

Personal Information

Name	B.Sujatha
Years of Experience	Teaching : 20 Years Research : NIL Industry : NIL
Email Id	sujatha.b@bvrithyderabad.edu.in
CN ID	SR1213
Area of Specialization	Power Electronics



Educational Qualifications

Doctoral Degree	Ph.D Pursuing	JNTUA Ananthapuramu
PG Degree	M.Tech.	Power Electronics, JNTUA Anantapuramu
UG Degree	B.Tech.	Electrical & Electronics Engineering, JNTU Hyderabad

Patent Published:

1. Managing EVs in the Smart Grid Using AI and secured IoT Technology. Application No. 202141053795.
2. A METHOD AND SYSTEM OF IMPROVING CYBER SECURITY BY IMPROVED PREDICTION POTENTIAL OF MACHINE LEARNING MODELS. Application No. 202441020146.
3. IOT-BASED REAL TIME AQI MONITORING, Application No. 202441040003.
4. IOT BASED SOLAR POWERED AGRICULTURE ROBOT, Application No. 380905-001.
5. OPTIMIZING AC DRIVE OPERATIONS WITH SINUSOIDAL PWM: A COMPARATIVE STUDY, Application No. 202441053641

Papers Published

International Journal Publications

1. Dr.Chava Sunil Kumar, **Ms.Sujatha Banka**, Ms. Ms. Shaik Chandini, Ms.Jakkoju Vaishnavi, Ms.Gorla Himabindu, Ms.Gudibandi Meghana ,” **Control of a stand-alone variable speed wind turbine generator system”** in International Journal of Applied Power Engineering (IJAPE),Vol.13, No. 3, September 2024, ISSN: 2252-8792, DOI: 10.11591/ijape.v13.i3.pp727-736.
2. **Ms.Sujatha Banka**, Ms.Supriya Kacharla, Ms.Thatipelli Purnima, Ms.Alampur Thanvi, Ms.Likitha Shatdarsanam **“Patient Health Monitoring System Using IoI Technology”** in International Journal of Creative Research Thoughts, , Volume 11, Issue 10, Page No: c276-c282 ,October 2023.

3. **Ms.Sujatha Banka**, Mr.M.A.Nabi, “**Solar-Wind Hybrid Power Generation System**” in International Journal of Creative Research Thoughts, , Volume 11, Issue 10, Page No: c262-c270, October 2023.
4. Dr.P.Srinivas,Ms.Sujatha Banka,Dr.Salkuti Surender Reddy, “**Optimal Energy Management Scheme of Battery Supercapacitor-Based Bidirectional Converter for DC Microgrid Applications**” in MDPI Journal, Special Issue Intelligent Manufacturing and Informatization (Indexed E-SCI), July 2022.
5. **Ms.B.Sujatha**, Ms.A.Shivani,B.Sai Niharika,D.Ananya Sameera,N.Manisha ‘**Implementation of an Energy Management System for Microgrid using Particle Swarm Optimization Technique**’, International Journal of Creative Research Thoughts (IJCRT), ISSN:2320-2882, Volume.9, Issue 7, July 2021,Page No: f64-f70.
6. **Ms.B.Sujatha**,Ms.N.Aamani, Ms.P.Harshini and Ms.M.Vaishnavi, ‘**Energy Monitoring Using IoT Technology**’, International Journal of Creative Research Thoughts (IJCRT), ISSN (PRINT): 2320-2882, Vol.8, Issue-4, April 2020, Page No: 2388-2391 , April 2020.
7. **Ms.B.Sujatha**, Ms.P.Subhashitha, ‘**ACTIVITY BASED TEACHING IN ENGINEERING EDUCATION**’, in the International Education & Research Journal(IERJ), E-ISSN:2454-9916, Vol .5, Issue : 8, June 2019 , Page No: 56-57, IF: 5.564(SJIF).
8. **Ms.B.Sujatha**,Ms.J.SravanaKalyani,Ms.K.Priyanka,‘**Optimization and Performance Evaluation of Single Axis Arduino Solar Tracker**’, International Journal of Recent and Innovation Trends in Computing and Communication (IJRITCC), Vol.6, Issue 4, Page No: 16-20, April 2018, ISSN:2321-8169,SJIF:5.837.
9. **Ms.B.Sujatha**,Ms.B.Rani,Ms.Saini.Ramya, ‘**Optimization and Performance Analysis of Single Axis Solar Tracker Using MATLAB/Simulink Software**’, International Journal of Novel Research and Development (IJNRD) , Vol.3, Issue 4, Page No: 77- 81, April 2018, ISSN: 2456-4184 ,IF:5.57.
10. **Ms.B.Sujatha**, Ms.Ch.Renuka Devi, Ms.K.Baby Lakshmi, ‘**SIMSCAPE Model of Solar PV Cell with Partial Shading Effect**’,International Journal for Modern Trends in Science and Technology (IJMTST), Vol.3, Issue 8, Page No : 92-96, August 2017, ISSN:2455-3778,IF:3.1.
11. **Ms.B.Sujatha**,Ms.K.Bhavya,‘**SimulationandPerformanceofACDrivesusingSVPWMTechnique**’, International Journal of Recent and Innovation Trends in Computing and Communication(IJRITCC),Vol.5,Issue7,PageNo:11-18, July2017,ISSN:2321-8169,SJIF:5.837.
12. **Ms.B.Sujatha**, Ms.D.Sree Meghana, ‘**Simulation and Performance of Induction Motor Drive using SVPWM Technique**’, International Journal for Modern Trends in Science and Technology (IJMTST), Vol.3, Issue 7, Page No: 223-228 , July 2017, ISSN:2455-3778,IF:3.1.

International Conference Publications

1. **Ms.Sujatha Banka**, Ms.Bhavya Kanchanapalli ,Ms.Shaik Nafeesa,Ms.D.Khyathi, Ms.D. Poojitha and Ms.Nalla.Akshitha, "**Securing Fintech: A Machine Learning Approach for Credit Card Fraud Detection**,"in 2024 International Conference on Cognitive Robotics and Intelligent Systems (ICC - ROBINS), Coimbatore, India, 2024, pp. 814-821, doi: 10.1109/ICC-ROBINS60238.2024.10533901.
2. Dr.Chava Sunil Kumar, **Ms.Sujatha Banka** ,Ms.A. Navya, Ms.V. Sai Priya, Ms. C. Nethra ,Ms. G. Srikanya, "**Enhancing Borewell Rescue with Automation**," in 2024 International Conference on Cognitive Robotics and Intelligent Systems (ICC - ROBINS), Coimbatore, India, 2024, pp. 738-742, doi: 10.1109/ICC-ROBINS60238.2024.10533991.
3. **Ms.Sujatha Banka**, Ms.Bhavya Kanchanapalli, Ms. Vidyadhari Gadde, Ms.Sai Meghana Sudhamalla, Ms.Vanitha Anantha, Ms.Pavanika Uppalapati "**Smart Kitchen Monitoring System using IoT Technology**," in 2024 IEEE International Conference on Automation and Computation (AUTOCOM), Dehradun, India, March 2024, pp. 303-307.
4. Dr.Chava Sunil Kumar, **Ms.Sujatha Banka**, Ms.J. Vaishnavi, Ms.S. Chandini, Ms.G. Himabindu Ms.G. Meghana, "**RFID Time and Attendance System based on IoT Technology**," **2023 2nd IEEE International Conference on Automation, Computing and Renewable Systems (ICACRS), Pudukkottai, India, Feb 2023, pp. 293-296.**
5. **Ms. Sujatha Banka**, Ms.Kokkula Shivani , Ms.G .Sushma , Ms.Mohammad Shalima Tarannum , Ms.Ashwini Balagani , Ms.Kyatam Keerthana ,"**Web Application for Air Quality Index Monitoring System using ThingSpeak**" in Springer 3rd International Conference Soft Computing for Security Applications - ICSCS 2023 , April 2023, vol 1449. Springer Nature, Singapore.
6. **Ms.Sujatha Banka**,Dr.Punna Srinivas ,Ms.Gurusai Charani Ankisetty, Ms.Sravani Alluri, Ms.Manogna Boora, Ms.Vallabhadasu Raghamaala, "**LED Driver with an Efficient Interleaved Buck Converter**", in Intelligent Manufacturing and Energy Sustainability: Proceedings of ICIMES 2022 (pp. 635-648),June 2023, Springer Nature Singapore.
7. **Ms.SujathaBanka**,Ms.K.Bhavya,Ms.Annam Bhuvaneshwari,Ms.Akhila Akula,Ms.Sripriya Thirukkavalluru, Ms.Swapna Jarpula "**A Novel Method for Fire Detection and Alarming Notification using IoT Technology**" **2nd IEEE International Conference on Electronics and Renewable Systems, ICEARS 2023, pp. 560–565,March 2023.**
8. **Ms.Banka.Sujatha** ,Ms.Kavya, G., Mr.Sudheer Kumar, Ms.M., Ruchitha, Ms.V., Pujitha, B., Ms. Jaya Pooja Sri, "**Web Application for Solar Data Monitoring Using IoT Technology**" ,in Proceedings of Fourth International Conference on Computer and Communication Technologies ,pp. 593-600. Springer, Singapore,March 2023.
9. Ms.Bhavya,K.**Ms.Banka Sujatha**,Subhashitha, P. ,"**Power Quality Enhancement in Distribution System using Ultracapacitor Integrated Power Conditioner.**" in Proceedings of Fourth International Conference on Computer and Communication Technologies,pp.601-612).Springer Nature, Singapore.

10. Dr.Punna Srinivas, **Ms.Banka.Sujatha**,Ms. Kavya Swamy, Ms.K. Keerthi Krishna, Ms.P. Sreeja Sree, Ms.D.Tharuni. "**HESS-Based Bi-Directional DC-DC Converter with Adaptive Control Strategy.**" IEEE 2nd International Conference on Sustainable Energy and Future Electric Transportation(SeFeT),pp.1-4.August ,2022
11. **Ms.B.Sujatha**, Ms.K.Srinija, Ms.B.Soumya, Ms.J.Pavithra ,Ms.K.Sudha Srinidhi, "**Monitoring and Controlling of Solar Watered Pumping System using Arduinio-LabVIEW**" ,Vol:5, Issue-5, May 2020 ,Vidhyayana-An International Multidisciplinary Referred E-Journal (ISSN: 2454 – 8596).

Book Chapter :

1. Ms.Bhavya Kanchanapalli, **Ms.Sujatha Banka** ,"**Power Quality Improvement in Distribution System**" by IntechOpen publishers ,Feb,2024.

FDP's /Workshops Attended

1. Five day Online Faculty Development Program on "**Navgating the future with Green Energy Resources ,Smart Grid Technologies &Emission free Vehicle Infrastructure**" organized by Department of Electrical and Electronics Engineering,Vishnu Institute of Technology, Vishnupur, Bhimavaram, Andhra Pradesh from 22nd to 27th April 2024.
2. Five day workshop on "**CII - Training Program for BEE Energy Manager and Energy Auditor Exam**" " organized by CII, Hyderabad from 19th to 23rd Feb 2024.
3. Twenty seven days Faculty Orientation Program (FOP) "**Ignite Entrepreneurship**" organized by the Directorate of Entrepreneurship Innovation and Start-Ups (DEIS), JNTUH in association with Wadhvani Foundation from 27th March 2024 to 23rd April 2024.
4. Five day Online Short term Training Program on "**Research Methodology**" organized Jawaharlal Nehru Technological University, Hyderabad from 11th to 16th September 2023.
5. Ten Day Online Faculty Development Program on "**Hybrid Vehicles and Battery Management Systems**" organized by Department of Electrical and Electronics Engineering, Sri Vishnu Engineering College for Women, Bhimavaram and E & ICT, NIT Warangal from 7th to 16th March 2022.
6. Twelve Day Online Faculty Development Program on "**Design Aspects and IoT Applications in Electric Vehicles**" organized by Department of Electrical and Electronics Engineering, Vaagdevi College of Engineering, Warangal and E & ICT, NIT Warangal from 28th Feb to 9th March 2022.
7. Six Day Online Induction/Refresher Program on "**Integration of Green Energy Resources**" organized by Department of Electrical and Electronics Engineering,Vishnu Institute of Technology, Vishnupur, Bhimavaram, Andhra Pradesh from 1st to 7th Feb 2022.
8. Five Day Online Faculty Development Program on "**Publication and Research Ethics**" organized by AICTE-ATAL FDP at Department of Electrical Engineering Rajiv Gandhi Institute of Technology, Kottayam from 6th to 12th December 2021.
9. Five Day Online Faculty Development Program "**Developing Effective Research Skills**" Organized by AICTE ATAL at Library and Information Center, P.E.S. College of Engineering, Mandya from 9th to 13th August 2021.

10. Five day Online Short term Training Program on “**Modern Power System Optimization: Techniques, Tools, and Applications**” organized by Department of Electrical and Electronics Engineering, NIT ,Trichy from 3rd May to 7th May 2021.
11. Five day Online Faculty Development Program on “**Energy Engineering**” organized by AICTE ATAL at Department of Electrical and Electronics Engineering, Global Academy of Technology, Bangalore from 7th to 11th December 2020.
12. Six Day online AICTE sponsored Short Term Training Program on “**Technical Writing & Research Methodology**”, organized by Department of EEE , Chaitanya Bharathi Institute of Technology , Proddatur from 30th November to 5th December 2020.
13. Six Day online AICTE sponsored Short Term Training Program on AICTE sponsored STTP (Series-A) on “**RECENT DEVELOPMENTS AND ENTREPRENEURSHIP IN SUSTAINABLE GREEN ENERGY TECHNOLOGIES AND SMART GRIDS**”, organized by Department of EEE , B.V.Raju Institute of Technology, Narsapur from 17th to 22nd August 2020.
14. Six day International Faculty Development Program on “**Industrial Relevance of Electrical Engineering**”, organized by Department of EEE, BVRIT HYDERABAD College of Engineering for Women, Hyderabad from 15th to 20th June 2020.
15. One week Faculty Development Program on “**Implementation and Simulation of Electrical Engineering Applications using PLECS Tool**” from 25th to 29th May 2020 organized by Vaagdevi College of Engineering, Warangal.
16. Five day Online Faculty Development Program on “**Artificial Intelligence**” organized by BVRIT HYDERABAD College of Engineering for Women, Hyderabad from 22nd to 26th May 2020.
17. Six day Online International Faculty Development Program on “**Research Challenges and Innovations in Renewable Energy Systems**” from 11th to 16th May 2020 organized by Aarupadai Veedu Institute of Technology, Paiyanoor, Chennai.
18. Six day Online Faculty Development Program on “**Research Challenges and Opportunities Post COVID-19 (RECOP – 2020)**” from 04th to 09th May 2020 organized by Sri Vasavi Engineering College (Autonomous), Tadepalligudem.
19. One week National Development Program and Online Training on “**LateX**” organized by Sanjay Ghodawat University, Kolhapur in association with Spoken Tutorial Project, IIT-Bombay from 27th April to 2nd May 2020.
20. Six day Online Faculty Development Program on “**Research Opportunities in Power Engineering(ROPE)**” from 22nd to 27th April 2020 from CMR College of Engineering and Technology, Hyderabad.
21. Three day Faculty Development Program on “**Machine Learning & Its applications**” from 28th to 30th September 2019, organized by Dept of EEE,ECE,CSE&IT,BVRIT HYDERABAD College of Engineering for Women, Hyderabad.
22. Three day workshop on “**Immersive Instructional Technology (IIT Program)**” in VEDIC, SVES from 23th to 25th July 2019.
23. Three day Faculty Development Program on “**Professional Etiquette & Emotional Intelligence**” conducted by Dept of Basic Sciences & Humanities from 8th to 10th July 2019 at BVRIT HYDERABAD College of Engineering for Women, Hyderabad.
24. One day Workshop on **Campus Energy Monitoring System (CEMS)** at IIT, Hyderabad on 29th June 2019.
25. One day workshop on “**Unconscious Bias in The Work Place (UBW)**” on 1st May 2019 organized by VEDIC at BVRIT HYDERABAD College of Engineering for Women, Hyderabad.

26. One day workshop on “**TTT(Think-Technology–Transform)**” in BVRITH on 21st June 2018.
27. One day workshop on “**Best Practices In Design &Implementation of Solar Power Plants With an Overview of Techniques in Energy Yield Estimation/ Forecasting**” at Renew X, Hitex, Hyderabad on 14th April 2018 ,organized by iacharya Silicon Limited, Chennai in association with the SRRA unit of NIWE (R&D institution under MNRE).
28. Three day workshop on “**Inspire-Impact-Introspect level-1**” at VEDIC, SVES from 24th to 26th October 2017.
29. Six day workshop on “**Liter of Light**” at BVRIT Hyderabad college of Engineering for Women from 12th to 16th October 2017.
30. One week Faculty development program on “**Open Source Software through Spoken Tutorials**” at **BVRIT Hyderabad college of Engineering for Women** , organized by IIT Bombay & Department of Information Technology, BVRIT Hyderabad college of Engineering for Women from 29th June to 5th July 2017.
31. Two Day Work shop on “**Mind-map for Effective Teaching- Learning**” at VEDIC, SVES from 6th to 7th June 2017.
32. One week Faculty development program on “**Data Science and Big Data Analytics**” at BVRIT Hyderabad college of Engineering for Women, ,organized by NIT,Warangal & Department of Information Technology, BVRIT Hyderabad college of Engineering for Women from 06th to 11th March 2017.
33. Three day R&D conclave on “**Challenges and Opportunities in Research and Development for Power and Energy**” at CBIT, Hyderabad from 1st to 3rd February 2017.
34. Two day workshop on “**Solar Pro software**” at NSIC- Technical Service Centre , Hyderabad from 20th to 21st January 2017.
35. Two day satellite workshop on “**SciPy**” at BVRIT Hyderabad college of Engineering for Women, in collaboration with IIT Bombay from 10th to 11th December 2016.
36. One week Faculty development program on “**Solar PV Grid connected Power plant**” at BVRIT Hyderabad college of Engineering for Women,organized by Department of EEE in association with National Training Centre for Solar Technology, Karnataka, from 5th to 10th December 2016.
37. One week Faculty Development Program on “**Python, Scilab and Drupal from Spoken Tutorial Project**”, at BVRIT Hyderabad college of Engineering for Women, organized by Department of Information Technology, IIT Bombay from 4th to 10th November 2016.
38. Two day workshop on “**Advanced Engg Optimisation through Intelligent Techniques**”at VEDIC, SVES from 21st to 22nd October 2016.
39. Three day workshop on “**Scientific Educational Practices**” in VEDIC, SVES from 4th to 6th October 2016.
40. Three day workshop on “**Emerging Trends in Power Systems and Power Electronics**” at CVR College of Engineering, Hyderabad from 11th to 13th February 2016.

Professional Memberships:

- i. Lifetime member of Indian Society for Technical Education (**ISTE**), LM 73441
- ii. Member of International Association of Engineers (**IAENG**), Hongkong (No:11956).
- iii. Annual Student Member of Institute of Electrical and Electronics Engineers (**IEEE**), (No:97382396).

Certifications

1. CII Certified Professional in **Resource Efficiency and Environmental Sustainability** in November 2023.
2. Online Certification on “**Non-conventional Energy Resources**” from NPTEL, April 2024.
3. Online Certification on “**Smart Grid: Basics To Advanced Technologies**” from NPTEL, October 2023.
4. **Certified Energy Manager** in the 22nd National Certification Examination for Energy Managers held in July 2022 conducted on behalf of the Bureau of Energy Efficiency, Ministry of Power, Government of India.
5. Online Certification on “**Introduction to Raspberry pi 4**” from Udemty in Jan 2022.
6. Online Certification on “**DCMicrogrid and Control System**” from NPTEL, September 2021
7. Online Certification on “**On-line resources for supervision**” from UCPBL in May 2021.
8. Online Certification on “**Introduction to PBL**” from UCPBL in May 2021.
9. Online Certification on “**Solving non-linear problems using Swarm Intelligence**” from Udemty in May 2021.
10. Online Certification on “**Interfacing with Arduinio**” from Coursera in June 2021.
11. Online Certification on “**Introduction to Power Electronics**” from Coursera in May 2020.
12. Online Certification on “**Learn to Design your Solar Home Systems**” as a part of Energy Literacy Drive of the Energy Swaraj Foundation in May 2020.
13. Online Certification on “**Inverters Design(SVPWM) MATLAB/Simulink**” from Udemty in May 2020.
14. Online Certification on “**Natural Gas**” from Coursera in May 2020.
15. Online Certification on “**Energy : The Enterprise**” from Coursera in May 2020.
16. Online Certification on “**Safety in the Utility Industry**” from Coursera in May 2020.
17. Online Certification on “**Electric Power Systems**” from Coursera in April 2020.
18. Online Certification on “**Solar Energy Basics**” from Coursera in April 2020.
19. Online Certification on “**Wind Energy**” from Coursera in April 2020.
20. Online Certification on “**Introduction to Solar Cells**” from Coursera in April 2020
21. Online Certification on “**Designing of Power Electronic Converters in MATLAB/Simulink**” and got Certificate from Udemty in April 2020.
22. Online Certification on “**Optimization problems and Algorithms**” from Udemty in March 2020.
23. Online Certification on “**Outcome Based Education (OBE) & Academic Quality Assurance**” from Udemty in March 2020.
24. Online Certification on “**Hands-on training on Solar Study Lamp Assembly**” recognized by Skill Council for Green Jobs, offered by IITBombay X in October 2019.
25. Online Certification on “**Introduction to Smart Grid**” from NPTEL in April 2019.
26. Online Certification on “**Advance Power Electronics and Control**” from NPTEL in April 2019.
27. Online Certification on “**Design, Installation, Operation and Maintenance of Solar Utility Scale Power Projects**”, organized by iacharya Silicon Limited, Chennai in association with the SRRA unit of NIWE (R&D institution under MNRE), December 2018.
28. Online Certification on “**Introduction to Internet of Things**” from NPTEL in April 2018.
29. Online Certification on “**Solar photovoltaic Off-grid and On-grid: Design & Installation**” organized by iacharya Silicon Limited, Chennai in association with the SRRA unit of NIWE (R&D institution under MNRE), March 2018.
30. Online Certification on “**Design of Photo Voltaic Systems**” from NPTEL in October 20
31. Online Certification on “**Introduction to Research**” from NPTEL, September 2017.

Guest lectures Delivered

1. Delivered guest lecture on “**Energy Management System in Microgrid using Optimization Techniques**” organized by the IEEE RGM Student branch in association with Sensors Council Society, RGM College of Engineering and Technology, Nandyal on 16th December 2023.