



Dr. Bogimi Sirisha

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Education

- **Osmania University, Hyderabad** Hyderabad, India
PhD May, 2018
Doctor of philosophy (Ph.D.,) in Electrical Engineering from Osmania University, Hyderabad (OU, Hyderabad) with the thesis title: "Optimal Space Vector Pulse Width Modulation Methods for Cascaded H-bridge and Diode Clamped Multilevel Inverters Including Over Modulation Region"
- **JNTU College of Engineering, Hyderabad** Hyderabad, India
M.Tech June, 2003
Master of Technology Degree (M. Tech.) in Power Electronics from JNTU college of Engineering, Hyderabad.
- **University College of Engineering, Osmania University** Hyderabad, India
B.E June, 1999
Bachelors Engineering degree (B.E.) in Electrical and Electronics Engineering, University College of Engineering, Osmania University, Hyderabad.
- **Board of Intermediate Education** Hyderabad, India
Intermediate 1994
Intermediate, Board of Intermediate Education, St. Anns's Junior College, Mehdiapatnam Hyderabad, Telangana
- **Board of Secondary Education** Telangana, India
1992
SSC, Board of Secondary Education, St. Dominic's High School, Hyderabad, Telangana,

Areas of Research Interests

- Power Electronics and Electric Drives.
- Renewable Energy Sources, Multi-level inverters, Micro-grids.

Administrative Experience in University/Other

- **Assistant Engineer**, APGENCO (2005-2007)
- **Ph.D Faculty Advisor**, University College of Engineering, Osmania University (UCEOU), Department of Electrical Engineering.
- **I/C of Seminar Library**, University College of Engineering, Osmania University (UCEOU), Department of Electrical Engineering.
- **I/C of Examination cell**, University College of Engineering Osmania University (UCEOU).
- **Faculty Advisor ME-(PES)**, University College of Engineering Osmania University (UCEOU), Department of Electrical Engineering.

- **Faculty Coordinator**, University College of Engineering Osmania University (UCEOU), Department of Electrical Engineering.

Workshops / Training Programs / Lectures Organized/Coordinated

- A workshop on **“Power Quality”**, conducted by University College of Engineering, Osmania University, Hyderabad, 28-29 Sep, 2007.
- Three Week Refresher course on **“Advances in Power Electronics and their Applications to Drives and Power Systems”** conducted by UGC-Academic Staff College, JNTU, Hyderabad, 10 - 29 Nov, 2008.
- A workshop on **“EDSA Software Applications to Power Systems Power Quality”**, conducted by University College of Engineering, Osmania University, Hyderabad, 05-06 Dec, 2008
- **“Orientation Programme”**, conducted by UGC-Academic Staff College, Osmania University, Hyderabad, Osmania University, Hyderabad, 01 – 28 June, 2010.
- The UGC sponsored Three Week Refresher course on **“Advances in Power Electronics and Electric Drives”**, conducted by UGC-Academic Staff College, J.N.T.University, Hyderabad, 09-28 August, 2010.
- Two Week Staff Development Programme on **“High Voltage Testing Measurements & Gas Insulated Substations”** AICTE-Department of Electrical and Electronics Engineering, JNTU, Hyderabad, 12 - 24 Dec 2011.
- Two week **“Faculty Development Programme in Entrepreneurship” (sponsored by NSTEDB, DST, New Delhi)** held during 01-06-2011 to 15-06-2011.
- Two Week Staff Development Programme on **“High Voltage Testing Measurements & Gas Insulated Substations”** AICTE-Department of Electrical and Electronics Engineering, JNTU, Hyderabad (12th – 24th Dec, 2011).
- One Week Faculty Development Programme On **“Advances in Power Electronics and Drives”** by Department of Electrical Engineering, University College of Engineering(A),Osmania University, Hyderabad, under **TEQIP -II** (12th-17th May 2014).
- One Week Faculty Development Programme On **“Distributed Generation and Power Quality Issues”** Department of Electrical Engineering, University College of Engineering(A),Osmania University, Hyderabad, under **TEQIP -II** (30 June-05 July 2014).
- One Week Training Programme On **“Power Electronics and Drives for Vehicular Systems – Technology Status & Future Trends”**, Department of Electrical Engineering, University College of Engineering(A),Osmania University, Hyderabad, under **TEQIP -II** (23rd-28th November 2015).
- One Week short term course on **“High Voltage Gain Soft-Switching Advanced Current – fed Technologies for Micro grid and Electric Transportation”**, sponsored by (Ministry of Human Resource Development (MHRD), Govt of India under the scheme ‘GIAN’)
- One Week Faculty Development Programme On **“Principles of GNSS, Applications and Research Areas”**, Department of Electronics Engineering, University College of Engineering(A),Osmania University,Hyderabad under **TEQIP -III**, (04th-09th June 2018).
- Five Day Short term Course on **“Engineering Research Methodology (ERM)”**, Department of Electrical Engineering, University College of Engineering(A),Osmania University, 13th – 17th May 2019.
- One Week Refresher Course on **“Application of AI Techniques in Electrical Engineering”**, Department of Electrical Engineering, University College of Engineering(A),Osmania University, under **TEQIP-III**, 18th-23rd November 2019.

- One week online FDP on **“AI, Machine Learning, IOT & Big Data Applications in Power Electronics, and its Allied Areas”**, Gokaraju Rangaraju Institute of Technology Hyderabad, sponsored by IEEE-PELS chapter, 1st - 6th June 2020.
- One Week short term course on **“High Voltage Gain Soft-Switching Advanced Current – fed Technologies for Micro grid and Electric Transportation”**, Department of Electrical Engineering, University College of Engineering(A),Osmania University,Hyderabad, sponsored by **Ministry of Human Resource Development (MHRD), Govt of India under the scheme ‘GIAN’**, (18th-23rd Dec 2017).
- One Week Faculty Development Programme On **“Principles of GNSS, Applications and Research Areas”**, Department of Electronics Engineering, University College of Engineering(A),Osmania University,Hyderabad under TEQIP -III, (04th-09th June 2018).
- Five Day Short term Course on **“Engineering Research Methodology (ERM)”**, Department of Electrical Engineering, University College of Engineering(A),Osmania University, 13th – 17th May 2019.
- One Week Refresher Course on **“Application of AI Techniques in Electrical Engineering”**, Department of Electrical Engineering, University College of Engineering(A),Osmania University, under TEQIP-III, 18th-23rd November 2019.
- One week online FDP on **“AI, Machine Learning, IOT & Big Data Applications in Power Electronics, and its Allied Areas”**, Gokaraju Rangaraju Institute of Technology Hyderabad, sponsored by **IEEE-PELS chapter**, 1st - 6th June 2020.
- Two Day workshop on **“Power Systems Security”**, Department of Electrical Engineering, University College of Engineering(A),Osmania University, 15th -17th Dec 2010.
- **16th National Power Systems Conference (NPSC-2010)**, UGC-Academic Staff College, Osmania University, Hyderabad, (01st – 28th June, 2010).
- One day seminar on **“MATLAB & SIMULINK for Engineering Education”**, by **Math Works**, 31st Aug 2012.
- **International Conference on Engineering and Technology (ICEAT-2013)**, sponsored by **Dr. MGR Educational and Research Institute University**, Adyalampattu, Chennai, 5th , 6th April 2013.
- Three Day Workshop on **“Engineering Research Methodology”**, Department of Civil Engineering, University College of Engineering(A),Osmania University, 26th & 28th Aug 2013.
- One Day Workshop on **“Awareness and Empowerment of Women(AEW 2K14)**, Osmania University under TEQIP- II , 10th March 2014.
- Two Day workshop on **“Application of Simulation Tools to Modern Power Systems”**, Department of Electrical Engineering, University College of Engineering(A),Osmania University. Under TEQIP-II, 7th-9th May 2015.
- One Day Workshop on **“How to Write Research Proposal”**, University College of Engineering(A),Osmania University. Under TEQIP -II, 18th Sept 2015.
- Two Day workshop on **“Power Quality – Harmonic Analysis for Power Systems”**, Department of Electrical Engineering, University College of Engineering(A),Osmania University. Under TEQIP-II, 19th 20th Sept 2016.
- **2016 IEEE 7th Power India International Conference**, Bikaner sponsored by **IEEE PELS-IES Delhi Chapter**, 25th -27th Nov 2016.
- **INDICON-2016, IISC-Bangalore** sponsored by **IEEE India Council**, 16th – 18th Dec 2016.
- One Day Workshop on **“Women for Excellence”**, University College of Engineering(A),Osmania University, 8th March 2017.
- **One Day Induction Program**, University College of Engineering(A),Osmania University, 20th Jan 2018.

- Two day Workshop on “**Leadership and Research Challenges for Professional Women**”, Department of Electrical Engineering, University College of Engineering(A),Osmania University, sponsored by **IEEE Hyderabad Section and Osmania University**, 4th and 5th Jan 2019.
- International Conference on **Emerging Trends in Engineering(ICETE)**, University College of Engineering(A),Osmania University sponsored by **Alumni Association ,UCEOU, 22-23rd march 2019.**
- One Day workshop on “**Induction Program for Ph.D Scholars**”, Department of Electrical Engineering, University College of Engineering(A),Osmania University, 20th April 2019.
- **IEEE TENCON-2019**, sponsored by **IEEE Kerala Section, 17th-20th Oct 2019.**
- One Day Workshop on “**Recent Trends in Renewable Energy Systems**”, University College of Engineering(A),Osmania University, Under TEQIP -III, 16th Nov 2019.
- Two Day Workshop on “**Challenges for Professional Women: Work-Life Balance**”, sponsored by **Department of Electrical Engineering, University College of Engineering(A),Osmania University in Association with IEEE Hyderabad Section WIE(AG)**, 7th & 8th February 2020.

List of Research Publications

1. **B.Sirisha**, Akshay Kapil Gajoju “A Grid interconnected five-level inverter for voltage synchronization using SRF controller and SVPWM with photo voltaic application” *International Journal of Research and Analytical Reviews*, vol 8, Issue 3, July 2021 pp919-924.
2. **B.Sirisha**, P.Satishkumar “Simplified Space Vector Pulse Width Modulation Based on Switching Schemes with Reduced Switching Frequency and Harmonics for Five Level Cascaded H-Bridge Inverter”, *International Journal of Electrical and Computer Engineering*, Vol. 8 No5.2017(ISSN: 2088- 8708)(SJR:0.28).
3. **B.Sirisha**, P. Satish Kumar “A Simplified and Generalized Space Vector Pulse Width Modulation Method Including Over Modulation Zone for Seven Diode Clamped Inverter - FPGA Implementation”, *International Journal of Power Electronics* Vol.10 No.4 (ISSN: 1756-6398, Inderscience Publishers).
4. **B.Sirisha**, P.Satish kumar “A Space Vector Pulse Width Modulation Technique for Five Level Cascaded H-Bridge Inverter Including Over Modulation Region with FPGA Implementation”, *International Journal of power Electronics and Drives*, Vol. 8, No.3, September 2017(ISSN : 2088-8694) (SJR:0.25)
5. **B.Sirisha**, P.Satishkumar “A Space Vector Pulse Width Modulation Technique for Five Level Cascaded H-Bridge Inverter Including Over Modulation Region”, *International Journal of Inventions In Electronics & Electrical Engineering* Vol 2, December 2017.(ISSN NO:2347-6982),(Impact factor:2.51).
6. **B.Sirisha**, P.Satishkumar “A Simplified Space Vector Pulse Width Modulation Method for Cascaded H- bridge Multilevel Inverters”. *International Journal of Advanced Research in Electrical Electronics and Instrumentation Engineering*, Vol 3, Issue 12, December 2014.(ISSN NO: 2278-8875)(Impact factor: 5.621).
7. **B.Sirisha**, P.Satishkumar. “Three Phase Two Leg Neutral Point Clamped Converter with output DC Voltage Regulation and Input Power Factor Correction”. *International Journal of Power Electronics and Drive System*, Vol .2, No. 2 , June 2012.(ISSN: 2088-8694) (SJR:0.28).
8. **B.Sirisha** N.Susheela, P.Satish kumar “Hybrid Topologies of Multilevel Converter for Current Waveform Improvement”, *International Journal of Inventive Engineering and Sciences*, Vol.1, Issue 4, March 2013, (ISSN:2319-9598), (Impact Factor : 3.47).

9. **B.Sirisha** “A grid interconnected nested neutral point clamped inverter with voltage synchronization using synchronous reference frame controller”, *International Journal of Applied Power Engineering (IJAPE)* , Vol. 10, No. 4, December 2021, pp. 364~372 ISSN: 2252-8792, DOI: 10.11591/ijape.v10.i4.
10. **Bogimi Sirisha**, Saieni Akhilesh, “High efficient and high gain boost converter with soft switching capability connected to grid using dq axis current control”, *Bulletin of Electrical Engineering and Informatics*, Vol. 11, No. 2, April 2022, pp. 624~635 ISSN: 2302-9285, DOI: 10.11591/eei.v11i2.3358.
11. **Bogimi Sirisha**, *Laxminarayana Yalakanti*, “A mitigation technique for torque ripple in a brushless DC motor by controlled switching of small DC link capacitor”, *Bulletin of Electrical Engineering and Informatics*, Vol. 11, No. 2, April 2022, pp. 624~635 ISSN: 2302-9285, DOI: [10.11591/eei.v11i2.3408](https://doi.org/10.11591/eei.v11i2.3408).
12. **B.Sirisha**, Nazeemuddin, “A Novel Five-Level Voltage Source Inverter interconnected to Grid with SRFController for voltage synchronization” , *Bulletin of Electrical Engineering and Informatics*, Vol. 11, No.1,February 2022, ISSN: 2302-9285, DOI: 10.11591/eei.v11i1.3274.
13. **Sirisha Bogimi** , Manorama Vattoli, “Design of High gain Boost Converter for Standalone applications”, *Gradiva Review Journal*, Volume 8, Issue 2 , 2022, pp 270-280, ISSN NO : 0363-8057.
14. **B. Sirisha**, Sai Mahesh Kurre, J. Upender, “Design And Analysis Of A Dc-Dc Boost Converter With Solar PV Module Integrated To Three- Phase Grid Using SRF Controller”, *Journal of Emerging Technologies and Innovative Research(JETIR)*,Vol 9,Issue 1, Jan-2022,pp.b551-b555,ISSN:2349-5162.
15. **Bogimi Sirisha**, Jalla Upendar, Sangem Ravi Kumar, Sapavath Sreenu, “Implementation and study of fuzzy based KY boost converter for electric vehicle charging”, *International Journal of Applied Power Engineering (IJAPE)* Vol. 11, No. 1, March 2022, pp. 91~103 ISSN: 2252-8792, DOI: 10.11591/ijape.v11i1.
16. **Bogimi Sirisha**, Sapavath Sreenu, Jalla Upendar, “Analysis of switched impedance source/quasi-impedance source DC-DC converters for photovoltaic system”, *International Journal of Applied Power Engineering (IJAPE)* Vol. 11, No. 1, March 2022, pp14-24,ISSN: 2252-8792, DOI: 10.11591/ijape.v11i1.
17. **B.Sirisha**, Pradeep “Performance of Fuel cell and PV integrated hybrid DC/AC microgrid based on the Grey Wolf optimization algorithm” *Second International Conference on Emerging Trends in Engineering(ICETE-2023)* during 28.4.2023 to 30.04.2023 at Osmania University ,Hyderabad
18. **B.Sirisha** “Single phase grid interconnected high gain boost converter with soft switching capability “**International Journal of Advances in Applied Sciences (IJAAS)**Vol.11, No.2,June 2022 H-index-7 (Impact factor: 0.59).
19. Pradeep Mogilicharla, **B. Sirisha** Integrated Hybrid Renewable Energy Microgrid System with Battery and super Capacitor Storage for Enhanced Power Sharing has been "Accepted for Publication" in *SSRG-International Journal of Electrical and Electronics Engineering (SSRG-IJEEE)*", ISSN: 2348-8379.
20. B.Sirisha, N.Susheela, P.Satish Kumar “**Hybrid Topologies of Multilevel Converter for Current Waveform Improvement**”, *International Journal of Inventive Engineering and Sciences*, Vol.1, Issue 4, March 2013, (ISSN: 2319-9598), (Impact Factor : 3.47).

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[4607884b?lipi=urn%3Aai%3Apage%3Ad_flagship3_profile_view_base_contact_details%3BfneaCPR6TNWVZxE4x%2FIDFg%3D%3D](https://www.linkedin.com/in/bogimi-sirisha-4607884b?lipi=urn%3Aai%3Apage%3Ad_flagship3_profile_view_base_contact_details%3BfneaCPR6TNWVZxE4x%2FIDFg%3D%3D)

Book Publication

1. Published a book titled “ **Generalised Space Vector Pulse Width Modulation Method for Multilevel Inverters Including Over Modulation Region And its Implementation with FPGA**” at B P International, 27 Old Gloucester Street London WC1N 3AX, UK.**FIRST EDITION 2022 ISBN 978-93-5547-725-5 (Print) ISBN 978-93-5547-726-2 (eBook) DOI: 10.9734/bpi/mono/978-93-5547-725-5.**

International Conferences

21. B.Sirisha, P.Satish kumar “ **SVPWM Based Generalized Switching Schemes for Sevel level DCMLI Including Over Modulation Operation – FPGA Implementation**”, **TENCON-2019, IEEE Region 10 Conference** pp 2135-2142.
22. B.Sirisha, P.Satishkumar“**A Simplified Space Vector PWM for Cascaded H- Bridge Inverter including Over Modulation Operation**”,**13th International IEEE India Conference INDICON 2016, at IISC, Bengaluru,India.** December 16-18, 2016.
23. B.Sirisha, P.Satish kumar “**Implementation of FPGA based Space Vector PWM Methodfor Five Level Cascaded Inverter**”,**IEEE 7th Power India International Conference (PIICON 2016) at Bikaner Rajasthan** November 25-27 2016.
24. B.Sirisha, P.Satish Kumar “**DTC control schemes with space vector modulation control strategy for three level NPC-VSI fed induction motor drive**”, **International conference on Advances in Engineering and Technology (ICAET-2013) at DR M.G.R Educational and Research Institute University .April 5th and 6th 2013.**
25. B.Sirisha, N.Susheela, P.Satish Kumar “**Implementation of High Step up DC-DC converter using Cascade Technique from Fuel Cell Electric Conversion System**” **Advancements in Electrical & Electronics Engineering,(NCAEEE-2012)** Department of Electrical and Electronics Engineering, Sri Venkateswara College of Engineering, Sriperumbudur, Tamil nadu on 17-18 Feb, 2012.

Extra Curriculum Activities

PROFESSIONAL MEMBERSHIPS:

- IEEE Member
- Member, Registration Committee of International Conference on Emerging Trends in Engineering(ICETE) organized by University College of Engineering(A),Osmania University.

REVIEWER:

- International Research papers in conferences and Journals.

GUEST LECTURES AND WORKSHOPS ORGANIZED:

- Organized a Two Days workshop on Python in associated with General Electric(GE) Company during 19th and 20th April 2024.

- Organized Osmania Taksh-2024.
- Delivered a Lecture “Space Vector Modulation method for Cascaded H-bridge and Diode clamped Multilevel Inverters Including Over Modulation Region ” during Two day Workshop on “Implementation of Space Vector Pulse Width Modulation to Multilevel Inverters using FPGA” at EED , UCE(A),OU.
- Delivered a Lecture “Technical Periodical Writing” during Five day short term course on Engineering Research Methodology during 13th- 17th may 2019 at EED , UCE(A),OU.
- Co-ordinated a One Day Workshop on “Induction Program for Ph.D Scholars” on 20th April 2019.
- Co-ordinated a Five Day short term course on “Engineering Research Methodology” during 13th- 17th may 2019 at EED , UCE(A),OU.
- Co-ordinated a One Day Workshop on “Recent Trends in Renewable Energy Systems” on 16th Nov 2019 at EED , UCE(A),OU.
- Worked as Observer for APCPDCL, APNPDCL, APTRANSCO and TSEAMCET-III(2016).
- Done Election duty as Presiding Officer for General Elections to Parliament in 2019 and Telangana State Legislative Assembly (TSLA)in 2018.
- Delivered Key note Address at 2nd National Conference on Applications of Soft Computing Techniques in Engineering, NCASCTE-2023, 23rd-24th Nov organized by ACE Engineering College.
- Delivered Guest Lecture at 2nd National Conference on Applications of Soft Computing Techniques in Engineering, NCASCTE-2023, 23rd-24th nov 2023 organized by ACE Engineering College.
- Organized a Six day workshop on “Engineering Research Methodology”(PH.D course work) during 28th August 2023 to 2nd September 2023 at UCE(A) OU.
- Co-ordinated The second International Conference on Emerging Trends in Engineering (ICETE 2023)during April 28 - 30, 2023.

Personnel Details

Fathers Name: Sri. B. Shankaraiah
Mothers Name: Smt. B. Lakshmi Devi
Date of Birth: 5th Nov
Nationality: Indian
Permanent Address:
 Dr. B. Sirisha
 H.No: 11-403/2/4
 Cheruku Thota Colony,
 Saroornagar, Hyderabad
 Telangana. 500035
Languages Known: Telugu, English and Hindi
Phone: +91 9440347320