Doctoral Researcher Position (m/f/d)

In the DFG Research Training Group RTG 2610 "Innovative Retinal Interfaces for Optimized Artificial Vision" new approaches to functional interface structures between implantable technical systems and the visual system, especially the retina, are investigated and implemented.

At the Institute of Integrated Photonics of RWTH Aachen University, we are looking to fill positions for two Doctoral Researchers (TV-L 13, 100 %) with an academic background in Electrical Engineering, Physics, Integrated Optics, or Silicon Process Technology.

Project B3 is focused on the design and implementation of a chip-scale integrated test platform for a novel optically assisted electroretinography measurement technology with sub-cellular resolution. Dense matrix addressability will be achieved by means of integrated photonic chip (PIC) technology. The system will be used for characterizing samples of degenerated retinae.

Phased arrays allow the generation of arbitrary light patterns and can be implemented as a photonic integrated circuit. In project B5, we will develop an implantable artificial retina with a photodetector array receiving optical signals from a phased array integrated in a wearable goggle, with the long-term goal of restoring vision to patients suffering from macular degeneration or other vision impairments.

Candidates should have graduated with very good to excellent grades. The project is part of a DFG Research Training Group offering also an intensive interdisciplinary training program to improve skills and knowledge in an innovative and emerging field of medical and technological development.

Further details can be found on the Website of RTG 2610: www.rtg2610.org

The doctoral positions are generally designed for a period of 3 years. The communication in the DFG Research Training Group takes place in English and German. Good English language skills as well as German language skills or the willingness to learn the German language are required.

Please send your application with the following documents via mail to Prof. Jeremy Witzens (jwitzens@iph.rwth-aachen.de):

- Cover letter
- Scientific curriculum vitae with information on participation in relevant research projects as well as scholarships, awards, and prizes
- List of publications (own works in print or in preparation must be marked and attached as such)
- Degree thesis (diploma/master's/master's thesis as separate pdf)
- Certificates, reference letters, and other evidence

The deadline for applications is the 30.11.2020. The selection interviews will take place in the 2nd-3rd week of December 2020. The programme of RTG 2610 will start on 1.4.2021.