

Name: Prof.Sampath Kumar Bodapatla

Designation: Assistant Professor

Qualification: Ph.D(Perusing) , M.Tech.(Power Systems)-

Age: 39 Years

Experience: 14 Years



E-mail: sampathkumarbodapatla@orchidengg.ac.in

Area of Interest: Mitigation of Power System Oscillations in Modern Power Systems.

Robust Control of Time Delayed Power Systems

Applications of Power Electronics for Renewable Energy & Electric Vehicles (EVs).

Publications:

1. International Conference: 07
2. National Conference: 01
3. International Journals: 12

Subject Taught:

- 1) Basic Electrical Engineering (BEE)
- 2) Power System Analysis (PSA)
- 3) Power System Operation and Control (PSOC)
- 4) Power System Protection (PSP)
- 5) Industrial Drives& Control (IDC)
- 6) Power Electronics (PE)
- 7) Network Theory (NT)
- 8) Control Systems (CS)
- 9) Signals and Systems (S&S)
- 10) Electrical Safety(ES)
- 11) Advanced Power Electronics (PG Students)
- 12) Power Electronics Application to Power Systems(PG Students)
- 13) Distributed Generation and Microgrid.(PG Students)
- 14) Research Methodology(PG Students)

Achievements:

- 1) Secured **GATE-2007** with ALL INDIA RANK (**AIR**)-**2296** with score of **331** in the year **2007 EE-Stream**.
- 2) **Second Topper** in School level

PG Project Guided:

1. Design and implementation of EMS under Critical Load Condition using Fuzzy & Adaptive Fuzzy Controllers.
2. A Novel Approach To Step-Up Three Input DC-DC Converter for Hybrid Electric Vehicles.
3. Control of PM BLDC Motor Drive for Electric Vehicles Using Fuzzy Sliding Mode Controller

4. Reduction of harmonic distortion in a microgrid by using ANN and Shunt Active Power
5. Detection of Electromagnetic Interference (EMI) by using ASTFA and Wavelet transform
6. Performance Evaluation Of ELMPC In Microgrid For Voltage And Frequency Control
7. A Fuel cell Based Intelligent UPFC Configuration for Three Phase Microgrid System
8. Frequency Stability Analysis of Multiarea interconnected Power System by using Type-2 Fuzzy Logic Controller
9. Variable Speed Control For Hybrid Stepper Motor Using Fuzzy-PID Logic Controller
10. Harmonics reduction and Power Factor improvement of Switched Mode Power Supply by using Zeta Converter
11. Adaptive Filter Control Scheme For Power Quality Improvement In Synchronous Generator Based DG-PV Hybrid Micro-Grid
12. Modelling and design of neuro- fuzzy control system (NFCS)for speed control of induction motor(IM) drive”
13. Artificial Neural network for speed control of BLDC motor”
14. Design of 9-Switch Converter for DFIG System for Active and Reactive Power Control by Fuzzy Logic Controller”
15. Design and control of hybrid Multilevel converters with floating DC links to improve outputs
16. Quasi Z-Source inverter for photovoltaic power generation”

Journal Publications:

1. Bodapatla Sampath Kumar, Pannala Mallikarjuna Sarma, and Mallesham Gaddam. **"A Robust UDE-Based 2DOF Controller for Mitigating Sub-Synchronous Control Interaction in Wind Power Plants."** Electric Power Components and Systems (2023): 1-19.(Taylor and Francis)
2. Pushkaraj V. Sakhare, Prof. B. Sampath Kumar **"A novel approach to step-up three input DC to DC Converter for Hybrid Energy systems"**, International Journal of Electrical and Electronics Engineers (IJEEE), Volume 14 Issue No 01, Jan-June 2022, ISSN(O): 2321-2055. ISSN(P): 2321-2045.
3. Gade, Ms Shital Popat, and **Sampathkumar Bodapatla**. **"Detection of EMI By Using ASTFA and Wavelet Transform."** INTERNATIONAL JOURNAL 5.12 (2021).
4. Patil Savita H., and B. Sampathkumar. **"Application Of Extended Linear Model Predictive Controller For Voltage And Frequency Control In Microgrid."** (2020).
5. Sampath Kumar Bodapatla and Dr.H.P.Inamdar**"Loss Reduction by Optimal Placement of Distributed Generation on a Radial feeder"**in ACEEE International Journal on Electrical and Power Engineering (IJEPE), Voume-02,No.01,Feb 2011,Page(s):24-29.
6. Ms.Shubhangi Kangale,**Prof.B.SampathKumar**,**" Performance Analysis of Induction Motor using different Controller for Speed Control"** in International Research Journal of Engineering and Technology[IRJET]Volume-6 Issue 4, 2019 ISSN:2395-0056.
7. Mr.Mazharhussain N.Mestri Prof. **B. Sampath Kumar****"Design of 9-Switch Converter for DFIG System for Active and Reactive Power Control by PID and Fuzzy Logic Controller"**,IEEE-Xplore ISBN: 978-1-7281-0167-5. 978-1-7281-0167-5/19/\$31.00©2019.

8. Mr. Mazharhussain N. Mestri, **Prof. B. Sampath Kumar** “*Design of 9-Switch Converter for Wind Power Plant with PD and PID Controller*” International Journal of Engineering Research & Technology (IJERT), Volume-8, Issue-6, Pages: 1244-1247, 2019.
9. Ms. Mrunmayi N. Raut, **Prof. B. Sampath Kumar**, “*Power Quality Improvement by using Three Phase Adaptive Filter Control in Micro Grid*”, International Research Journal of Engineering and Technology (IRJET), Volume-6, Issue-7, Pages: 1359-1363, July 2019.
10. Ms. Rupali T. Bansode, **Prof. Sampath Kumar Bodapatla** “*A Survey and control of multilevel topologies and their modulation techniques*” International Journal of Innovation Research in Technology (IJIRT), Volume 4, Issue 9, February 2018, ISSN: 2349-6002, Pages(s): 203-211.
11. Sampath Kumar Bodapatla and Dr. H. P. Inamdar “*Conventional Optimization and simulation methods for Optimal location and size of DG in distribution system: IEEE 6-Bus Network*” in International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE), Volume-5, Issue-5, May 2016, ISSN: 2278-8875, Pages: 4268-4274.
12. Sampath Kumar Bodapatla, “*Theoretical and Simulation Approaches for Power Loss Reduction by Optimal Placement of DG on a feeder*” in IEEE on Advances in Engineering, Science and Management (ICAESM), March 2012, Page(s): 296-302.

Conferences:

1. Bodapatla, Sampath Kumar, Pannala Mallikarjuna Sarma, and Malleshham Gaddam, “**The impact of power electronic converter based time delays on subsynchronous oscillations in power systems: A Review**”, in the 2nd International Conference on Integration of Advanced Technologies for Industry 4.0 (ICIATI) on 24th & 25th June 2023 at KCG College of Technology, Chennai.
2. Mr. Mazharhussain N. Mestri **Prof. B. Sampath Kumar** “*Design of 9-Switch Converter for DFIG System for Active and Reactive Power Control by PID and Fuzzy Logic Controller*”, **IEEE- International Conference on Electronics and Communication and Aerospace Technology (ICECAT)**, Coimbatore, India, 13th June, 2019.
3. Ms. Mrunmayi N. Raut, **Prof. B. Sampath Kumar**, “*Adaptive filter control scheme for power quality improvement in synchronous generator based DG-PV hybrid micro-grid*” in **SPRINGER ICIEEE-2019** At Department of Electrical and Electronics Engineering, Guru Nanak Institutions Technical Campus Hyderabad, India, held on 26th-27th July 2019.
4. Ms. Shubhangi Kangale, **Prof. B. Sampath Kumar**, “*Comparative analysis between Conventional and Neuro-Fuzzy Controller for Speed Control of Induction Motor Drive*”, in **SPRINGER ICIEEE-2019** at Department of Electrical and Electronics Engineering, Guru Nanak Institutions Technical Campus Hyderabad, India, held on 26th-27th July 2019.
5. Presented a technical paper title of “*Theoretical and Simulation Approaches for Power Loss Reduction by Optimal Placement of DG on a feeder*” in **IEEE-International Conference on Advances in Engineering, Science and Management (ICAESM-2012)** at Nagapattinam, Tamilnadu, India on 30th and 31th March 2012.
6. Presented a technical research Paper titled “*Loss Reduction by Optimal Placement of*

Distributed Generation on a Radial feeder” in the **International Conference(AET-2010)** at Trivendrum ,Kerala,India.

7. Presented a Technical paper at **National Conference(NCACCA-09)** on title of “*Optimal placement of Distributed Generation (DG) source on a radial feeder for Loss reduction*”, on April 3rd and 4th 2009 at K.S.Rangasamy College of Technology,Tamilnadu.
8. Pushkaraj V. Sakhare, Prof. B. Sampath Kumar “*A novel approach to step-up three input DC to DC Converter for Hybrid Electrical*”, International E- Conference on Innovation and Emerging Trends in Engineering, Science and Management (IEIETESM), Miraj, India, 24 th June 2022, ISBN: 978-93-91535-38-4.
9. Bodapatla, Sampath Kumar, Pannala Mallikarjuna Sarma, and Malleshham Gaddam, “**The impact of power electronic converter based time delays on subsynchronous oscillations in power systems:A Review**”, in the 2nd International Conference on Integration of Advanced Technologies for Industry 4.0(ICIATI) on 24th &25th June 2023at KCG College of Technology,Chennai.(SCOPUS)
10. Mr. MazharhussainN.Mestri Prof. **B. Sampath Kumar**“*Design of 9-Switch Converter for DFIG System for Active and Reactive Power Control by PID and Fuzzy Logic Controller* ”,IEEE- International Conference on Electronics and Communication and Aerospace Technology(ICECAT), Coimbatore, India, 13th June, 2019.

Workshops/Guest Lectures Conducted:

1. Conducted a workshop on “**Control Systems**” by under the leadership of **Indian Institute Technology (IIT) Kharagpur** at SVERI College of Engineering,Pandharpur (RCID-1281) during 2nd Dec. to 12th Dec.,2014.
2. Conducted Guest lecturers for the **M.E(Electrical)Sem-I**subject of “**POWER ELECTRONICS**” at Fabtech Technical Campus, Sangola (MH) in,2014.
3. Conducted Guest lecturers for the **M.E(Electrical) (Sem-II)** subject of “**Power Electronics Applications In Power Systems**” at Fabtech College of Engineering & Research, Sangola (MH) in2014.
4. Conducted Guest lecture on subjectof “**CONTROL SYSTEMS**” for **S.E(Electronics& Telecommunication Engineering)** at Fabtech Technical Campus, College of Engineering &Research,Sangola (MH) in 2014.

Workshops/Short Term Courses Attended:

1. Recent Trends in Green Energy Initiatives and Soft Computing Techniques (11-07-2023 to 15-07-2023)
2. Energy Conservation & Audit (14.07.2023 to 15.07.2023)
3. Electrical CAD Design (26.6. 2023 to 1.7.2023)
4. Intelligent Optimization Techniques and their real life applications(25 to 27th Feb., 2022.)
5. Visualizing Analysis and Algebra (22nd February,2022)
6. Wavelets and its applications: image Processing,data science and PDES(6th to 19th December,2021.)
7. Career Opportunity in Artificial Intelligence & Data Science(07 September, 2021)
8. Restructured Power System : Operation and Planning (23–28, August, 2021)
9. Hands on Workshop on Online Teaching Learning tools for Implementation of Effective Student Engagement Strategies (May 27, 2021)

10. National Policy (NEP) 2020 - Impacts and Challenges (09/08/2021)
11. International webinar on Cyber Security Threats in Smart Grid- A Research Perspective Approach'' (28.08.2021.)
12. How to write a technical paper/report for publications in indexed Journals(28th April,2021)
13. Challenges in Modern Electrical Power Systems and Solutions with Software tool like E-TAP (13/07/2020)
14. Patent your Invention to Generate Value for Research (8th June 2020)

Professional Membership:

Life Time Member of **ISTE** (Indian Society for Technical Education)

Prof.Sampath Kumar Bodapatla

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