

FRAUNHOFER INSTITUTE FOR MANUFACTURING ENGINEERING AND AUTOMATION IPA

PRESS RELEASE

A virtual experience of future manufacturing

Staufen Digital is organizing the fully virtual NEXCON conference, which focuses on the digital transformation of the manufacturing sector, for the third time. The conference, which will feature high-profile experts, digital networking and visionary Industrie 4.0 concepts from Europe, China and the USA, is to take place on March 5th, 2020. Fraunhofer IPA is a cooperation partner for the event where it will focus on its collaboration with the Fraunhofer Project Center for Smart Manufacturing in Shanghai.

The Fraunhofer Project Center for Smart Manufacturing, where application-oriented solutions in the field of production management, human-robot collaboration and Industrie 4.0 are researched and developed, is home to the collaboration agreed between Fraunhofer IPA and Shanghai Jiao Tong University (SJTU). The overarching objective of this partnership is to carry out research projects on the digital transformation in China, primarily with industrial partners in Germany. Visitors to Fraunhofer IPA's virtual NEXCON exhibition stand will be afforded an insight into the research work being conducted at the Project Center. In addition, SJTU professor Hao Wang, who is leading the project alongside Michael Lickefett, a Department Head at Fraunhofer IPA, will be giving the first keynote speech of this year's NEXCON on the topic of "The second Phase of Industry 4.0: Impact of 5G".



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http://s.fhg.de/KKD

Michael Lickefett, Head of Department for Factory Planning and Production Management at Fraunhofer IPA, and Professor Hao Wang, Vice Dean of the School of Mechanical Engineering at SJTU, lead the Fraunhofer Project Center for Smart Manufacturing in Shanghai. At NEXCON 2020, Fraunhofer IPA will provide insights into the work conducted at the Project Center. (Source: Fraunhofer IPA)



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Additional topics at the Fraunhofer IPA virtual exhibition stand PRESS RELEASE 6th February 2020 || Page 2 | 3 Simulation Game Digitalised Production Control Fraunhofer IPA's awarded, self-developed simulator will bring all participants up to speed with regard to any changes to production plan-ning and management brought about by Industrie 4.0. The participants will have the opportunity to learn all about these changes at first hand via an interactive simulator for the assembly of toy robots. The simulator can furthermore be adapted to the individual requirements of different businesses. http://s.fhg.de/nNm LeanDA Fraunhofer IPA's IT-independent process optimization set is due to be unveiled at this year's NEXCON. Through its combination of wireless multi-sensors and smart algorithms, the system creates transparency for both manual and automated assembly processes. As a result, process engineers are supported in their efforts to optimize the assembly process by near-real-time assessment aimed at identifying waste. http://s.fhg.de/QiL **Future Work Lab** The innovation lab makes it possible to experience the future of production. With its simulated experience world, the lab provides a tangible representation of the full spectrum of the industrial work of the future. http://s.fhg.de/Pxv **ROS-Industrial** The international open source initiative brings the possibilities offered by a Robot Operating System (ROS) to industrial manufacturing. It increases the availability of high-quality smart software components for robotics. https://rosindustrial.org

More than 1,000 participants expected

This year will see the third edition of NEXCON take place. Last year, 16 speakers and 30 exhibitors took part. This year, organizers are anticipating over 1,000 participants. It is set to start at 2am on March 5th, 2020 and last for a full 16 hours. During this time, keynote speeches and short video presentations will be given. Executives from companies such as Schaeffler, Microsoft and Daimler will discuss their experiences of the digital, semi-autonomous and sustained transformation of factories and networked production processes brought about by Industrie 4.0. In the virtual exhibition hall, companies from a variety of sectors in which Industrie 4.0 applications are relevant will be exhibiting. The conference participants will be able to discuss various topics through live chats and panel debates.



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Year-long platform for qualification and knowledge exchange

New for this year is the year-long NEXCON platform, which enables regular knowledge exchange through use cases, success stories, keynote speeches, workshops and expert discussions. For example, a keynote speech on the topic of "Explainable Artificial Intelligence" by Prof. Marco Huber, Head of the Image and Signal Processing Department at Fraunhofer IPA and Head of the Center for Cyber Cognitive Intelligence will be available from May 5th, 2020. Participants from all over the world will be able to log in using their personal registration code and access the speeches via an integrated video player.

To register and for further information, please visit: https://www.nexcon.digital

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With nearly 1000 employees, the **Fraunhofer Institute for Manufacturing Engineering and Automation IPA**, Fraunhofer IPA, is one of the largest institutes in the Fraunhofer-Gesellschaft. The total budget amounts to € 74 million. The institute's research focus is on organizational and technological aspects of production. We develop, test and implement not only components, devices and methods, but also entire machines and manufacturing plants. Our 15 departments are coordinated via six business units, which together conduct interdisciplinary work with the following industries: automotive, machinery and equipment industry, electronics and microsystems, energy, medical engineering and biotechnology as well as process industry. The research activities of Fraunhofer IPA aim at the economic production of sustainable and personalized products.