Fraunhofer
IIS

Offer for a 3-Months Internship for Bachelor or Master Students

This offer is for Bachelor and Master Students with the option to continue for a final thesis

Topic:
Wireless Power and Data Transmission for FRP Composites Applications

Supervisor: Dr.-Ing. Iker Mayordomo
Department Locating & Communication Systems in Nuremberg

Abstract:
Composite structures are increasingly used as high-grade construction materials in high-demanding applications such as in the aerospace, infrastructures (e.g. bridges and buildings) and the automotive industries.
In the European project SmartFiber scientists are developing a fully embeddable system for a continuous structural monitoring of composite structures. The main objective of SmartFiber is to develop a smart miniaturized system for continuous health monitoring of composites which will integrate optical fiber sensor technology, nanophotonic chip technology and low-power wireless technology.
With its long term experience in wireless communication systems, Fraunhofer IIS is responsible for the wireless data and power transmission link that will allow the SmartFiber system to work while being fully embedded. Specially challenging is to cope with the influence of the FRP materials on the system performance.

Tasks:
In the context of the SmartFiber project, different possibilities for an Internship exist. Depending on the qualifications of the applicant a specific task in this area will be assigned to the student.

Requirements:
The student should have knowledge related to some of these areas: HW design, microcontroller programming, LF/HF RFID systems, etc.

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.

For further information please visit our website: www.iis.fraunhofer.de