

Offer for a 3-Months Internship for Bachelor Students

Experiments with key components of the UWB ranging system

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Abstract:

The Ultra-Wideband (UWB) technology is a promising candidate for indoor localization applications due to its unique features such as very good spatial resolution (in the order of cm), propagation through walls, low power consumption, and low cost. In this internship project, the critical components of the UWB ranging system will be studied, analyzed, and measured. The results of the study and measurements will guide the hardware development of a UWB ranging system.

Tasks:

- analysis of critical UWB components' parameters
- measurements of key components and influence of their non-idealities on the overall performance of the UWB ranging system
- report written in English

Requirements:

A solid base of knowledge in electronics, experience with measurement equipment, Matlab programming and interest in the UWB technology

Payment Conditions & Application:

Fraunhofer IIS will pay an appropriate allowance to cover living costs and will also provide for accommodation and medical insurance during your stay in Nuremberg. Travel expenses will not be reimbursed.

If you are interested in the afore-mentioned topic please send your formal application including CV, a copy of your *valid* passport or ID card, motivation letter, latest grades report and the date of your earliest possible start to:

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About the Fraunhofer IIS department “Locating & Communication Services”:

For more than 20 years high frequency and microwave technology, positioning and wireless communication have been core areas of expertise at Fraunhofer IIS. Our developments in these areas are the basis for numerous trends currently dominating the research landscape. Our highly qualified and experienced team of almost 50 scientists has convinced numerous small, medium and large scale businesses which now benefit from our knowledge and innovative power. We are your contact point to a large network of research organizations, associations and industry and we support our customers through the entire process chain from product conception to the final product. Our research and development focus is on the areas antennas, wireless communication and positioning. Application areas are logistics, production, safety and automotive engineering, sports and recreation, as well as media and medical technology and many more.

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