

Title: Post-doctoral position in the field of computational electromagnetics/scientific computing

Offer Description: This is a 24-month post-doc position in a research project: Electromagnetic Design of flexible Sensors. The goal of the project is to develop a new software tool for fast and accurate simulation-based design of sensing devices and their associated passive circuitry with carefully engineered electromagnetic properties. The software (InventSIM) is based on the finite-element method (FEM) and employs a unique mesh deformation technique and model order reduction algorithms to enable fast optimization. This post is for a researcher that will contribute development of InventSIM by proposing, prototyping and testing of novel massively algorithms exploiting multicore and manycore architectures for fast FEM simulations and optimization of antennas and passive microwave components.

Key responsibilities include:

1. Research related to the development of parallel algorithms for multicore CPUs and GPU accelerators for simulations and optimization of antennas and passive microwave components
2. Developing, testing and benchmarking of numerical algorithms in CUDA or OpenACC
3. Report writing
4. Preparation of research papers for leading journals and conferences.
5. Dissemination of project results on workshops and conferences
6. Assisting MSc and PhD students

Researcher Profiles: First Stage Researcher (R1),

Research field: Engineering, Electrical engineering, electronics, Information and Communication Technologies, Scientific Computing, Applied Mathematics

Type of Contract: Temporary

Job Status: Full-time

Hours Per Week: 40

Application Deadline: 01-09-2017 03:00PM (application after this date will also be accepted until a suitable candidate is found)

Timezone: Europe/Warsaw

Envisaged Job Starting Date: between 01-Dec -2017

Reference Number: ?



How to Apply: E-mail with attachments (.pdf files)

Required documents:

1. Cover letter with the description of particular skills or achievements related to the scope of the project and highlighting the experience with parallel numerical code development using CUDA or OpenACC
2. CV with a complete list of publications
3. Copies of up to 5 most important publications in JCR journals
4. A copy of the language certificate or other evidence of fluency in English
5. A copy of the PhD thesis
6. A scan of the PhD diploma
7. Reference letters with names and email addresses (and, if possible, phone numbers) of the two academic/professional referees who may be contacted by the recruiting committee

Hiring info & work location: Gdansk University of Technology, Poland,

Organisation/Company *: Gdansk University of Technology, Faculty of Electronics, Telecommunications and Informatics

Organisation Type: Higher Education Institute

Department: Department of Antenna and Microwave Engineering

Country *: Poland

Street : Narutowicza 11/12

City: Gdańsk

State: pomorskie

Postal Code: 80-233

Website : <http://eti.pg.edu.pl/katedra-inzynierii-mikrofalowej-i-antenowej>

Contact Person Email: mwave@eti.pg.gda.pl

Phone: (+48) 58 347 19 24

Required Education Level: PhD degree (obtained not earlier than January 1st, 2012) in a technical or scientific discipline involving parallel numerical code development for multicore and manycore platforms (the preference will be given to candidates whose PhD research involved GPU computing, FEM algorithms or sparse matrix algorithms development computational electromagnetics/scientific computing/linear algebra/applied mathematics)

Skills/Qualifications:



1. Documented research experience with numerical methods and parallel algorithms development and testing on GPU accelerated computing platforms
2. Proven experience with Matlab/Python, C++ and CUDA
3. Experience in using parallel numerical libraries for sparse and dense linear algebra
4. good interpersonal and communication skills, be able to work in a multi-cultural environment both independently and as a part of a team

Required Languages:

1. Fluent English

Required Research Experience

1. Good publication record in JCR journals related to GPU computing, computational electromagnetics/scientific computing/linear algebra/applied mathematics) i

Website for additional details:

<http://eminvent.com/projects.html> (English)

<http://mwave.eti.pg.gda.pl/index.php?k=204> (Polish)

Benefits: Remuneration/month: (9000 PLN , i.e. expected net income at ca 6800 PLN)

Eligibility criteria:

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Selection process:

The recruitment process involves two steps

Evaluation of the applications by a selection committee

Interview with the shortlisted applicants

We reserve the right to contact only applicants selected through verification of the submitted documents and reserve the right to reject all submitted applications, if it is concluded that they do not meet the criteria.

Additional comments

The position is founded by the Foundation for Polish Science under the Team-Tech programme

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Please include in your offer:

“I hereby give consent for my personal data included in my application to be processed for the purposes of the recruitment process under the Personal Data Protection Act as of 29 August 1997, consolidated text: Journal of Laws 2016, item 922 as amended.”