

Assistant/Associate Professor of Medical Imaging for Robotics, University of Twente, Netherlands.

Job description

Within the faculty of Electrical Engineering, Mathematics and Computer Science (EEMCS), we have a vacancy for an assistant / associate professor at the Robotics and Mechatronics (RaM) group. The group is composed of approximately 50 people, including professors, postdocs, PhD candidates, technicians and secretarial support, utwente.nl/ewi/ram.

We have scientific and engineering expertise in Modelling, Control, Design, Image Analysis, and Embedded Systems and are leading in Robotics for Inspection, and in Medical Imaging (MI) and Medical Robotics. We have excellent modern facilities, such as 300 m² lab including rapid prototyping equipment, i.e. multiple 3D printers, laser cutter, PCBs production facilities etc., and quite some robotic hardware and software tools to create advanced robotics (sub)systems. Furthermore, we provide a number of testing facilities indoor (two flying arenas) and outdoor at the Space53 center which is under continuous development. It is a unique place which allows to build complete systems all "in house" and test them as well.

Thanks to its outstanding position, the lab has strong collaborations with many industrial and clinical partners and pleasant and successful collaborations and projects.

The challenge

Your research contributes to trends in image analysis and the application domains of MI and medical robotics, namely 3D computer vision, surgical navigation and image-guided robotic intervention.

You will exploit powerful computing resources and use higher-quality images and 3D images, to contribute to better intra-operative navigation, patient-specific tissue analysis, further complex and real-time 3D visualisation, virtual surgery planning, use of virtual and augmented reality on surgical procedures and surgical training.

You will use existing experience to extend towards navigation in and around flexible tissues and organs and exploit advances in modern robot control, real-time and networked computing, and (surgical) navigation, to more accurately control surgical instruments in and on the patient's body for detailed interventions.

The primary focal point is Medical Image Analysis, whereas the medical robotics research field serves as a primary, but not exclusive, context.

The teaching concerns both generic and specific topics on (medical) image processing, among others, imaging techniques (US, CT), image analysis, and image interpretation for diagnosis and navigation. The focus is on the combination of acquisition of images and their interpretation, i.e. analysis of those images. It is not on the physics aspects of acquisition, but on the signals aspects.

Your profile

- You hold a PhD in a related topic and preferably have a few years post-PhD experience;
- You have an open synergising team spirit that fits the philosophy of RaM of stimulating and enforcing synergies and teamwork activities: “one plus one is more than two”;
- You are a motivated engineer in the area of Medical Imaging, with the ambition to continue and strengthen our established high-profile and internationally recognised research line;
- You are successful in establishing collaborations, both internally and externally;
- You have a keen eye for both MI and medical robotics science and engineering and its applications and feel that research and education should be closely intertwined.

Do you want to apply knowledge to solve real-world problems?

Application and information

Please note: This application will ONLY be taken into consideration if you..

1. Apply to this vacancy via the button below
2. AND if you also fill out this on-line questionnaire: tinyurl.com/y377t5e4

The starting date is as soon as possible. We will evaluate applications on-the-fly, and close the vacancy when a suitable candidate is found.

Please include in your application the following information:

- a curriculum vitae incl. a list of publications;
- a research and teaching statement;
- three names of potential references.

For more information please contact [dr.ir.](mailto:dr.ir.jan.f.broenink@uu.nl) Jan F. Broenink, phone [+31 53 489 2793](tel:+31534892793).

Our offer

You will work in a very stimulating scientific environment. The university offers a dynamic ecosystem with enthusiastic colleagues.

- You will initially be appointed for two years. A positive evaluation can lead to a permanent appointment;
- The position is at Assistant Professor or Associate Professor level, depending on qualifications. Criteria for evaluation comprise a strong track record of publications, evaluation of teaching capacities and a proven ability to acquire funding and to achieve an international network and reputation;
- Our terms of employment are in accordance with the Dutch Collective Labor Agreement for Universities (CAO-NU) and include excellent benefits like a holiday allowance of 8% of the gross annual salary, a year-end bonus of 8.3 % and a solid pension scheme;

- Depending on relevant background and experience, the gross monthly salary on a full-time basis ranges from €3.637,-- (scale 11) to €6.738,-- (scale 14) gross per month;
- We offer excellent professional and personal development programs and a secondary remuneration package including a travel allowance;
- Finally, we offer a lively, inspiring and dynamic working environment in an organization focusing on internationalization and a high degree of responsibility and independence.

The organization

The University of Twente. We stand for life sciences and technology. High tech and human touch. Education and research that matter. New technology which leads change, innovation and progress in society. The University of Twente is the only campus university of the Netherlands; divided over five faculties we provide more than fifty educational programmes. We have a strong focus on personal development and talented researchers are given scope for carrying out groundbreaking research.

We are an equal opportunity employer and value diversity at our company. We do not discriminate on the basis of race, religion, color, national origin, gender, sexual orientation, age, marital status or disability status. Because of our diversity values we do particularly support women to apply.

The faculty of Electrical Engineering, Mathematics and Computer Science (EEMCS) comprises three disciplines that shape Information and Communication Technology. ICT is more than communication. In almost every product we use mathematics, electronics and computer technology and ICT now contributes to all of societies' activities. The faculty works together intensively with industrial partners and researchers in the Netherlands and abroad and conducts extensive research for external commissioning parties and funders. The research which enjoys a high profile both at home and internationally, has been accommodated in the multidisciplinary research institutes: Mesa+ Institute, TechMed Centra and Digital Society Institute.