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Pressemitteilung

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18.09.2023
http://idw-online.de/de/news820772

Buntes aus der Wissenschaft, Forschungsergebnisse
Elektrotechnik, Informationstechnik, Mathematik, Physik / Astronomie
überregional

# Fraunhofer FHR at EUMW 2023 in Berlin: Radar for Industrial Applications and Additive Manufacturing

**This year, the European Microwave Week (EuMW), Europe's leading conference on microwave technology, high-frequency technology, wireless, and radar, will take place in Berlin from September 17 to 22, 2023 – also an important conference for Fraunhofer FHR. In a total of 8 lectures within 6 workshops, 8 technical contributions, and a poster presentation at the conferences, as well as at two exhibition booths, the researchers showcase the latest developments in radar and high-frequency research.**

Exhibition Booth in Cooperation with TNO, CITC, and Fraunhofer IAF (Booth No. 104B)

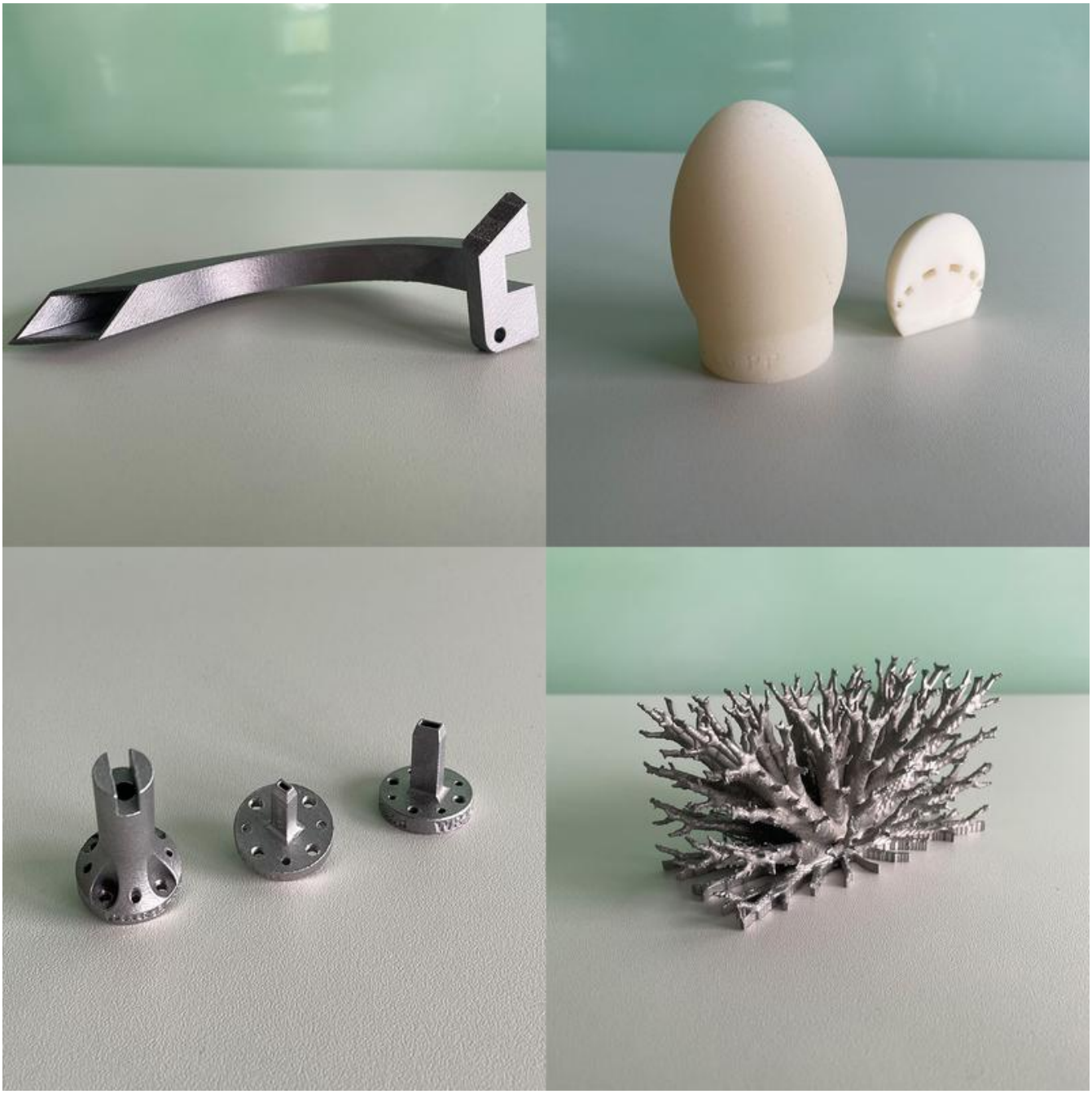
As part of the joint booth with the Dutch Organization for Applied Scientific Research TNO, the Dutch Innovation Center CITC, and the Fraunhofer Institute for Applied Solid-State Physics IAF, Fraunhofer FHR presents its new divisional structure and demonstrates radar applications for industry, along with numerous examples of additively manufactured high-frequency components. Particularly with the production of components using 3D printing, antennas can be printed or component concepts can be realized that were previously not manufacturable. Together with high-frequency technology, new application fields are emerging: For instance, antennas could be seamlessly integrated into functional components, conforming to the structure and fitting precisely, for example, in a production environment or on drones. Hollow waveguides made of metal can also be manufactured as a single piece within complex structures, a feat not achievable with conventional methods.

Exhibition Booth of the terahertz.nrw Network (Booth No. 207C)

terahertz.nrw is a network funded by the state of North Rhine-Westphalia, led by Fraunhofer FHR in collaboration with the University of Duisburg-Essen, the University of Bochum, the Fraunhofer Institute for Microelectronic Circuits and Systems IMS, and the University of Wuppertal, dedicated to excellent terahertz research for communication, localization, material characterization, medical technology, and environmental monitoring. The central goal is to unlock the disruptive potential of miniaturized electronic and photonic THz circuits, in which the 5 network partners rank among the world's best, for new mobile applications. At the terahertz.nrw booth, network partners present current research results from the project.

Scientific Contributions

Researchers from Fraunhofer FHR are organizing or participating in 6 workshops with 8 technical contributions on topics such as communication, additive manufacturing, passive radar, and industrial applications with radar. The wide research spectrum of Fraunhofer FHR is showcased with 8 additional presentations and a poster presentation in the conference program. A highlight is also the keynote by Christoph Reising in the closing session of the EuRad radar conference on the latest developments in space observation and surveillance with the radar systems GESTRA and TIRA.



Additive Manufacturing: Various 3D-Printed High-Frequency Components
Fraunhofer FHR