Student Positions available (SA/SHK)

Highly Automated Compact Model Parameter Extraction

Accurate compact models are a necessary tool for state-of-the-art circuit design. HICUM is an industry standard compact model for bipolar transistors that is being supported and released by the Chair for Electron Devices and Integrated Circuits.

Compact models like HICUM require the determination of many parameters from measurements. The extraction of model parameters is a complicated task that requires:

- Expert knowledge of the model.
- Accurate measurements.
- A versatile Software package.

A powerful software package is currently being developed. This software provides a framework for implementing compact model parameter extraction algorithms in Python.

There are several exciting oppurtunities for motivated students to participate in this project.

Focus of work

- Application of artificial intelligence (AI) algorithms to parameter extraction.
- Automate the existing parameter extraction flow.
- Implementation of new functionality.
- Testing.

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