

1. Name: Robert W. Cox

Academic Rank: Associate Professor

2. Degrees:

SB, EE	MIT	2001
Meng, EE	MIT	2002
PhD, EE	MIT	2006

3. UNC Charlotte (number of years = 9)

- Associate Professor: 2012-present
- Assistant Professor: 2006-2012

4. Other related experience:

- Design and Test Engineering Intern, Motorola, 1999-2000
- On reassignment of duties at SineWatts, Inc. in Spring 2015 as Vice President, Engineering
- Consultant to SineWatts, Inc

5. Certifications or professional registrations: None

6. Current membership in professional organizations

- IEEE (Member), IEEE Power & Energy Society, IEEE Power Electronics Society, (2001 – present)
- ASEE (2014 – present)
- USGBC (2014 – present)

7. Honors and awards:

- Received IEEE Region 3 Joseph M. Biedenbach Outstanding Engineering Educator Award, 2014.
- Nominated for UNC Charlotte Lee College of Engineering Undergraduate Teaching Award, 2009, 2011, 2013.
- Received two best in session paper awards, IEEE IECON 2012.

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

- UNC Charlotte ECE Department Review Committee, 2014-15
- UNC Charlotte College of Engineering Review Committee, 2013-14
- IEEE Charlotte Section Treasurer, 2012-13
- Advisor, Tau Beta Pi Honor Society, 2007-present
- UNC Charlotte ECE, Chair of Circuits and Systems FAIT Team, 2012-present.
- UNC Charlotte Patent Committee, 2011
- American Society of Naval Engineers, Chair of Technical Papers Committee, ASNE Day, Arlington, VA, 2009, 2010, 2011.

9. Principal publications of last five years:

- J. Paris, J.S. Donnal, R. Cox, and S. Leeb, "Hunting cyclic energy wasters," *IEEE Trans. On Smart Grid*, vol. 5, no. 6, pp. 2777-2786, Nov. 2014.
- S.B. Leeb, M. Alvira, R.W. Cox, J.J. Cooley, J. L. Kirtley, and S. R. Shaw, "Build to Win: Power electronics," *IEEE Trans. on Power Sys.*, vol. 29, no. 4, pp. 1936-1943, July 2014.
- S. Leeb, J. Kirtley, W. Wichakool, Z. Remscrim, C. Tidd, A. Goshorn, K. Thomas, R. Cox, R. Chaney, "How much DC power is necessary?" *Naval Engineer's Journal*, vol. 122, no. 2, pp. 79-92, June 2011.
- M. Sinha, B. Desai, and R.W. Cox, "Using smart meters for diagnostics and control in thermal comfort systems," *Proc. 38th Annual Conf. IEEE Ind. Elec. Soc.*, pp. 3600 – 3605, Oct. 2012.
- A. Shrestha, V. Cecchi, and R.W. Cox, "Dynamic remedial action scheme using online transient stability analysis," *Proc. 2014 North American Power Systems Symposium*, Sept. 2014.
- P. O'Connor, R. Cox, and J. Anderson, "Near real-time incipient fault detection in IGBT switches," *Proc. 40th Annual Conf. of the IEEE Ind. Elec. Soc. (IECON 2014)*, pp. 4484-4491, Oct. 2014
- N. Bousaba, J. Conrad, J. Coco, R. Cox, S.M. Miri, "Incorporating Oral Presentations into Electrical and Computer Engineering Design Courses: A Four-Course Study," *Proc. 2014 Annual Conf.*, June 2014
- A. Harris, P. O'Connor, R. Cox, "A time-domain approach for monitoring battery state-of-health and remaining useful life (RUL)," *Proc. 40th Annual Conf. of the IEEE Ind. Elec. Soc. (IECON 2014)*, pp. 3083 - 3087, Oct. 2014

10. Professional development activities in the last five years:

- UNC Charlotte Workshop on Communicating through the Curriculum, May 10-11, 2012.
- Director, NSF Industry/University Cooperative Research Center (IUCRC) for Sustainably Integrated Buildings and Sites (SIBS), 2012-present
- Presentation and participation in numerous IEEE conferences
- Reassignment of duties to SineWatts, Inc. in Spring 2015 and employment in Summer 2015, directing engineering activities for the company. 4 patents filed.
- Directed numerous industry-related projects, including those funded by SineWatts, Inc., EPRI, GeoSyntec consultants, Wells Fargo, Bank of America, Ingersoll Rand, and Abundant Power
- Consultant to Envision Charlotte, helping to evaluate efforts to reduce energy usage, water usage, and waste production in buildings