

## FORM FOR EMPLOYERS

**INSTITUTION:** AGH University of Krakow

**DEPARTMENT:** Insitute of Electronics

**CITY:** Krakow

**POSITION:** Adjunct Scientific Researcher in a group of research staff

**DISCIPLINE:** Electronics, Physics, Materials Engineering

**EXPIRES:** 15.04.2024

**WEBSITE** <https://www.agh.edu.pl/o-agh/praca-w-agh>

**KEY WORDS:** spintronics, nano-oscillators, ferromagnetic resonance, neural networks

**DESCRIPTION** (field, expectations, comments, requirements):

The aim of the project will be to develop a new class of spintronic devices that can be used for a hardware neuromorphic platform and their integration with basic systems. Work is planned on the development of spintronic memristors (resistive memories) [P. Rzeszut et al. Scientific Reports 12, 7178 (2022)] for applications in image recognitions, development of spintronic microwave nanoscillators [W. Skowroński et al. Scientific Reports 9, 19091 (2019)], and the fabrication of oscillator arrays for synchronization and reservoir computing using spin waves [L. Korber et al. Nature Communications 14, 3954 (2023)].

The candidate is expected to have knowledge of issues related to analog electronics, the basics of nanotechnology, and experience in working with neural networks. Experience in working in high-class cleanrooms or vacuum technologies is desirable. We expect full-time commitment to the project and passion for implementing an ambitious scientific project.

### Requirements:

- 1) doctoral degree in electronics, physics, materials engineering or related disciplines
- 2) degree: recognized researcher (R2)
- 3) full time involvement in the implementation of the project
- 4) passion for implementing an ambitious scientific project
- 5) knowledge of programming languages (C++, Python, LabVIEW)
- 6) expertise in electronic instrumentation, including RF systems
- 7) experience in working in cleanroom facilities

### Benefits:

We offer an opportunity to conduct research in an inspiring scientific environment at one of the top-ranked technical universities in Poland. We offer funding for research work, participation in conferences and training, and international research visits to partner universities. In addition, we offer:

- Working in energetic research group using state of the art technologies
- an atmosphere of respect and cooperation
- flexible working hours
- co-financing of training and courses
- life insurance
- pension plan
- preferential loans
- additional social benefits
- subsidizing children's vacations
- "13th" salary

Contract for a year with the possibility of extension, salary starting on from 7640 PLN (gross) per month

### DOCUMENTS REQUIRED:

- 1) Application, CV, personal questionnaire
- 2) Copy of the doctoral diploma
- 3) Documented scientific and research achievements in the form of 5 most important publications
- 4) Contact a person who can certify your skills and experience
- 5) Document confirming language knowledge at least B2 level

### DOCUMENTS MUST BE SUBMITTED:

Complete documentation must be sent to the following email address: [skowron@agh.edu.pl](mailto:skowron@agh.edu.pl)