Write your **Thesis** at the Institute of Aircraft Production Technology

Development of augmented reality inspection processes for hydrogen systems

We develop methods for digital quality assurance to support the realization of large-scale hydrogen electrolyzers for the **production of green hydrogen**. Especially for hydrogen-carrying systems, quality compliance plays a key role for safety. Your task includes the **development of AR solutions** for inspection processes, together with localization solutions, user guidance and the bidirectional integration of measurement data with the digital twin.

Your subtasks

- State of the art & determination of requirements for an augmented system for various inspection processes (e.g. H2-leakages)
- Analysis of the measuring process (process control, data interfaces)
- Analysis, selection and implementation of an application-specific digital twin
- Application development in Unity and integration of localization
- Execution of tests on a demonstrator & evaluation
- Documentation of the work

Your profile

- You study mechatronics, (media) computer science or a comparable subject
- You have good knowledge in programming with Unity (C#, C++)
- Experience with measurement technology, data interfaces and AR applications

The specific task is determined in consultation with the student.

If you are interested, please contact :

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