

Curriculum vitae



Personal Data:

Name: Dipl. Ing. Dr. techn. Wolfgang Gruber
Date and Place of Birth: 12/09/1977 in Amstetten
Address: Reckentragstr. 10
A-3300 Amstetten
Citizenship: Austrian
Family Status: married with Mag. Beatrix Gruber-Bücheler
sons Michael (born 09/09/2009) and Moritz (born 01/20/2016)

Education:

Elementary School: Neuhofen/Ybbs (1984-1988)
Secondary School: Amstetten (1988-1996); general qualification for university entrance

University Education:

Study of Mechatronics: *Johannes Kepler University (JKU) Linz* (1997-2004)
Project-Seminar with the topic „Active RFID-Transponder“
Diploma Thesis „Vector-Oriented Control of an Induction Machine with a 16-bit Fixed-Point-Processor“
Study of PhD: *JKU Linz* (2005-2009)
PhD Thesis „Contributions to Bearingless Segment Motors“
Habilitation: *JKU Linz* (2010-2018)
Venia docendi (higher university teaching permission) in the area of „Electrical Drives“
Habilitation Treatise „Bearingless Slice Motor Systems Without Permanent Magnetic Rotors“

Military Service:

Staff Battalion 3: fully served in Amstetten (1997)

Employments:

Traineeship: - *Neusiedler AG* in Ulmerfeld (summer 1994 to summer 1999)
- *Siemens AG* in research-centre Erlangen in Germany (summer 2001)
- *E+E Elektronik GmbH* in Engerwitzdorf (summer 2002 as Project-seminar)
Freelancer: - *Lisec Software GmbH* in Ulmerfeld (2001-2002)
Employments: - University Assistant at *JKU Linz* (2004-2006)
- Research Assistant at *JKU Linz* in third-party funded projects, in course of this work projects at *LCM GmbH*, at *ACCM GmbH*, at *Levitronix GmbH* and at the Austrian Research Fund (*FWF*) (2006-2009).
- University Assistant with PhD at *JKU Linz* (2009-2011)
- Assistant Professor at *JKU Linz* (2011-2018)
- Instructor at *Massachusetts Institute of Technology* (fall term 2015)
- Associate Professor at *JKU Linz* (2018-2021)
- Senior Researcher at *LCM GmbH* (since 2011)
- Full Professor (§99 UG02) at *JKU Linz* for Fractional-Horsepower Drives and Magnetic Bearings (starting in 08/2021)

Sabbatical:

Parental leave (8 months, 7/2016 until 02/2017)

Teaching Experiences at JKU:

University didactics course (in 2006)

Regular teaching obligations of classes in exercises, lab and lecture (from 2004 to 2021)

Supervision of numerous Bachelor, Master and PhD students

External Teaching Experiences:

- *University Innsbruck, Austria* (in falls term 2017 und summer term 2018)
- *Massachusetts Institute of Technology, USA*, Instructor (on falls term 2015)
- *University Rijeka, Croatia* (regularly short stays from 2012 to 2017 by the European ERASMUS-mobility program)
- *Yonsei University, Korea* (in fall term 2021)

Research Internships:

- *Technical University Vienna, Institute for Mechanics and Mechatronics, Ao. Univ. Prof. Dipl.-Ing. Dr. techn. Wassermann* (4 months, 10/2011 – 2/2012): Research on Motor/Generator of a Long Term Storage (LTS) Flywheel
- *Massachusetts Institute of Technology (MIT), Precision Motion Control Laboratory, Prof. David L. Trumper* (4 months, 9/2015-12/2015): Teaching class 2.678 and research in the area of (bearingless) hysteresis motors

Patents:

- Austrian patent nr. AT511480B1 “Electric machine having a magnetically supported reluctance rotor“, 2014
- European patent nr. EP 2715920B1 “Electric machine having a magnetically supported reluctance rotor“, 2014, licensed
- Croatian patent nr. P20182095A, “Nonlinear Control of permanent magnet excited bearingless motor with combined winding system“, 2019

Awards:

- *VDI/VDE-GMM-Award 2007* (for conference contribution “Design of a bearingless segment motor”)
- *VDE/ETG-Literature Award 2010* (for journal article “Bearingless segment motor with five stator elements - design and optimization”)
- *OVE/OGE-Award 2010* (for PhD thesis)
- *MEC-Award 2010* (for PhD thesis)
- *JKU Habilitation Scholarship 2010*
- *Innovation Award of the Federal State Upper Austria 2011* (as project leader of the awarded projects regarding the development of a bearingless process machine)
- *Nagamori Award 2015* (for recognized results in research and development of electrical drives) was awarded 08/30/2015 in Kyoto (Japan)
- *PEDS 2015 Best Session Paper Award* (for conference contribution “On the self-sensing technique based on the interlink voltage of two-phase coils in series”)
- Certificate of Appreciation as *Star Reviewer 2017-2018 und 2018-2019* of the IEEE Power & Energy Society (for reliable and high-quality reviews)

University Calls (with international participation):

- First ranked in appointment process (§99 UG02) for *Professur für Energiesysteme und Elektrische Antriebe* at Leopold Franzens University Innsbruck, 2019, refused
- First ranked in appointment process (§98 UG20) for *Professur für Elektrische Kleinantriebe und Magnetlagertechnik* at Johannes Kepler University Linz, 2021, accepted

Memberships:

- Senior Member of *Institute of Electrical and Electronics Engineers (IEEE)*
- Member of *Verband Deutscher Elektrotechniker (VDE)*