Research assistant position in electrical engineering – M.Sc Thesis  
(part-time position at 50%, YPJ levels 1-1)

Department of Electrical Engineering & Research Unit of Medical Imaging, Physics and Technology (MIPT), Faculty of Medicine, University of Oulu

Background
Osteoarthritis (OA) is the most common musculoskeletal disease in the world. It has large impacts on daily life of people and is a burden for the society, generating heavy direct and indirect costs. One of the main issue with this disorder is its late diagnosis, leaving few options for the patient and eventually leading to joint-replacement surgery. If OA could be diagnosed at an earlier stage, it would be possible to prolong the healthy years of life of OA affected population and eventually decrease the costs of OA for the society.
As an alternative solution to actual clinical practices, we have developed within our research unit a new device with multiple sensors embedded in it to collect information of the knee joint.

Project description
In this project, you will be improving the actual embedded system of the device by developing a new robust and compact design. The second main task of the thesis will be to provide a wireless solution for the communication between the sensors and the computer.
This thesis will be jointly supervised by MIPT and Department of Electrical Engineering.

Requirements
- M.Sc. student finishing studies and seeking for a thesis topic
- Good grades (GPA >= 3)
- Proven skills in design and manufacturing simple embedded systems
- Embedded systems programming skills
- Ability to learn and quickly adapt to the new requirements

For further information, contact Jérôme Thevenot:

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