FZI LIVING LABS: A NEW SERVICE IN RESEARCH TRANSFER

Living Labs present a new research paradigm placing technology transfer and the application environment in the limelight of interdisciplinary research and development. FZI Living Labs are a new FZI service that transforms ideas from research and development into marketable products. In the FZI Living Labs, project partners work together with FZI professors and scientists to design, discuss, evaluate and test concepts, tools, software and systems under real life conditions prior to market launch.

THE IDEA BEHIND OUR FZI LIVING LABS

Technology and knowledge transfer with a broad range of positive effects:

- Participative research by scientists, experts from industry and users
- Concentrated provision of interdisciplinary, scientific know-how
- Practical trials for engineering and IT applications before market launch
- Thorough tryout of innovative concepts for your products
- Offering feedback of market knowledge into research
- Triggering innovative impulses
- Encouraging exchange between technology and application
- Environment for open innovation

THE FZI HOUSE OF LIVING LABS

The FZI House of Living Labs incorporates all FZI Living Labs in one building and offers a modern infrastructure for development, evaluation and demonstration of trend-setting technologies. Researchers from FZI and partners from industry and society can exchange across fields of application and develop interdisciplinarily integrated solutions in information and communication technology.

Profit from our FZI Living Labs as a platform for integration and technologies!

The FZI House of Living Labs is funded by the European Union – European Regional Development Fund, and by the Ministry of Finance and Economy Baden-Württemberg.


CONTACT

Dr.-Ing. Martin Hillenbrand
Tel: +49 721 9654-162
E-Mail: hillenbrand@fzi.de

RESEARCH ON YOUR BEHALF

FZI Forschungszentrum Informatik
Haid-und-Neu-Str. 10–14
76131 Karlsruhe
www.fzi.de | fzi@fzi.de

FZI LIVING LAB smartAUTOMATION

Innovative Technologies for Automation and Production

FZI RESEARCH CENTER FOR INFORMATION TECHNOLOGY

© Markus Breig
FZI LIVING LAB smartAUTOMATION

The FZI Living Lab smartAutomation provides a realistic application environment for industrial automation systems. In addition, it is an accredited Competence Center and Test Lab for the standardized communication technology PROFIBUS Basic and PROFIBUS PA.

Researchers at FZI have an extensive expertise in research activities in the fields of automation and production which are focused in the FZI Living Lab smartAutomation.

In the lab, our partners can use different application and research scenarios:

- Innovative automation architectures with smart sensors and actuators and a modern network infrastructure
- Mobile robots and control systems for manufacturing plants to contribute to the partial automation of manual workstations
- Evaluation of the effects of product and manufacturing equipment changes on the manufacturing in virtual environments
- Monitoring and semantic diagnosis of complex processes and events in automation systems and networks
- Protection of the integrity, know-how and authentication of devices and users in industrial automation systems

EQUIPMENT

The FZI Living Lab smartAutomation offers a cross-vendor equipment which provides the necessary features for research and use in projects.

A wide range of technologies (CoDeSys, Freelance, Fieldcare, PROFIBUS DP und PA, HART, virtual reality environments and PLM systems, SematicGuide, ETALIS, Energy Monitoring etc.) are in use for the numerous and diverse research tasks related to process engineering and automation as well as energy monitoring.

Therefore, the FZI Living Lab smartAutomation is an excellent environment to integrate different products and solutions in the context of automation and production.

COOPERATION OPPORTUNITIES

We offer you cooperation possibilities in method and technology design, manufacturer cross-cutting evaluation and integration scenarios, studies, development of research prototypes and support in R&D-projects in the following research topics:

- Low-Power and multicore for smart sensors
- Cross-Linkage: The FZI is PROFIBUS Competence Center and Test Lab
- Security in industrial automation
- Virtual reality in the product lifecycle
- Monitoring and knowledge-based diagnose
- Energy efficient production