

1. **Name:** Madhav Manjrekar

Academic Rank: Associate Professor

2. **Degrees:**

B.E.	Government College of Engineering, Pune, India	1993
M.Tech.	Indian Institute of Science, Bangalore, India	1995
M.S.	Montana State University, Bozeman, Montana	1997
Ph.D.	University of Wisconsin, Madison, Wisconsin	1999

3. **UNC Charlotte (number of years = 3)**

- Professor and EPIC Director: 2012 - present

4. **Other related experience:**

- Research & Development Engineer, ABB, 2000-2002
- Manager, Research & Development, Eaton Corporation, 2002-2006
- Director, Technology and Innovation, Siemens, 2006-2011
- Vice President, Vestas, 2011-12

5. **Certifications or professional registrations:**

6. **Current membership in professional organizations**

- IEEE (Senior Member) (1996 – present), Power and Energy Society, Power Electronics Society, Industry Applications Society

7. **Honors and awards:**

- Emerging Leader in Energy, E4 Carolinas North Carolina, 2015.
- Eta Kappa Nu (EKN) Honor Society, 2014.
- Prize paper award, IEEE Industry Applications Society, 1999.
- CEDT Design Gold Medal, Indian Institute of Science, 1995.

8. **Institutional and professional service in the last five years:**

- President, College of Engineering Faculty Organization (CEFO) Executive Committee, 2014-15
- Member, College of Engineering Part Time Faculty Committee, 2014-15
- Member, ECE Department Review Committee, 2014-15
- Member, ECE Department Graduate Committee, 2013-14
- Member, ECE Department ABET/FAIT Committee, 2015-16
- Director, Flexible Energy Laboratory, EPIC/ECE, UNC-Charlotte, 2013-present
- Director, Renewable Power Laboratory, EPIC/ECE, UNC-Charlotte, 2013-present

9. **Principal publications of last five years (selected from 15 papers):**

- P.K. Bhowmik, M. Manjrekar, and J.H.R. Enslin, “Design, Analysis and Experimental Verification of a Center Point-Clamped AC-AC Direct Power Converter, Under review for IEEE Trans. on Power Electronics, 2015.
- P.K. Bhowmik, S. Essakiappan, and M. Manjrekar, “State Space Analysis and Duty Cycle Control of a Switched Reactance based Center-Point-Clamped Reactive Power Compensator,” accepted for publication at IEEE APEC, Long Beach, California, March 2016.

- P.K. Bhowmik and M. Manjrekar, “Design, Analysis and Practical Realization of a Center-Point-Clamped AC-AC Buck Converter with Considerations for Input Side Filtering,” IEEE COBEP-SPCE, Fortaleza, Brazil, December 2015.
- V. R. Chowdhury, S. Essakiappan, M. Manjrekar, M.A. Chaaban and Y. Xue, “A Grid Connected PV Micro-inverter with Optimized Battery Storage Utilization,” IEEE ECCE, Montreal, Canada, September 2015, pp. 1-7.
- M. A. Chaaban, M. Manjrekar, Y. Xue and P. Sahu, “An Optimized Multilevel Inverter Topology with Asymmetrical DC Sources for Photovoltaic Power Generation Interface,” IEEE ECCE, Montreal, Canada, September 2015, pp. 1-7.
- S. Essakiappan, M. Manjrekar, J. Enslin, J.R. Ruiz, P. Enjeti, P. Garg, “A Utility Scale Battery Energy Storage System for Intermittency Mitigation in Multilevel Medium Voltage Photovoltaic System,” IEEE ECCE, Montreal, Canada, September 2015, pp. 1-7.
- Alekhya Vaddiraj, Juanita Koilpillai, Rohit Seshadri, Madhav Manjrekar, “Model to quantify digital risks for power grids integrating electrical system and cyber data models,” IEEE SoutheastCon, Fort Lauderdale, FL, April 2015, pp. 1-2.
- P.K. Sahu and M. Manjrekar, “Control Strategies for Solar Panel Companion Inverters,” IEEE APEC, Charlotte, North Carolina, March 2015, pp. 1-6.
- P.K. Bhowmik, S. Yellapragada and M. Manjrekar, “Dynamic Analysis and Controller Design for a Center-Point-Clamped AC-AC Converter,” IEEE APEC, Charlotte, North Carolina, March 2015, pp. 1-6.
- A. Vaddiraj and M. Manjrekar, “Dynamic Analysis of an ePFC (enhanced Power Flow Controller) with Conduction Angle Control,” North American Power Symposium, Pullman, Washington, September 2014, pp. 1-6.
- A. Vaddiraj and M. Manjrekar, “Modeling and Analysis of an ePFC (enhanced Power Flow Controller) with Conduction Angle Control,” IEEE PES General Meeting, Washington DC, July 2014, pp. 1-5.

10. Professional development activities in the last five years:

- Participant in E4 Carolinas Leadership Program, 2015.
- Member of review committee of IEEE Transactions for Industrial Electronics and IEEE Transactions of Power Electronics and reviewed transaction papers from 2012 – 2015.
- Member of the organizing committee of North American Power Symposium in Charlotte, North Carolina, scheduled in October 2015.
- Performed review of applications for SBIR funding for NSF in 2014.
- Organized a special panel session on Utility Applications of Power Electronics at IEEE Innovative Smart Grid Technologies conference in Washington, DC, in February 2014.
- Member of the organizing committee of Local DC Electricity conference in Charleston, South Carolina, in March/April 2014.
- External Examiner of Ph.D. dissertations for 2 international universities in 2014 (Nirma University and Indian Institute of Science, Bangalore).
- Member of the Consortium of Universities for Sustainable Power (CUSP) in 2013.
- Prior to joining UNC-Charlotte, have served as a Member of High MegaWatt Leadership Team at NIST, Member of Smart Grid Task Force at NERC, Co-Chairman of TF2 for IEEE Standard P2030, participated in NSF and ARPA-E reviews, and have served as a Member of various IEEE review committees.