



## Master Thesis: Advanced controller design 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, modeling 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 digital control design for power semiconductor stress test systems. This means you will need to acquire some special knowledge and perform dedicated tasks:

- **Learn** about **types and characteristics** of **advanced power semiconductors**, especially Infineon products and technologies
- **Improve** your **skills** in **control engineering** and **signal processing**
- **Evaluate** a **working controller strategy** of an existing hardware prototype
- Work out **improvements** and **develop control concepts** together with your supervisors
- **Implement, evaluate** and **compare** different **controller methodologies**
- **Document** your results by writing and submitting your Master thesis

#### Further information:

Type of employment: Temporary / Full-time

Start: January 2021

Duration: min. 8 months

### Profile

You are a master student covering the area of **Power Electronics and Control Engineering** with a strong ambition for technology, signal processing and making things work.

You should also:

- Have completed all of your exams
- Provide some knowledge and experience in **control engineering** and **signal processing**
- Be able to 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. Master students receive a compensation of **2.242,19 Euro** gross p.m. (full-time basis).

Please attach the following documents (german or english) to your application:

### At a glance

Location: **Villach**  
Job ID: **310091**  
Start date: **Jan 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: **310091**  
[www.infineon.com/jobs](http://www.infineon.com/jobs)

### Contact

**Julia Gabriel**  
Student Attraction Manager



- 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

