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Ferdinand-Braun-Institut gGmbH Leibniz-Institut für Höchstfrequenztechnik
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Thomas Flisgen appointed Professor of Electromagnetic Field Theory at BTU Cottbus-Senftenberg

Dr.-Ing. Thomas Flisgen has been appointed as Professor of Electromagnetic Field Theory at the Brandenburg University of Technology Cottbus-Senftenberg (BTU) starting in the winter semester of 2024/25. In this role, he will drive research and teaching in the field of electromagnetic field computation and further strengthen the strategic partnership between BTU and the Berlin-based Ferdinand-Braun-Institut (FBH).

Electromagnetic fields are the foundation of numerous modern technologies and omnipresent in electrical engineering. Whether in energy conversion and distribution, communications, computing, or sensing technologies, understanding these fields is critical to many technological breakthroughs. Without the insights from electromagnetic field theory, groundbreaking inventions such as radio, television, the internet, and smartphones would not have been possible.

The research focus of the Chair of Electromagnetic Field Theory, part of BTU's STEM faculty, is on the development of methods for the calculation and simulation of electromagnetic fields. These methods play a key role in the development of many technologies, from high-frequency technology to biomedical procedures and particle accelerator research.

New impulses in research and teaching

With his appointment, Dr.-Ing. Thomas Flisgen returns to his academic roots after having most recently served as head of the "Electromagnetic Simulation" group at the Ferdinand-Braun-Institut, Leibniz-Institut für Höchstfrequenztechnik (FBH). Under the guiding principle of "field computation and the development of field computation methods to address application-oriented challenges," he will focus on key areas such as microwave and high-frequency technology. These methods are also used in biomedical technology, for example, in magnetic resonance imaging (MRI) or deep brain stimulation.

In teaching, Flisgen will expand the current modules "Electric and Magnetic Fields" and "Electrodynamics" with new courses on the computer-aided calculation of electromagnetic field distributions. These courses will enable students to develop practical skills that are highly sought after in the industry.

Strong partnership with the Ferdinand-Braun-Institut

Flisgen views his appointment as an ideal example of successful collaboration between universities and non-university research institutions. "The close cooperation between BTU and FBH offers great opportunities for joint research and the promotion of young talent," he explains. BTU students will gain access to FBH's state-of-the-art research and development facilities. The cooperation also strengthens BTU's connection to the technology hub of Adlershof, particularly through access to highly specialized measurement technology, FBH's semiconductor process lines, and scientific expertise.

With Flisgen's appointment, BTU will become even more closely involved in FBH's research activities in the field of microwave and high-frequency technology. The already established Joint Lab BTU-CS – FBH Microwave, led by Prof. Dr.-Ing. Matthias Rudolph, represents a strong collaboration between BTU and FBH. This partnership will be further intensified to advance joint research projects. As part of the Innovationscampus Elektronik und Mikrosensorik Cottbus – iCampus – project, FBH also operates a measurement lab in Cottbus, enhancing the local research infrastructure and facilitating knowledge exchange between the two institutions.

About Dr.-Ing. Thomas Flisgen

Dr.-Ing. Thomas Flisgen earned his doctorate in Computational Engineering from the University of Rostock and has been honored multiple times for his scientific work. Most recently, he led the "Electromagnetic Simulation" group at FBH and previously worked at the Helmholtz-Zentrum Berlin. His research focuses on the computation and simulation of electromagnetic fields and their applications in microwave and high-frequency technology as well as particle accelerator research.

wissenschaftliche Ansprechpartner:

Prof. Dr.-Ing. Thomas Flisgen
https://www.b-tu.de/en/fg-tet/team/prof-dr-ing-thomas-flisgen

Dr.-Ing. Thomas Flisgen has been Professor of Electromagnetic Field Theory at Brandenburg University of Technology Cottbus-Senftenberg (BTU) since the winter semester of 2024/25.
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