Universität Stuttgart
Institute for Photovoltaics (*ipv*)
Emerging Materials Group
Prof. Dr. Michael Saliba

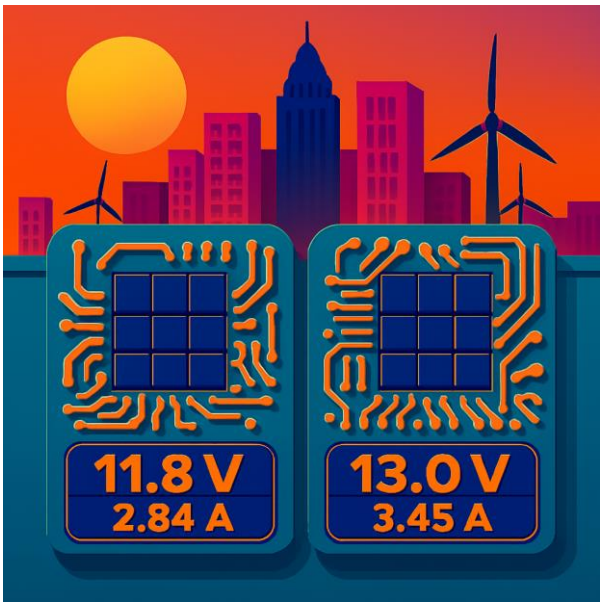
HiWi Job

Modular solar cell measurement board design

Altium or KiCAD experience REQUIRED

Perovskite solar cells are poised to be a driving force in the next generation of solar energy. The last major hurdle to overcome is their stability. Currently, these solar cells degrade within a few weeks, so understanding the fundamental mechanisms at play is critical. To investigate this the *ipv* is building the **largest stability setup in the world**. With this setup, we will collect data on thousands of solar cells to understand why they degrade.

A key element in this setup is a reliable current and voltage (IV) measurement unit. To enable the measurement of as many solar cells as possible, this measurement unit needs to be cheap, modular, and allow for customizability. Your task is to modify an existing design to meet these criteria.



Tasks:

- Research hardware components for the JV setup, accounting for cost
- Design and build the JV setup
- Validate setup measurements

Requirements:

- Knowledge of electrical engineering, PV is a plus
- Circuit design in Altium or KiCAD.
  If you do not have this, please do not apply, you will be rejected immediately.

Send your CV, course marks, and a short motivation statement to:

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