

# PRESS RELEASE

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## New professorship “Production Control” at the University of Freiburg

**Professor Daniel Carl, Deputy Director of Fraunhofer IPM, took up the professorship of “Production Control” at the Institute for Sustainable Systems Engineering INATECH on October 1, 2024. The focus is on the optimization of production processes by using optical measuring and testing methods.**

The new Freiburg professorship “Production Control” is based at the Institute for Sustainable Systems Engineering INATECH at the Faculty of Engineering. Its focus is on ensuring the quality and increasing the resource efficiency of production processes. The scientific work contributes to securing Germany as a place for business and at the same time to achieving Europe-wide environmental goals.

To enable companies to produce even higher quality, more cost-effectively and more sustainably in the future, the »Production Control« professorship will research optical measurement and testing methods that are fast, contactless, and flexible – even in harsh environments. “I have one goal,” says Professor Carl, “I will use my research and teaching to supporting the manufacturing industry in automatically controlling their processes and products on the production line.” Up to now, this control has often only been carried out on a random basis – and usually only by visual inspection or with complex laboratory technology. This is where the professorship’s research work comes in: In close cooperation with companies’ development departments, feedback processes are developed that help companies to significantly improve production processes.

### Networking with the University of Freiburg

With the new W3 professorship »Production Control«, Fraunhofer IPM is now even more closely linked to Freiburg as a location of science. The institute is already represented at the University of Freiburg with three other professorships: “Optical Systems” (Professor Karsten Buse, Institute Director Fraunhofer IPM), “Gas Sensors” (Professor Jürgen Wöllenstein, Department Head at Fraunhofer IPM) and “Monitoring of Large Structures” (Professor Alexander Reiterer, Department Head at Fraunhofer IPM).

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**FRAUNHOFER INSTITUTE FOR PHYSICAL MEASUREMENT TECHNIQUES IPM****Vita Professor Daniel Carl**

After studying physics at the Carl von Ossietzky University of Oldenburg, Carl completed his doctorate in physics at the Humboldt University in Berlin in 2005 on the subject of »Characterization of methods and applications of digital holographic microscopy«. During his doctorate, he worked as a research assistant at the Laboratory for Biophysics at the University of Münster. After graduating, Carl joined the Fraunhofer IPM. He initially worked as a concept and software developer and project manager. In 2009, he took over the »Inline Metrology« group. He has been Head of the »Production Control« department since 2015 and Deputy Director of the institute since 2017. From 2020 to 2024, he worked as a lecturer at INATECH in the degree program Sustainable Systems Engineering.



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**Professor Daniel Carl took up the »Production Control« professorship at the Institute for Sustainable Systems Engineering INATECH at the Faculty of Engineering at the University of Freiburg on October 1, 2024. © Fraunhofer IPM**

**Further Information:** [www.inatech.uni-freiburg.de](http://www.inatech.uni-freiburg.de)

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The **Fraunhofer-Gesellschaft**, based in Germany, is a leading applied research organization. It plays a crucial role in the innovation process by prioritizing research in key future technologies and transferring its research findings to industry in order to strengthen Germany as a hub of industrial activity as well as for the benefit of society. Founded in 1949, the Fraunhofer-Gesellschaft currently operates 76 institutes and research units throughout Germany. Its nearly 32,000 employees, predominantly scientists and engineers, work with an annual business volume of 3.4 billion euros; 3.0 billion euros of this stems from contract research.

**Other contacts**

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