

## 5 PhD Positions on "Dependable Electronic-Based Systems"

The FWF-funded Doctoral School for Dependable Electronic-Based Systems (DENISE) offers **5 fully-funded PhD positions** starting from **March 1, 2022**. DENISE connects different internationally renowned research groups in Graz, which is a European hotspot on electronic-based systems. The close cooperation of *Graz University of Technology* and *FH JOANNEUM University of Applied Sciences* in DENISE fosters interdisciplinary collaborations and guarantees the PhD candidates excellent future career opportunities in research and industry. Further information can be found on [www.fh-joanneum.at/denise](http://www.fh-joanneum.at/denise)

### PhD projects of the current call:

- [PhD project 1: Post-fault operation of open-winding induction machines \(Prof. Annette Mütze\)](#)
- [PhD project 2: Reliable 1-bit mixed-signal processing \(Prof. Christian Vogel\)](#)
- [PhD project 3: Testing safety and trustworthiness of embedded AI systems \(Prof. Olga Saukh\)](#)
- [PhD project 4: Reproducible testing of large-scale networked systems \(Prof. Kay Römer\)](#)
- [PhD project 5: Optimization methods for robust wireless network planning & design \(Prof. Joachim Schauer\)](#)

The faculty of DENISE is looking for motivated graduates from all over the world to join the internationally renowned research teams. Applicants are selected irrespective of gender, ethnicity, religion, age or sexual orientation. DENISE specifically invites qualified women to apply.

### DENISE offers you:

- First-class PhD training in the field of electrical engineering and information technology
- The chance to conduct a fully funded PhD project in a vivid research network and a great working environment
- A unique opportunity to link basic research with application-oriented aspects
- Excellent career opportunities
- Funding for visits of summer schools, conferences, and international mobility to partner institutions

### Candidate profile and requirements:

Applicants must hold a completed Master's degree in **electrical engineering, telematics, computer science, information/computer/software engineering, information science, applied mathematics** or related studies. Students who have not yet finished their Masters' degree can apply but must graduate by February 2022. Eligible are persons with a diploma degree (240 ECTS) or a bachelor's degree (180 ECTS) and a master's degree with at least 90 ECTS (in sum 270 ECTS).

We expect candidates to have interest (and, ideally, prior experience with) in the fields of the above-mentioned projects. General knowledge on electronic-based and embedded systems is desirable, as well as hands-on experience with programming and experimental work in laboratories.

**Good candidates have:**

- Solid programming skills (e.g., C, Python, Matlab);
- Mastering mathematical tools as a nexus between algorithms, electronics, and physical systems;
- Very good proficiency in written and spoken English, which is the language of the research group and of external collaborators (knowledge of German is not required, and we offer German language courses);
- High motivation, self-initiative, as well as strong passion and commitment to research;
- Ability to work collaboratively in an interdisciplinary and international team with both senior and junior researchers;
- Willingness to publish research results and to complete a dissertation at TU Graz;
- Depending on the chosen PhD project knowledge on networked embedded systems, cyber-physical systems, power electronics, electric drives, machine learning, signal processing, circuit design, discrete optimization, embedded systems is an asset.

Successful applicants will be employed either at TU Graz or at FH JOANNEUM according to the respective employment conditions of the institutions and will enroll as PhD students at TU Graz. Successful applicants will receive full-time employment contracts, funding is available for four years.

Minimum salary FH JOANNEUM: 38.588,20€/year for a full-time employment (40 h/week).  
Minimum salary TU Graz: 41.601€/year for a full-time employment (40 h/week).

A higher salary can be provided in the case of relevant professional experience and/or relevant qualifications.

**Application:**

Applications **must be submitted electronically** using <https://iti-hotcrp.tugraz.at/denise/> - other forms of application (e.g., by email) will not be accepted. Please follow the instructions provided on the application site and upload all required documents (CV, filled application form, copy of the Master's thesis, certificates etc.) as a single PDF document. Please also ensure that your application makes a direct reference to one of the five PhD projects you are interested in.

**The deadline for applying is January 02, 2022.**

Please direct questions about the positions to the coordinators Prof. Christian Vogel and Prof. Kay Römer at [denise@fh-joanneum.at](mailto:denise@fh-joanneum.at).