Fraunhofer IIS

Offers for a 3-Months Internship for Bachelor Students

Topic 4:
Ad Hoc Synchronization of Distributed Systems

Supervisor: Dipl.-Ing. Simon Sudler
Communications Department in Erlangen, Germany

Abstract:
In case of distributed ad hoc systems with a changing number of active participants, the first issue that arises is the synchronization of new participants to the existing active infrastructure under mobile conditions.
Within the internship existing methods for synchronization of up to 3 participants shall be compared and a simulation environment for the most promising method is to be designed and implemented.

Tasks:

- Research on existing synchronization methods
- Comparison of methods
- Implementation of a simulation of one selected method

Requirements:

- Experience with MATLAB
- Knowledge of Communication Technologies

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 Erlangen. 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:

Nail Akar, PhD.
Student Exchange Coordinator
EEE Department
Bilkent University
akar@ee.bilkent.edu.tr
Tel: ++90-312-290 2337
Fax: ++90-312-266 4192

OR

Ali Aydin Selcuk, PhD
Student Exchange Coordinator
CS Department
Bilkent University
selcuk@cs.bilkent.edu.tr
Tel: ++90-312-290 1352
Fax: ++90-312-266 4047

About the Fraunhofer IIS department "Communications":
Research in the field of communication technologies is focused on innovative developments for satellite, terrestrial and combined (hybrid) broadcasting networks such as satellite-based direct-to-the-home broadcasting to fixed receivers or mobile satellite broadcasting systems as implemented in the USA (S-DARS).

The Communications Department specializes in system design, definition, analysis and validation. In addition we do research in waveform design, the implementation of hard- and software as well as real-time prototypes and in the development of first-class professional DRM test and measurement systems.

Furthermore, future research is required in the design of complementary terrestrial transmission systems, for instance the digitalization of FM broadcasting or the integration of existing terrestrial systems such as Digital Video Broadcasting Handheld DVB-H or Digital Multimedia Broadcasting DMB.

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