Whether it be low-temperature plasmas, new challenges in the field of IT security or medical imaging: our researchers never look at their field of research in isolation, but always in connection with related fields and disciplines.

For the collaborative research project SFB-TR 87 “Pulsed High-Power Plasmas for the Synthesis of Nanostructural Functional Layers”, plasma technicians from the faculty join forces with RUB physicists and researchers from RWTH Aachen University and the University of Paderborn to combine fundamental findings from the natural sciences with the systematic approaches used in engineering.

The faculty has centralised expertise on IT security – from systems security and embedded security to network and data security. Current projects at the Horst Görtz Institute for IT Security focus on the fight against malicious software and viruses, cloud computing security and electronic security in the fields of electromobility or medical technology.

The “Medical Imaging” research project concentrates on imaging procedures for diagnostic purposes and relevant physical modelling. To this end, engineers from the faculty collaborate closely in cross-disciplinary teams with university hospitals in Bochum and throughout Germany.

Additional information
http://www.ei.rub.de/forschung

If you’d like to learn more, please contact
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GOOD TO KNOW!
FACTS AND FIGURES

250
More than 250 researchers work at the Faculty of Electrical Engineering and Information Technology.

50
First in the Ruhr region: in 2015, Ruhr-Universität Bochum will be celebrating its 50th anniversary. The foundation stone was originally laid in 1962.

5000
The ID building houses 115 labs and measuring rooms on some 5,000 m². This includes a clean-room facility, a two-storey semi-anechoic chamber, as well as an anechoic chamber for standard antenna measurements.

630
Who would have thought it: the campus stretches over an area of approx. 4.5 km², which equals the size of 630 football fields.

41000
Situated in the centre of the dynamic metropolitan Ruhr area, in the very heart of Europe, Ruhr-Universität with its 20 faculties is home to 5,600 employees and over 41,000 students from 130 countries.

CHAIRS
AND RESEARCH GROUPS

Prof. Dr.-Ing. Peter Awakowicz
ELECTRICAL ENGINEERING
AND PLASMA TECHNOLOGY

Prof. Dr.-Ing. Helmut Balzert
SOFTWARE ENGINEERING

Prof. Dr. Ralf Peter Brinkmann,
Priv. Doz. Dr. Jürgen Geiser,
Priv. Doz. Dr.-Ing. Thomas Musseenbrock
THEORETICAL ELECTRICAL ENGINEERING

Prof. Dr. Markus Dürmuth
MOBILE SECURITY

Prof. Dr.-Ing. Diana Gühringer
APPLICATION-SPECIFIC
MULTI-CORE ARCHITECTURES

Prof. Dr.-Ing. Tim Güneysu
SECURE HARDWARE

Prof. Dr. Martin R. Hofmann,
Priv. Doz. Dr.-Ing. Nils C. Gerhardt
PHOTONICS

Prof. Dr. Thorsten Holz
AND TERAHERTZ TECHNOLOGY

Prof. Dr.-Ing. Michael Hübner
SYSTEM SECURITY

Prof. Dr.-Ing. Michael Küßer
EMBEDDED SYSTEMS

Prof. Dr.-Ing. Dorothea Kolossa
FOR INFORMATION TECHNOLOGY

Prof. Dr.-Ing. Ulrich Kunze
COGNITIVE SIGNAL PROCESSING

Prof. Dr.-Ing. Jan Lunze
ELECTRONIC MATERIALS

Prof. Dr.-Ing. Jan Lunze
AND NANOELECTRONICS

Prof. Dr.-Ing. Rainer Martin,
Prof. Dr.-Ing. Herbert Hudde
INFORMATION TECHNOLOGY

Prof. Dr.-Ing. Thomas Musch
AND COMMUNICATION ACOUSTICS

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ANALOG INTEGRATED CIRCUITS

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Prof. Dr. Christina Pöpper
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AND TERAHERTZ TECHNOLOGY

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EMBEDDED SYSTEMS

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FOR INFORMATION TECHNOLOGY

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HIGH FREQUENCY SYSTEMS

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DIGITAL COMMUNICATION SYSTEMS

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