

# Master- and Bachelor Theses in Engineering of Materials Acceleration Platforms

The Helmholtz Institute Erlangen-Nuremberg for Renewable Energies (HI ERN), part of the Forschungszentrum Jülich, researches and develops material- and process-based solutions for climate-neutral, sustainable and cost-effective utilization of renewable energies.

Our group specializes in:

- Combinatorial materials research
- High-throughput film deposition and characterization
- Machine learning and closed-loop optimization
- Robotics and automation

for the development of thin film solar cells.

We offer the opportunity for **Master and Bachelor** theses in the **development of automated equipment for fabrication and characterization** of printed semiconductors.

## Qualification:

- Student of Material Science, Nanotechnology, Energy Technology , Physics or comparable require an examiner from their department.
- Keen interest in robotics and optical characterization methods (Absorption, PL, TAS, etc.)
- Knowledge in CAD and technical drawing
- Experience with automation (Raspberry, Arduino, etc..)
- Programming Knowledge
- Self-driven and reliable

Note: Students of MTW, NT, Energy Technology, MAP can be directly examined. Students from other disciplines require an examiner from their department.



Contact:

Tobias Osterrieder

Immerwahrstr. 2, 91058 Erlangen

t.osterrieder@fz-juelich.de