Senior Research Engineer I (Airframe or Structure Design)
Nanyang Technological University

Job Title	Senior Research Engineer I (Airframe or Structure Design)
Department	School of Mechanical and Aerospace Engineering
Institution	Nanyang Technological University Singapore, , Singapore
Date Posted	Mar. 4, 2024
Application Deadline	Open until filled
Position Start Date	Available Immediately
Job Categories	Professional Staff
Academic Field(s)	Aerospace/Aeronautical/Astronautics
Job Website	https://ntu.wd3.myworkdayjobs.com/en-US/Careers/details/Senior-Research-Engineer-I--Airframe-or-Structure-Design-_R00016373
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Job Description

The eVTOL Research and Innovation Centre at School of Mechanical & Aerospace Engineering (MAE), Nanyang Technological University, Singapore, is looking for a strong candidate as Senior Research Engineer I in the area of Airframe or Structure Design.

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Key Responsibilities:

- Lead the conceptualization and detailed design of composite structures for eVTOL, ensuring they meet performance, weight, and manufacturability requirements.
- Develop 3D models and detailed engineering drawings using CAD software, ensuring precision and compliance with industry standards.
- Utilize advanced engineering principles and tools to optimize composite structures for strength, stiffness, and durability.
- Conduct material testing, sub-component testing and load proof testing to validate performance and reliability.
- Collaborate with aerodynamicists, stress analysts, and other stakeholders to integrate composite structures seamlessly into overall system designs.
- Define and specify load cases, load distributions, and factors of safety for composite structures.
- Define and optimize laminate stacking sequences to achieve desired mechanical properties.
- Select appropriate layup techniques and manufacturing processes for composite components.
- Work closely with manufacturing teams to ensure feasibility and efficiency in the production of composite structures.
- Focus on weight reduction strategies while maintaining structural integrity and performance.
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Prepare technical reports and presentations to communicate design concepts and progress to both technical and non-technical stakeholders.

Job Requirements:

- Bachelor's or master’s degree or Ph.D in aerospace engineering, Mechanical Engineering, or a related field.
- 5 years of experience in composite structure design and analysis.
- Strong knowledge of composite materials, manufacturing processes, and industry best practices.
- Experience with CAD design software such as Solidworks, NX or CATIA
- Experience with aerospace or automotive composite structures is highly desirable.
- Excellent problem-solving skills and the ability to work in a collaborative team environment.
- Effective communication skills, both written and verbal.
- Fluent English skill is a must.

We regret that only shortlisted candidates will be notified.

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Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

Singapore