



Hochschule  
Zittau/Görlitz  
UNIVERSITY OF APPLIED SCIENCES



*Welcome to the Faculty of  
Mechanical Engineering*  
***[www.maschinenwesen-zittau.de](http://www.maschinenwesen-zittau.de)***



## Faculty of Mechanical Engineering



### Faculty Management and Secretariat

Dean: Prof. Hans-Joachim Kretzschmar  
Vice Dean: Prof. Markus Fulland  
Assoc. Dean for Acad.: Prof. Gerlinde Kretzschmar  
Univ. Board Rep.: Ms Jutta Pfitzner  
Dep't Secretary: Ms Ilona Hörger

### Specializations

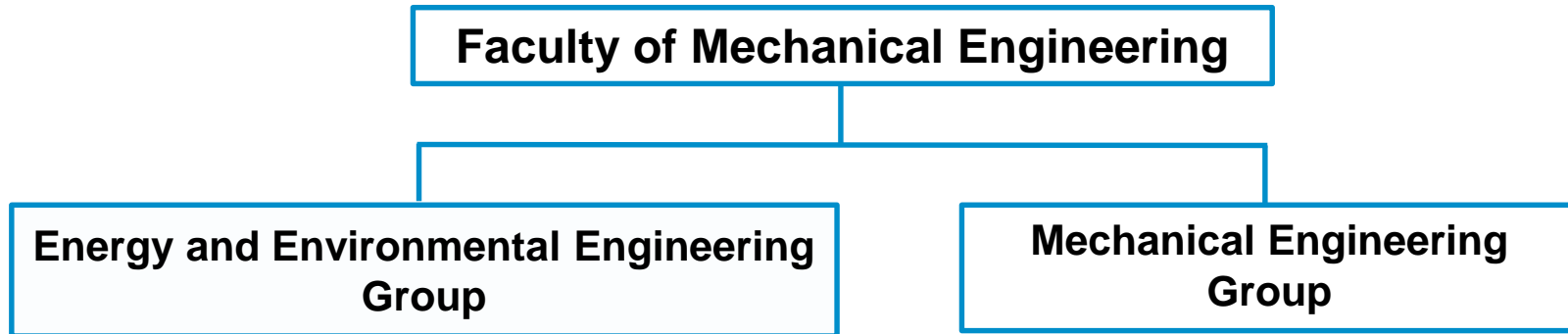
**Energy and Environmental Engineering  
Group**

Chair:  
Prof. Dr. Weise

**Mechanical Engineering  
Group**

Chair:  
Prof. Dr. Bellair

## Specializations within the Faculty of Mechanical Engineering



### Departments / Chairs

- Technical Thermodynamics
- Fluid Engineering/Fluid Energy Machinery
- Power Plant and Energy Technology
- Renewable Energy Engineering
- Energy System Technology
- Environmental Protection Engineering
- Safety of Reactors and Technical Systems
- **Nuclear** Radiation Technology

### Departments / Chairs

- Materials Technology
- Manufacturing Process
- Applied Mechanics
- Construction Theory
- Machine Components/Drive Technology
- Applied Computer Science for Mechanical Engineering/Mechatronics
- Machine Construction/CAD
- Production Engineering



## Courses of Studies and Branches of Study

### Course of Studies in "Energy and Environmental Technologies"

#### Branches of Study

- Renewable Energy Engineering
- Heat and Power Plant Engineering
- Radiation and Nuclear Technology

### Course of Studies in "Mechanical Engineering"

#### Branches of Study

- Construction Technology
- Production Engineering
- Polymer Technologies (in preparation)

Final degree in full-time courses: Dipl.-Ing. (FH)  
Starting in 2015: Bachelor of Engineering

Final degree in dual systems studies with an integrated vocational training course  
(Dual/KIA): Dipl.-Ing. (FH) or Bachelor of Engineering **AND professional certification**

**Starting in 2015: Master's Course in  
Mechanical Engineering and Energy Technology**



## Laboratories of the Energy and Environmental Engineering Group

### Laboratories

- Technical Thermodynamics laboratory
- Fluid Engineering/Fluid Energy Machinery laboratory
- Combustion Technology laboratory
- Environmental Protection laboratory
- Power Engineering laboratory
- Radiation Technology laboratory/Neutron Generator
- Laboratory of Power Plant Technology (ETK)
- Thermochemical testing ground

### Laboratory Heads / Lab Engineers

Dr. Sebastian Herrmann

Mr Felix Rothe

Ms Jutta Pfitzner, Mr Bert Salomo

Ms Jutta Pfitzner, Mr Bert Salomo

Ms Jutta Pfitzner, Mr Bert Salomo

Mr Uwe Heidrich

Mr Fritz Wodarczack

Mr Bert Salomo, Mr Roman Schneider



## Laboratories of the Mechanical Engineering Group

### Laboratories

- Material Sciences laboratory
- Fracture Mechanics/  
Stress Analysis laboratory
- Manufacturing Processes laboratory
- Machinery laboratory
- CAD laboratory
- CAE laboratory
- Production Engineering/CAM  
laboratory
- Production Measuring  
Technology/CAQ laboratory

### Laboratory Heads / Lab Engineers

Dr. Thomas Kurze

Mr Thomas Amhaus

Mr Armin Kammler

Mr Wolfgang Meinck

Mr Stephan Zahn

Mr Stephan Zahn, Mr Thomas Amhaus

Mr Roland Heidrich, Dr. Sebastian  
Herrmann

Mr Wolfgang Meinck

## Research and Development Work

- Institute of Surface Technology (IOT)
  - Plasma-enhanced coating technologies
  - Fracture mechanics, crack growthProf. Fulland, Prof. Hentschel  
Prof. Förster, Dr. Reinhold
- Institute of Process Technology, Process Automation and Measurement Technology (IPM)
  - System behavior of power generation units, operation behavior of power plant components
  - Analysis of the combustion-related operational behavior of coal, bio-fuels and waste products
  - Two-phase thermohydraulics and particle-loaded flows
  - Safety of reactors and technical systemsProf. Zschunke, Mr Alt
- Polymer technologies and lightweight constructions
  - Structure-optimized natural fibre composites (SNC)
  - Fibre-reinforced polymersProf. Klaubert, Prof. Hentschel  
Prof. Fulland
- Production-specific systems
  - Simulation/optimization of manufacturing systemsProf. Kretschmar

# Research and Development Work

- Energetic use of biomass/Combined heat and power      Prof. Zschunke
  - Thermo-chemical testing ground
  - Combustion technology laboratory
- Energetic and material use of biomass      Prof. Haschke, Prof. Hentschel
  - Bio-refinery laboratory
- Heat storage technologies      Prof. Meinert
  - Developing latent heat storage with tailored thermal power
  - Thermo-chemical testing ground
- Energy-efficient thermal systems      Prof. Meinert
  - Heating, cooling; thermal management
- Thermodynamic properties of working fluids      Prof. Kretzschmar  
in energy technology
  - Development of software to calculate thermo-  
dynamic properties
- Computational fluid dynamics (CFD) and acoustics      Prof. Weise
  - Fluid energy machinery laboratory
- Estimation and dosimetry of radon and thoron      Prof. Schönmath
  - Neutron spectrometry and simulation





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