Fraunhofer
IIS

Offers for a 3-Months Internship for Bachelor Students

Topic 2:
Development and Implementation of a Full Automated Linux System Installer

Supervisor: Dipl.-Ing. (FH) Andreas Blohmann
Communications Department in Erlangen, Germany

Abstract and Tasks:
Based on one of the following Linux distributions, a full automated installer for a PC-based embedded system shall be developed and implemented.

- Debian Linux family (general requirement)
- Ubuntu LTS (Long term support) (extended requirement)

For this purpose it is an advantage to first take a look on already available solutions and to analyze whether they contain the general use-cases and meet the requirements.

General Use-Cases:

- Allow customization and testing of a new system via Netboot
- Install a system from scratch without user interactions
  - control partitioning of hard disk
  - includes installation of device-specific software packages
- Update a running system
  - includes update of device-specific software packages
- Run installer from USB storage device as well as from DVD/CD
- Optimize image size of the installer (to allow convenient distribution to the customers)

Requirements:

- Good knowledge of Linux

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