

Postgraduate Researcher Position in Localisation and tracking of multiple objects in ultra-wideband sensor networks

Our research group is looking for an outstanding postgraduate researcher. Postgraduates have the opportunity of obtaining a Dr.-Ing. (PhD) degree.

The research objective is to contribute to the field of localisation, surveillance, and object recognition by distributed sensor networks based on UWB radio technology. The industrial research scenario consists of distributed sensor nodes in multipath indoor environments. Multiple moving objects (e.g. persons) should be detected, localised and tracked.

The research topics are:

- executing and archiving MIMO-UWB measurements in different scenarios
- developing strategies and concepts for passive localisation of moving objects
- developing algorithms to detect, localise, and track persons

The successful applicant should:

- have a Dipl.-Ing. or M.Sc. degree in Electronics or Information Technology
- be familiar with digital signal processing, especially in MATLAB; knowledge of "C" language is advantageous.
- be willing to work in a team and to summarise her/his results in publications such as conference proceedings and journals

The position is currently limited to two years. However, an extension is possible.

Our lab is a partner in excellent national and EU research projects and has international co-operations and researcher exchanges. This includes the participation in the European Integrated projects WINNER and EUWB, German projects EASY-A and UKoLOS. For several years we have successfully worked in the fields of ultra-wideband (UWB) sensor systems. This includes designing UWB sensors on chip for a variety of applications such as ground-penetrating radar, through-wall radar, localization, and UWB channel sounding.

Ilmenau University of Technology has been awarded the TOTAL E-Quality rating. The university calls specifically on women to apply. Severely handicapped applicants will be preferred for employment if they are equally well suited, competent, and qualified.

Applications in Portable Document Format (PDF) including the usual documents (see www.tu-ilmenau.de/gs-mobicom) are requested by **30 July 2010 under the code 25/2010**.

Ilmenau and its university are located in the German Federal State of Thuringia – in the centre of Germany, which is famous for its cultural and historical background, its superb landscape and nature. If you are interested in applying for the position being offered, please contact:

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On behalf

sgd. Dr. Harry Dreffke