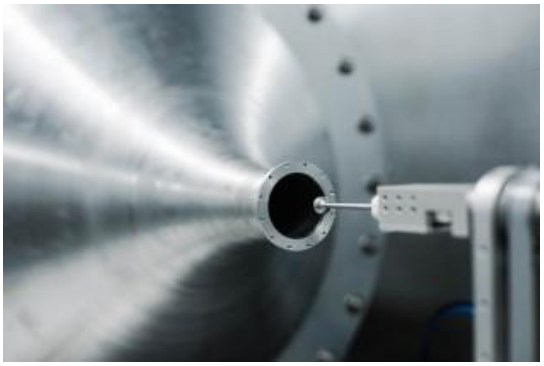
Experimental Bachelor/Semester Thesis

“Experimental Study on the Impact of Surface Texture of Flow Measurement Probes in a Miniature Wind Tunnel”.

About us:

From individual probes to complete systems: Utilizing 3D printing and advanced software solutions, we develop custom flow measurement technology tailored perfectly to specific applications, delivering reliable results even under challenging conditions.
Our systems measure angles of attack, pressure, velocities, and temperatures of various flows (air, water, gas, oil, etc.).
Vectoflow is a young, innovative, and creative company. As an innovation leader in probes and measurement technology for emerging industries such as drones, aerospace, wind energy, and aerodynamics, we are already active in global target markets.
We prioritize creativity, team spirit, and the courage to explore new directions.
We are seeking individuals who share our mindset and drive for making a difference. We offer opportunities for growth within a flat organizational structure, contributing to the advancement of the company together. Our team is diverse, international, and passionate.
At Vectoflow, attitude is valued equally with experience and a drive for success.



Position Overview:

We are offering an exciting opportunity for a Bachelor thesis on “Experimental Study on the Impact of Surface Texture of Flow Measurement Probes in a Miniature Wind Tunnel” at Vectoflow.

Your Role:

- **Analysis, Optimization, and Commissioning of Existing Hardware and Software:** Assess the current setup for functionality. Modify and replace individual components and optimize the free jet to achieve a suitable flow field. Adapt the software to meet Vectoflow standards. Commission the miniature wind tunnel, including the traversing unit.
- **Validation:** Validate the flow field using reproducible scientific methods.
- **Parameter Investigations:** Study various probe head geometries in a parameter study employing scientific methods.
- **Evaluation of Results:** Document and interpret the results scientifically, incorporating existing literature. Document the test stand for future operations.

Your Profile:

- Currently enrolled in a Bachelor's or Master's program in Aerospace Engineering, Mechanical Engineering, Systems Engineering, Mechatronics, or a related field.
- Strong passion for working with mechatronic systems, ideally with prior experience in developing such applications.
- Proficiency in LabVIEW or a traditional programming language.
- Basic understanding of aerodynamics and measurement technology.
- Demonstrates an independent working style and strong technical acumen.

We Offer:

- An engaging topic in aerodynamic measurement technology.
- Collaboration within a young, innovative, and expanding team.
- Extensive opportunities for technical implementation.
- A pleasant, team-oriented working atmosphere.
- Practical work to complement theoretical study content.
- Qualified technical supervision.

This position requires full-time availability at our location in **Gilching**. Remote work options are available upon agreement.
Duration: **6 months**
If you are interested in pursuing this topic for a Master's thesis, the scope and content can be adjusted accordingly.

Contact:

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