

RESUME

Dr. P. SATHISH BABU

Assistant Professor (SG)



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→ Assistant Professor(Senior Grade) in Department of EEE at Anna University, University college of Engineering, Panruti from 30.05.2015 onwards

→ Assistant Professor in Department of EEE at Anna University, University college of Engineering, Panruti from 31.08.2014 to 30.05.2015

→ HOD i/c in EEE at Anna University, University College of Engineering, Ramanathapuram from 14.11.11 to 30.08.14.

→ Assistant Professor in EEE at Anna University, University college of Engineering, Ramanathapuram from 2.09.2009 to 13.11.11.

→ Senior lecturer in the Department of EEE at RajaLakshmi Engineering College, Thandalam, Chennai from 02 July 2008 to 31 August 2009.

→ Senior lecturer in the Department of Electrical and Electronics Engineering at SreeSastha Institute of Engineering and Technology, chembarambakkam, Chennai from 10.06.2007 to 15.05.2008.

→ Senior lecturer in the Department of EEE at Mailam Engineering College, Mailam from 01.02.2005 to 01.06.2007.

Academic Qualifications:

October 2016 → Ph.D in the Faculty of Electrical Engineering

Thiagarajar College of Engineering, Madurai

(Anna University ,Chennai)

Area of research - Power quality improvement using Custom Power Devices

April 2005 → M.E., in Power Electronics and Industrial Drives.

(First Class with Distinction)

Sathyabama Institute of Science and Technology, Chennai.

April 1999 → B.E., in Electrical and Electronics Engineering **(First Class)**

University of Madras,V.M.K.V.EngineeringCollege ,Salem

Online courses Participated

1.Swayam online course of three credit conducted by **NITTTR-chennai** on “**Transforming instruction through Blended Classroom**” with the consolidated score of 67% in the proctored examination held on 23.05.19.

2.NPTEL-AICTE online course conducted by **IIT Kharagpur** on ”**Accreditation and outcome base learning**” with consolidated score of 82% with **Elite-silver certification** during August – October 2019.

3.Successfully completed three weeks Industrial training on Communication and Networking Technologies from 08.06.2020 to 26.06.2020 at BSNL Panruti organized by Rajiv Gandhi Memorial Telecom training centre,BSNLMeenambakkam,Chennai-600016.

*4.Participated in the Online AICTE Recognized Faculty Development Programme on **Employability Skills for Industry 4.0 from 13/07/2020 to 17/07/2020 (One Week)** Organized by **Entrepreneurship Development and Industrial Coordination Department NITTTR, Chandigarh.***

5.successfully completed a 2-Week Faculty Development Programme on "MANAGING ONLINE CLASSES AND CO-CREATING MOOCS 3.0" from July 25 - August 10,2020 and obtained grade **A+** conducted by Teaching Learning Centre, Ramanujan College University of Delhi under the aegis of **MINISTRY OF HUMAN RESOURCE DEVELOPMENT PANDIT MADAN MOHAN MALAVIYA NATIONAL MISSION ON TEACHERS AND TEACHING.**

6.Participated in **Faculty Development Programme** from **2020-10-12** to **2020-10-16** on **Moodle Learning Management System** organized by **Centre for Faculty Development, Anna University, Chennai** with course material provided by Spoken Tutorial Project, **IIT Bombay**.

7.Participated &completed successfully AICTE Training And Learning (ATAL) Academy **Online FDP** on "**Electric Vehicles**" from **30-11-2020** to **4-12-2020** conducted by **University College of Engineering Villupuram**.

PUBLICATIONS

International Journals

1.**Sathish Babu Pandu et al.**, "Power Quality Enhancement in Sensitive Local Distribution Grid Using Interval Type-II Fuzzy Logic Controlled DSTATCOM," in *IEEE Access*, vol. 9, pp. 59888-59899, 2021, doi: 10.1109/ACCESS.2021.3072865.

2.**P. Sathish Babu**, C.K. Sundarabalan, C. Balasundar, T. Santhana Krishnan,Fuzzy logic based optimal tip speed ratio MPPT controller for grid connected WECS,Materials Today: Proceedings,Volume 45, Part 2,2021, Pages 2544-2550,ISSN 2214-7853,https://doi.org/10.1016/j.matpr.2020.11.259.

3.S. Krishnaveni, S. Senthil Raja, T. Jayasankar, **P. Sathish Babu**, Analysis and control of the motor vibration using arduino and machine learning model,Materials Today: Proceedings, Volume 45, Part 2,2021,Pages 2551-2555,ISSN 2214-7853,https://doi.org/10.1016/j.matpr.2020.11.261.

4.**Sathish Babu,Pandu&KamarajNagappan** 2015, ‘A novel multiobjective control of DVR to enhance power quality of sensitive load’, The Scientific World Journal, vol. 2015, Article ID 385109, 10 pages, doi:10.1155/2015/385109.

5.**Sathish Babu, P** & Kamaraj N 2014,‘Performance analysis of DVR using ANN controller for voltage quality enhancement’,Applied Mechanics and Materials, Vol. 573, pp. 356-361.

6.**Sathish Babu, P** &Kamaraj N 2015, ‘Investigation of power quality indices of sensitive load using adaptive fuzzy PI and ANFIS optimized fuzzy controller based dynamic voltage restorer’, International Journal of Applied Engineering Research, Vol. 10, no. 55, pp. 301-317, Research India Publications.

7.Sundarabalan,CK & **Sathish Babu,P**“ Unified Power Quality Conditioner for Enhancement of Power Quality and Hybrid Power Generation Injection to Grid (source side fault) “ published in International Journal of Modern Engineering Research (IJMER), Vol.2, Issue 2, April 2012, pp-493- 499.

8.Sundarabalan,CK&**Sathish Babu,P**” Mitigation of power quality issues using Distributed generation based Custom power device”published in CIIT international Journal, July 2012,DOI:PDCS072012036.

9. CK Sundarabalan, **P Sathish Babu**, 2012 “Dynamic Control of Power Distribution system and Hybrid Power Generation Injection to Grid using UPQC”, Automation and Autonomous System 4, 151-157.
10. CK Sundarabalan, **P Sathish Babu** 2012, Mitigation of Power Quality Issues using Distributed Generation based Custom Power Device, Programmable Device Circuits and Systems 4, 662-668.
11. Sivakumar, S & **Sathish Babu, P** “Design, Modeling and Hardware Implementation of MPPT controlled Grid connected Hybrid system with smart tracker and improved power quality” published in International Journal of Innovative Research & Development, Vol. 2 Issue 6, June 2013, pp. 665-688.
12. Pughazendhi D & **Sathish Babu, P** “A Novel Nine Switch Converter for solar Energy Generation Systems”, Published in International Journal of Emerging Trends in Electrical and Electronics (IJETEE-ISSN:2320-9569), Volume 3, Issue 1, May 2013, pp- 83-87.

Papers presented in International and National conferences

1. “Dynamic Control of Power Distribution system and Hybrid Power Generation Injection to Grid using UPQC (Load side fault) “ in International Conference on computing and Control Engineering (ICCCE-2012) at Dr. M.G.R. University on 13th April 2012 and published in proceedings pp 150-151.
2. “Implementation of Soft Computing Techniques in UPQC to Protect a Sensitive Load on a Polluted Distribution Network (ICMOC-2012)“ in International Conference on Modeling Optimization and Computing at Noorul Islam University, on 10th April 2011 and published in proceedings pp 1326-1334.
3. “Detection and Classification of voltage disturbances “in National conference on optimization techniques in Engineering sciences and Technologies” (OPTTEST-2012) organized by Bannari Amman Institute of Technology, Sathyamanagalam, Tamil Nadu.
4. “Performance Investigation of Dynamic Voltage Restorer Using PI and Fuzzy Controller”, IEEE International Conference on Power, Energy and Control, published in IEEE digital explorer pp. 467-472, held at PSNA College of Engineering and Technology during February 06-08, 2013.
5. “Performance Analysis of DVR using ANFIS Controller for Voltage Quality Enhancement”, in International Conference on Advancement in Automation and Control Technologies ICCAC 2014 on 11-12 April 2014 and Published in conference proceedings at Syed Ammal Engineering College, Ramanathapuram.
6. “Investigation of power Quality Indices of sensitive load using Adaptive fuzzy Pi and ANFIS optimized fuzzy controller based Dynamic Voltage restorer in the International Conference on

Advances in Applied Engineering and Technology 2015 organised by Syed Ammal Engineering College, Ramanathapuram on May 14-16, 2015.

7. "Photovoltaic based Series Compensator for power Quality improvement" in the National Conference on "Emerging Trends in Electrical Science" on 27th and 28th February 2013 organised by Association of Electrical and Electronics Engineers, Institute of Road and Transport Technology, Erode.

8. "SMES based Series Compensator under distorted utility Condition" in the National Conference on "Emerging Trends in Electrical Science" on 27th and 28th February 2013 organised by Association of Electrical and Electronics Engineers, Institute of Road and Transport Technology, Erode.

9. "Cascaded Multilevel Inverter based Dynamic Voltage Restorer in Distribution System" in the National Conference on "Emerging Trends in Electrical Science" on 27th and 28th February 2013 organised by Association of Electrical and Electronics Engineers, Institute of Road and Transport Technology, Erode.

10. "Sliding mode control of Dynamic Voltage Restorer in Distribution System" in the National Conference on "Emerging Trends in Electrical Science" on 27th and 28th February 2013 organised by Association of Electrical and Electronics Engineers, Institute of Road and Transport Technology, Erode.

11. "Design, Modeling and Hardware Implementation of MPPT controlled Grid connected Hybrid system with multifunctional tracking system" in TEQIP sponsored 6th National Conference on Electrical and Instrumentation Systems – NCIS'13, conducted by Government College of Technology, Coimbatore on 13th, April 2013.

12. "Design, Modeling and Hardware Implementation of multiple maximum power point trackers for multistring PV panel in grid connected system" in DRDO sponsored National Conference on Innovations in Engineering & Technology – IET'2013 conducted by Anna University – Regional Centre, Madurai on 27th & 28th, March 2013.

13. "Implementation of MPPT controlled Grid connected Hybrid RES with power quality improvement" in the National Conference on Power Initiatives – 'NCPI 2k13' conducted by K. Ramakrishnan College of Engineering, Trichy on 12th, March 2013.

14. "Interconnection of renewable Energy resources to the Distribution grid", in National conference on Control of Electrical Power Apparatus held at Government College of Engineering, Tirunelveli on 5.4.13, published in the conference proceedings, page no.171-175.

15. "An Inverter Based Interconnection of renewable Energy resources to the Distribution grid Using ANFIS Controller", in National conference on Emerging Trends in Engineering and Technology held at PSN College of Engineering and Technology, Tirunelveli on 11.04.13 & 12.04.13, published in the proceedings, page no.280-284.

16. "Matrix converter based Series compensator for mitigating power quality disturbances", in National conference on Emerging Trends in Engineering and Technology held at PSN College of

Engineering and Technology, Tirunelveli on 11.04.13 & 12.04.13, published in the proceedings, page no.304-307.

17."Fuzzy Logic based Dynamic Voltage Restorer for voltage sag mitigation" in the third national level conference on Drastic Innovations in Energy Thrive held on 24th March 2016.

18."Particle swarm optimization controlled Dynamic voltage restorer for voltage quality Enhancement" in the International conference on Computing, Communication and Drastic innovations in Energy Thrive held on 28th February and 1st March 2018.

19."SOFC supported Intelligent controlled DVR for mitigating power quality disturbances" in the International conference on computing ,Information, Electronics and Electrical held at Idhaya Engineering College for women on 21.02.2020.

Book published

Power Quality Enhancement using DVR , Lap Lambert Academic Publishing, Germany, ISBN 978-3-330-34862-2, 1st Edition, 11 July 2017.

Patent Published

Application Published :1 (Application No.201941053865A) Publication Date:03.01.2020

The Patent Office Journal
No.01/2020 Dated
03/01/2020 .

FDP,WORKSHOP Participated

1. **Ministry of Non-Conventional Energy sources and Tamilnadu Energy development Agency** sponsored one day national seminar held on the occasion of celebration of Rajiv Gandhi Renewable Energy Day on **20th August 2006** conducted by the Mailam Engineering College, Mailam.

2.**Centre for Faculty Development, Anna University Chennai Sponsored** Faculty development programme on "**Non Linear Control System**" at College of Engineering, Guindy, from **4th December to 16th December 2006**.

3.**AICTE-ISTE sponsored** training programme on "**Emerging trends in Embedded and Wireless Technology**" held during **19th -23rd march 2007** at Mailam Engineering College, Mailam.

4. **UGC Sponsored** workshop on “**Power Electronic Simulation Using SABER,PSPICE,MATLAB and CASPOC-03**”organised by the department of Electrical and Instrumentation Engineering, Faculty of Engineering and Technology, Annamalai University during **24th and 25th March 2007**.

5. National Seminar on “**Nano Science and Technology-Challenges ahead**” organized by Vellammal Engineering College ,Chennai in Association with **IGCAR, Kalpakkam** on **19.08.2008**.

6. Short term training programme on “ **Application of power Electronics to power transmission and distribution system**”organized by the Department of Electrical and Electronics Engineering, Prathyusha Institute of Technology and Management, Aranyoakuppam on **26th and 27th December 2008**.

7. Two days workshop on “**Energy management and conservation in Modern buildings**” organized by the Department of Electrical and Electronics Engineering, Anna University of Technology Tiruchirappalli on **20th and 21st of December 2010**.

8. **Anna University of Technology Madurai** organized one day workshop on “**Research Methodology: objectives and Approaches**” on **29 December 2010** at Madurai.

9. Two days faculty development programme on “**Discrete and Fuzzy Mathematics**” organized by Anna University of Technology Madurai, Ramanathapuram campus on **07th and 08th April 2011**.

10. **NITTR sponsored** Training Programme on “**Instructional Design and Delivery**” conducted by this institute at Anna university of Technology Madurai from **13th to 15th July 2011**.

11. Three days workshop on “**Virtual Instrumentation**” conducted by Anna University of Technology Madurai jointly with **National Instruments, Bangalore** from **17th to 19th August 2011**.

12. **IEEE Madras Section** organized Faculty Development programme on “**Wavelets and its Applications**” at Anna University of Technology-Madurai, during **5th and 6th November 2011**.

13. **AICTE Sponsored Staff Development Programme** on “**Research methodologies and issues in Engineering**” organized by Department of Electrical and Electronics Engineering, Thiagarajar College of Engineering, Madurai from **12.12.2011 to 24.12.2011**.

14. **Council of Scientific and Industrial Research(CSIR), New Delhi** Sponsored two day workshop on “**Smart Grids**” organized by Anna University of Technology, Madurai on **27-28 July 2012**.

15. Participated in “**4th National Power Engineering conference 2013**” organised by Department of Electrical and Electronics Engineering on **2nd & 3rd March 2013**.

16. **TEQIP** sponsored two day FDP on “**Smart grid technologies -Issues and Challenges**” organized by the department of Electrical and Electronics Engineering in collaboration with **Central Power Research Institute, Bangalore**, during **18.10.13 and 19.10.13**.

17. **TEQIP** sponsored one week faculty development programme on “**Power Quality issues in contemporary and future power networks**” organized by Department of Electrical and Electronics Engineering, Thiagarajar College of Engineering, Madurai from **27.11.13 to 3.12.13**.

18. **TEQIP II** sponsored one week faculty development programme on “**Intelligent controllers in renewable Energy systems**” organized by Department of Electrical and Electronics

Engineering, Alagappachettiar College of Engineering and Technology, Karaikudi from **28.05.14 to 03.06.2014**.

19. Three days training programme on “Cadence OrCAD simulation and PCB design software” from **12-08-2014 to 14.08.2014** at University College of Engineering, Villupuram conducted by **FTD Automation Pvt. Ltd., Bangalore**.

20. NSTEDB, Department of Science and Technology, Government of India, New Delhi sponsored two week faculty development programme on “Entrepreneurship” organized by PSG-STEP, Coimbatore during the period **May 18-29, 2015**.

21. TEQIP sponsored program organized by Centre for Faculty Development, Anna University, Chennai in **Collaboration with IT-ITeS Sector skills council NASSCOM** Train the Trainer program on “**Foundations Skills in Integrated Product Development (FSIPD)**” from **27.09.15 to 1.10.2015**.

22. Institution of Engineers (India) Kolkata Sponsored two days lecture workshop on “**Challenges and Opportunities in Power Electronics Research**” on **21st and 22nd April 2017**.

23. Participated in the 25th Edition of BRIDGE2017-Chennai (The largest Industry-Institute Interaction Event of India), organized by **ICT Academy** held on 1st March 2017 at ITC Grand Chola, Chennai.

24. “Two days meet on Industry Institute Collaboration” jointly organised by EDI Chennai, EDC Anna University Regional Campus Coimbatore, EDC Coimbatore Institute of Technology, Coimbatore on 17th and 18th March 2017 at Jennys Residency, Coimbatore.

25. AICTE sponsored Two week faculty development programme on “Smart Grid and Internet of things: The future Energy delivery system” organized by Sriramakrishna Engineering College, Coimbatore from 27.11.2017 to 10.12.2017.

26. Participated in the 32nd Edition of BRIDGE2018-Chennai (The largest Industry-Institute Interaction Event of India), organized by **ICT Academy** held on 28th March 2018 at ITC Grand Chola, Chennai.

27. Anna University Approved seven days FDTP on “EE8391-Electromagnetic theory” from 18.06.2018 to 24.06.2018 conducted by Excel College of Engineering and Technology, Komarapalayam.

28. Anna University CFD sponsored two week FDP programme on “Electrical Machines-II” from 28.11.2018-11.12.2018.

Workshop, Seminar Conference and symposium Organized

1. Convenor-One day workshop on “Recent trends in HVDC and FACTS Controllers” organized by Energy Engineers Association for Technical Accomplishments (EEATA), Department of Electrical and Electronics Engineering, University College of Engineering, Ramanathapuram on 18.09.2012.

2. Convenor- "Project design and Demo contest 2014" organized by Energy Engineer's Association for Technical Accomplishments (EEATA), Department of Electrical and Electronics Engineering, University College of Engineering, Ramanathapuram on 13th March 2014.
3. Co-ordinator- Third national Conference on "Drastic Innovation in Energy Thrive" organized by SCOPE, Department of Electrical and Electronics Engineering Student Association, University College of Engineering, Panruti on 24th March 2016.
4. Co-Co-ordinator International Conference on Computing, Communication and Drastic Innovations in Energy Thrive organized University College of Engineering, Panruti held on 28th Feb and 1 March 2018.

Lectures Delivered

1. "Control systems- Compensators" on 05.12.2019 as part of Seven days Faculty Development programme on control systems, organized by Department of Electrical and Electronics Engineering, Vivekanda Engineering college for women, thiruchengode.
2. "Introduction to Cycloconverter and Matrix Converter" on 14.05.2017 as part of Seven days Faculty Development programme on Power Electronics and Drives, organized by Department of Electrical and Electronics Engineering, University College of Engineering, Kanchipuram
2. Invited as jury for major project contest-2016 and delivered motivational talk on Building self confidence on 06.04.16 conducted by Electrical and Electronics Engineering & Electronics and Communication Engineering, V.R.S College of Engineering and Technology, Arasur, Villupuram.
3. Invited as jury member for the internal Symposia "GENERIX 17" organized by the department of EEE, IFET College of Engineering and Technology as part of "Techno Vision-17" on 18.02.17.
4. Invited as chief guest for Valedictory and jury for the 3rd national level Technical Symposium FORZA'16 organised by Department of EEE, St Anne's College of Engineering and Technology, Anguchettipalayam, Panruti. on 19 September 2016

Certificate of Appreciation received

For Excellent performance in University Examinations as faculty

1. Power Quality during academic year 2011-2012
2. Special Electrical Machines during December 2006.
3. Control Systems during April 2006.
4. Control Systems during Dec 2005.

Projects Guided

PG-15

UG-40

Other responsibilities

Served as Red Ribbon Club Program officer for the Academic year 2009-2010 and 2010-2011 in Anna University Tiruchirappalli, Ramanathapuram Campus and received **District Best RRC Program officer award from Government of Tamilnadu(TANSACS) for the year 2010.**