

# Reutlingen University

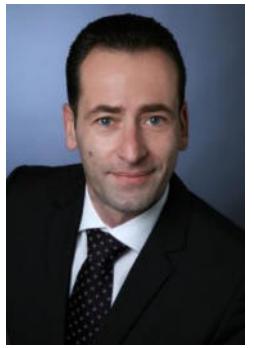
## School of Engineering

### Faculty Profiles – Mechatronics

<b>Name</b>	Prof. Dr.-Ing. Gernot Schullerus	
<b>Contact Details</b>	E-Mail: Gernot.Schullerus@Reutlingen-University.de Tel.: +49 7121 271-7045	
<b>Teaching Areas</b>	<p><b>Electrical Drives Control Laboratory</b></p> <ul style="list-style-type: none"> <li>• Electrical Drives</li> <li>• Motion Control</li> <li>• Power Electronics and Drive Control</li> </ul> <p><b>Power Electronics Laboratory</b></p> <ul style="list-style-type: none"> <li>• Power electronics</li> </ul>	
<b>Research Interests</b>	<p><b>Subjects:</b></p> <ul style="list-style-type: none"> <li>• Electrical drives and power converter control strategies</li> <li>• Optimal control of electrical drives</li> <li>• Energy efficient control of induction machines</li> <li>• Condition Monitoring in Drive Systems</li> <li>• Development of Electronic Components for Applications in Drive Technology</li> </ul> <p><b>Research projects:</b></p> <ul style="list-style-type: none"> <li>• Dynamic energy efficient control of induction motors</li> <li>• Modular scalable power electronics for drive control using GaN switches</li> </ul> <p><b>Industry Projects:</b></p> <ul style="list-style-type: none"> <li>• Sensorless control of synchronous generators</li> <li>• Automatic Parameter Identification for Asynchronous Machines</li> <li>• Evaluation of the Potential for Increasing the Efficiency of 3 Three-Phase Asynchronous Machines</li> <li>• Analysis of a Braking Method in 2Q Operation with V / f Characteristic Control</li> <li>• Parameter-Based Energy-Efficient Operation of an Asynchronous Machine for V / f Characteristic Control</li> <li>• Evaluation of the Potential for Efficiency Improvement of Three- Phase asynchronous machines</li> </ul>	

<b>Publications (selected)</b>	<ul style="list-style-type: none"> <li>• Dominic, Antony; Schullerus, Gernot; Winter, Martin: Anticipative Flux Trajectories for Dynamic Energy Efficient Operation of Induction Machines. Accepted for publication in: IEEE Transportation Electrification Conference and Expo. Chicago, 2020.</li> <li>• Ulmer, Sabrina; Schullerus, Gernot; Sönmez, Ertuğrul: A Modular and Scalable Power Electronics Device for the Control of Electric Drives. In: 2019 20th International Symposium on Power Electronics (Ee). Novi Sad, 23.10.-26.10. S. 1–6. 2019.</li> <li>• Pötter, Jan; Pfost, Martin; Schullerus, Gernot: A Novel Brushless Excitation System for Synchronous Machines with a Rotating Power Converter. In: 2019 IEEE 13th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG). Sonderborg, Denmark, 23.04.-25.04. S. 1–6. 2019.</li> <li>• Kärcher, Thomas; Schullerus, Gernot: Correlation-Based Condition Monitoring of a Roller Chain. In: Proceedings of the First World Congress on Condition Monitorings. London, 13.06. - 16.06., Seiten 1-12, 2017.</li> <li>• Borisevich, Alex; Schullerus, Gernot: Energy Efficient Control of an Induction Machine Under Torque Step Changes. In: IEEE Trans. On Energy Conversion 31 (4), 1295 - 1303, 2016.</li> <li>• Kärcher, Thomas; Schullerus, Gernot: Models for Roller Chain Condition Monitoring. In: Proceedings of the 13th International Conference on Condition Monitoring and Machine Failure Prevention Techniques. Paris, 10.10. - 12.10., Seiten 1-12, 2016.</li> <li>• Petereit, Bernd; Schlienz, Ulrich; Schullerus, Gernot; Sönmez, Ertuğrul: An Integrated Power Electronics Design Project. In: EPE 2016. ECCE Europe, 18th European Conference on Power Electronics and Applications, Karlsruhe, 5 -9 September, Seiten 1-10, 2016.</li> </ul>	
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<b>Name</b>	Prof. Dr. rer. nat. Eberhard Binder	
<b>Contact Details</b>	E-Mail: Eberhard.Binder@Reutlingen-University.de Tel.: +49 7121 271-7028	
<b>Teaching Areas</b>	<p><b>Computer Engineering, Microcontrollers,</b></p> <p>Microcontrollers, Computer Engineering, Embedded Systems, Fundamentals of Electrical Engineering</p> <p><b>Micro Computer Laboratory</b></p> <p>Microcontrollers, Embedded Systems, Automobile Bus Systems, Automotive Informatics, System Simulation</p>	
<b>Research Interests</b>		
<b>Publications</b>		
<b>Education</b>		
<b>Employment History</b>		

Name	Prof. Dr.-Ing. Arnd Buschhaus		
Contact Details	E-Mail: Arnd.Buschhaus@Reutlingen-University.de Tel.: +49 7121 271-7072		
Teaching Areas	<ul style="list-style-type: none"> <li>• Industrial robots</li> <li>• Production Automation</li> <li>• Mechanical Engineering</li> <li>• 3D-CAD</li> </ul>		
Research Interests	<ul style="list-style-type: none"> <li>• Innovative robotic applications</li> <li>• Sensor based robot control</li> <li>• Accuracy improvement of industrial robots</li> <li>• Industrial robots in the I4.0 context</li> <li>• Human-robot-collaboration</li> </ul>		
Publications	<p><b>Peer-Reviewed (selection):</b></p> <ul style="list-style-type: none"> <li>• BUSCHHAUS, A.; WAGNER, M.; FRANKE, J.: Inline Calibration Method for Robot Supported Process Tasks with High Accuracy requirements. In: IEEE (Hrsg.): IEEE International Conference on Advanced Intelligent Mechatronics: AIM 2017, 2017 pp. 682-687; Best Presentation Award</li> <li>• BUSCHHAUS, A.; KRUSEMARK, S.; KARLIDAG, E.; FRANKE, J.: Universal Fine Interpolation Algorithms for Accuracy Improvements of Industrial Robots. In: IEEE (Hrsg.): IEEE 8th International Congress on Ultra Modern Telecommunications &amp; Control Systems: ICUMT 2016, 2016, pp. 356-362, Best Paper Award; Best Presentation Award</li> <li>• BUSCHHAUS, A.; APEL, N.; FRANKE, J.: Method for Vectorial Robot Movement Determination Enabling Accuracy Improvements. In: IEEE (Hrsg.): 2015 IEEE International Conference on Control, Automation and Robotics: ICCAR 2015, 2015, pp. 24–31, Best Presentation Award</li> <li>• BUSCHHAUS, A.; BLANK, A.; FRANKE, J.; ZIEGLER, C.: Highly Efficient Control System Enabling Robot Accuracy Improvement. In: Elsevier (Hrsg.): Procedia CIRP: 5th CIRP Conference on Assembly Technologies and Systems. CATS 2014, (Procedia CIRP), pp. 200–205</li> <li>• BUSCHHAUS, A.; FRANKE, J.: Industrial Robots Accuracy Optimization in the Area of Structuring and Metallization of Three Dimensional Molded Interconnect Devices. In: NETO, P.; MOREIRA, A. P. (Hrsg.): Robotics in Smart Manufacturing: FAIM 2013. Heidelberg: Springer, 2013, pp. 179–190</li> </ul>		
Education	<ul style="list-style-type: none"> <li>• 2018: Professorship for Industrial robots and production automation, Reutlingen University</li> <li>• 2017: Doctor's degree (Dr.-Ing.). summa cum laude, "Highly accurate, adaptive control and closed-loop control of robot-guided processes", Friedrich-Alexander-University Erlangen-Nuremberg</li> </ul>		

	<ul style="list-style-type: none"><li>• 2006: Dipl.-Ing. Degree of Mechanical Engineering of Friedrich-Alexander-University Erlangen-Nuremberg</li></ul>
Employment History	<ul style="list-style-type: none"><li>• 2006-2007: Patent attorney candidate, law firm RSW. Munich</li><li>• 2007-2010: Design and project manager; Automation sector for the Automotive and Aerospace industry; KUKA Systems GmbH; Augsburg</li><li>• 2010-2012: Research assistant in the area of handling and assembly technology, Institute for factory automation and production systems; Friedrich-Alexander-University Erlangen-Nuremberg</li><li>• 2012-2017: Academic councillor; Member of the research group of Biomechatronics; Leader of the technology field of handling and assembly technologies, Institute for factory automation and production systems; Friedrich-Alexander-University Erlangen-Nuremberg</li></ul>

Name	Prof. Dr.-Ing. Christoph Haslach
Contact Details	E-Mail: Christoph.Haslach@Reutlingen-University.de Tel.: +49 7121 271-7059
Teaching Areas	<ul style="list-style-type: none"><li>• Digital Signal Processing Laboratory</li></ul>
Research Interests	
Publications	
Education	
Employment History	

Name	Prof. Dr.-Ing. Eckhard Hennig	
Contact Details	E-Mail: Eckhard.Hennig@Reutlingen-University.de Tel.: +49 7121 271-7129	
Teaching Areas	<ul style="list-style-type: none"> <li>• Digital Circuits (Mechatronics Bachelor, 2<sup>nd</sup> Semester)</li> <li>• Computer-Aided Design of Digital Circuits (Mechatronics Bachelor, 3<sup>rd</sup> Semester)</li> <li>• Modeling and Simulation of Heterogeneous Systems (Mechatronics Bachelor, 4<sup>th</sup> Semester)</li> <li>• Electronic Systems Design (Power Electronics and Microelectronics Master, 2<sup>nd</sup> Semester)</li> <li>• Laboratory Project: Design of a Power Electronic System (Power Electronics and Microelectronics Master, 1<sup>st</sup> and 2<sup>nd</sup> Semester)</li> <li>• ZEBRA - Technical Origami and Selected Applications of Engineering Mathematics</li> </ul>	
Research Interests	<ul style="list-style-type: none"> <li>• Design of microelectronic circuits and systems</li> <li>• Fast-switching GaN FET power amplifiers for class d audio and electric drive applications</li> <li>• Analog and mixed-signal CMOS circuit design for low-power sensor systems</li> <li>• Technical origami</li> </ul>	
Publications (Selection)	<ul style="list-style-type: none"> <li>• J. Tan, M. Sathyamurthy, A. Rolapp, J. Gamez, E. Hennig, E. Schäfer, R. Sommer, "A Fully Passive RFID Temperature Sensor SoC with an Accuracy of <math>\pm 0.4</math> °C (3σ) from 0 °C to 125 °C ", in IEEE J. Radio Frequency Identification, vol. 3, no. 1, pp. 35-45, March 2019</li> <li>• A. Gatzastras, D. Wrana, T. Wolfer, G. Gläser, B. Saft ; E. Schäfer, E. Hennig., "Design of Quasi-synchronous Finite State Machines Using a Local On-demand Clocking Approach," ANALOG 2018; 16th GMM/ITG-Symposium, Munich/Neubiberg, Germany, 2018, pp. 1-5.</li> <li>• E. Hennig, „ZEBRA - A Heteromodular Origami Technique for Constructing Large-Scale 3D Framework Architectures and Kinematic Linkages from Standard A4 Office Paper“, in Origami7, Volume One: Design, Education, History, and Science, pp. 47-62, Tarquin: St. Albans, UK, 2018</li> <li>• B. Saft, E. Schäfer, A. Rolapp, E. Hennig, "An Ultra-Low Power Capacitance Extrema and Ratio Detector for Electrostatic Energy Harvesters", 41st European Solid-State Circuits Conference (ESSCIRC 2015), Graz, Sept. 2015</li> </ul>	

<b>Education</b>	<ul style="list-style-type: none"><li>• 1989-1994: Dipl.-Ing. Electrical Engineering, TU Braunschweig</li></ul>	
<b>Employment History</b>	<ul style="list-style-type: none"><li>• 1995: Research Assistant, Microelectronics Center, University of Kaiserslautern, Germany</li><li>• 1996-2000: Research Assistant, Fraunhofer Institute for Industrial Mathematics (ITWM), Kaiserslautern, Germany</li><li>• 2000: Dr.-Ing., TU Kaiserslautern, Germany</li><li>• 2000-2008: R&amp;D Engineer, Infineon Technologies AG , Munich, Germany</li><li>• 2008-2015: Scientific Strategy Manager and Research Group Leader, IMMS Institute for Microelectronics and Mechatronics Systems, Erfurt, Germany</li><li>• Since Aug. 2015: Professor of Digital and Integrated Circuit Design, Robert Bosch Center for Power Electronics, Reutlingen University, Germany</li></ul>	

Name	Prof. Dr. rer. nat. Stefan Mack	
Contact Details	E-Mail: Stefan.Mack@Reutlingen-University.de Tel.: +49 7121 271-7070	
Teaching Areas	<ul style="list-style-type: none"> <li>• Electrical Measurement Technology (Lecture and Laboratory)</li> <li>• Sensor Systems (Lecture and Project Work / Laboratory)</li> <li>• Sensor Technology (Lecture and Laboratory)</li> <li>• Sensor Laboratory</li> <li>• Optoelectronics Laboratory</li> </ul>	
Research Interests	<ul style="list-style-type: none"> <li>• Sensor Technology for Industrial, Automotive and Housing Technology</li> <li>• Optical and Optoelectronic Systems and Measurement Techniques</li> <li>• Time-of-Flight Measurement Technology</li> <li>• Optics- and System Simulation</li> <li>• Wireless Sensory Networks, Internet of Things, Industry 4.0</li> <li>• Industrial Image Processing</li> </ul>	
Publications		
Education	<ul style="list-style-type: none"> <li>• Dipl. Phys. at University of Heidelberg</li> </ul>	
Employment History	<ul style="list-style-type: none"> <li>• Dr. rer. nat. at Max Planck Institute for Microstructure Physics / Martin Luther University in Halle (Saale).</li> <li>• MEMS Sensor Development Engineer at R. Bosch GmbH, Reutlingen</li> <li>• Central Research and Development of Optical Inspection Systems for Semiconductor Manufacturing at Carl Zeiss Jena GmbH</li> <li>• Industrial Sensors Development in the Field of Image Processing and Laser Measurement Technology at Sick AG, Waldkirch</li> <li>• Professor at Reutlingen University</li> </ul>	

<b>Name</b>	Prof. Dr.-Ing. Antonio Notholt	
<b>Contact Details</b>	E-Mail: Antonio.Notholt@Reutlingen-University.de Tel.: +49 7121 271-7031	
<b>Teaching Areas</b>	<ul style="list-style-type: none"> <li>• Control Engineering</li> <li>• Control Systems</li> <li>• Renewable Energy</li> </ul>	
<b>Research Interests</b>	<ul style="list-style-type: none"> <li>• Control of Off-Grid electrical power systems</li> <li>• Control of electrical networks</li> <li>• Coupling of electrical, gas and heat networks</li> <li>• Use of energy storage for ancillary services</li> <li>• Blockchain for the Energy sector</li> </ul>	
<b>Publications</b>		
<b>Education</b>	PhD – University of Kassel, Germany, MSc. – Loughborough University, UK, BSc. – ITESM Monterrey, Mexico	
<b>Employment History</b>	<p>2012-2016: System Architect – Business Unit Off-Grid &amp; Storage – SMA Solar Technology</p> <p>2006-2011: Fraunhofer Institute for Wind Energy and Energy Systems Technology (IWES)</p>	

Name	Prof. Dr.-Ing. habil. David Pouhè	
Contact Details	E-Mail: David.Pouhe@Reutlingen-University.de Tel.: +49 7121 271-7104	
Teaching Areas	<b>Teaching areas:</b> Fundamentals of Electrical Engineering, EM Field Theory, EMC and Physic of Semi-Conductors.	
Research Interests	<b>Electromagnetic Field Theory, Antennas and Electromagnetic Compatibility</b> Application of the Inverse Method and Homogenization theory to Electromagnetics, RCS, Antennas and Wave Propagation, EMC.	
Publications	<a href="http://www.tec.reutlingen-university.de/prof-pouhe/ausgewahlte-publikationen-prof-pouhe/">http://www.tec.reutlingen-university.de/prof-pouhe/ausgewahlte-publikationen-prof-pouhe/</a>	
Education		
Employment History		

Name	Prof. Dr.-Ing. Ertuğrul Sönmez		
Contact Details	E-Mail: Ertugrul.Soenmez@Reutlingen-University.de Tel.: +49 7121 271-7081		
Teaching Areas	<ul style="list-style-type: none"> <li>• Semiconductor Devices</li> <li>• Analog Circuit Design: Basics and Bipolar/MOS Integrated Circuits</li> <li>• Linear and Non-Linear Circuits using Operational Amplifiers</li> </ul>		
Research Interests	<ul style="list-style-type: none"> <li>• GaN-Devices</li> <li>• Analog Integrated Circuits</li> <li>• GaN-based Integrated Power Electronics</li> <li>• New Resilient and Scalable Power Electronic Topologies</li> </ul>		
Publications	<p><b>Peer-Reviewed (selection):</b></p> <ul style="list-style-type: none"> <li>• E. Sönmez, U. Heinle, I. Daumiller, M. Kunze, "Efficient Power Electronics for the price of Silicon - 3D-GaN Technology for GaN-on-Silicon," PCIM Europe Conference, Nuremberg, Germany, May 2012.</li> <li>• E. Sönmez, U. Heinle, I. Daumiller, M. Kunze, "Efficient GaN Products for 600V Operation," PCIM Europe Conference, Nuremberg, Germany, May 2011.</li> <li>• U. Heinle, P. Benkart, I. Daumiller, M. Kunze, E. Sönmez, "GaN Electrochemical Probes and MEMS on Si," Proc. of Materials Research Society (MRS) Conference, San Francisco, USA, March 2008.</li> <li>• S. Chartier, E. Sönmez, J. Dederer, B. Schleicher, H. Schumacher, "Millimeter-Wave Si/SiGe HBT Frequency Divider Using Dynamic and Static Division Stages," Asia-Pacific Microwave Conference (APMC), Bangkok, Thailand, December 2007.</li> </ul>		
Education	<ul style="list-style-type: none"> <li>• 2014: Professorship for Semiconductor Circuits, Microelectronics, Reutlingen University</li> <li>• 2007: PhD degree (Dr.-Ing.) with highest honours, University of Ulm, Germany. 24GHz Multi-Functional MMICs using SiGe HBTs.</li> <li>• 1998: Dipl.-Ing. degree of Electrical Engineering, University of Ulm, Germany. Focus: Microelectronics</li> </ul>		
Employment History	<ul style="list-style-type: none"> <li>• 2013–2014: Micronas GmbH, Innovation Center, Senior Manager, Freiburg, Germany.</li> <li>• 2006–2013: MicroGaN GmbH, Management Executive, Ulm.</li> <li>• 2005–2006: TES Electronic Solutions GmbH, Senior Engineer, Stuttgart.</li> <li>• 2005–2005: ATMEL Germany GmbH, Marketing Manager, Heilbronn.</li> <li>• 1998–2005: University of Ulm, Competence Center "Integrated Circuits in Communications" in "Institute of Electron Devices and Circuits", Germany. Scientific staff member and teaching assistant.</li> </ul>		

Name	Prof. Dr. rer. nat. Matthias Rätsch	
Contact Details	E-Mail: <a href="mailto:Matthias.Raetsch@Reutlingen-University.de">Matthias.Raetsch@Reutlingen-University.de</a> Tel.: +49 7121 271-4046	
Teaching Areas	<ul style="list-style-type: none"> <li>• Computational Intelligence</li> <li>• Machine Vision and Artificial Intelligence</li> <li>• Computer Science (Computer Science for Mechanical Engineers / Mechatronics)</li> <li>• Image Processing Laboratory</li> </ul>	
Research Interests	<ul style="list-style-type: none"> <li>• Image Understanding, Machine Learning, Artificial Intelligence, Cyber-Physical Systems</li> <li>• Human-Machine Interaction, Human-Robot-Collaboration, Personalized Assistance &amp; Service Systems, Non-Verbal Communication, Facial / Emotional / Body &amp; Hand-Gesture Recognition and Animation</li> <li>• Shape from Shading ( 3D Morphable Models ) and Structure from Motion for Face Modeling and Analysis</li> <li>• RGB-D &amp; Monocular SLAM Procedures in Collaboration with BOSCH &amp; TUM for Autonomous Navigation / Localization</li> </ul>	
Publications (selected)	<ul style="list-style-type: none"> <li>• <i>Development</i> (ICCTD), <i>Journal of Computers</i>, vol. 11, no. 6, pp. 439-445 (JCP, ISSN: 1796-203X), Singapore. 2016. (<a href="#">journal award</a>)</li> <li>• Huber, Z. Feng, W. Christmas, J. Kittler, M. Rätsch. Fitting 3D Morphable Models using Local Features, <i>IEEE International Conference on Image Processing (ICIP)</i>, pp 1195 - 1199, 2015, Québec City, Canada ("top 10%" paper award) [DOI: <a href="https://doi.org/10.1109/ICIP.2015.7350989">10.1109/ICIP.2015.7350989</a>] [<a href="#">IEEE</a>] [<a href="#">Preprint PDF (arXiv)</a>] [<a href="#">BMVA meeting slides</a>]</li> <li>• Wittig, U. Kloos, M. Rätsch. Animation of Parameterized Facial Expressions for Collaborative Robots, <i>Informatics Inside Conference for Human-Centered Computing</i>, pp 72-73. 2015 (<a href="#">award</a>)</li> <li>• Huber, J. Kittler, M. Rätsch. Bottom-up and Top-down Face Analysis based on 3D Face Models, <i>Informatics Inside Conference for Human-Centered Computing</i>, pp 138. 2014 (<a href="#">award</a>)</li> </ul>	

<b>Education</b>	<ul style="list-style-type: none"> <li>• 2013: Professorship for Image Understanding, Interactive Robotics, Computer Science, Reutlingen University</li> <li>• 2008: PhD at the Department of Computer Science of the University of Basel (Switzerland) - Work Group of Thomas Vetter (GraVis) - Face Analysis, 3D Morphable Models</li> <li>• 2002: Diploma in Computer Science at the Faculty of Mathematics and Natural Sciences, University of Potsdam</li> <li>• 1994: Mathematics, Physics and Computer Science at the University of Potsdam</li> </ul>	
<b>Employment History</b>	<ul style="list-style-type: none"> <li>• 2008 – 2013: Cognitec Systems GmbH - World Leader in Face Analysis</li> <li>• 2007 – 2010: Research Assistant at the Konrad-Zuse-Center for Information Technology Berlin (ZIB) and Hochschule Neubrandenburg - Applied Mathematics</li> <li>• 2001 – 2003: WiSenT GmbH - Computer Vision, Machine Learning</li> <li>• 1999 – 2001: CONTEX Technology GmbH - Image Processing, Machine Learning</li> </ul> <p><b>Stays abroad:</b></p> <ul style="list-style-type: none"> <li>• 2003 – 2008: Switzerland</li> <li>• 1992 - 1993 Great Britain</li> </ul> <p><b>Patents and Industrial Property Rights:</b></p> <ul style="list-style-type: none"> <li>• DE195 33 585: Method for Segmenting Characters Based on det. Fin. Automats for Optimal Optical Text Capture.</li> </ul>	

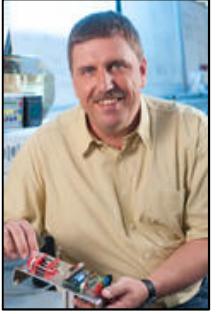
Name	Prof. Dr. Jens Weiland	
Contact Details	E-Mail: <a href="mailto:Jens.Weiland@Reutlingen-University.de">Jens.Weiland@Reutlingen-University.de</a> Tel.: +49 7121 271-7054	
Teaching Areas	<ul style="list-style-type: none"> <li>• Embedded Software</li> <li>• Programming and Modeling Languages</li> <li>• Software Engineering</li> <li>• Operating Systems</li> </ul>	
Research Interests	<p><b>Subjects:</b></p> <ul style="list-style-type: none"> <li>• Embedded Systems</li> <li>• Design Exploration für System/Software Architecture</li> <li>• Variant-Rich and Adaptive Systems</li> <li>• Model-Driven Software Development</li> </ul> <p><b>Research projects:</b></p> <ul style="list-style-type: none"> <li>• Embedded Simulink-based Product Line-Architectures (ESPA)</li> <li>• Virtual Commissioning of Variant-Rich Systems (VivaSys)</li> </ul> <p><b>Industrial Projects:</b></p> <ul style="list-style-type: none"> <li>• Handling of Software Variants</li> <li>• Refactoring of MATLAB Simulink Function Models</li> <li>• Reengineering of Embedded Software</li> <li>• Components for Variant Analysis and -Design</li> <li>• Evaluation of Adaptive AUTOSAR Components</li> </ul>	
Publications	<ul style="list-style-type: none"> <li>• P. Manhart; J. Weiland: A Classification of Modeling Variability in Simulink. In: Proceedings of the 8th International Workshop on Variability Modelling of Software-intensive Systems (VaMoS) 2014, 22.-24. January 2014, Nice, France, 2014, pp. 40-47.</li> <li>• J. Möck; J. Weiland: Advancing Virtual Commissioning with Variant Handling. Workshop of the ASIM/GI-Expert Group STS and GMMS, 20.-21. February 2014, Reutlingen, 2014.</li> <li>• M. Schulze, J. Weiland, D. Beuche: Automotive Model-Driven Development and the Challenge of Variability. In: Proceedings of the 16th International Software Product Line Conference (SPLC), 02.-07. September 2012, Salvador, Brazil, 2012, Volume 1. ACM 2012, pp 207-214, 2012.</li> </ul>	

<b>Name</b>	Prof. Dr. rer. nat. Thorsten Zenner	
<b>Contact Details</b>	E-Mail: Thorsten.Zenner@Reutlingen-University.de Tel.: +49 7121 271-7030	
<b>Teaching Areas</b>	<ul style="list-style-type: none"> <li>• General Communication Technology</li> <li>• Networked Control Systems</li> <li>• Fieldbuses</li> <li>• Wireless Networks</li> <li>• Data Security</li> <li>• Technical Communication Laboratory</li> <li>• Control Technology Laboratory</li> </ul>	
<b>Research Interests</b>	<ul style="list-style-type: none"> <li>• Low-Energy Radio Systems</li> <li>• Battery-Operated Radio Systems</li> </ul>	
<b>Publications</b>		
<b>Education</b>		
<b>Employment History</b>		

# E&D - Electronics & Drives

## Study Programme: Power and Microelectronics. Master of Science

Research topics: <https://www.electronics-and-drives.de/forschung/>

Name	Prof. Dr.-Ing. Jürgen Scheible	
Contact Details	E-Mail: Juergen.Scheible@Reutlingen-University.de Tel.: +49 7121 271-7089	
Teaching Areas	<ul style="list-style-type: none"> <li>• Synthesis of Digital Circuits</li> <li>• Synthesis of Digital Circuits Laboratory</li> <li>• Algorithms of Design Automation</li> <li>• Layout Design of Integrated Circuits</li> <li>• Layout Design of Integrated Circuits Laboratory</li> <li>• Project: Chip-Design</li> </ul>	
Research Interests	<ul style="list-style-type: none"> <li>• Constraint Driven Design Flow</li> <li>• Methods for Automating Layout Design</li> <li>• Electronic Design Automation</li> </ul>	
Publications (selection)	<ul style="list-style-type: none"> <li>• Hald, J. Seelhorst, P. Herzogenrath, J. Scheible, J. Lienig: <b>A New Method for the Analysis of Movement Dependent Parasitics in Full Custom Designed MEMS Sensors</b>; Proc. of the 14th Int. Conf. on Synthesis, Modeling, Analysis and Simulation Methods and Applications to Circuit Design (SMACD 2017), Giardini Naxos - Taormina, Italy, 12.-15.06.2017, ISBN 978-1-5090-5051-2. <a href="#">PDF</a>, <a href="#">EDA Competition Award</a>.</li> <li>• V. Borisov, K. Langner, J. Scheible, B. Prautsch: <b>A Novel Approach for Automatic Common-Centroid Pattern Generation</b>; Proc. of the 14th Int. Conf. on Synthesis, Modeling, Analysis and Simulation Methods and Applications to Circuit Design (SMACD 2017), Giardini Naxos - Taormina, Italy, 12.-15.06.2017.</li> <li>• K. Langner, J. Scheible: <b>Formal Verification of a Transistor PCell</b>; Proc. of the 13th Conf. on Ph.D. Research in Microelectronics and Electronics (PRIME 2017), Giardini Naxos - Taormina, Italy, 12.-15.06.2017, ISBN 978-1-5090-6507-3, pp. 205-208.</li> </ul>	

	<ul style="list-style-type: none"> <li>•</li> </ul>	
<b>Education</b>	<ul style="list-style-type: none"> <li>• 09/1987: Dipl.-Ing. Electrical Engineering, University of Karlsruhe (today "KIT")</li> </ul>	
<b>Employment History</b>	<ul style="list-style-type: none"> <li>• 1987 - 1992: Scientific Employee, University of Karlsruhe</li> <li>• 12/1991: Dr.-Ing. Electrical Engineering, University of Karlsruhe</li> <li>• 1992 – 2010: Robert Bosch GmbH - Automotive Electronics <ul style="list-style-type: none"> <li>◦ Technical Trainee (2 years)</li> <li>◦ Specialist ASIC Layout Design (4 years)</li> <li>◦ Project Manager Hybrid Layout (2 years)</li> <li>◦ Group Leader Pre-Development Microelectronics (3 years)</li> <li>◦ Head of ASIC Layout Design (7 years)</li> </ul> </li> <li>• Since 2010: Professor for Electronic Design Automation at the rbz (Reutlingen University)</li> <li>• Academic Dean of the Study Program: Power and Microelectronics</li> <li>• Vice-Dean of the Faculty</li> </ul>	

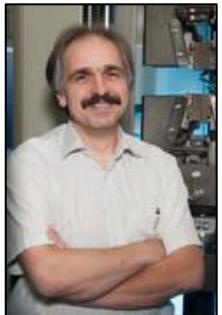
# Study Programme: Mechanical Engineering, Bachelor of Engineering and Master of Science

Web:

<https://www.tec.reutlingen-university.de/de/bachelor/bachelor-maschinenbau/>

<b>Name</b>	Dean of the School of Engineering Prof. Dr.-Ing. Manuchehr Parvizinia		
<b>Contact Details</b>	E-Mail: Manuchehr.Parvizinia@Reutlingen-University.de Tel.: +49 7121 271-7000		
<b>Teaching Areas</b>	<ul style="list-style-type: none"> <li>• Computational Fluid Dynamics (CFD)</li> <li>• Fluid Mechanics</li> <li>• Power and Work Machines</li> <li>• Fluid Mechanics Laboratory</li> <li>• Power and Work Machines Laboratory</li> </ul>		
<b>Research Interests</b>			
<b>Publications</b>			
<b>Education</b>	<ul style="list-style-type: none"> <li>• 1990-1996: Dr.-Ing. at the Department of Jet- and Turbomachines at RWTH Aachen University</li> <li>• Diploma in Mechanical Engineering / Turbomachines at RWTH Aachen University</li> <li>• Diploma in Mechanical Engineering / Propulsion Systems at Aachen University of Applied Sciences</li> </ul>		
<b>Employment History</b>	<ul style="list-style-type: none"> <li>• 2000-2004: Development Engineer in the "Steam Turbine Technology" Department at Siemens Power Generation, Siemens AG, Mülheim an der Ruhr <ul style="list-style-type: none"> <li>○ Support and Coordination of Research Projects, Development of Future Low-Pressure Turbines, Flow Simulations</li> </ul> </li> <li>• 1996-2000: Project Engineer at BBP Environment GmbH, Gummersbach (formerly L.&amp; C. Steinmüller GmbH, Gummersbach) <ul style="list-style-type: none"> <li>○ Calculation and Configuration of Steam Generators and their Components</li> </ul> </li> <li>• 1990-1996: Scientific Employee at the Department of Jet- and Turbomachines at RWTH Aachen University <ul style="list-style-type: none"> <li>○ Working on Projects in the Field of Gas Turbine Cooling</li> </ul> </li> </ul>		

<b>Name</b>	Head of Study Programmes Prof. Dr.-Ing. Hans-Gerhard Hertha-Haverkamp	
<b>Contact Details</b>	E-Mail: Hans.Hertha-Haverkamp@Reutlingen-University.de Tel.: +49 7121 271-7039	
<b>Teaching Areas</b>	<ul style="list-style-type: none"> <li>• Dynamics I</li> <li>• Dynamics II</li> <li>• Dynamics III</li> <li>• Statics</li> <li>• Team Management</li> </ul>	
<b>Research Interests</b>		
<b>Publications</b>	<ul style="list-style-type: none"> <li>• Markovic, Lj., Ruzic, D., Hertha-Haverkamp, H., Kardelky, C.: <i>Some Applications And Constraints Of The FEM Within The Modal Analysis Of The Structures.</i> Tagungsband Third Serbian (28th Yu)Congress Of Theoretical And Applied Mechanics, Vlasina Lake, Serbia, 2011</li> </ul>	
<b>Education</b>	<ul style="list-style-type: none"> <li>• 1991: Dr.-Ing. at the Faculty of Mechanical Engineering, Department of Machine Dynamics at the University of Dortmund (TU)</li> <li>• 1983: Diploma in Mechanical Engineering at the Faculty of Mechanical Engineering of the University of Dortmund (TU)</li> </ul>	
<b>Employment History</b>	<ul style="list-style-type: none"> <li>• 1996: Professor at Reutlingen University</li> <li>• 2003 – today: Lecturer at the DHBW</li> <li>• 1991 – 1996: Daimler-Benz AG, Car Calculation</li> <li>• 1985 – 1991: Scientific Employee in the Field of Machine Dynamics of the University of Dortmund (TU)</li> </ul>	

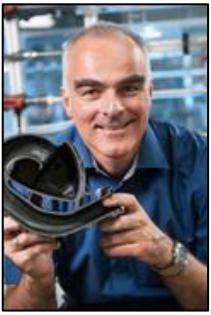
Name	Prof. Dr.-Ing. Volker Läpple	
Contact Details	E-Mail: Volker.Laapple@Reutlingen-University.de Tel.: +49 7121 271-7052	
Teaching Areas	<ul style="list-style-type: none"> <li>• Fundamentals of Geometric Product Specification / Technical Drawing</li> <li>• Stress Analysis II</li> <li>• Structural Durability</li> <li>• Material Science and Material Testing</li> </ul>	
Research Interests	<ul style="list-style-type: none"> <li>• ISO-GPS Standard System, Geometric and Dimensional Tolerances, Tolerance Management</li> <li>• Material Testing, Damage Analyzes, European and International Material Standardization</li> <li>• Calculations in the Field of Static Strength as well as Vibration- and Operational Strength</li> </ul>	
Publications	<ul style="list-style-type: none"> <li>• Läpple, V., B. Drube, D. Wittke und C. Kammer: Werkstofftechnik-Maschinenbau Europa-Lehrmittelverlag 3. Auflage, 2012</li> <li>• Läpple, V.: Wärmebehandlung des Stahls Europa-Lehrmittelverlag 10. Auflage, 2010</li> <li>• Kammer, C., V. Läpple: Werkstoffkunde für Praktiker Europa-Lehrmittelverlag 7. Auflage, 2012</li> <li>• Läpple, V.: Einführung in die Festigkeitslehre - Lehr und Übungsbuch Vieweg-Verlag 3. Auflage 2011 D1 – 8</li> <li>• Läpple, V.: Lösungsbuch zur Einführung in die Festigkeitslehre Vieweg-Verlag 3. Auflage 2011</li> </ul>	
Education	<ul style="list-style-type: none"> <li>• 1997: Dr.-Ing. in Mechanical Engineering at the Federal Material Testing Department (MPA), University of Stuttgart</li> <li>• 1985 – 1990: Diploma in Mechanical Engineering at the University of Stuttgart</li> </ul>	
Employment History	<ul style="list-style-type: none"> <li>• 2000: Professor at Reutlingen University</li> <li>• 1998 – 2000: Development of Anti-Blocking-Systems, in Particular Fatigue Testing at Robert Bosch GmbH in Schieberdingen</li> <li>• 1997 - 1998 Project planning and project management at Ziemann GmbH, brewery plant construction in Ludwigsburg</li> <li>• Until 1997 Research associate at the State Materials Testing Institute (MPA) of the University of Stuttgart</li> </ul>	

Name	Prof. Dr.-Ing. Michael Lauxmann	
Contact Details	E-Mail: Michael.Lauxmann@Reutlingen-University.de Tel.: +49 7121 271-7132	
Teaching Areas	<ul style="list-style-type: none"> <li>• Stress Analysis</li> <li>• Rapid Product Development</li> <li>• Numerical Structural Mechanics</li> </ul>	
Research Interests	<ul style="list-style-type: none"> <li>• Biomechanics: Dynamics of Physiological and Pathological Hearing</li> <li>• Machine Dynamics</li> <li>• Moisture Transport and Microclimate in Control Units</li> <li>• Reliability of Power Electronics Control Units</li> </ul>	
Publications (Selection)	<p><b>Papers</b></p> <ul style="list-style-type: none"> <li>• <i>Lauxmann, M.; Eiber, A.; Haag, F.; Ihrle, S.: Nonlinear Stiffness Characteristics of the Annular Ligament.</i> The Journal of the Acoustic Society of America, Volume 136, pp. 1756-1767, 2014, [<a href="http://dx.doi.org/10.1121/1.4895696">http://dx.doi.org/10.1121/1.4895696</a>].</li> <li>• <i>Luers, J.C.; Pazen, D.; Meister, H.; Lauxmann, M.; Eiber, A.; Beutner, D.; Hüttenbrink, K.B.: Acoustic Effects of a Superior Semicircular Canal Dehiscence: a Temporal Bone Study.</i> European Archives of Oto-Rhino-Laryngology and Head &amp; Neck, 2014, doi: 10.1007/s00405-013-2866-5.</li> <li>• <i>Ihrle, S.; Lauxmann, M.; Eiber, A.; Eberhard, P.; Nonlinear Modelling of the Middle Ear as an Elastic Multibody System - Applying Model Order Reduction to Acousto-Structural Coupled Systems.</i> Erweiterter Beitrag zum Sonderheft ACOMEN 2011, Journal of Computational and Applied Mathematics, Vol. 246, pp. 18-26, 2013, [<a href="http://dx.doi.org/10.1016/j.cam.2012.07.010">http://dx.doi.org/10.1016/j.cam.2012.07.010</a>].</li> <li>• <i>Lauxmann, M.; Eiber, A.; Heckeler, C.; Ihrle, S.; Chatzimichalis, M.; Huber, A.; Sim, J.H.: In-Plane Motions of the Stapes in Human Ears.</i> The Journal of the Acoustic Society of America, Volume 132, No. 5, pp. 3280-3291, 2012, [<a href="http://dx.doi.org/10.1121/1.4756925">http://dx.doi.org/10.1121/1.4756925</a>].</li> </ul>	
Education		
Employment History		

Name	Prof. Dr.-Ing. Helmut Nebeling	
Contact Details	E-Mail: Helmut.Nebeling@Reutlingen-University.de Tel.: +49 7121 271-7051	
Teaching Areas	<ul style="list-style-type: none"> <li>• Machine Tools</li> <li>• Machine Tools Laboratory</li> <li>• Control Technology (including Hydraulics)</li> <li>• Production Technology</li> </ul>	
Research Interests	<ul style="list-style-type: none"> <li>• Design, Dimensioning and Optimization of Machine Tools, Components and Machining Processes</li> <li>• Integration of Intelligence in Processing Processes</li> <li>• Investigation and Calculation of Machine- and Process Properties</li> <li>• Design and Optimization of Machine Tools and Components</li> <li>• Design and Optimization of Production Facilities and Processes</li> <li>• Interaction between Structural Behavior and Control-Technology Influences</li> <li>• Investigation of Static and Dynamic Behavior</li> <li>• Analysis and Optimization of the Energy Efficiency and the Efficiency of Components and Production Processes</li> </ul>	
Publications	<ul style="list-style-type: none"> <li>• Nebeling, P. H.: Increasing the accuracy in grinding process; International Journal of Mechatronics and Manufacturing Systems, P. 540-552, Vol. 4 No. 6, 2011.</li> <li>• Nebeling, P. H.: Steigerung der Genauigkeit bei der Schleifbearbeitung, in Tawakoli, T.: 8. Seminar Moderne Schleiftechnologie und Feinstbearbeitung 2010, Vulkan-Verlag, ISBN 978-3-8027-2957-7, Villingen-Schwenningen, 2010.</li> <li>• Spur, G.; Uhlmann, E.: Handbuch Fertigungstechnik, Kapitel Werkzeugschleifen, Hanser-Verlag, 2012.</li> </ul>	
Education	<ul style="list-style-type: none"> <li>• Dr.-Ing. at the Department of Mechanical Engineering at RWTH Aachen University</li> <li>• Diploma in Mechanical Engineering at RWTH Aachen University</li> </ul>	
Employment History	<ul style="list-style-type: none"> <li>• 2010: Professor at Reutlingen University</li> <li>• 2005 – 2009: Head of Design and Development at Walter Maschinenbau GmbH, Tübingen</li> <li>• 2001 – 2005: Head of Design and Development at Witzig &amp; Frank GmbH, Offenburg</li> <li>• 1997 – 2001: Group Leader Development of EMAG Maschinenfabrik GmbH, Salach</li> </ul>	

	<ul style="list-style-type: none"> <li>• 1992 – 1997: Scientific Employee at the Machine Tool Laboratory (WZL) at RWTH Aachen University</li> </ul>	
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Name	Prof. Dr.-Ing. Thomas Reibetanz	
Contact Details	E-Mail: Thomas.Reibetanz@Reutlingen-University.de Tel.: +49 7121 271-7049	
Teaching Areas	<ul style="list-style-type: none"> <li>• Mechanical Technology</li> <li>• Production Technology</li> <li>• Quality Management Systems</li> <li>• CAQ Laboratory</li> <li>• Digital Factory</li> </ul>	
Research Interests	<ul style="list-style-type: none"> <li>• Simulation Technology (Factory Planning, Casting Simulation)</li> <li>• CAD / CAM</li> <li>• Quality Management</li> </ul>	
Publications		
Education	<ul style="list-style-type: none"> <li>• 1994: Dr.-Ing. at the Department of Control Technology of Machine Tools and Production Plants at the University of Stuttgart</li> <li>• 1987: Diploma in Mechanical Engineering at the University of Stuttgart</li> </ul>	
Employment History	<ul style="list-style-type: none"> <li>• 2000: Professor at Reutlingen University</li> <li>• 1996 – 2000: Head of Development at Thyssen Krupp Production Systems, Hüller Hille GmbH, Ludwigsburg^</li> <li>• 1995 – 1996: Product Manager for CNCs at Daimler Benz Aerospace, Gelma Industrielektronik GmbH, München</li> <li>• 1987 – 1994: Scientific Employee. at the Department of Control Technology of Machine Tools and Production Plants at the University of Stuttgart</li> </ul>	

Name	Prof. Dr.-Ing. Steffen Ritter		
Contact Details	E-Mail: Steffen.Ritter@Reutlingen-University.de Tel.: +49 7121 271-7024		
Teaching Areas	<ul style="list-style-type: none"> <li>• Materials Science</li> <li>• Design Methodology</li> <li>• Fundamentals of Design</li> <li>• Polymer Engineering I / Plastics</li> <li>• Product Development Project <i>PEP</i></li> <li>• Design Project / Project Work</li> <li>• R &amp; D Project</li> </ul> <p><b>Laboratories</b></p> <ul style="list-style-type: none"> <li>• Injection Molding , EPI-Center</li> </ul>		
Research Interests	<ul style="list-style-type: none"> <li>• Engineering Design</li> <li>• Polymer Engineering / Plastics</li> <li>• Plastic Injection Molding</li> <li>• Feasible Design of Polymer Components</li> <li>• 3D-Printed Tool Inserts / Fundamental Investigations</li> </ul>		
Publications	<ul style="list-style-type: none"> <li>• Please see: <a href="http://www.tec.reutlingen-university.de/projekte/pep-produktentwicklungsprojekt/">http://www.tec.reutlingen-university.de/projekte/pep-produktentwicklungsprojekt/</a></li> </ul>		
Education	<ul style="list-style-type: none"> <li>• 2001: Dr.-Ing. at the Department of Mechanical Engineering at the University of Stuttgart</li> <li>• 1993: Diploma in Mechanical Engineering at the University of Stuttgart</li> </ul>		
Employment History	<ul style="list-style-type: none"> <li>• 2010: Professor at Reutlingen University</li> <li>• 2001 – 2010: Head of Development at Mann+Hummel GmbH</li> <li>• 1999 – 2001: Founding of a Start-Up</li> <li>• 1998 – 2000: Head of Development and Quality at Paul Hartmann AG</li> <li>• 1994 – 1998: Scientific Employee at the Department of Polymer Engineering at the University of Stuttgart</li> </ul> <p><b>Patents and Property Rights</b></p> <ul style="list-style-type: none"> <li>• Several Patents as an Employee of Mann+Hummel GmbH</li> <li>• Patent# DE 195 18 898 C2</li> </ul>		

Name	Prof. Dr.-Ing. Bernd Thomas	
Contact Details	E-Mail: Bernd.Thomas@Reutlingen-University.de Tel.: +49 7121 271-7041	
Teaching Areas	<ul style="list-style-type: none"> <li>• Technical Thermodynamics</li> <li>• Heat Transfer</li> <li>• Thermodynamics Laboratory</li> <li>• Heat Transfer / Heating Technology Laboratory</li> </ul>	
Research Interests	<ul style="list-style-type: none"> <li>• Experimental Investigations of Mini-CHPP at the CHP Test Bench inside the Laboratory</li> <li>• Examination of Heat Pumps</li> <li>• Calculation and Design of Stirling Machines</li> <li>• Development of Thermal Engineering Calculation Models</li> </ul>	
Publications	<p><b>Papers: 2008-2012</b></p> <ul style="list-style-type: none"> <li>• Glémot, A., Crest, M., Peregrina, C., Lebars, F., Briend, Y., Tsai, Y., Thomas, B.: "Technical and economic assessment of Micro-Cogeneration Technologies for sewage Biogas", Proc. of 4<sup>th</sup> International Symposium on Energy from Biomass and Waste, San Servolo, Venedig, 12.- 15.11.2012 (zur Veröffentlichung angenommen)</li> <li>• Thomas, B., Wyndorps, A.: "Efficiencies and emissions of a 192 kWel Otto engine CHP-unit running on biogas at the research station "Unterer Lindenhof", Engineering in Life Sciences - Special Issue: Bio-gas, Volume 12, Issue 3, WILEY-VCH Verlag GmbH &amp; Co. KGaA, Weinheim, Juni 2012, S. 306–312</li> <li>• Thomas, B.: „Moderne Heiztechnik mit kleinen Blockheizkraftwerken“, Ingenieurspiegel 4/2011, Public Verlagsgesellschaft mbH, Bingen, 2011, S. 33-35</li> <li>• Thomas, B.: "Mini-Blockheizkraftwerke - Grundlagen, Gerätetechnik, Betriebsdaten", Monografie, Vogel-Buchverlag, Würzburg, 2. vollst. überarbeitete Aufl., 2011</li> <li>• Thomas, B.: „GuD-Kraftwerk, Wärmepumpe und/oder KWK?“, BWK Bd. 63 (2011) Nr. 7/8, S. 55-62</li> <li>• Thomas, B., Wyndorps, A.: "Monitoring of a 192 kWel Biogas CHP unit at the research station "Unterer Lindenhof", Beitrag im Tagungsband „Int. Congress Progress in Biogas II“, Universität Hohenheim, 30.3.-1.4.2011, S. 256-261</li> <li>• Thomas, B.: "Einsatzmöglichkeiten von Blockheizkraftwerken in der Wohnungswirtschaft", wohnen 1.11 – Zeitschrift der Wohnungswirtschaft</li> </ul>	

	<p>Bayern, ZdW Bay 1/2011, S. 4-9</p> <ul style="list-style-type: none"> <li>• Bemann, U., Heß, J., Kramer, M., Thomas, B.: "Energie für Wohn- und Gewerbeobjekte", BWK Bd. 63 (2011) Nr. 1/2, S. 57-58</li> <li>• Thomas, B.: "Der Primärenergiefaktor für Blockheizkraftwerke", BWK Bd. 62 (2010) Nr. 3, S. 50-54</li> <li>• Thomas, B., Wyndorps, A., Bekker, M., Oechsner, H., Kelm, T.: „Bio- und Klärgas in Stirlingmotoren und Mikrogasturbinen“, EuroHeat&amp;Power Report Blockheizkraftwerke 2010, EW Medien und Kongress GmbH, Frankfurt a.M., S. 44-50</li> <li>• Thomas, B.: „Strom und Wärme von Mini- und Mikro-KWK-Anlagen: Status und Perspektiven“ Tagungsband, 15. Herbstseminar „Best Practice Energieeffizientes Bauen und Sanieren für Systemanbieter, Fachleute und Investoren“, Bern, 26.11.2009, S. 101-114</li> <li>• Thomas, B., Wyndorps, A., Oechsner, H., Bekker, M., Kelm, T.: „Gekoppelte Produktion von Kraft und Wärme aus Bio-, Klär- und Deponiegas in kleinen, dezentralen Stirling-Motor- Blockheizkraftwerken“ Forschungsbericht FZKA-BWPLUS, März 2009</li> <li>• Thomas, B.: „Mini- und Mikro-KWK/BHKW“ Buchbeitrag in „Energieeffizienz in Gebäuden, Jahrbuch 2009“, Pöschk, J. (Hrsg.), Verlag und Medienservice Energie VME, 2009, S. 275-281</li> <li>• Thomas, B.: "Benchmark testing of Micro-CHP units", Applied Thermal Engineering 28 (2008), S. 2049-2054</li> <li>• Thomas, B.: "Mini-BHKW – noch zu groß für Ein- und Zweifamilienhäuser?", eBWK Bd. 60 (2008)</li> <li>•</li> </ul>	
Education	<ul style="list-style-type: none"> <li>• 1992: Dr.-Ing. at the Department of Bio- and Chemical Engineering at the University of Dortmund</li> <li>• Diploma in Chemical Technology at the University of Dortmund</li> </ul>	
Employment History	<ul style="list-style-type: none"> <li>• 1992 - 1997: Development Engineer in the Field of Heat Pumps at Viessmann Werke GmbH &amp; Co. KG</li> <li>• 1988 – 1992: Scientific Employee at the Department of Thermodynamics at the University of Dortmund</li> </ul>	

Name	Prof. Dr.-Ing. Frank Truckenmüller	
Contact Details	E-Mail: Frank.Truckenmueller@Reutlingen-University.de Tel.: +49 7121 271-7100	
Teaching Areas	<ul style="list-style-type: none"> <li>• Developmental Tendencies in Energy Technology</li> <li>• Fundamentals of Energy Conversion</li> <li>• Conventional and Regenerative Energy Technology</li> <li>• Energy Systems</li> <li>• Team Management</li> </ul>	
Research Interests	<ul style="list-style-type: none"> <li>• ZIM Cooperation Network " Virtual Power Plant Neckar-Alb "; In Cooperation with Prof. Thomas</li> <li>• DEMONSTRATOR "Virtual Power Plant Neckar-Alb": <a href="http://www.virtuelles-kraftwerk-neckar-alb.de/demonstrator/">http://www.virtuelles-kraftwerk-neckar-alb.de/demonstrator/</a> ; Under the Management of Ellen Schur</li> </ul>	
Publications	<ul style="list-style-type: none"> <li>• W. Gerschütz, M. Casy, F. Truckenmüller: <i>Experimental Investigation of Rotating Flow Stabilities in the Last Stage of a Low-pressure Model Steam Turbine during Windag</i>. Proc. IMechE Vol. 219 Part A: J. Power and Energy 2005</li> <li>• H. Stürer, F. Truckenmüller, D. Borthwick, J. D. Denton: <i>Aerodynamic Concept for very Large Steam Turbine Last Stages</i>. Proceedings of ASME Turbo Expo 2005, GT2005-68746, Reno-Tahoe, Nevada, USA</li> </ul> <p><b>Patents and Property Rights</b></p> <ul style="list-style-type: none"> <li>• CN000100353031C: Turbine Blade [E]</li> <li>• DE102010041808A1: Schaufelkranzsegment, Strömungsmaschine sowie Verfahren zur Herstellung [DE]</li> <li>• US020080145228A1: Aero-mixing of rotating blade structures [US]</li> <li>• EP000001760269A1: Lager und Dichtungsanordnung in einer Dampfturbine [DE]</li> <li>• EP000001598522B1: Dampfturbinen-Komponente und Verfahren zum Kühlen einer Dampfturbine sowie Verwendung [DE]</li> </ul>	
Education	<ul style="list-style-type: none"> <li>• 2002: Dr.-Ing. at the Faculty of Energy-, Process- and Biotechnology at the University of Stuttgart</li> <li>• 1992: Diploma in Mechanical Engineering at the University of Stuttgart</li> </ul>	

<b>Employment History</b>	<ul style="list-style-type: none"><li>• 2012: Professor at Reutlingen University</li><li>• 2009 – 2012: Siemens Energy, Mülheim (D)</li><li>• 2007 – 2009: ALSTOM Power Systems GmbH, Mannheim (D)</li><li>• 2005 – 2006: Siemens-Westinghouse, Orlando (USA)</li><li>• 1998 – 2004: Siemens Power Generation, Mülheim (D)</li><li>• 1993 – 1998: Scientific Employee at the Institute for Thermal Turbomachines at the University of Stuttgart</li></ul>	
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Name	Prof. Dr.-Ing. Paul Wyndorps	
Contact Details	E-Mail: Paul.Wyndorps@Reutlingen-University.de Tel.: +49 7121 271-7050	
Teaching Areas	<ul style="list-style-type: none"> <li>• M-CAE I</li> <li>• Machine Elements I</li> <li>• Machine Elements II</li> <li>• Design Project / Project Work</li> <li>• M-CAE II</li> <li>• CAE-Laboratory</li> <li>• CAD-3D Laboratory</li> </ul>	
Research Interests	<ul style="list-style-type: none"> <li>• Design &amp; Technical Calculations</li> <li>• Plant and Process Engineering- and Simulation</li> <li>• Technical Program Development</li> <li>• CAD Applications (Pro / ENGINEER, CREO)</li> </ul>	
Publications	<ul style="list-style-type: none"> <li>• Wyndorps, P.: <i>3D-Konstruktion mit Pro/ENGINEER-Wildfire</i>, Auflagen 2004, 2005, 2008, 2010.</li> <li>• Wyndorps, P.: <i>3D-Konstruktion mit Creo Parametric</i>, 2012.</li> </ul> <p><b>Patents and Property Rights</b></p> <ul style="list-style-type: none"> <li>• DE10015089, GB2360732: Verfahren zum Herstellen von Porenbetonkörpern</li> <li>• DE10060982: Anlage zum Herstellen von Grifftaschen oder dergleichen Ausnehmungen in einem ungehärteten Betonblock aus insbesondere Porenbeton</li> </ul>	
Education	<ul style="list-style-type: none"> <li>• 1996: Dr.-Ing. at RWTH Aachen University</li> <li>• 1990: Diploma in Mechanical Engineering at RWTH Aachen University</li> </ul>	
Employment History	<ul style="list-style-type: none"> <li>• 2000 – 2001: Head of Design (Mechanical Engineering) at DORSTENER MASCHINENFABRIK AG</li> <li>• 1997 – 2000: Vice Head of Design at SCHUMAG AG, Aachen</li> <li>• 1996 – 1997: Vice Head of Design at KIESERLING GmbH, Solingen</li> <li>• 1990 – 1991: Avocational Lecturer for Engineering Design at Aachen University of Applied Sciences</li> <li>• 1990 – 1995: Scientific Employee at the Institute for Machine Elements and Machine Design (IME) at RWTH Aachen University</li> <li>• 1984 – 1990: Student Worker at the Institute for Machine Elements and Machine Design (IME) at RWTH Aachen University</li> </ul>	

## Reutlingen Energy Center

### Study Programme: Distributed Energy Systems and Energy Efficiency, Master of Science

**Research topics:** <https://www.tec.reutlingen-university.de/de/forschung-industrie/forschung/rez-reutlinger-energiezentrum/forschung-am-rez/>

Name	Head of Study Programme Prof. Dr.-Ing. Frank Truckenmüller	
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Teaching Areas	<ul style="list-style-type: none"><li>• Developmental Tendencies in Energy Technology</li><li>• Fundamentals of Energy Conversion</li><li>• Conventional and Regenerative Energy Technology</li><li>• Energy Systems</li><li>• Team Management</li></ul>	
Research Interests	<ul style="list-style-type: none"><li>• ZIM Cooperation Network " Virtual Power Plant Neckar-Alb "; In Cooperation with Prof. Thomas</li><li>• DEMONSTRATOR "Virtual Power Plant Neckar-Alb": <a href="http://www.virtuelles-kraftwerk-neckar-alb.de/demonstrator/">http://www.virtuelles-kraftwerk-neckar-alb.de/demonstrator/</a> ; Under the Management of Ellen Schur</li></ul>	
Publications	<ul style="list-style-type: none"><li>• W. Gerschütz, M. Casy, F. Truckenmüller: <i>Experimental Investigation of Rotating Flow Stabilities in the Last Stage of a Low-pressure Model Steam Turbine during Windag</i>. Proc. IMechE Vol. 219 Part A: J. Power and Energy 2005</li><li>• H. Stürer, F. Truckenmüller, D. Borthwick, J. D. Denton: <i>Aerodynamic Concept for very Large Steam Turbine Last Stages</i>. Proceedings of ASME Turbo Expo 2005, GT2005-68746, Reno-Tahoe, Nevada, USA</li></ul>	
	<b>Patents and Property Rights</b> <ul style="list-style-type: none"><li>• CN000100353031C: Turbine Blade [E]</li><li>• DE102010041808A1: Schaufelkranzsegment, Strömungsmaschine sowie Verfahren zur Herstellung [DE]</li></ul>	

	<ul style="list-style-type: none"> <li>• US020080145228A1: Aero-mixing of rotating blade structures [US]</li> <li>• EP000001760269A1: Lager und Dichtungsanordnung in einer Dampfturbine [DE]</li> <li>• EP000001598522B1: Dampfturbinen-Komponente und Verfahren zum Kühlen einer Dampfturbine sowie Verwendung [DE]</li> </ul>	
<b>Education</b>	<ul style="list-style-type: none"> <li>• 2002: Dr.-Ing. at the Faculty of Energy-, Process- and Biotechnology at the University of Stuttgart</li> <li>• 1992: Diploma in Mechanical Engineering at the University of Stuttgart</li> </ul>	
<b>Employment History</b>	<ul style="list-style-type: none"> <li>• 2012: Professor at Reutlingen University</li> <li>• 2009 – 2012: Siemens Energy, Mülheim (D)</li> <li>• 2007 – 2009: ALSTOM Power Systems GmbH, Mannheim (D)</li> <li>• 2005 – 2006: Siemens-Westinghouse, Orlando (USA)</li> <li>• 1998 – 2004: Siemens Power Generation, Mülheim (D)</li> <li>• 1993 – 1998: Scientific Employee at the Institute for Thermal Turbomachines at the University of Stuttgart</li> </ul>	

Name	Prof. Dr. Sabine Löbbecke		
Contact Details	E-Mail: Sabine.Löebbe@Reutlingen-University.de Tel.: +497121271 – 7127, +491724162796		
Teaching Areas	<ul style="list-style-type: none"> <li>• Energy Economics</li> <li>• Business Administration in the Energy Industry</li> <li>• Business Models in Distributed Energy Systems: Business Models and Marketing, Market Dynamics and Strategies</li> <li>• Energy Trading and risk management</li> <li>• Business Cooperation in the Energy Industry</li> <li>• Change management</li> </ul>		
Research Interests	<ul style="list-style-type: none"> <li>• Development of Business Models in the Energy Industry in the Context of Decentralized Energy Systems and Energy Efficiency</li> <li>• Customer Preferences / Consumer Behavior in Private Households, in the Industry: <ul style="list-style-type: none"> <li>◦ Energy Efficiency</li> <li>◦ Heating market</li> <li>◦ Prosumers / Energy Communities</li> </ul> </li> <li>• Business Models and Strategies, Products and Services for Decentralized Energy Systems and Energy Efficiency, innovation processes</li> <li>• Success Factors for the Development and Realization of Strategies and Business Models in the Energy Industry</li> </ul>		
Publications (Selection)	<ul style="list-style-type: none"> <li>• <b>Jochum G, Löbbecke S.</b> <i>Thriving Despite Disruptive Technologies: A German Utilities' Case Study</i>, in: Sionshansi F (editor): Future of utilities: Utilities of the future, S. 323 – 341, Academic Press, Elsevier, Amsterdam, 2016. ISBN 9780128042496, <a href="http://dx.doi.org/10.1016/B978-0-12-804249-6.00017-8">http://dx.doi.org/10.1016/B978-0-12-804249-6.00017-8</a>.</li> <li>▪ <b>Löbbecke, S.; Hackbarth, A.</b> (2017): The Transformation of the German Electricity Sector and the Emergence of New Business Models in Distributed Energy Systems, in: F. Sionshansi (editor): Innovation and Disruption at the Grid's Edge - How distributed energy resources are disrupting the utility business model, Edition: first, Chapter: 15, Elsevier, 9780128117637, pp.287-318</li> </ul>		

<b>Education</b>	<p>Prof. Dr. Sabine Löbbecke lectures and researches at Reutlingen University of Applied Sciences on “Distributed Energy Systems &amp; Energy Efficiency” since 02/2015. She is a member of “Reutlingen Energy Center Distributed Energy Systems &amp; Energy Efficiency”. Her focus is on strategy development and business models in the energy industry, on marketing strategies and customer (household, industrial, commercial) behavior regarding energy issues. She is in the energy industry since 30 years. Prior to joining Reutlingen University, she ran her own consulting business, Löbbecke Consulting, for 13 years and co-founded Utility Consulting Group (Germany). Prior to this, she was of Head of “Business development” within swb AG Bremen, a once municipal utility, Senior Consultant at Arthur D. Little, Germany. She started her career at VSE AG Saarbrücken (regional utility), and Saarbrücken university. She holds a PhD and a Master in business administration from Universität des Saarlandes. She lectures at Hochschule HTW Chur, Switzerland and is a trained systemic consultant.</p>	
<b>Employment History</b>	<ul style="list-style-type: none"> <li>• February 2015 onwards: Distributed Energy Systems and Energy Efficiency / Reutlingen Energy Center. See above for details</li> <li>• February 2002 until today: Löbbecke Consulting. Owner. Main activities and responsibilities: Acquisition and realization of consulting mandates in strategy development, organizational development.</li> <li>• In Germany, Switzerland, Tunisia; Short term engagements in Uganda / Kenya (utilities) and D.R. Congo (organizational development of GTZ bureau)</li> <li>• May 1997 – April 2001: swb AG, Saarbrücken Head of department “Business development”; proxy since 2000. Main activities and responsibilities : Strategy development and coordination of its realization, portfolio management, coordination and Integration of new businesses, Acquisition of participations etc.</li> </ul>	

Name	Prof. Dr.-Ing. Debora Coll-Mayor	
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Teaching Areas	<ul style="list-style-type: none"> <li>• Basics on energy conversion technologies and energy supply systems</li> <li>• Integration of distributed energy and storage in the energy system</li> <li>• Distributed ledgers and blockchain applied to the energy sector</li> <li>• Energy and data management systems</li> </ul>	
Research Interests	<ul style="list-style-type: none"> <li>• Application of new technologies to the energy sector and their business cases</li> </ul>	
Publications (selection)	<p><b>ARTICLES IN PEER-REVIEWED JOURNALS / CONTRIBUTIONS TO BOOKS</b></p> <ul style="list-style-type: none"> <li>▪ Coll-Mayor Debora, Schmid Jürgen. "Opportunities and barriers of high-voltage direct current grids: a state of the art analysis". WIREs Energy &amp; Environment. 2012, 1: 233-242.</li> <li>▪ Coll-Mayor, D.; Pardo, D. and Perez-Donsion, M. "Methodology based on the value of lost load for evaluating economic losses due to disturbances in the power quality". Energy Policy. 2012, vol. 50, issue C, pages 407-418.</li> <li>▪ Coll-Mayor, D.; Notholt, A. "Application of smart-grid concept to islanded power systems: challenges and perspectives". International Journal of Distributed Energy Resources. Volume 7, number 1, 41-56. 2011.</li> </ul> <p><b>PUBLISHED CONTRIBUTIONS TO CONFERENCES</b></p> <ul style="list-style-type: none"> <li>▪ Castellanos, A.; Coll-Mayor, D. and Notholt, A. „Cryptocurrency as Guarantees of Origin: Simulating a Green Certificate Market with the Ethereum Blockchain“ Published in Proceedings of the 5th IEEE International Conference on Smart Energy Grid Engineering (SEGE). Oshawa, Canada, 2017.</li> </ul>	
Education	<p>2006 PhD in Electrical engineering “Effect of market-driven minigrids on the frequency stabilization process of isolated middle sized power grids” Kassel University (FB 16: Elektrotechnik/Informatik)</p> <p>2007 Master degree in electronics engineering University of the Balearic Islands</p>	

	1999 Master degree in mechanical engineering Politecnical University of Catalonia	
Employment History	<p>Sep.2015 to Spe. 2017 – Professor for Energy economics and technologies with the University of applied sciences in Mannheim</p> <p>Sep. 2011- Aug. 2015 Business Development Manager and Senior Expert Engineer for Smart Grids with the SMA Solar Technology AG</p> <p>Aug. 2010 – Aug. 2011 Different positions at the Fraunhofer Institute für Windenergie und Energiesystemtechnik (FhG IWES)</p> <p>März 2010 – Jul. 2010 Invited professor at the University of Kassel</p> <p>Sep. 2003 – Jul. 2012 Associate Professor with the University of Balearic Islands</p> <p>Sep. 2002 – Sep. 2003 Junior Professor with the University of Balearic Islands</p>	

## Study Programme: International Project Engineering, Bachelor of Engineering

Web: <https://www.tec.reutlingen-university.de/de/bachelor/bachelor-international-project-engineering/>

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<b>Teaching Areas</b>	<ul style="list-style-type: none"> <li>• Project Management</li> <li>• Project Planning</li> <li>• Project Leading</li> <li>• Change Management</li> <li>• Creativity-, Study- and Problem Solving Techniques</li> </ul>	
<b>Research Interests</b>		
<b>Publications</b>		
<b>Education</b>		
<b>Employment History</b>		

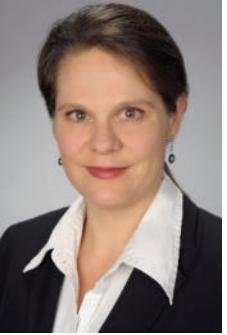
<b>Name</b>	Prof. Dr.-Ing. Stephan Pitsch	
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<b>Teaching Areas</b>	<ul style="list-style-type: none"> <li>• Mathematics I+II</li> <li>• Physics</li> <li>• Applied Acoustics</li> </ul>	
<b>Research Interests</b>	<ul style="list-style-type: none"> <li>• Musical Acoustics</li> </ul>	
<b>Publications</b>	<ul style="list-style-type: none"> <li>• Pitsch, S.: „Physik für Projektingenieure – ein „blended Learning“ Konzept“, Tagung der Hochschulföderation SüdWest: Digitales Lehren und Prüfen – bewährte Lösungen und neue Herausforderungen, Hochschule der Medien Stuttgart, 2016.</li> <li>• Pitsch, S.; Rucz, P.; Angster, J.; Miklós, A.; Kirschmann, J.: “Scaling software for labial organ pipes”. Fortschritte der Akustik – DAGA 2013, Meran, DEGA Berlin 2013, S. 299-302.</li> <li>• Angster, J.; Pitsch, S.; Dubovski, Z.; Leistner, P.; Miklós, A.: „Research Organ for Pipe Organ Research at the Fraunhofer IPB in Stuttgart“. Fortschritte der Akustik – DAGA 2013, Meran, DEGA Berlin 2013, S. 295-298.</li> <li>• Pitsch, S.; Miklós, A.; Angster, J.: "Einfluss unterschiedlicher Strömungsbedingungen im Fuß einer Holzpfife auf deren Klang". Fortschritte der Akustik – DAGA 2011, Düsseldorf, DEGA Berlin 2011.</li> <li>• Pitsch, S.; Holmberg, S.; Angster, J.: "Ventilation system design for a church pipe organ using numerical simulation and on-site measurement". Building and Environment 45, 2010, p. 2629-2643.</li> </ul>	
<b>Education</b>	<ul style="list-style-type: none"> <li>• 2005: Dr.-Ing. at the University of Siegen (TU)</li> <li>• 1996: Diploma in Aerospace Engineering at the University of Stuttgart</li> </ul>	
<b>Employment History</b>	<ul style="list-style-type: none"> <li>• 2011: Professor at Reutlingen University</li> <li>• 1996 – 2011: Fraunhofer-Institute of Building Physics (Department of Acoustics)</li> </ul>	

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Teaching Areas	<ul style="list-style-type: none"><li>• International Management and Leadership</li><li>• Intercultural Communication</li><li>• Managing Human Resources</li><li>• Marketing</li><li>• Business Game</li><li>• Problem Solving Techniques</li></ul>
Research Interests	
Publications	
Education	
Employment History	



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Teaching Areas	
Research Interests	
Publications	
Education	
Employment History	



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Teaching Areas	<ul style="list-style-type: none"> <li>• Smart Systems</li> <li>• Control Engineering</li> <li>• Information Engineering</li> <li>• Electrical Engineering</li> <li>• Scientific Methods</li> </ul>	
Research Interests	<ul style="list-style-type: none"> <li>• Automated connected vehicles</li> <li>• Electric mobility</li> <li>• Neural networks</li> </ul>	
Publications	<ul style="list-style-type: none"> <li>• Taefi, T.T., Stütz, S. &amp; Fink, A. (2017). <i>Assessing the cost-optimal mileage of medium-duty electric vehicles with a numeric simulation approach</i>. Transportation Review Part D, 56, 217-285. DOI: 10.1016/j.trd.2017.08.015</li> <li>• Will D., Eckstein L., Bargen S., Taefi, T.T., Galbas, R. (2017) <i>State of the art analysis for Connected and Automated Driving within the SCOUT project</i>. ITS World Congress 2017, Montreal.</li> <li>• Taefi, T.T., Kreutzfeldt, J., Held, T. &amp; Fink, A. (2016). <i>Supporting the Adoption of Electric Vehicles in Urban Road Freight Transport – A Multi-Criteria Analysis of Policy Measures in Germany</i>. Transportation Review Part A, 91, 61-79. DOI: 688 10.1016/j.tra.2016.06.003.</li> <li>• Taefi T.T. (2016) <i>Viability of electric vehicles in combined day and night delivery: a total cost of ownership example in Germany</i>. European Journal of Transportation and Infrastructure Research, Issue 16(4), pp 600-618. ISSN: 1567-7141</li> <li>• Taefi, T.T., Kreutzfeldt, J., Held, T. &amp; Fink, A. (2015). Strategies to Increase the Profitability of Electric Vehicles in Urban Freight Transport. In: W. Leal and R. Kotter (Ed.). <i>E-Mobility in Europe</i>, pp. 367-388. Berlin: Springer. ISBN 9783319131948</li> </ul>	
Education	<ul style="list-style-type: none"> <li>• Doctorate at University of the Armed Forces Hamburg</li> <li>• Diploma in Electrical Engineering at the University of Applied Sciences Hamburg</li> </ul>	
Employment History	<ul style="list-style-type: none"> <li>• Professor at Reutlingen University</li> <li>• Director of Innovation Projects Automotive at NXP Semiconductors Germany</li> <li>• Research Assistant and Lecturer at the University of Applied Sciences Hamburg</li> </ul>	

	<ul style="list-style-type: none"><li>• Project Management at Siemens in Germany / Singapore</li></ul>	
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