

**1. Name:** Sukumar Kamalasadana

**Academic Rank:** Associate Professor

**2. Degrees:**

BTech. Eng	University of Calicut, India	1991
MEng.	Asian Institute of Technology, Thailand	1999
Ph.D.	University of Toledo, USA	2004

**3. UNC Charlotte: (Number of years: 6)**

- Associate Professor: 2010-current

**University of West Florida (Number of years = 6)**

- Associate Professor:2009-2010
- Assistant Professor: 2004 - 2009

**4. Other related experience:**

- Researcher, Asian Institute of Technology, 1999-2000
- Technical Manager and Design Engineer, Reliance Industries Limited, India, 1994-1997
- Gulf Power Companies (Conducting Workshops and teaching): 2009-2010.

**5. Certifications or professional registrations:** None

**6. Current membership in professional organizations**

- IEEE (Member) (2001 – present), IEEE Power & Energy Society (2001 – present)
- IEEE Industry Application Society (2001 – present), IEEE Power Electronics Society (2001 – present)

**7. Honors and awards:**

- 2015, Nominated for the 2015 Best Graduate Teaching Award, UNC Charlotte.
- 2015, First prize paper award, IEEE IAS Annual Meeting, Dallas, TX.
- 2008, NSF Faculty Early CAREER Award, National Science Foundation.
- 2003, Outstanding Teaching Award, University of Toledo, OH.

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

- Faculty Representative, Faculty Council – 2014-2015
- Chair, Department Review Committee, College of Engineering, 2014
- Chair, IEEE PES, Charlotte Section, 2012 – Present
- Lab Director, Duke Energy Smart Grid Laboratory, 2012-Present
- Chair, EPIC Faculty Search Committee, 2012-2013
- Member, ECE Graduate Committee, 2014-15
- Chair, Life Long Learning Sub Committee, IEEE PES PEEC, 2014-present.
- Secretary, IEEE IAS Industrial Automation Control Committee, 2016-present.

**9. Principal publications of last five years (selected from 30 papers):**

- N. Khulkarni, S. Kamalasadana, S. Ghosh, “A Novel Method for Optimal Placement and Tuning of Power System Stabilizer Using Principal Component Analysis” IEEE Transactions on Industry Applications, Vol. 51, Issue 5, 2015.
- S. Ghosh, N Senroy, S. Kamalasadana, J Enslin, “Doubly Fed Induction Generator (DFIG) based Wind Farm Control Framework for Primary Frequency and Inertial Response

Application” IEEE Transactions on Power Systems, Volume: PP, Issue: 99 (Early Access), 2015.

- R. Yousefian, S. Kamalasan, Design and Real-Time Implementation of Optimal Power System Wide Area System-Centric Controller based on Temporal Difference Learning, IEEE Transactions on Industry Applications, Volume: PP, Issue: 99 (Early Access), 2015.
- Ramirez, A.; Mehrizi-Sani, A.; Hussein, D.; Matar, M.; Abdel-rahman, M.; Chavez, J.J.; Davoudi, A.; Kamalasan, S., Application of Balanced Realizations for Model Order Reduction of Dynamic Power System Equivalents, IEEE Transactions on Power Delivery, Volume: PP, Issue: 99 (Early Access), 2015.
- N. Mendis , K.M. Muttqi, S. Perera, S. Kamalasan, An Effective Power Management Strategy for a Wind–Diesel–Hydrogen-Based Remote Area Power Supply System to Meet Fluctuating Demands Under Generation Uncertainty, IEEE Transactions on Industry Applications, Vol, 51, No.2, 1228-1238, 2015.
- S. Kamalasan, G. D. Swann, R. Yousefian, A Novel System-Centric Intelligent Adaptive Control Architecture for Power System Stabilizer Based on Adaptive Neural Networks, IEEE Systems Journal, Vol, 8, No. 4, 1074-1085, 2014.
- Manickam, S. Kamalasan, “Intelligent Multi-Agent Methodology for Power System Control and Protection, IEEE Systems Journal, Vol, 8, No. 4, 1086-1095, 2014.
- A Srivastava, S. Kamalasan et. al., “Electricity Markets: An Overview and Comparative Study”, International Journal of Electric Sector Management, Vol 5, Issue 2, pp.169-200, 2011.
- S. Kamalasan, G.D. Swann, “A Novel System-Centric Intelligent Adaptive Control Architecture for Damping inter-area Mode Oscillations in Power System”, Industry Applications, IEEE Transactions on Vol.47 , Issue 3, 2011 , pp.1487 – 1497.
- S. Kamalasan, Adel A. Ghandakly, “A Neural Network Parallel Adaptive Controller for Nonlinear Fighter Aircraft Pitch-Rate Tracking”, IEEE Transactions on Instrumentation and Measurements, Vol 60, No.1, January 2011, pp.258-267.
- A.K. Srivastava, B. Annabathina, S. Kamalasan “The challenges and Policy Options for Integrating Plug-in Hybrid Electric Vehicle into the Electric Grid”, The Electricity Journal, Vol. 23, Issue 3, April 2010.
- S. Kamalasan, D. Thukaram, A.K. Srivastava, “A New Intelligent Algorithm for Online Voltage Stability Assessment and Monitoring”, International Journal of Electric Power and Energy Systems, Vol.31, No. 2-3, pp.100-110, February-March 2009.
- S. Kamalasan, Adel A. Ghandakly, “A Novel Multiple Reference Model Adaptive Control Approach for Multi Modal and Dynamic Systems”, Journal of Control and Intelligent Systems, Vol. 36, No. 2, pp.119-128, March 2008.

#### **10. Professional development activities in the last five years (Selected):**

- Editor, IEEE Transactions on Industry Applications, 2012-2014, 2014 – present
- Editor, IEEE Transactions on Sustainable Energy, 2012 – present
- General Chair, 47<sup>th</sup> North American Power Symposium, Charlotte, NC, 2015
- Chair, North Carolina Smart Grid Forum, 2012.
- Chair, Power and Energy Society, IEEE Charlotte Section, 2012-present.
- NSF workshop on Cyber-Physical Systems, 2014, Washington DC.