



Master Thesis

Development and design of a new test rig for the P90-RXI-B micro gas turbine

This master's thesis involves the design of a test rig for Micro Gas Turbines. The P90-RXI-B engine test requires a newly developed remote control and complete instrumentation, including a thrust measurement system and the traversing systems for measurements of the component-wise and system-wise efficiencies:

- Literature review focused on possible instrumentation solutions.
- Thermo-mechanical analysis of the gas turbine.
- Development and construction of the test rig capable of hosting the P90-RXI-B turbine.
- Testing and Data acquisition to benchmark the newly developed system with Kerosene.

The present thesis is situated within the first steps of the project titled "Ammore" It will establish the foundations for the conversion of kerosene to ammonia, thereby facilitating the integration of a hybrid system capable of operating on ammonia-powered solid oxide fuel cell (SOFC) output.

Start: from April 1, 2026 **Duration:** 6-9 months (part-time employment possible)

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