TECHNISCHE UNIVERSITÄT DRESDEN

Faculty of Electrical and Computer Engineering Chair of Radio Frequency and Photonics Engineering

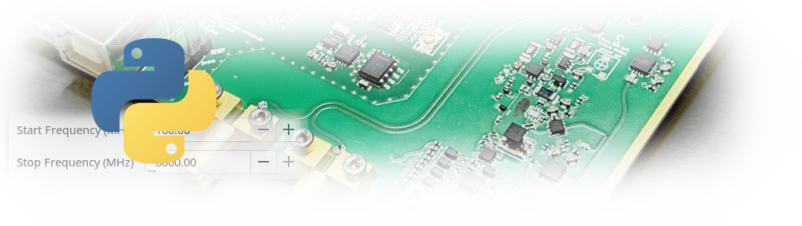
28th March 2022

Student Work Opportunity (SHK)

Measurement System Control and Graphical User Interface with Python

In this role you will implement a python software with graphical user interface (GUI) (e.g. using GTK/Glade) for control of a unique novel RF sweep generator or a high performance radar system. The goal is to present the user with an easy workflow to review and modify the system and mesurement setup, process inputs and send the setup to the device. Status messages from the device need to be presented to the user including their severity and potential resolutions. Recorded data shall be visualized, processed and saved. If you are interested, the activity can be extended by work on the embedded software of the mentioned devices to implement complementary functionality.

For documentation, the software flow shall be visualized. The aspects of visualization (layer diagram, flow chart, UML, ...) can be chosen in agreement with the mentor. Throughout the activity there will be design reviews with a mentor to discuss relevant decisions and find potential problems in an early stage.



Focus of work

- Implementation of Python software
- User Interface Design
- Software flow visualization
- Documentation of the development

Counterpart

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