



Master Thesis Topic: Controller implementation for a thermal stress test of power semiconductors

Job description

At KAI GmbH, you will perform your thesis project in an industrial research environment, guided and supported by experienced researchers in such diverse areas as hard- and software design, simulation, modelling and semiconductor technology. We work in close cooperation with universities and research facilities supporting your academic education, whereas our industrial partner Infineon offers interesting opportunities for a prospective career path in the semiconductor industry.

During your thesis project, we expect you to become a growing expert for microcontroller programming & control design for power semiconductor stress test systems. Therefore, you will need to acquire special knowledge and perform dedicated tasks:

- Learn about **types** and **characteristics** of **advanced power semiconductors**
- Enhance your skills in **control engineering** and **microcontroller programming**
- **Implement** an available **controller concept** and **evaluate** its **performance** on an existing hardware prototype
- **Work out improvements** and **develop** further **control concepts** together with your supervisors
- **Evaluate** and **compare** different controller **methodologies**
- **Document** your results by writing and submitting your Master thesis

Further Information

Start: October 2021

Type of employment: Temporary / Full-time (Flexible working hours from Monday to Friday between 6 a.m. and 7 p.m.)

Duration: min. 8 months

This thesis has to be written in cooperation with an university.

Profile

You are an **electrical/electronic engineering master student** familiar with microcontrollers, control engineering and power electronic devices/circuits and you know how to make those things work. You should also:

- Have completed all of your exams
- Provide some knowledge and experience in **C programming** of microcontrollers

At a glance

Location: **Villach (Austria)**
Job ID: **320116**
Start date: **Oct 01, 2021**
Entry level: **0-1 year**
Type: **Full time**
Contract: **Temporary**

Apply to this position online by following the URL and entering the Job ID in our job search:

Job ID: **320116**
www.infineon.com/jobs

Contact

Nico Steinhauser



- Be able to work and communicate well with our international team in **English and/or German**

This position is subject to the collective agreement for workers and employees in the electrical and electronics industry (full-time), employment group D for master students (<https://www.feei.at/leistungen/informations-service/mindestlohne-und-gehalter-2020>).

Please attach the following documents (English or German) to your application:

- Motivation letter
- CV
- Certificate of matriculation at a university
- Transcript of records
- Highest completed educational certificate (Matura certificate for Bachelor students, Bachelor certificate for Master students)
- Reference letter

