

# MAKE IDEAS REAL

## to ensure a safer and connected world !

**ROHDE & SCHWARZ**

Make ideas real




 **Company:** Rohde & Schwarz GmbH & Co. KG

 **City / Region:** Dresden, Munich

 **Working time:** Full-time / Part-time possible

 **Contract type:** Limited

 **Job ID:** 8292

Rohde & Schwarz is a global technology company with approximately 14,000 employees and three divisions: Test & Measurement, Technology Systems and Networks & Cybersecurity. For 90 years, the company has been developing cutting-edge technology, pushing the boundaries of what is technically possible and enabling customers from various sectors such as business, government and public authorities to maintain their technological sovereignty.

Headquartered in Munich, Germany, the company has strong regional hubs in Singapore and Columbia, Maryland to coordinate business activities in Asia and the USA.

## Master Thesis (m/f/d) TCAS Simulator with multiple channels

Join our Test & Measurement Division in Dresden or München (Germany) at the earliest possible date.

In this thesis a Traffic Collision Avoidance System (or essential parts of it) shall be developed using hardware of a radar echo generator. During this thesis the functionality of an angle of arrival simulator including channel synchronization of four channels shall be designed and implemented into a system with multiple ADCs / DACs and Xilinx Ultrascale+ FPGAs. On top, the scalability to multiple targets shall be proven.

### Your tasks

- Definition of a suitable algorithm for channel synchronization and simulation of multiple targets
- System design into an existing hardware
- Implementation of the signal processing in FPGA
- Development of control software optionally in C++, Python or Matlab

### Your qualifications

- Enrolled student in electrical engineering or comparable field of studies
- Know how of HF technology, FPGA compile flow and digital signal processing
- Knowledge of C++, Matlab or Python
- Experience with VHDL would be a plus
- Good command of written and spoken English or German

### Our offer

You can expect very good payment, excellent terms and outstanding opportunities for growth and development. We will also be happy to help you find a room.

### Interested?

We are looking forward to receiving your application! If you have any questions, please feel free to contact your recruiting contact at any time.

We place great importance on equal opportunities. We look forward to receiving your application regardless of gender, nationality, ethnic and social origin, religion, ideology, disability, age as well as sexual orientation and identity.

Reference number: 8292

Recruiting contact: Verena Kral

<https://www.rohde-schwarz.com/career>