



## Master Thesis: Functional Safety Investigation of Analog/Digital Circuitry

### Job description

You are a motivated student (f/m/div)\* who wants to write the master thesis in an international successful company? This specific job is suitable for students within technical studies in the field of Electronics, Electrical Engineering or similar.

One of the big challenges in the Automotive industry today is making the complex ICs safe and dependable. This is especially true for Radar sensor applications in e.g. self-driving cars. In the master thesis you are going to tackle this challenge and apply on an analog or digital block (e.g. PLL, filter, ...). Your tasks will include:

- Studying different topologies of your block
- Developing a **safety strategy** detecting and/or controlling random **hardware faults**
- Learning about **safety analysis methods** (FTA fault tree analysis, FMEDA failure mode effects and diagnostics analysis) with support from functional safety experts
- Verifying the **safety strategy** (Safety Concept) with the help of safety analysis

#### Further information:

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

Duration: min. 6 months

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

### Profile

You are a motivated student (f/m/div)\* in the field of **E lectronics, E lectrical Engineering** or **similar**. You are best equipped for this task if you have:

- Interest for an in-depth understanding of **product development** in the Automotive semiconductor industry
- Good understanding of **standard analog/digital circuits** on **IC** and **board level**
- Structured way of work with good **analytical thinking**
- Fluent communication skills in **English** and/or **German**

### At a glance

Location:

Job ID: **337414**

Start date: **as soon as possible**

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: **337414**

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### Contact

**Nico Steinhauser**

Student Talent Attraction Manager



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/wp-content/uploads/2022/05/minimum-salaries-white-collar-workers-2022.pdf>).

**Please attach the following documents (German or English) 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

## Benefits

- **Graz:** Coaching, mentoring networking possibilities; Wide range of training offers & planning of career development; International assignments; Different career paths: Project Management, Technical Ladder, Management & Individual Contributor; Flexible working conditions; Home office options; Part-time work possible (also during parental leave); Sabbatical; On-site social counselling and works doctor; Health promotion programs; Discounted lunch possibilities; Private insurance offers; Corporate pension benefits; Flexible transition into retirement; Performance bonus; Accessibility, access for wheelchairs

## Why Us

**Part of your life. Part of tomorrow.**

We make life easier, safer and greener – with technology that achieves more, consumes less and is accessible to everyone. Microelectronics from Infineon is the key to a better future. Efficient use of energy, environmentally-friendly mobility and security in a connected world – we solve some of the most critical challenges that our society faces while taking a conscientious approach to the use of natural resources.

**– Automotive (ATV) shapes the future of mobility with microelectronics enabling clean, safe, and smart cars –**

Our semiconductors are essential for supporting the automotive megatrends: electromobility, automated driving, connectivity, and advanced security. They link the real and the digital world, driving the ever-advancing pace of automotive digitalization. Infineon ATV is the number one semiconductor partner in the fast-changing automotive world, based on our system knowledge and our passion for innovation and quality.

*\* The term gender in the sense of the General Equal Treatment Act (GETA) or other national legislation refers to the biological assignment to a gender group. At Infineon we are proud to embrace (gender) diversity, including female, male and diverse.*

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The iHub at TU Wien represents an inspiring tech platform, networking area and event location, connecting Infineon Austria with tech experts, science specialists and young professionals.

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