

The Event at a Glance

- You get to know the **latest developments** in the field of industrial robot programming for shop floor manufacturing and small lot size production.
- Applicability to **processes at your company** will be discussed with experts.
- **Your opinion** on different methods guides the further development!

Workshop

New Programming Devices for Industrial Robots

One of the keys to success for developing and implementing robot systems for small lot size production is the effective and efficient interaction between the user and the robot. Very specific **programming devices** are currently being developed which are suitable for the specific needs and requirements in e.g. SME environments. The workshop "New Programming Devices for Industrial Robots" offers a platform for potential technology users and uptakers as well as for the technology developers. During a one-day event various state-of-the-art programming devices will be tested by the participants and discussed with the developers.

Participation and Benefits

Participation in this interactive workshop is in particular of high interest for end-users, e.g. SMEs or companies with small batch production, and for system integrators. During the course the very near future of robot technology suitable for shop floors will be demonstrated. It is a unique opportunity for the participants to directly shape the development of these devices.

The SMERobot™ Project

SMERobot™ is a European Research Project for Strengthening the Competitiveness of SMEs in Manufacturing. It is aimed at developing low-cost, modular and interactive automation solutions for European Small and Medium-sized Enterprises (SMEs) in manufacturing. Based on the potential of industrial robots, SMERobot™ creates radically new types of robot systems, offering a whole new family of SME-suitable robots.

SMERobot will lead to affordable, dependable and versatile robots with significantly reduced robot setup, changeover and instruction times, which can be used for side-by-side assistance of workers at traditionally manual workplaces.

Organization

Information and Registration

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<http://www.smerobot.org>

Participation Fee

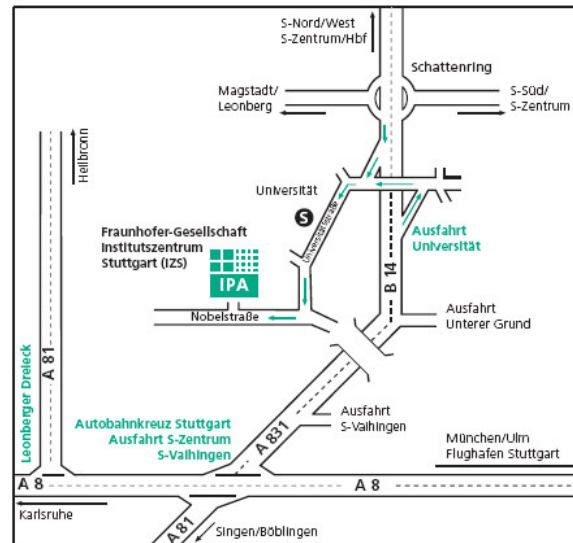
The workshop is free of charge. We expect your hands-on contribution when evaluating the devices. To foster the participation of SMEs we partly reimburse your travel expenses. Please ask for conditions.

Accommodation

Stuttgart-Marketing GmbH & Region Stuttgart
Marketing und Tourismus GmbH
Phone: +49 711 2228 233
<http://www.stuttgart-tourist.de>

Venue

Fraunhofer Institute for Manufacturing and Automation IPA
Nobelstraße 12
70569 Stuttgart (Vaihingen), Germany
http://www.ipa.fhg.de/english/Im_Profil/anfahrt.php



SMERobot™ Evaluation Workshop

February 1st, 2007

Fraunhofer IPA

New Programming Devices for Industrial Robots



*Evaluation Workshop for
Programming Devices and Methods
of Industrial Robots
for Shop Floor Manufacturing*

Program

Thursday, February 1st, 2007

Workshop Chair: Barbara Bierfreund

09:00	Arrival, Welcome Coffee
09:15	Welcome and Introduction Presentation of New Programming Devices and Methods
10:15	Coffee Break
10:30	Test and Evaluation of Programming Devices and Methods: In small groups the participants are introduced to the different robot programming devices and will complete small programming tasks. The devices and methods will be rated against the individual background of the participants.
12:30	Lunch Break
13:30	Quick Evaluation of First Results Test and Evaluation of Programming Devices and Methods, continuation. See above.
15:00	Coffee Break
15:15	Presentation and Discussion of Test and Evaluation Results
16:30	End of Workshop

This workshop is part of the Integrated Project
SMERobot™ funded by the European Commission's Sixth
Framework Programme under grant no. 011838. Please
find further information at

www.smerobot.org

Robot Stations

Using the touch screen to move the robot

Contemporary robot programming is sometimes complicated: programming devices, the so called teach pendants, are pretty complex. A new programming device based on known standard hardware and touch screen interaction makes it easy to move and program the robot.



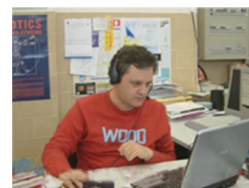
Demonstrate the robot what to do

You can grab the robot and move him following the intended gluing or welding line; the recorded path can be post processed on a 3-D interface and replayed with the active process.

By using this programming method, complex tasks like the programming of welding lines can be done in minutes!

Robot, please answer when I speak to you!

By using a speech interface, PDAs and other commonly used devices robots can be programmed with great ease. In a simulation your commands are transferred into robot motions, it doesn't make any difference if spoken words, chosen commands on the PDA or drawings.



Robot Stations

Take the robot by your hand

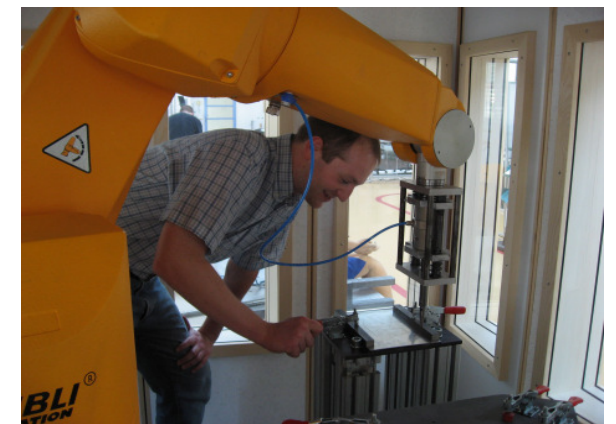
Grabbing the robot, moving him and showing him what to do. The robot will learn and repeat the task. As an example you can show the robot how to build a castle with Lego-bricks.

This method of programming makes it easy to program a robot for several tasks, e.g. assembly, pick-and-place, ...



Drawings can be understood

Every craftsman is used to hand drawings with measures. To remember measured data, to explain a colleague what to do or to plan the work piece - hand drawings are 'basics'. Nowadays you can draw your hand drawings with a digital pen and the robot will understand them!



Add dimensions to the lines and you will get a precise work piece without programming!

This programming method is most convenient for the fast generation of robot programs e.g. for kitchen boards that have to be adapted to the customer's site.