

Press Release

ITQ presents their new Industrie 4.0 Demonstrator (hall B4, booth 218)

Press release smart4i Next Generation

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As part of the **automatica 2018 (19.-22.06.2018)**, ITQ GmbH presents its new smart4i Next Generation (NG) Demonstrator (Hall B4, Booth 218). This is the next generation of the Industrie 4.0 Demonstrator called smart4i, which celebrated its premiere in 2017.

smart4i Next Generation is the name of an innovative student project that has set up an interdisciplinary program for 25 students at three universities in 6 months. This not only allows students to apply the theory learned in practice. Much more space is created for new, innovative ways of thinking.

The idea generator and project manager is the software and systems specialist ITQ GmbH from Garching near Munich, where practical training during the course of study is a particular concern. **B & R, Herrmann Ultraschall and Mitsubishi Electric**, who actively supported the project, deserve special mention among a total of 11 sponsors.

The smart4i NG Demonstrator offers trade fair visitors the opportunity to experience the production of the future interactively. A cloud landing page gives one the option to individually configure a small model car. Both bodywork and "special features" can be parameterized. At the end, the individualized vehicle will be produced live at the fair in the form of an integration of real and virtual production stations.

The demonstrator is characterized by its **modular design and the representation of all relevant Industrie 4.0 applications** - from the cloud to the sensor. On the landing page, every user can intuitively personalize their car and place an order. Afterwards, the over-mounted control system takes over the planning of the optimal order processing and, through the exchange with the connected modules, makes a flexibilization of the production process possible.

Throughout the entire production process, according to the principle of the glass factory, it is possible to track every single order and to understand in which production step it is located. Thus, a common and complete information chain is created for customers, producers and suppliers which enables optimal resource planning. Overall, it represents the **digital transformation in production** through a network of employees, machine and customer.

Thanks to the **close cooperation with the iwb, the Institute for Machine Tools and Industrial Management of the Technical University of Munich**, manufacturing and simulation methods corresponding to the current state of research are shown and applied.

The smart4i Next Generation thus combines the most important key technologies of sustainable automation in one system. Highlights of the demonstrator are, among other things, the innovative joining stations with regard to hardware. The

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"wedding" of chassis and underbody is done with ultrasound technology. Afterwards, Mitsubishi's state-of-the-art robotics will transfer the product to the transport system.

For the first time, innovative ideas of the team such as a new gripper technology for dealing with different geometries and a loop through which the final product is transported to the packing station, are presented.

One of the demonstrator's stated goals is to give the customer as much creative freedom as possible, taking into account the economic aspects. The aim is to make the product or the shape of the chassis customizable for the customer. At the same time, the use of new, digital media is intended to change and improve the virtual experience of the customer over the entire product life cycle.

About ITQ GmbH

Founded in 1998, ITQ GmbH is an independent engineering and consulting company with a focus on automation, mechanical and plant engineering. The experienced team of experts specializes in interdisciplinary problem solving related to software and systems engineering. Its core competencies include software engineering (analysis, design, implementation, testing) and process improvement as well as project and crisis management as well as consulting and coaching.

A special concern of ITQ is both requirements-oriented and forward-looking training as well as continuing education concepts, which already start with the younger generations. Therefore, the company promotes young academics in practical study projects as well as technical workshops for children, pupils and refugees through their Gerda Stetter Foundation - Technology is fun!

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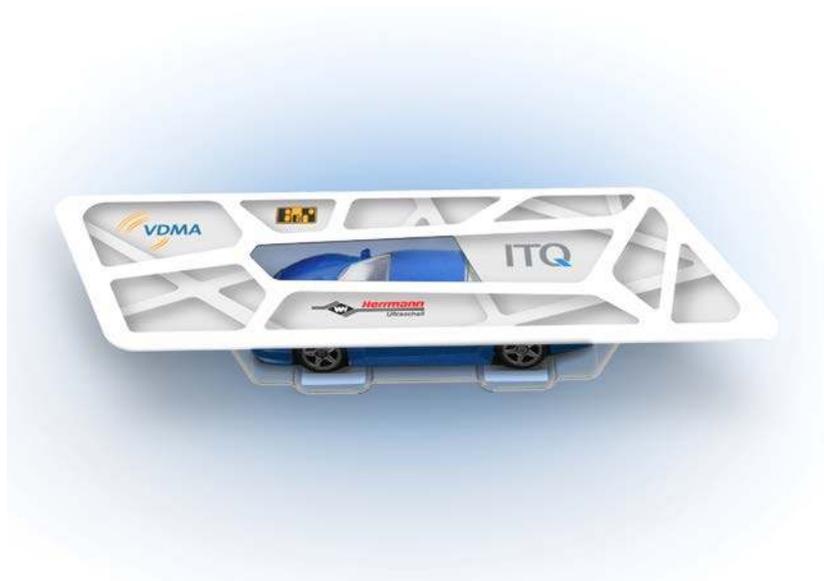
Picture 1: smart4i Next Generation Demonstrator



Picture 2: Technical features of smart4i Next Generation Demonstrator

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Picture 3: Packaging for the personalised model car

More Information:

[smart4i Next Generation Demonstrator – Homepage](#)

[smart4i Next Generation Demonstrator – ITQ Homepage](#)

[automatica framework programme – Trade Fair Munich](#)

[Download – High-resolution pictures](#)

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