

FRAUNHOFER HEINRICH HERTZ INSTITUTE

PRESS RELEASE

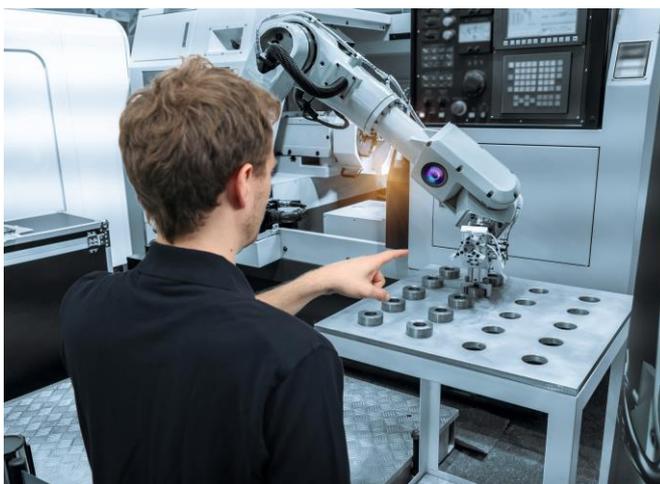
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Fraunhofer HHI presents interaction components for contactless human-machine operation at the Hannover Messe trade fair

The Fraunhofer Heinrich Hertz Institute HHI is presenting its gesture control expertise at this year's Hannover Messe trade fair. At the Fraunhofer booth C22 in hall 2, the institute is presenting the EASY COHMO project (ergonomics assistance systems for contactless human-machine operation) aimed at overcoming the problems of human-robot interaction and cooperation. Developing interaction components for contactless, gesture-based human-machine operation is the project objective.

Robot assistance systems and intelligent automation solutions can make a crucial future contribution to offering relief for workers by largely taking over physically demanding, ergonomically difficult and monotonous tasks. Human-robot cooperation is expected to provide great social benefits especially in the context of demographic change. Society is confronted with an ageing population and an increasing shortage of younger qualified specialists.



At the Hannover Messe Fraunhofer HHI presents interaction components for contactless human-machine operation © istockphoto.com/kynny, edit: Fraunhofer HHI

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Highly specialised and effective robot systems are being developed today for deployment in various complex work environments, for example in production, health or mobility. However, the increasingly diverse functionality, specialisation and capabilities of these systems pose new challenges for users in interacting with these complex machines. That is why new operating concepts for human-machine interaction and human-machine cooperation that are adapted to user requirements and integrated into the work context have to be researched and developed.

The goals of the EASY COHMO project are to improve interaction and cooperation with robots and to develop solutions for novel, easy to operate yet safe assistance systems in production and health. The Fraunhofer HHI is for example developing a 3D near-field and middle-field acquisition system and corresponding information processing for capturing, tracking and interpretation of body movements and hand gestures. This establishes an important foundation for the integration of robots into working processes that will become increasingly necessary in the future, especially in Germany.

Innovations for the digital society of the future are the focus of research and development work at the **Fraunhofer Heinrich Hertz Institute HHI**. In this area, Fraunhofer HHI is a world leader in the development for mobile and optical communication networks and systems as well as processing and coding of video signals. Together with international partners from research and industry, Fraunhofer HHI works in the whole spectrum of digital infrastructure – from fundamental research to the development of prototypes and solutions. www.hhi.fraunhofer.de

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The Fraunhofer-Gesellschaft is the leading organization for applied research in Europe. Its research activities are conducted by 69 Fraunhofer Institutes and research units at locations throughout Germany. The Fraunhofer-Gesellschaft employs a staff of some 24,500, who work with an annual research budget totaling 2.1 billion euros. Of this sum, 1.9 billion euros is generated through contract research. More than 70 percent of the Fraunhofer-Gesellschaft's contract research revenue is derived from contracts with industry and from publicly financed research projects. International collaborations with excellent research partners and innovative companies around the world ensure direct access to regions of the greatest importance to present and future scientific progress and economic development.

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