

## FORM FOR EMPLOYERS

INSTITUTION: AGH

DEPARTMENT: Faculty of Mechanical Engineering, Department of Robotics and Mechatronics

CITY: KRAKOW

POSITION: research assistant professor in a group of research fellow workers

DISCIPLINE: mechanical engineering, biomedical engineering

POSTED:.....

EXPIRES: 20.06.2023

WEBSITE:.....

KEY WORDS: shear wave elastography, ultrasound, medical imaging

DESCRIPTION (field, expectations, comments, requirements):

We seek a creative, collaborative and motivated candidate with an interest in medical ultrasound research with a focus on ultrasound elastography techniques. The candidate identified for this fellowship will work on projects related to ultrasound imaging and ultrasound-based characterization of tissues using elastographic techniques. Our goal is to transform medical ultrasound diagnosis through work that spans hardware and algorithm development focused on image and data analysis. The right candidate will have background in medical ultrasound with an excellent understanding of ultrasound physics and signal and image processing.

Our laboratory has extensive experience in non-invasive ultrasound techniques used in both medical applications and mechanical structures. The Principal Investigator has extensive experience towards developing techniques that can be used in the evaluation of tissue mechanical properties for the purposes of disease diagnosis. Elastography methods are available on machines produced by every major ultrasound vendor, and these techniques are used worldwide for assessing various conditions. The potential for impacting many patients is highly possible due to the widespread dissemination of ultrasound scanners.

A Research Fellow at AGH UST is a temporary position intended to provide training and education in research. Individuals will train in the research program of an AGH UST Principal Investigator. Qualified individuals will demonstrate the potential for research as evidenced by their training and peer-reviewed publications and should become competitive for national research grants.

THE SUCCESSFUL APPLICANT WILL:

The successful candidate will be appointed at the AGH UST and will be expected to proactively develop research interests and to work effectively with others. Candidates who seek creative academic careers will have excellent growth opportunities, access to committed mentors, assistance with defining an early career trajectory, and mentored opportunities to apply for career development and research grants. Candidates will gain a deep understanding of key problems in medical imaging. Across a wide range of projects, our laboratory has developed specific expertise in advanced signal processing and there will be opportunities to gain exposure to these techniques.

REQUIREMENTS:

- The ideal candidate will have a Ph.D. in Electrical Engineering, Biomedical Engineering, Medical Physics, Acoustics, Applied Physics, Applied Mathematics, Computational Statistics, Computer Science, or a related discipline.
- Should be granted with a doctoral degree no later than 7 years before starting this position.
- Strong knowledge of ultrasound wave propagation physics, signal processing, and experience with medical ultrasound instrumentation is required.
- Strong communication skills in written and verbal English are required.
- Proficiency in one or more programming language, especially MATLAB or Python is required.
- Experience with signal and image analysis skills is desirable.
- Knowledge of FD, FE or other numerical methods will be a plus.
- A demonstrated record of high-quality publications in ultrasound related journals will be advantageous.

- Strong motivation to explore new techniques and concepts is required.
- We do team science with strong team member autonomy. Qualified candidates should be self-motivated and possess the ability to work both independently and collaboratively.

#### DOCUMENTS REQUIRED

- a cover letter describing research experience, interests and goals;
- a CV with a full list of publications;
- personal questionnaire;
- a document confirming the knowledge of the English language at least at the B-2 level confirmed by the SJO AGH or other confirmation of language proficiency;
- list of scientific achievements;

#### DOCUMENTS MUST BE SUBMITTED AT:

Candidates are asked to send documents in electronic form to the e-mail addresses [krupinska@agh.edu.pl](mailto:krupinska@agh.edu.pl) (Ms Małgorzata Krupińska, Secretariat of the Department of Robotics and Mechatronics AGH) and [piotr.kijanka@agh.edu.pl](mailto:piotr.kijanka@agh.edu.pl) (Piotr Kijanka - project manager)

The AGH University will be the candidate's main place of employment.

*The AGH University of Science and Technology does not require you to provide any information or data other than those resulting from the applicable law (name/names, surname, date of birth, contact details, education, professional qualifications and employment history). However, if you choose to include your photograph or any other information, please fill in and attach this statement of consent to the processing of personal data, which constitutes an attachment to this information.*

*The controller of your personal data processed in order to carry out the recruitment process for the above-mentioned position is the Stanisław Staszic AGH University of Science and Technology in Krakow, al. A. Mickiewicza 30, 30-059 Krakow. You can read the full information concerning the processing of your personal data on the AGH University of Science and Technology's website after going to the "Protection of personal data" tab at ([www.agh.edu.pl/RODO](http://www.agh.edu.pl/RODO)).*

*The University reserves the right not to settle the competition without providing any reason or justification.*

*Winning the competition is not tantamount to ensuring the candidate's employment. The result of the competition serves solely as a recommendation to the Rector in this regard. The final decision concerning the employment will be made by the Rector.*

Cracow, on .....

.....  
*name and surname*

**CONSENT TO PERSONAL DATA PROCESSING**  
(recruitment - employee)

Pursuant to Article 6(1)(a) of the Regulation (EU) 2016/679 of the European Parliament and of the Council of April 27, 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC (General Data Protection Regulation), [OJ EU . L. 2016.119.1, May 4, 2016] hereinafter referred to as "GDPR", **I consent to the processing of my personal data other** than the data mentioned in Article 22<sup>1</sup> § 1 of the Labour Code and contained in my CV and other application documents, and to the reproduction of my physical likeness **for the purposes of recruitment and selection for the position of .....** (contest notice no. ....).

In addition, I declare that the request for consent has been presented in a clear and understandable manner and that I have been informed about a possibility of withdrawing my consent at any time as well as about consent accountability. The withdrawal of consent to have personal data processed shall not affect the legality of the processing, which is carried out on the basis of such consent prior to its withdrawal; The consent may be withdrawn by submitting a written representation on consent withdrawal at a place that was indicated in the contest notice as the place for submitting documents.

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Date and signature