



Dr. VUDDANTI SANDEEP

Assistant Professor & Coordinator
School of Engineering
Central University of Karnataka
Kadaganchi, Aland Road,
Kalaburagi District - 585367

E-mail: vsandee@cuk.ac.in
Contact no : +91- 8861290060
Additional Charges:
Coordinator, Exam Section, CUK
Faculty In-Charge, Guest House

Academic Qualifications:

- **Ph.D. in Electrical Engineering, Indian Institute of Technology (IIT) Delhi**, New Delhi, 2009- 2013.
Dissertation Title: Investigations on Renewable Energy based Single Phase Power Generation using Self Excited Induction Generators
- **M.Tech in Power Electronics and Drives**, VIT University, Vellore, 2007 – 2009.
- **B.Tech in Electrical and Electronics Engineering**, JNTU, Hyderabad, 2003 – 2007.

Teaching Experience:

- **Teaching Assistant**, Dept. of Electrical Engineering, IIT Delhi, Aug 2009 – May 2013.
- **Teaching Assistant**, Dept. of Electrical Engineering, IIT Ropar, Jan 2010 – May 2010.

Industrial Experience:

- **Intern Researcher, General Electric (GE) Global Research Centre**, Bangalore, May 2010 – July 2010.

Research Interests:

- Renewable Energy Systems, Computer-aided design of Electric Machines, Power Electronics & Drives, Energy Conversion, Energy Management and Micro grids.

Software Proficiency:

- SPEED, Motorsolve, Flux, Motor-CAD, MATLAB/Simulink, PSPICE.

Publications:

International Journals:

1. S.S. Murthy, Bhim Singh and **V. Sandeep**, "A Novel and Comprehensive Performance Analysis of Single Phase Two Winding Self- Excited Induction Generator" *IEEE Transactions on Energy Conversion*. vo1. 27, no.1, pp. 117- 127, March 2012.
2. S.S. Murthy, Bhim Singh, and **V. Sandeep**, "Design-Based Computational Procedure for Performance Prediction and Analysis of Single Phase Self-Excited Induction Generator" *IET Electric Power Applications*, vo1. 7, no. 6, pp. 477 - 486, 2013.
3. S.S. Murthy, Bhim Singh, and **V. Sandeep**, "An Analytical Performance Comparison of Two Winding and Three Winding Single Phase SEIGs" *Electric Power Systems Research, Elsevier Journal*, vol. 107, pp. 36-44, Feb. 2014.
4. S.S. Murthy, Bhim Singh, and **V. Sandeep**, "Experience in Developing a Single-Phase Two Winding 5 kW Self-Excited Induction Generator for Off-grid Renewable Energy based Power Generation" *Journal of The Institution of Engineers (India): Series-B* (In-print).

International Conferences:

1. S.S. Murthy, Bhim Singh, **V. Sandeep** and Gurdiy Singh “Design and Development of a Novel Single-Phase Self-Excited Induction Generator for Bio-Energy Based Power Generation” Proceedings of Centenary Conference, 2011 - Electrical Engineering, **Indian Institute of Science, Bangalore**, Dec. 14-17, 2011, pp. 204-209.
2. **V. Sandeep**, S.S. Murthy and Bhim Singh “A Comparative Study on Approaches to Curve Fitting of Magnetization Characteristics for Induction Generators” **IEEE International Conference on Power Electronic, Drives and Energy Systems (PEDES 2012)** 16-19, December 2012, Bengaluru India, pp. 1-6.
3. Adlan Pradana, **V. Sandeep**, S.S. Murthy, and Bhim Singh “A Comprehensive MATLAB –GUI Based Analysis and Performance Evolution of Single Phase SEIG” **IEEE International Conference on Power Electronic, Drives and Energy Systems (PEDES 2012)** 16-19, December 2012, Bengaluru India, pp. 1-6.
4. Ankur Garg, Ankit Singhal, S.S. Murthy and **V. Sandeep** “Online Parameter Determination and Performance Analysis of Three Phase Induction Motor using Virtual Instrumentation” **IEEE International Conference on Power Electronic, Drives and Energy Systems (PEDES 2012)** 16-19, December 2012, Bengaluru India, pp. 1-6.

Awards/ Achievements:

- **Gandhian Young Technological Innovation Award 2013** for “Novel Stand-alone 1-Phase AC Generator for Rural Electrification using Renewable Energy” by SRISTI Foundation and Supported by National Innovation Foundation & Dept. of Science & Technology, Govt. of India.



- Selected as **amongst the top 24 innovators across the country** by **Economic Times NOW and Times NOW** for the show “**Power of Shunya - Challenge for Zero**” in Sep. 2013.
- Recognized as a “**Corporate Finalist**” at the **3M-CII Innovation Challenge 2014**.
- Shortlisted in **Top 10 Innovative Projects Award 2014 at Doctoral Level** by **Indian National Academy of Engineering (INAE), Govt of India**.
- Invited for **Festival of Innovation at Rashtrapati Bhavan on 07th March 2015** by National Innovation Foundation, Govt of India.
- **Best socially relevant academic project** on “Design and Development of a novel 5 kW 1- Phase AC Generator for Bio-energy based power generation” at **Gandhi Jayanti Celebrations, NRCVVEE, IIT Delhi, 2nd Oct. 2011**.
- **Best Poster presentation Award** for “Analysis, Design and Development of a novel 1- phase 5 kW Self Excited Induction Generator for Renewable Energy Applications” at **Seminar cum exhibition on “Renewable Energy – Technology, Production, Finance & Research** organized by IIT Delhi Alumni Association at IIT Delhi on 12th Nov. 2011.
- **Best Poster presentation Award** for “Low Carbon Novel Stand-Alone Green Technology for Renewable Energy Based Power Generation” at **National Science Day celebrations** at IIT Delhi, 28th Feb, 2012.
- **One of Finalist of IITD Class of 89 Innovation Award –2012** for the topic on Standalone Single Phase AC Generator for Rural Electrification in India – A Novel Green Energy Technology.
- **Reviewer for International Journals** like IEEE, Elsevier, Taylor & Francis etc.

Professional Memberships:

- **IEEE MEMBER** (Power & Energy Society, Power Electronics Society, Industrial Applications Society and Industrial Electronics Society)
- Member, E4C Community (Supported by ASME, IEEE, ASCE)