CDS
RESEARCH CENTER DYNAMIC SYSTEMS
SYSTEMS ENGINEERING

Promoting young academics

The study programmes Biosystems Engineering (› Bache (https://www.ovgu.de/unimagdeburg/en/Study/Study+Programmes/Bachelor/Biosystems+Engineering-p-17619.html) and › Mas (https://www.ovgu.de/Studieninteressierte/Studieng%C3%A4nge+von+A+bis+Z/Master/Biosystemtechnik.html)) as well as Syste Engineering and Technical Cybernetics (› Bache (https://www.ovgu.de/Studieninteressierte/Studieng%C3%A4nge+von+A+bis+Z/Bachelor/Systemtechnik+und+Technische+Kybernetik.html) a › Master (https://www.ovgu.de/Studieninteressierte/Studieng%C3%A4nge+von+A+bis+Z/Master/Systemtechnik+und+Technische+Kybernetik.html)) a Molecular Biosystems (› Master (https://www.ovgu.de/unimagdeburg/en/Study/Study+Programmes/Master/Molecular+Biosystems 34032.html)) are part of the promotion of young scientists by the CDS and provide for a targeted education of you scientists.

The interdisciplinary Biosystems Engineering degree programme combines biological principles with engineering approaches the quantitative description, analysis and influencing of biological systems. Due to its conceptual design, the programme is uniq in Germany and enjoys a high level of demand (approx. 300 applications with 50 admissions per year). The smaller degr programme in Systems Engineering and Technical Cybernetics attracts 20-30 methodologically oriented students annua throughout Germany. Remarkably, more than 40% of the graduates of both programmes go on to pursue a doctorate. Ma positive feedbacks from the supervisors of internships, Bachelor's and Master's theses from industry and universities at home a abroad attest to the very good education of the students of both programmes.

In the meantime, numerous highly qualified young scientists have emerged from both programmes, who have been integrated i the scientific work of the CDS in the form of diploma/master's theses as well as doctoral projects. Both degree programmes a running successfully in the Bachelor's/Master's system and have been accredited.

Since the winter semester 2015/16, there has been a Master's programme in Molecular Biosystems. Here, coordinated knowled is taught in biochemistry and molecular biology as well as systems biology, regulatory biology, bioinformatics and systems theo The aim of the degree programme is to provide an understanding of complex biological processes and their dynamics a regulatory mechanisms at the system level.

To support the career of PhD students, the › IMPRS ProEng (https://www.mpi-magdeburg.mpg.de/imprs) International M Planck Research School Magdeburg for Advanced Methods in Process and Systems Engineering , the › DFG-fund Research Training Group 2297 (GRK2297) (https://www.mathcore.ovgu.de/) Mathematical Complexity Reduction - CoRe; well as the › DFG-funded Research Training Group 2408 (GRK2408 (http://grk2408.ovgu.de/)) Maladaptive processes acro physiological barriers in chronic diseases offer professional research training programs.

CDS Speaker

Otto von Guericke University Magdeburg
Faculty of Electrical Engineering and Information
Technology (FEIT)
Universitätsplatz 2
39106 Magdeburg
Prof. Dr.-Ing. Achim Kienle

G07-101
Tel.: +49 391 67-58523
achim.kienle@ovgu.de
› Prof. Dr.-Ing. Achim Kienle

Medical Faculty/University Hospital A.ö.R. (FME/UKMD)
Institute for Experimental Internal Medicine (IEIM)
Leipziger Str. 44
39120 Magdeburg
Prof. Dr. rer. nat. Michael Naumann
H5-316
Tel.: +49 391 67-13227
naumann@med.ovgu.de
› Prof. Dr. rer. nat. Michael Naumann

Max Planck Institute for Dynamics of Complex Technical Systems
Process Systems Engineering
Sandtorstr. 1
39106 Magdeburg
Prof. Dr.-Ing. Kai Sundmacher
N.309
Tel.: +49 391 6110-351
sundmacher@mpi-magdeburg.mpg.de
› Prof. Dr.-Ing. Kai Sundmacher