Master Thesis: Localization and electrical characterization of open defects in integrated circuits

Job description

We are looking for motivated and committed students (f/m/div)* who are willing to learn new things and work in an innovative company acting on a global scale. An exciting working environment characterizes this internship as well as an attractive salary. Apply now for this internship in Villach and support our team.

You are an ambitious student who wants to write the master thesis on the feasibility of new failure analysis methods, focusing on the implementation of different simulation tools for localizing open defects on state-of-the-art integrated circuits.

Your main tasks will be:

- Understanding the **mathematical models** used to describe open line defects in the frequency domain
- Learning about the currently available **localization methods** used by failure analysis to isolate such defects in our labs
- Learning about the available **simulation tools** to estimate the position of open line defects and simulate low frequency wave propagation
- Analyzing the **feasibility of such methods** by applying them on FA modified integrated circuits

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 successfully meet the requirements, if you are a motivated and committed student who has successfully completed a Bachelor's degree in the field of **Electrical Engineering, Electronics** or similar. You are best equipped for this task if you additionally offer:

- Familiarity with the **transmission lines theory** for **electrical communications** and its **small signals characterization** within the radio frequency domain

At a glance

Location:	**Villach (Austria)**
Job ID:	**356526**
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: 356526
www.infineon.com/jobs

Contact

Lisa Derhaschnig
Student Attraction Manager

- Experience with **mathematical simulation tools** (e.g. Matlab, Octave..).
- Fluency in **English**

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 (optional)

Benefits

- **Villach:** 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; Child care in Villach & Klagenfurt; On-site social counselling and works doctor; Health promotion programs; On-site canteen; Private insurance offers; Wage payment in case of sick leave; Corporate pension benefits; Flexible transition into retirement; Performance bonus; Accessibility, access for wheelchairs

Why Us

Part of your life. Part of tomorrow.

Infineon is a world leader in semiconductor solutions that make life easier, safer, and greener. Our solutions for efficient energy management, smart mobility, and secure, seamless communications link the real and the digital world.

The **Frontend (FE)** cluster offers a broad range of manufacturing competence specialized in high-quality logic products. The portfolio represents Power, Bipolar, Sensor, Passive and Diode technologies as well as CMOS, RF-CMOS and embedded flash technologies. The manufacturing sites in Dresden, Kulim, Regensburg and Villach are committed to Operational Excellence with strong customer focus.

>> Click here<< for more information about working within our Frontend department at our site in Villach and an overview of all open jobs **#FrontEndAustria**

** 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.*

Infineon Hub - Connect. Create. Challenge.

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.

Check out our upcoming events:
Infineon iHub