

Personal Information

Name	Banka. Sujatha
Years of Experience	Teaching: 18 Years Research: NIL Industry: NIL
Email Id	sujatha.b@bvrithyderabad.edu.in
CN ID	SR1213
Areas of Specialization	Power Electronics



Date of Joining : 13-05-2015

Educational Qualifications

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

Patent Published:

Managing EVs in the Smart Grid Using AI and secured IoT Technology. Application No. **202141053795**.

Design Patent Granted:

IOT BASED SOLAR POWERED AGRICULTURE ROBOT Application No. **380905-001**

Papers Published

International Journal Publications

1. Dr.P.Srinivas, **Banka.Sujatha** “**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.
2. **Banka.Sujatha**, 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.
3. **Banka.Sujatha**,N.Aamani, P.Harshini ,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.

4. **Banka.Sujatha**, P.Subhashitha, ‘**ACTIVITY BASED TEACHING IN ENGINEERING EDUCATION**’, in the International Education & Research Journal(IERJ), E-ISSN:2454-9916, Volume : 5, Issue : 8, June 2019 , Page No: 56-57, IF: 5.564(SJIF).
5. **Banka.Sujatha**, J.Sravana Kalyani , 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, pp. 16-20, April 2018, ISSN:2321-8169,SJIF:5.837.
6. **Banka.Sujatha**,B.Rani,Saini.Ramya,‘**OPTIMIZATIONANDPERFORMANCEANALYSIS OF SINGLE AXIS SOLAR TRACKER USING MATLAB/SIMULINK SOFTWARE**’, International Journal of Novel Research and Development (IJNRD) , Vol.3, Issue 4, pp. 77- 81, April 2018, ISSN: 2456-4184 , IF:5.57.
7. **Banka.Sujatha**, Ch.Renuka Devi, 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, pp. 92-96, August 2017, ISSN:2455-3778,IF:3.1.
8. **Banka.Sujatha**,K.Bhavya,‘**SimulationandPerformanceofACDrivesusingSVPWMTechnique**’, International Journal of Recent and Innovation Trends in Computing and Communication(IJRITCC),Vol.5,Issue7,pp.11-18,July2017,ISSN:2321-8169,SJIF:5.837.
9. **Banka.Sujatha**, 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, pp. 223-228 , July 2017, ISSN:2455-3778,IF:3.1.

International Conference Publications

- 1.R.Guruswamy,K.Bhavya, Dr.K.Amritha, **Banka.Sujatha**, Babita Gupta presented the paper titled “Improvement in learning the concepts in technical education with the usage of vocabulary “in Two –day International Virtual Conference ELT in India: Tradition vs Innovation organized by BVRIT HYDERABAD College of Engineering for Women, Hyderabad on 6th and 7th July 2023.
- 2.**Banka.Sujatha**, Kokkula Shivani , G .Sushma , Mohammad Shalima Tarannum , Ashwini Balagani , Kyatam Keerthana presented the paper titled “**Web Application for Air Quality Index Monitoring System using ThingSpeak**” in Springer 3rd International Conference on Soft Computing for Security Applications - ICSCS 2023 on 17th April 2023 organized by Dhilrajlal Gandhi Institute of Technology, Salem, Tamilnadu.
- 3.**Banka.Sujatha**,Punna Srinivas , S., Ankisetty, G. S. C., Alluri, S., Boora, M., & Vallabhadasu, R. (2023). “LED Driver with an Efficient Interleaved Buck Converter”, in Intelligent Manufacturing and Energy Sustainability: Proceedings of ICIMES 2022 (pp. 635-648). Singapore: Springer Nature Singapore.
- 4.**Banka.Sujatha**, K.Bhavya,Annam Bhuvaneshwari,Akhila Akula,Sripriya Thirukkavalluru ,Ms.Swapna Jarpula “A Novel Method for Fire Detection and Alarming Notification using IoT Technology” Proceedings of the 2023, 2nd International Conference on Electronics and Renewable Systems, ICEARS 2023, IEEE 2023, pp. 560–565.
5. **Banka.Sujatha** ,Kavya, G., Sudheer Kumar, M., Ruchitha, V., Pujitha, B., & Jaya Pooja Sri, M. (2023). “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.

6. Bhavya, K., **Banka Sujatha**, Subhashitha, P. (2023, March). Power Quality Enhancement in Distribution System using Ultracapacitor Integrated Power Conditioner. In Proceedings of Fourth International Conference on Computer and Communication Technologies: IC3T 2022 (pp.601-612). Singapore: Springer Nature, Singapore.
7. Punna Srinivas, **Banka.Sujatha**, Kavya Swamy, K. Keerthi Krishna, P. Sreeja Sree, D. Tharuni. "HESS-Based Bi-Directional DC-DC Converter with Adaptive Control Strategy." In 2022 IEEE 2nd International Conference on Sustainable Energy and Future Electric Transportation (SeFeT), pp.1-4. IEEE, 2022.
8. **Banka.Sujatha**, K.Srinija, B.Soumya, J.Pavithra, K.SudhaSrinidhi, "Monitoring and Controlling of Solar Watered Pumping System using Arduinio-LabVIEW", in International Online Conference organized by Vidhyayana-An International Multidisciplinary Referred E-Journal on 10th May 2020.

FDP's /Workshops Attended

1. Five day Online Faculty Development Program "**Python For Electrical and Electronics Engineering: A Faculty Development Program on Python Applications**" organized by Department of Electrical and Electronics Engineering, Rajeev Gandhi Memorial College of Engineering and Technology (Autonomous), Nandyal from 27th to 31st March 2023.
2. Six Day Online Faculty Development Program "**Application of Power Electronic converters to power and energy systems**" organized by Department of Electrical and Electronics Engineering and IEE PES chapter in association with IEEE VCE SB, Vardhaman College of Engineering, Hyderabad from 19th to 24th December 2022.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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.

11. 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.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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.
17. 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.
18. 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.
19. 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.
20. Three day workshop on **“Immersive Instructional Technology (IIT Program)”** in VEDIC, SVES from 23rd to 25th July 2019.
21. 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.
22. One day Workshop on **“Campus Energy Monitoring System (CEMS)”** at IIT, Hyderabad on 29th June 2019.
23. 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.
24. One day workshop on **“TTT(Think-Technology-Transform)”** in BVRITH on 21st June 2018.
25. 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).
26. Three day workshop on **“Inspire-Impact-Introspect level-1”** at VEDIC, SVES from 24th to 26th October 2017.
27. Six day workshop on **“Liter of Light”** at BVRIT Hyderabad college of Engineering for Women from 12th to 16th October 2017.

28. 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.
29. Two Day Work shop on **“Mind-map for Effective Teaching- Learning”** at VEDIC, SVES from 6th to 7th June 2017.
30. 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.
31. 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.
32. Two day workshop on **“Solar Pro software”** at NSIC- Technical Service Centre , Hyderabad from 20th to 21st January 2017.
33. 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.
34. 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.
35. 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.
36. Two day workshop on **“Advanced Engg Optimisation through Intelligent Techniques”** at VEDIC, SVES from 21st to 22nd October 2016.
37. Three day workshop on **“Scientific Educational Practices”** in VEDIC, SVES from 4th to 6th October 2016.
38. 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. **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.
2. Online Certification on **“Introduction to Raspberry pi 4”** from Udemy in Jan 2022.
3. Online Certification on **“DCMicrogrid and Control System”** from NPTEL, September 2021
4. Online Certification on **“On-line resources for supervision”** from UCPBL in May 2021.
5. Online Certification on **“Introduction to PBL”** from UCPBL in May 2021.
6. Online Certification on **“Solving non-linear problems using Swarm Intelligence”** from Udemy in May 2021.
7. Online Certification on **“Interfacing with Arduino”** from Coursera in June 2021.
8. Online Certification on **“Introduction to Power Electronics”** from Coursera in May 2020.
9. 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.
10. Online Certification on **“Inverters Design(SVPWM) MATLAB/Simulink”** from Udemy in May 2020.
11. Online Certification on **“Natural Gas”** from Coursera in May 2020.
12. Online Certification on **“Energy : The Enterprise”** from Coursera in May 2020.
13. Online Certification on **“Safety in the Utility Industry”** from Coursera in May 2020.
14. Online Certification on **“Electric Power Systems”** from Coursera in April 2020.
14. Online Certification on **“Solar Energy Basics”** from Coursera in April 2020.
15. Online Certification on **“Wind Energy”** from Coursera in April 2020.
16. Online Certification on **“Introduction to Solar Cells”** from Coursera in April 2020
17. Online Certification on **“Designing of Power Electronic Converters in MATLAB/Simulink”** and got Certificate from Udemy in April 2020.
18. Online Certification on **“Optimization problems and Algorithms”** from Udemy in March 2020.
19. Online Certification on **“Outcome Based Education (OBE) & Academic Quality Assurance”** from Udemy in March 2020.
20. 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.
21. Online Certification on **“Advance Power Electronics and Control”** from NPTEL in April 2019.
22. 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.
23. Online Certification on **“Introduction to Internet of Things”** from NPTEL in April 2018.
24. 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.
25. Online Certification on **“Design of Photo Voltaic Systems”** from NPTEL in October 2017.
26. Online Certification on **“Introduction to Research”** from NPTEL, September 2017.