



## Interactive mechatronic drive technology

Industry 4.0 as a hands-on experience: visitors to the Hanover Fair are invited to control an exhibit using their smartphone

**The WITTENSTEIN exhibit at the Hanover Fair 2014 focuses on the "Factor S – Secure mechatronic drive technology". An impressive working model – a communication enabled mechatronic drive system on which a rotating 115 kg arm is braked with very high dynamics, extremely fast and without vibration using a smartphone – demonstrates the many different aspects that add up to reliable and secure sizing of mechatronic drive systems.**

The causal link between security, safety, reliability and controllability is illustrated in this way along with the importance of secure data in tomorrow's communication enabled electric powertrains – particularly with Industry 4.0 in mind.

### Many different security aspects integrated

The three metre high, rotating model is being used by WITTENSTEIN to present the many different aspects of security in mechatronic drive technology. The relationship between the size of the drive system and the moving mass testifies to WITTENSTEIN's ability to control systemic complexity reliably. Mechanical safety is demonstrated very impressively: the moving mass is braked with very high dynamics, extremely fast and absolutely precisely without vibration.

The fact that the working model can be interactively operated by fair visitors helps underline the relevance of data security in mechatronic drive technology. This smart drive system from the WITTENSTEIN stable can be controlled using an ordinary smartphone or tablet. At the same time, the model transmits position and status information to the mobile devices in real time and sends appropriate e-mails. In other words, it simultaneously demonstrates several central aspects of the security strategy: security through reliability and operation free from defects, security through safe operation and data security when the monitoring results are processed and transferred.

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High-tech products made by WITTENSTEIN fly into space and win Formula One races. Intelligent drive systems – from the world's smallest high-performance servo drive to the latest state of the art in medical technology – are developed, produced and marketed by a team of around 1800 employees. With a blend of dedication and enthusiasm, we set benchmarks – every day – worldwide.



Industry 4.0 as an interactive, hands-on experience – for visitors to the WITTENSTEIN booth in Hall 15.

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## **Control of interconnected business and value creation processes creates future security**

Control complexity, minimize risks, create security – the working model at the WITTENSTEIN booth shows how the company's products and solutions control the many different safety and security requirements of interconnected business and value creation processes reliably and in doing so provides the highest possible future security from both the commercial and the technology perspective.

Texts and photographs in printable quality can be downloaded from <http://www.wittenstein.de/presse.html>.

### **WITTENSTEIN AG – one with the future**

With around 1800 employees worldwide and sales of €250\* million in 2013/14 (\* provisional figure), WITTENSTEIN AG enjoys an impeccable reputation for innovation, precision and excellence in the field of mechatronic drive technology – not just in Germany but internationally. The group comprises eight pacesetting Business Units with separate subsidiaries for servo gearheads, servo actuator systems, medical technology, miniature servo units, innovative gearing technology, rotary and linear actuator systems, nano technology and electronic and software components for drive technologies. Through its 60 or so subsidiaries and agents in approximately 40 countries, WITTENSTEIN ([www.wittenstein.de](http://www.wittenstein.de)) is additionally represented in all the world's major technology and sales markets.

### **WITTENSTEIN is collaborating with three partners to let visitors to the Hanover Fair experience the data security aspect hands-on.**

Hewlett Packard is presenting "Virtual Fort Knox" (VFK) – a secure, federative cloud platform – together with Fraunhofer IPA. This freely accessible platform provides software based services that interact with physical products to generate additional benefits for customers and can be leveraged for new business models. m2m-soft GmbH is showing its VFK-compatible "m2m-Cockpit", a do-it-yourself software platform that makes light work of creating applications for Industry 4.0. The information received from mechatronic drives, for instance, can be entered and evaluated in a web portal very easily as a basis for value added services.

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