

Junior Scientist (PhD candidate) position at NaMLab

Analog Circuit Design for Sensor Electronics utilizing Novel Emerging Devices

NaMLab is a research organization and associated institute of the Technical University Dresden. NaMLab provides industry oriented and basic research in material science for future electronic devices. We are looking for a scientist in the field of analog circuit design. The scientist is expected to explore the possibilities of a new emerging technology, the reconfigurable field effect transistor (RFET), in terms of low-frequency analog circuit design [1,2]. Test structures for devices and circuits are to be designed and layout for a realization in industrial 22nm FDSOI technology. The work will also encompass the electrical characterization of devices and circuits, including special methods like noise analysis or RF measurements (S-Parameter). The work will be performed in close collaboration with our scientific and industrial project partners. The results of the work might be used to obtain a PhD in electrical engineering at the TU Dresden.

[1] <https://onlinelibrary.wiley.com/doi/full/10.1002/pssa.202300019>

[2] <https://www.nature.com/articles/s41467-022-34533-w>

Your Profile:

- Outstanding M.Sc. / M. Eng. in Electrical Engineering
- Interest in unconventional electronic device physics
- Good technical comprehension, professional English communication and writing skills
- Ability to work in an international team environment
- Experience with design and layout for analog circuits or electrical test structures

The following Skills are a plus:

- Experience with electrical characterization
- German communication skills

We offer:

- Individual supervision
- Contribution to cutting-edge nano-electronic research
- Access to various high-end fabrication and characterization tools
- Possibility to adjust thesis focus according to individual preferences
- Knowledge transfer from experts in the field
- The salary is based on German research organization standards

Period:

- Planned starting date: Q1 2024
- Duration: 3 years

For further information please contact:

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By sending us your application documents, you agree to the use of your personal data for the purpose of the application procedure.