

Theses for Bachelor and Master students in the field of electrical engineering and computer science

Study

Task Area

The following list gives a rough overview of the topics currently offered at DH electronics.
After selecting a topic, the focus and title of the thesis are determined together with the supervising person.

- ▶ MLOps - DevOps methods in the context of Machine Learning
- ▶ Docker / Kubernetes on embedded systems in industry
- ▶ Evaluation of reinforcement learning in test routines for embedded systems to optimise test times
- ▶ Artificial intelligence (AI), especially deep learning, as a key technology in embedded systems
- ▶ Transformation of embedded systems into IoT systems and IoT cloud solutions
- ▶ Conception and implementation of build and test automation (Gitlab, tbot)
- ▶ Conception, standardisation and implementation of test benches (software and hardware)
- ▶ Development of a test module to supply and measure the switch-on behaviour of a test object
- ▶ Development of a test module as a current/voltage source and sink (SMU) for test engineering
- ▶ Development of a programmable voltage source for test engineering
- ▶ Development of an HMI based on the i.MX8MP CPU
- ▶ Development of intuitive graphical user interfaces or HMIs (Qt, Flutter, .NET)
- ▶ Development of algorithms for stochastic models and digital filters (Matlab, Simulink)
- ▶ Linux for embedded systems based on ARM SOCs (U-Boot Bootloader, Kernel, Devicetree, BSP, Yocto, Debian)

Not the right jobs for you? Then send us an unsolicited application!

We are always looking for talented developers and junior staff and look forward to your suggestions for topics.

Profile

- ▶ You are studying electrical engineering, mechatronics, computer science or a comparable field.
- ▶ The willingness to familiarize yourself with new topics characterizes you.
- ▶ Openness, teamwork and communication skills are your strengths.
- ▶ You have a good command of German and English.

What awaits you

- ▶ Of course you get free fruit and drinks, but above all you can expect exciting and varied tasks.
- ▶ Thanks to mobile work and flexitime without core hours, you can work when and where you want, as long as you meet deadlines.
- ▶ Your new colleagues will accompany you during your induction and help you settle into the Digital Heroes team.
- ▶ Innovation is our passion: that's why we have been awarded TOP 100 Innovator twice in a row.

- We care about your future and offer training opportunities, child allowance, company pension plan, team events and more.