# Master Thesis: **Investigation of flexible PV modules**



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.

Aim: To investigate flexible modules in terms of crack forming and MPP development due to deflection compared measurements with OPV samples

#### **Project Steps:**

- 1. Build up a test stand for bending tests on flexible modules
- 2. Perform bending tests on different modules
- 3. Electroluminescence (EL) and IV curve measurement
- 3. Analyze the appearance of cracks in correlation to PV module power.

### Qualifications:

- Master student in energy technology, renewable energies, engineering
- Profound technical knowledge
- Experience in a programming language (Python) and data analysis is beneficial



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Note: Students of MWT, NT, Energy Technology, Advanced Materials & Processes (MAP) can be directly examined. Students from other disciplines require an examinor from their department.

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