

Dr. Sangamesh Y. Goudappanavar

Asst. Professor & Senior Member IEEE
IEEE Branch Counsellor, Advisor PES SBC
(35261A), Execom member Bangalore
Section

Department of Electrical & Electronics Engineering
Basaveshwar Engineering College,
Bagalkot – 587 103, Karnataka

Cell: +91-9916377743

sangmesh024@gmail.com, sangamesh.yg@ieee.org,

[www.linkedin.com/in/ dr-sangamesh-goudappanavar- 6863b215/](http://www.linkedin.com/in/dr-sangamesh-goudappanavar-6863b215/)

[sangmesh024 \(github.com\)](https://github.com/sangmesh024)

Vidwan ID:124987

Orchid ID: <https://orcid.org/0000-0002-9034-1241>

Scopus ID: 55786380100

Citation: <https://scholar.google.com/citations?user=sS6rjNgAAAAJ>

Curriculum Vitae



* Education:

Degree	University/ Institute	Year of Award	Thesis Title
Ph.D	Visvesvaraya Technological University, Belagavi, Karnataka	2023	Modelling and Performance Analysis of Small Wind Turbines in Microgrid
M.Tech	Basaveshwar Engineering College(A) - Bagalkot, VTU, Belagavi Karnataka	2012	Hysteresis Control Strategy for Power Conditioner of Generator Side Converter connected to Wind Turbine. 3 rd Rank in M.Tech (PES)
B.E	Bapuji Institute of Engineering & Technology-Davangere, VTU Belagavi karnataka	2008	Design of Alternator for Wind Power Generation

* Professional Experience Held:

Date into Service	Designation	Organization	Responsibility
01.08.2012 till date	Assistant Professor	EEED, Basaveshwar Engineering College(A), Bagalkot	Branch Counsellor, IEEE-BEC and Advisor for IEEE PES SBC, UG-PG teaching, R&D, BOS, BOE(2021-23) Member (2017-Present), Dept. Placement & Industry Institute Coordinator (2019-20)
25.10.2008 to 22.07.2010	Lecturer	EEED, Basaveshwar Engineering College(A), Bagalkot	UG teaching

Research Grants:

1. **Rs.3.00 Lakhs** for **“SPV based Outdoor Shelter for Street Vendors- Design, Implementation, Testing and Demonstration of Commercial Appliances with SPV Powered DC Distribution”**, VGST, GoK, 2019 - 2020 (CO-PI).
2. **Rs. 1.85 lakhs** for **“Grid-Tie Inverter with Bi-directional FCU”** from TEQIP-II (Technical Education Quality Improvement Program), a World Bank scheme for establishment of phase-2 of Seed Grant for Research under the guidance of Dr. Suresh H. Jangamshetti, 2016. (PI)
3. **Rs.6000.00** for **“Development and Fabrication of VAWTG Blades using Natural Fibres for Domestic Usage”**, 46S_BE_5487, 2023 from KSCST Bengaluru.
4. **Rs. 5000.00** for **“Development and Performance Analysis of Small Wind Turbine Generator Blade using FG Method”** from IEEE PES Bengaluru Section-2022.
5. **Rs. 5000.00** for **“Optimization of Converter for Roof-top Hybrid Nano-WTG Solar PV System in BEC(A) Distribution Network”** from IEEE PES Bengaluru Section-2022.
6. **Rs. 5500.00** for **“Hybrid Solar TEG for waste heat Recovery”** from KSCST IISc, Bengaluru, 37th series 2013-2014.

Patent:

1. **Sisal and Gongura Fiber based Hybrid Vertical Axis Wind Turbine Generator for Single Phase Applications**
Design Number: 440884-001
2. **Intelligent EV Charging Station with Solar Panel Integration and Vehicle-to-Grid Connectivity**
Design Number: 442123-001
3. **Time Data Streaming and Analytical Server Machine**
Design number: 6310499
Grant date: 25 September 2023

Technical Publications:

Chapter Series:

- [1]. Sangamesh Y. Goudappanavar, Suresh H. Jangamshetti, Shrishail Majjigi and Basanagouda Ronad **“Development and Analysis of Wake Effect of Vertical Axis Wind Turbine Generator on HAWTG based on Experimental Method”**, Lecture Notes in Networks and Systems, Inderscience, BITS Pilani K K Birla Goa, **Springer Book Series**, Sep. 2024.
- [2]. Basanagouda Ronad, Sangamesh Y. Goudappanavar, Basavaraj Hugar, Santosh Kumbalavati, Kiran Bendigeri, **“IOT Based Control mechanism for Solar PV Water Pumps Employed for Water Distribution in Academic Campus”**, Lecture Notes in Networks and Systems, Inderscience, BITS Pilani K K Birla Goa, **Springer Book Series**, Sep. 2024.
- [3]. Sangamesh Y. Goudappanavar, Suresh H. Jangamshetti,, **“AI Based Phase Identification to Integrate Distributed Energy Resources in Distribution Network”**, 5th International Conference on Electrical and Electronics Engineering (ICEEE 2024), Swinburne University of Technology, Melbourne Australia, 11-12 Sep. 2024.

Technical Papers published in International Journals:

- [1]. Sangamesh Y. Goudappanavar, Megha Sunkad, Prema and Ravindranath Rubinabegaum H. Yadahalli, "**Design and Modelling of Droop Control for Small Wind Turbine Generator in μ Grid**", KD Publications, Pune, SSET 2024, BEC Bagalkote, 29-30, Aug. 2024.
- [2]. Sangamesh Y. Goudappanavar, Vijayalaxmi R. H., "**Design of SVC for Dynamic Compensation to Improve LVRT of Small Wind Turbine**", IJIREEICE International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering, vol. 12, no. 4, 2024, Crossref <https://doi.org/10.17148/IJIREEICE.2024.12403>.
- [3]. Sangamesh, Y. Goudappanavar, Suresh H. Jangamshetti, "**High Tension Voltage Regulation Based Power Flow Analysis of Radial Distribution Network**", International Journal of Engineering Sciences and Management - A Multidisciplinary Publication of VTU, Vol.2, issue 2, pp:8-13, June 2020.
- [4]. Sangamesh, Y. Goudappanavar, Suresh H. Jangamshetti & Pallavi Hosamath, "**Optimal Sizing and Placement of μ -Wind Turbine Generator in μ Grid based on Loss Estimation**", Journal of Information and Computational Science, ISSN:1548-7741, Vol.12 Issue 6, pp.34-40, Dec.2019.
- [5]. Sangamesh, Y. G., Suchitra, G., and Jangamshetti, S. H. "**Performance Assessment of 2500 TCD Cogeneration Plant**", International Journal of Scientific & Engineering Research (IJSER), Volume 3, Issue 5, pp. 1-6, May-2012.

Technical Papers Presented in International Conferences:

- [1]. Suresh H. Jangamshetti, Sangamesh Y. Goudappanavar, "**Representation of Distribution Network for Teaching Power Flow Analysis- A Case Study of an Academic Campus**", 13th IEEE Integrated STEM Education Conference, John's Hopkins University, ML USA, 2023.
- [2]. Sangamesh Y. Goudappanavar, Megha Sunkad, Prema and Ravindranath Rubinabegaum H. Yadahalli, "**Design and Modelling of Droop Control for Small Wind Turbine Generator in μ Grid**", SSET 2024, BEC Bagalkote, 29-30, Aug. 2024.
- [3]. S. Y. Goudappanavar, S. H. Jangamshetti and J. J. O, "**Identification of Fault Area in the Distribution System based on Rotor Angle behaviour of Diesel Generator**," 2020 3rd International Conference on Energy, Power and Environment: Towards Clean Energy Technologies, Shillong, Meghalaya, India, 2021, pp. 1-6, doi: 10.1109/ICEPE50861.2021.9404451.
- [4]. S. Y. Goudappanavar and S. H. Jangamshetti, "**Stochastic Power Flow Analysis of Unbalanced Distribution System based on cluster of SWTG-SPV**," 2020 2nd PhD Colloquium on Ethically Driven Innovation and Technology for Society (PhD EDITS), Bangalore, India, 2020, pp. 1-2, doi: 10.1109/PhDEDITS51180.2020.9315298.
- [5]. Sangamesh Y. Goudappanavar, Suresh H. Jangamshetti and Rubinabegum H. Yadahalli, "**Design and Modelling of Droop Control for Small Wind Turbine Generators in Microgrid**", International Conference on Small Wind Turbine, NIWE, MNRE, Chennai, 10-12 Dec. 2018.
- [6]. V. S. Atur, S. Y. Goudappanavar and S. H. Jangamshetti, "**Novel Control Algorithm of Storage System for Small Wind Turbine Generator**," 2017 International Conference on Current Trends in Computer, Electrical, Electronics and Communication (CTCEEC), Mysore, India, 2017, pp. 383-388, doi: 10.1109/CTCEEC.2017.8455184.
- [7]. Sangamesh G, Naik Raghuram L., Jangamshetti Suresh H., "**Simple Control Strategy for UPF Power Conditioner of GSC connected to Wind Turbine**", IASTED Asia PES-2013, April 10-12, 2013, Phuket Thailand. DOI: 10.2316/P.2013.800-060. (Q2)

- [8]. Sushma Patted, Sangamesh Goudappanavar., “**Optimization of Earthing System in Industrial Plant**”, presented at IRAJ, Mumbai, 25.09.2015.

Technical Papers Presented in National Conferences:

- [1]. Sangamesh Y G., Suchitra, G., and Jangamshetti, S. H. “**Performance assessment of 2500 TCD Cogen Plant**”, Proceedings of 2nd National Conference on Advanced Technologies in Electrical and Electronic Systems, 17-18 Feb 2012, GIT Belagavi, Karnataka State, India.
- [2]. Savita Kundargi, Sangmesh Y G, “**Net Metering for academic loads**”, IEEE PES STUDENT CONGRESS-2016 at Vidyavardhaka College of Engineering Mysuru, 17th Sept. 2016.

Award:

1. **Best Researcher - Mission 2020 Challenge Award** from IEEE Bangalore Section, 10th Jan. 2021.
2. **Best Institution for Higher Learning and Best Research Work in Wind Energy** from IREDA-NIWE, MNRE, GoI, 15th June 2022-Research Scholar.
3. **Outstanding Student Branch Chapter Award-2022**, IEEE Power and Energy Society, Bangalore Section-Coordinator
4. **Outstanding Student Branch Chapter Award-2024**, IEEE Power and Energy Society, NKSS-Coordinator
5. **Outstanding Student Branch Chapter Award-2024**, IEEE Power and Energy Society, Bangalore Section-Coordinator

*** Resource Person for FDP/Invited Talks:**

1. Resource Person for One Week Faculty Development Program (FDP) on "**AI Based Phase Identification of Distributed Energy Resources in Distributed Network**" on 03.02.2025 at Basaveshwar Engineering College, Bagalkote.
2. Resource Person for **AICTE ATAL Faculty Development Program (FDP) on "Wind Turbine Generators in Microgrid-AI/ML Perspective"** on 17.12.2024 at Sindhudurg Shikshan Prasarak Mandal Engineering College, Kankavli, Maharashtra.
3. Webinar as a resource person on **Small Wind Turbines in Microgrid** organised by IEEE SwarnAndhra SB, Andhra Pradesh on 26th Aug. 2023.

*** Workshops/ Short-Term Courses/ Seminars Organized:**

1. Coordinator for **One Week Faculty Development Program (FDP) titled "AI-ML Based SmartGrid"**, from 30th Jan. to 3rd Feb. 2025 at Basaveshwar Engineering College, Bagalkote.
2. Webinar on "**Introduction to Software Testing**" under IEEE PES SBC, Resource Person: Mr. Akshay Biradar on 16.03.2024, BEC Bgk.
3. Webinar on "**AI and Embedded System for Industry**" under IEEE PES SBC, Resource person: Mr. Habib G. Rajbar on 02.03.2024, BEC Bgk.
4. Webinar on **Industry 4.0**, 7.01.2023, BEC Bgk.
5. Industrial visit to Hydro-electric power station, Almatti for V sem EE student on 10.02.2024.
6. Seminar on Benefits of IEEE Membership, 03.11.2022, BEC Bgk.
7. Technical Talk on Building Career Opportunities in Industry – Professional Development Activity, 19.10.2022, BEC Bgk
8. Webinar on "**Basics of ETAP**", 2nd April 2022, BEC Bgk.
9. Webinar on "**Water Conservation Through Behaviour Change**", 25.02.2022, BEC Bgk.
10. Webinar on "**Designing Grid Tied Solar Rooftop PV Plant & Net Metering Approvals**", 16th April 2022.
11. Half-Day workshop on SPV Powered Irrigation System, 20th Jan. 2022.

12. Industry Webinar on **“Protective Switchgear-Challenges & Applications”**, Resource Person: Mr. Shridhar D. V., CEO DBSON, Universal Motor Control, Tumkuru, 15th June 2020.
13. Three days training on **“MiPower Software”**, resource person: Mr. Basil & Sadashiv, Power Research & Development Consultants Pvt. Ltd. Bengaluru at BEC Bagalkot, 24-26 Feb. 2020.
14. Industry Seminar on **“Design and Fabrication of PCB”**, Invites resource person: Mr. Pankaj Inamdar and Ms. Vedanjali Gaonkar, financial assistance under TEQIP-III and IEEE-PES Student chapter (35261A), 26-27, March 2018.
15. Three Days Training Program on **“Smart Teaching Skills for Aspiring Teachers(STAT)”**, 9-11th Feb, 2017.
16. Industry Seminar on **“Technologies to Empower Electrical Engineers”**, Dr. Hariram Satheesh, ABB B'lore on 4th Feb 2017.
17. Industry Seminar on **“Energy Conservation, Audit & DSM”**, Mr. Mallikarjun Kambalyal SHUBSUN Electric Systems Pvt Ltd., 1st Oct 2016. Organised under TEQIP-II
18. Two days workshop on **“Embedded System Using Arduino”**, Mr. Ravi Prakash, Paramonous System & Sir MVIT Bengaluru, during 17th & 18th September 2016. Organised under TEQIP-II
19. Three days SDP on **“Electromagnetics”**, by Dr. Anand K. Kulkarni, Professor of Emeritus, Dept of ECE, Michigan Technological University, USA, 1st to 3rd March 2013. Organized under TEQIP-II.

NPTEL-Swam/MOOCs/COURSERA/TEDEX Course:

1. **Python project for Data Science** by IBM Skills Network issued Dec 2022 Credential ID 47YYJ4SD4ZUY.
2. **Python for Data Science, AI & Development** by IBM Skills Network Credential ID: LF3BRJAF3797 <https://coursera.org/share/7aec4ffe7086017a640b533b0d53351>
3. **Tools for Data Science** by IBM Skills Network Credential ID: J337DJM88D3Y <https://www.coursera.org/account/accomplishments/certificate/SGDYLEPMYHQK>
4. **Data Analysis with Python** Coursera Dec. 2022.
5. NPTEL-Online Certification Course (2 Credit, 8 Weeks) on **“Electrical Distribution System Analysis”**, IIT Roorkee, NPTEL19EE61S21390071, July-Sep 2019.
6. Swayam-Online Certification Course (4 Weeks) on **“Digital Transformation in Teaching Learning Process”**, IIT Bombay, Feb 14-6th March 2020.

*** Reviewer:**

1. BP International, Kolkata
2. Innova 2024, BLDEACET, Vijayapura
3. IEEE NKCON 2024
4. International Journal for Renewable Energy Research, Gaji University, Turkey
5. IEEE NKCON 2023 in Track: Artificial Intelligence and Machine Learning, North Karnataka Subsection Region 10, Karnataka, India

*** Academics:**

Subjects taught at Graduate Level

AI Applications to Power System, Smart Grid and Microgrid, Renewable Energy Sources, Wind Energy Conversion System, Solar Photovoltaic System Design, Solar Photovoltaic System Design, Power System Operation & Control Computer Applications to Power Systems, Electromagnetic Field Theory, Electrical Distribution System Analysis, Flexible AC Transmission System, High Voltage Engineering and Switchgear Protection, Modern Control Theory, Digital Signal Processing to Power systems, Operations Research, Electrical Power Utilization & Drives, Object Oriented Programming with C++ , Digital Relays.

* **Workshops/ Short-Term Courses/ Seminars Attended:**

1. One Week National Level **“FDP on Python”** by Star International Foundation for Research and Education, Tamilnadu on 19.03.2024 to 25.03.2024
2. National Symposium on **Smart Energy Systems**, BEC Bagalkote, 8-9 Sept. 2023
3. Workshop on **“Recent Developments in Smart Grid and Applications”**, in association with VTU Belagavi and IEEE PES Chapter, from 05th – 07th Sept. 2022, organised by GSSSIETW Mysore.
4. IP Awareness/training on **“National Intellectual Property Awareness Mission”**, on 11th August 2022, NIPAM.
5. Mentor for **“Hackathon GO AI for Social Good”**, on 11-12 June 2022 by C-DAC, Bengaluru
6. Online Quiz on **“Basics of Wind Energy”**, on Global Wind Day on 13th June 2022 by MNRE.
7. Member Cohort workshop and case study presentation on **“Main Streaming Wind Generation in the Grid”**, part of 5th event of Azadi ka Amrit Mahotsav to commemorate the 75th years of India’s Independence held on 10-11 Feb.2022 by NIWE, MNRE Gol.
8. 5-day online FDP on **“Inculcating Universal Human Values in Technical Education”** organized by All India Council for Technical Education(AICTE) on 12 July - 16 July, 2021.
9. Webinar on **“Role of Faculty in Implementation of NEP”** organized by Basaveshwar Engineering College Bagalkot on 20th February, 2021.
10. Online FDP on **“Advanced Optimization Techniques and hands-on with MATLAB/SCILAB”** by Ministry of Electronics and Information Technology (MeitY), Govt. of India, 13 – 24 July 2020.
11. Two Weeks online course on **“Digital Transformation in Teaching Learning Process”** conducted by SWAYAM-IIT Bombay during 14 Feb to 6 March 2020.
12. Two days’ **E-workshop on AICTE-Examination Reform Policy** organized by Basaveshwar Engineering College Bagalkot on 29th & 30th May 2020.
13. Short term course on **“Learn to design you own Solar Home System”**, by Energy Swaraj Foundation (Energy Literate-Honour Code Certificate), 24th April to 07th May 2020.
14. Honour Code Certificate of Hands-on **“Training on Solar Study Lamp Assembly”**, IIT Bombay, May 2019 to 31 Dec. 2019.
15. FDP on **“Electric Vehicle-Electric Machine Drives, Power Converters & Latest Technologies”**, BEC Bgk, 22-26 July 2019.
16. Two Week Industrial Training on **“Small Wind Energy”**, National Institute of Wind Energy (NIWE) Chennai, Nov.-Dec. 2018.
17. One Week workshop **“End to End Innovations “**, IIT Powai-Bombay, 19-23rd Feb. 2018.
18. One week **“Client Level-I Training on Mipower”**, Power Research and Development Consultants Pvt Ltd, Bengaluru 11 to 15 Sep. 2017.
19. Two days workshop on **“Wind Energy in Smart Grid”**, CPRI, Bengaluru 10-11 March 2017.
20. CEP Course on **“Advanced Control Systems”**, By Dr. Ravi Gudi, IIT Bombay 1-4 March 2017.
21. Three days workshop on **“Design of Experiments through Research Problems”**, by Dr. Suhas Joshi, IIT Bombay during 21 to 23rd Jan 2017
22. Two days workshop on **“Energy Analytics in Smart Cities-Micro-Grid, Distributed Generation & EV’s”**, during 23rd to 24th Sep. 2016, IISc Bengaluru.
23. One day seminar on **“ISRO Societal Web applications”** by Dr. C. J. Jagadeesha, Scientist-ISRO, 9th Sept 2016.
24. One day seminar on **“Civil Engineering in Historical Perspective”** by Dr. Bruce Seely, Dean, College of Sciences and arts Michigan Technological University, MI USA on 14th Jan 2016 under TEQIP-II.
25. One day IEEE-PES Bengaluru Chapter program on **“Young Researchers Meet – Industries and Academic Interaction to foster Research”**, on 5th Dec 2015 under TEQIP-II.

26. One day workshop on “**Modelling & Simulation of Power Systems in Microgrid Environment**” at PSG college of Engineering & Technology, Coimbatore, 14th Oct 2015.
27. Two days Orientation Programme on Entrepreneurship Development and Implementation of DEBM programme, Entrepreneurship Development of India on 26-27th August 2015.
28. Short term course on “**Grid Integration of Renewable Energy Sources**” at New Delhi, 8-19th April 2015.
29. Two days National Symposium on “**Sustainable Energy Technologies for Academic Campuses**”, on 5th & 6th Jun 2015 under BEC-TEQIP-II.
30. International Workshop on “**25 years of Passivity based Control: New Vistas**” at VJTI Mumbai, 19-23 May 2014.
31. Seminar on “**Real-time Applications in Multistoried Buildings**” by Mr. Vijaykumar D, Manager-Electrical, Manthri Developers Pvt. Ltd., Bengaluru on 15th Aug 2014.
32. FDP on “Capacity Building Towards Quality Teaching and Learning” by IISc, Bangalore, 25th Nov to 6th Dec 2013 & 8th to 10th Jan 2014.
33. Seminar on “**Career in Civil Services**” by Mr. Shivanand Kalakeri IRS, Deputy Commissioner of Income Tax Bengaluru on 14th Aug 2014.
34. Five days Short Term Course on “**Emerging R&D in Wind Energy Conversion – Present and Future Challenges**”, from 21st to 26th Jul 2014 organized under TEQIP-II.
35. Two days National Workshop on “**Sustainable Innovation – an End-to-End Approach**”, from 29th to 30th Jan 2014 organized under TEQIP-II.
36. Two days hands-on workshop on “**MatLab Programming for Electrical and Electronics Engineers**”, on 30th and 31st Dec 2013 under TEQIP-II. Number of Participants: 60
37. One day workshop “Curriculum Development, Revision and Restructuring – M.Tech PES”, on 4th March 2013 under TEQIP-II
38. Three days SDP on “Electromagnetics”, by Dr. Anand K. Kulkarni, Professor of Emeritus, Dept of ECE, Michigan Technological University, USA, 1st to 3rd March 2013. Organized under TEQIP-II.
39. Seminar on “Recent Developments in Solar Energy” by Mr. Shivanand Mareguddi, Engg Procurement Officer, Control Technologies, Sydney Australia on 16th April 2012
40. Two day hub level event titled “Inn-Wie-tion” – Workshop on MatLab, Robust: Robotic contest, Quizes: Acquentomath, IT and General, Movie making competition on theme “Women in Engineering”. 31st March and 1st April 2012
41. Seminar on “Innovative Ideas and Projects” by Dr. R. N. Herkal, Principal BEC Bagalkot on 22nd March 2012
42. Two days workshop on “How to Teach Electromagnetics”, “Nanoelectronics” and “Recent Developments in Wind Turbine Generators”. Speakers: Dr. Anand K Kulkarni, Professor of Emeritus MTU MI USA and Mr. Damodar K Kulkarni, Electrical Consultant Gujarat. Date: 15th and 16th Feb 2012
43. “NOVUS’10 – A state level technical fest and Robotics Workshop”, sponsored by BVV Sangha BEC, BEC-IEEE student branch and IEEE Bangalore section. 13-14 November 2010.
44. “Awareness and Applications of MiPower Software”, two days workshop by Power Research & Development Consultants Pvt. Ltd., Bangalore. 21-22 Oct 2010.
45. One week workshop on “BOSCH Electric drives and controls by Programmable Logic Controller “.June-2010.
46. Faculty development program on “Effective Teaching practices”, 29-31 January 2010, organized by Basaveshwara Engineering College Bagalkot.
47. “Renewable Energy Options for Heating and Lighting in Public buildings, Hospitals, Hotels, Educational Institutions and Tourist/Religious Places” two days state level seminar cum exhibition. Sponsored by MNRE Govt of India and Energy Department Govt. of Karnataka. Organized by KREDL Bangalore and BVVS BEC Baga1kot. 29th and 30th April 2010.

*** Memberships and Activities in Professional Associations:**

- **Senior Member** – Institute of Electrical and Electronics Engineers (IEEE) 91103977
- **Fellow Member** – Karnataka Rajya Vijnan Parishad, Bangalore (2009)
- **Member**- All India Veerashaiva-Lingayat Mahasabha

Visits Abroad:

Phuket – Thailand: Presenting the technical paper at IASTED conference was held in Phuket from 10th to 12th April 2013.

Sangamesh Y. Goudappanavar