establish processes and organizational structures
- Have a high level of target-oriented self-management with the ability to work diligently in a team as well as autonomously
- Have excellent problem solving, communication, mathematical, and overall technical writing skills
- Have fluent English language skills
- Be passionate and curious about electric aviation and novel aircraft concepts

Moreover, we would appreciate if you

- Have some knowledge in system identification
- Have experience/interest in software development processes, including version control

ABOUT US

ERC develops a manned electrical vertical takeoff and landing vehicle. The company was founded in 2020 by a team of aerospace engineers that already has gained experience in this field for many years. Financially well backed, the core team already grew a competitive company around the topic, but still needs your support to get all tasks done!

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