Research Thesis (Forschungsarbeit)

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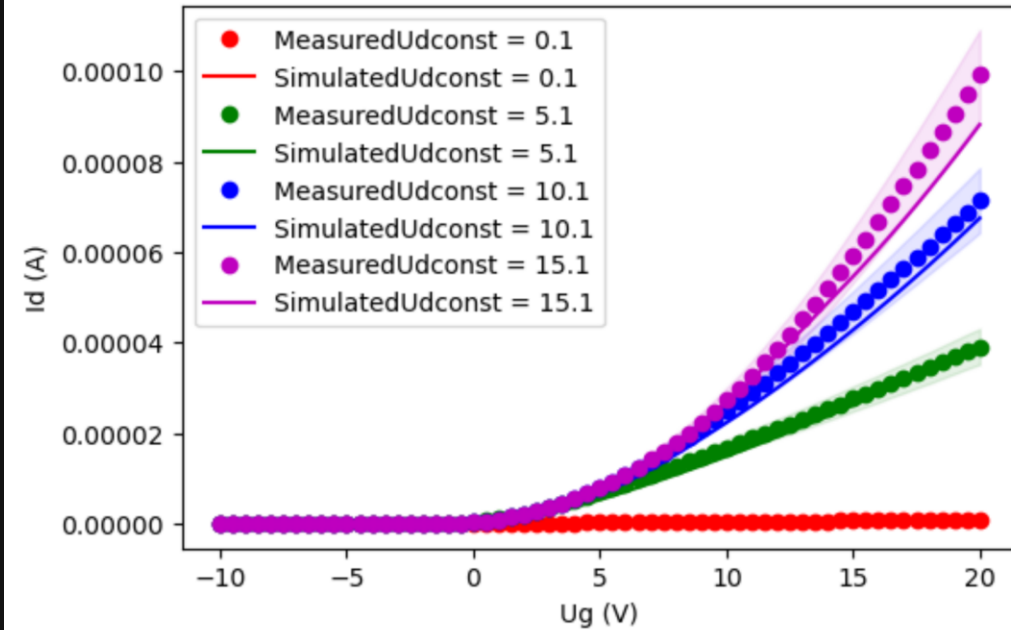## Topic: Automated Extraction of TFT Parameters for Simulation

Institut für Großflächige Mikroelektronik

01/2023 – 07/2023

- Fabricated Indium Gallium Zinc Oxide (IGZO) Thin Film Transistors (TFT) within a clean room environment.

- Developed an automated TFT parameter extraction tool that leverages iterative simulations using a genetic optimization algorithm, minimizing the deviation between simulation vs measured characteristic curves.

- Developed a Python-based GUI application for the automated parameter extraction tool.

Skills: Python, SciPy, Optimization Algorithms, ngspice, Clean Room