

## Michael G. Giesselmann

### Education

Dr. Ing. (Ph.D.) Electrical Engineering Technical University of Darmstadt, Germany 1986  
Dipl. Ing. (M.S.) Electrical Engineering Technical University of Darmstadt, Germany, 1981

### Professional Experience

Professor & Chair, Texas Tech University, Lubbock, Texas, full time 2010-2021  
Prof. & Assoc. Chair, Texas Tech University, Lubbock, Texas, full time 2008-2010  
Professor, Texas Tech University, Lubbock, Texas, full time 2002-present  
Associate Professor, Texas Tech University, Lubbock, Texas, full time 1992-2002  
Assistant Professor, Texas Tech University, Lubbock, Texas, full time 1986-1992

**Non-academic experience** – None

### Certifications or professional registrations

Licensed Professional Engineer (P.E.) in the State of Texas, (86141)

### Current membership in professional organizations

Senior Member of the Institute of Electrical and Electronics Engineers (IEEE)  
Eminent Engineer & faculty advisor of Tau Beta Pi (Engineering Honor Society)

### Honors and awards

Halliburton Award for excellence in Teaching, 1988  
Ex Students Association "New Faculty Award", 1990  
"Outstanding Faculty 1991" of the EE Department  
Halliburton Award for excellence in Teaching, 1992  
Charles L. Burford Faculty Award for Excellence in undergraduate Teaching, 1994  
President's Excellence in Teaching Award, 1995  
Charter Member and of the TTU Teaching Academy, 1997  
"Outstanding Professor Award" Students of the ECE Department, 2000  
"Outstanding Faculty" Students of the TTU ECE Department, 2003  
Charles L. Burford Faculty Award, sponsored by Abell-Hanger Foundation, 2004  
Halliburton Award for Excellence in Undergraduate Teaching, 2008  
Distinguished Resource Faculty Electric Energy Systems, Research & Education, 2010

### Service activities (within and outside of the institution)

Served as Department Chair of the TTU ECE Department 2010-2021  
Served as Graduate Advisor and Chair of the Graduate Committee  
Serving as ABET Program Evaluator for Electrical & Computer Engineering programs  
Served as General Chair of the 2003 IEEE International Pulsed Power Conference  
Served as Member of the TTU Graduate Council  
Served on the Undergrad Committee; Circuits & Electronics, Labs & Digital systems  
Served as member of the IEEE-IAS Industrial Drives and Electric Machines Committee  
Taught FE (Fundamentals of Engineering) review courses

Extensive peer-review of Conference and Transaction papers and research proposals  
Served on the Faculty Senate of Texas Tech University  
Served on the Organizing Committee of the 2011 Pulsed Power Conference

### **Selected Publications and Presentations from past five years**

- Michael Giesselmann, Computer Simulation of Power Electronics and Motor Drives, Power Electronics Handbook, 4th ed., edited by Muhammad H. Rashid, published 2018, Pages 1403-1421, Elsevier, ISBN: 978-0-12-811407-0  
<https://www.sciencedirect.com/science/article/pii/B9780128114070000490>.
- Vishwajit Roy, Subrina Sultana Noureen, Stephen B Bayne, Argenis Bilbao, Michael Giesselmann, "Event Detection From PMU Generated Big Data using R Programming", 2018 IEEE Conference on Technologies for Sustainability, Long Beach, CA, 11-13 Nov. 2018, DOI: 10.1109/SusTech.2018.8671342.
- Michael Giesselmann, Vishwajit Roy, "Modeling of Power Supplies for Power Modulators with LTspice", IEEE Transactions on Dielectrics and Electrical Insulation, Vol. 26, Issue 2, 4/2019, Pages 508-514.
- Michael Giesselmann, Saeed Daneshvardehnavi, "LT-Spice Model for Induction Generators with Self-Excitation", 2020 IEEE Electrical Insulation Conference (EIC), Knoxville, TN, USA, USA, Pages 249-252.
- Cesar Negri, Saeed Daneshvardehnavi, Michael Giesselmann, "Universal Model of Pulsed Alternators using LTspice", IEEE Transactions on Plasma Science, 48 (10), 3435-3442.
- S Daneshvardehnavi, CA Negri, KEK Schmitt, S Bayne, M Giesselmann "A case study for connecting bidirectional PEV station for reactive power support to the GLEAMM prototype Microgrid", 2021 IEEE Green Technologies Conference (GreenTech), 19-25, 2021.
- S DaneshvarDehnavi, C Negri, S Bayne, M Giesselmann, "Dynamic Voltage Restorer (DVR) with a novel robust Control Strategy", 2021/4/13, ISA Transactions, Elsevier.
- V. Roy, SS Noureen, S Atique, S. Bayne, M. Giesselmann, "Intrusion Detection from Synchrophasor Data propagation using Cyber Physical Platform", 2021 IEEE Green Technologies Conference (GreenTech), 1-5, 2021.
- Saeed Daneshvar Dehnavi, Cesar A Negri, Michael G Giesselmann, Stephen B Bayne, Bruce Wollenberg, "Can 100% Renewable Power System be Successfully Built?", 2021/6/7, Renewable Energy, Pergamon Press.
- A Balal, M. Giesselmann, "Demand Side Management and Economic Analysis Using Battery Storage System (BSS) and Solar Energy", 2021 IEEE 4th International Conference on Power and Energy Applications.
- Cesar A Negri, Saeed Daneshvardehnavi, Konrad EK Schmitt, Ali Esmaeel Nezhad, Pedro HJ Nardelli, Stephen Bayne, Michael Giesselmann, "Centralized Control Topology for PV Farms Shading Detection and GMPP Searching Restarting Condition", IEEE Access, Volume 10, Page(s): 28991 - 29008, March 10, 2022, DOI: 10.1109/ACCESS.2022.3158739.

### **Recent professional development activities**

- Attended 2022 International Power Modulator and High Voltage Conference (IPMHVC), Knoxville, TN, June 19 - 22, 2022.
- Attended ECEDHA Electrical & Computer Engineering Department Heads Association Annual Meeting, Tucson, AZ, March 22 - 25, 2019.