

▶ Achieve more with KROHNE

KROHNE

▶ measure the facts

KROHNE Timisoara, as part of the KROHNE group, is building end-to-end software solutions for device simulation, visualization and communication, deployed in industrial environments around the world. We are currently building a team of talented developers to contribute to our next generation device software and sharing a true passion for designing and developing high quality software which will be used in large scale industrial environments, where high reliability is a must.

In cooperation with UPT we are looking for enthusiastic students to work together on key topics:

Automated HMI generation for measurement devices

To support an early validation and verification of UI interfaces for measurement devices, an automated UI generator will be developed based on a model specification. The generator could generate HTML5 or WPF code which can be rendered on the web or run as a standalone application. Aspects like automated testing will be also covered to enhance testing capabilities on the generated UI without the need of having the HW available.

Simulation techniques for industrial measurement devices

The main objective is to create a concept and architecture for a development oriented environment able to simulate specific software/hardware components of KROHNE devices on the PC. This way it should be possible to replace completely the physical device with a software simulation. The concept shall be applied to run selected firmware components on the PC, including new algorithms that are not yet integrated in HW or software stacks on the device.

HART modem virtualization

HART is a widely deployed industrial communication protocol enabling measurement devices to communicate to PC Hosts via a USB connection. The aim of this work is to replace the physical HART modem and its USB driver with a virtual HART modem, which is able to interact with software components capable of responding to selected HART commands. In this way the PC Host software can operate without the need of having the physical HART modem or hardware components available.

Virtualized RT-Linux for next generation industrial devices

Contribute to setting-up a customized Linux distribution on top of a RT kernel with virtualization support (vCPUs) running software stacks for next generation industrial measurement devices.

We offer:

- Funding for publishing your results in international conferences and journals
- Social and technology oriented events to challenge ideas, innovation and continuous professional development
- Option for a highly competitive employment package
- Private medical insurance and access to more than 200 sports facilities

Please contact Prof. Dr. Vladimir Cretu or Prof. Dr. Mihai Micea for further information.

If interested, please also contact us at:

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