

## FACULTY PROFILE

Name of the Staff : **Dr.B.VENKATASAMY**  
Official Address with E-mail Id : Assistant Professor (Sr.Grade)  
EEE Department  
National Engineering College  
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### 1. Personal Details

Age : 44  
Date of Birth : 20-07-1982  
Sex & Marital Status : Male & Married  
Citizenship : Indian  
Qualification : M.E., Ph.D

Degree	Programme and Specialization	Class /CGPA	Month &Year of Passing	Institute/University
B.E	Electrical and Electronics Engineering	I Class	April 2007	Government college of Engineering, Tirunelveli
M.E	Power Electronics and Drives	I Class	May 2010	Government college of Engineering, Tirunelveli
Ph.D	Power Electronics	-	August 2023	Anna University, Chennai

Date of joining : 01-06-2012  
Present status : Assistant Professor (Sr.Grade)

### Professional Experience

Designation	Institution/ Organization	Period	Nature of Duties
Assistant Professor	P.S.R Engineering College, Sivakasi	05.06.2010 to 31.05.2012	Academic activities
Assistant Professor	National Engineering college, Kovilpatti	01.06.2012 to 01.08.2021	Academic activities
Assistant Professor (Sr.Grade)	National Engineering college, Kovilpatti	02.08.2021 to Till Date	Academic activities

### Courses taught:

Course Title	U.G. or P.G.
Electrical Machines-I, Electrical Machines-II, Basic Electrical and Electronics Engineering, Electronic Devices and Circuits, Linear Integrated circuits, Microprocessors and Microcontroller, Transmission and Distribution, Electrical Machines, HVDC Transmission, Basic Electrical Engineering, Electrical power System, Solid state drives, Power Electronics, PCB Designing and Fabrication, Analog Electronics, Arduino Programming, Electronic Design and Technology	U.G

## 2. Academic Achievements

### 2.1 Short term Courses / Seminars / Conference/ Workshops Organized:

Sl. No	Title	Period/ Date	No. of Participants	Venue
1	Workshop on “Programming and implementation of PIC microcontroller using Proteus”	Even semester 2015-16	20	NEC, EEE
2	Workshop on “A hands-on Training in Arduino”	Even semester 2016-17	40	NEC, EEE
3	Technical Project Expo “EPROX ‘17”	10.03.2017	74	NEC, EEE
4	Workshop on “A hands-on Training in Arduino”	Even semester 2017-18	45	NEC, EEE
5	Technical Project Expo “EPROX ‘18”	17.03.2018	109	NEC, EEE
6	Workshop on “A hands-on Training in Arduino”	Even semester 2018-19	52	NEC, EEE
7	Technical Project Expo “EPROX ‘19”	19.03.2019	101	NEC, EEE
8	Workshop on “A hands-on Training in Arduino”	Even semester 2019-20	48	NEC, EEE
9	Webinar on “Build your own Decentralized Smart Home using Raspberry Pi”	08.08.2020	60	Online
10	Online Course “DIY Electronics” for +2 students	Odd Semester 2020-21	58	Online
11	Online Course “DIY Electronics” for +2 students	25.08.2021 to 11.09.2021 (14 Days)	98	Online
12	Workshop on “A hands-on Training in Arduino”	Even semester 2019-20	54	NEC, EEE
13	Offline Course “DIY Electronics” for +2 students	02.06.2025 to 06.06.2025	36	NEC, EEE
14	Intra College Technical Symposium “WATTX 2k26”	14.03.2026	115	NEC, EEE
15	Pre Conference Workshop “Embedded Systems using Arduini and ESP32”	25.03.2026	48	NEC, EEE
16	Pre Conference Workshop “EV Technology and Battery Management System”	25.03.2026	45	NEC, EEE

### 2.2 Short term Courses / Seminars / Conference/ Workshops Attended:

S.No	Title	Period	No. of Participants	venue
1	Magnet software [1 Day]	March 2009	25	Government college of Engineering, Tirunelveli
2	Windows 2003 server Administration & Networking [1 Day]	29.09.2007	20	National Engineering College, Kovilpatti.

3	Power System and Power Electronics [2 Days]	October 2008	25	National Engineering College, Kovilpatti
4.	Quality Oriented Technical Education [2 Days]	July 2010	30	P.S.R Engineering College, Sivakasi
5	Quality Oriented Technical Education [2 Days]	June 2012	40	National Engineering College, Kovilpatti
6	Implementation of Soft Computing Techniques using MATLAB” [3 Days] “ISCT ‘12”	18/10/2012 to 20/10/2012/	45	National Engineering College, Kovilpatti
7.	A Hands on Seminar on LATEX essentials for beginners [2 Days]	14/06/2013 and 15/06/2013/	50	National Engineering College, Kovilpatti
8.	Hands on Training in PSIM [2 Days]	9 <sup>th</sup> and 10 <sup>th</sup> august 2013	50	CIT, Coimbatore
9	Empowering Indian Engineering Education for Global Expectation	07-11-2014 & 08-11-2014	-	National Engineering College, Kovilpatti (ISTE)
10	Emerging Technologies Hands on and Live Demo [5 Days]	11-11-2014 to 15-11-2014	45	Dean Academic Cell, NEC, Kovilpatti
11	FDP on “Topics of Research In Electrical Engineering” (TREE’15) [2 weeks]	11-05-2015 to 24-05-2015	52	Mepco Shelenk Engineering College, Sivakasi
12	Two days hands on training “ Embedded system design using ARM 7LPC2148”	02/12/2016 to 03/12/2016	20	IELEC systems Venue: EIE dept ,NEC
13	One-week industrial know how program [5 Days]	11 <sup>th</sup> April to 15 <sup>th</sup> April 2017	04	Wind Turbine Testing Station (WTTS) / Wind Turbine Research Station (WTRS), Kayathar
14	Training on teaching learning skills	22 <sup>nd</sup> may to 27 <sup>th</sup> may 2017	80	National Engineering College, Kovilpatti [By NITTTRC, Chennai]
15	Technology enabled learning	28 <sup>th</sup> may to 30 <sup>th</sup> may 2017	120	National Engineering College, Kovilpatti [By NITTTRC, Chennai]
16	QIP Short Term Course on “Real time Simulation for Power Electronics and Power Systems Applications”	10 <sup>th</sup> -14 <sup>th</sup> July 2017	40	IISc., Bengaluru
17	Issues and Challenges in On-Grid Solar PV system	21th and 22nd December 2019	30	Mepco Schelenk Engineering College, Sivakasi

18	QIP Short Term Course on “IoT Enabled Analog system Design”	13/01/2020 – 17/01/2020	40	IISC- Bengaluru
19	AICTE – One Week STTP Application of Soft Computing Techniques to Renewable Energy System	07.09.2021 to 12.09.2021	60	Government College of Technology, Coimbatore
20	AICTE - One Week FDP on “Arduino and Raspberry Pi Programming”	31.01.2022 to 05.02.2022	50	NITTR
21	AICTE - One Week FDP on “Electric Vehicle Engineering”	30.01.2023 to 03.02.2023	40	NITTR
22	One Week FDP on “Insights to the Art of Analog Design”	12.02.2024 to 16.02.2024	60	IIT- Guwahati
23	Next-Gen Innovation With RISC-V Design and applications	3-7 <sup>th</sup> March 2025	45	Ramaiah Institute of Technology, Bangalore
24	Semiconductor Devices Fabrication and Layout Design	08.12.2025 to 12.12.2025	30	E-ICT Academy,& NEC
25	Smart Grid Resilience: Integration of Inverter-Based RESs, EVs, and Cybersecurity	08.09.2025 to 12.09.2025	35	NIIT, Trichy

### 2.3 Online Certification Completed:

S.No	Certification	Period	Organizers
1.	NPTEL Online Certification on “Introduction to Research”	January- February 2016 (10 Weeks)	Indian Institute of Technology (IIT), Madras
2.	NPTEL Online Certification on “Microprocessors and Microcontroller”	12 Weeks	Indian Institute of Technology (IIT), Madras
3.	SWAYAM Online Certification on “Big Data Analytics For Smart Grid”	8 Weeks	NITTR, Chandigarh
4.	NPTEL Online Certification on “Integrated Circuits MOSFETs OP-Amps and their Applications”	12 Weeks	Indian Institute of Technology (IIT), Madras
5.	MATLAB Online Self-Paced course on “MATLAB Onramp”	1 Day	MATLAB
6.	NPTEL Online Certification on “Design of Photovoltaic System”	12 Weeks	Indian Institute of Technology (IIT), Madras
7.	NPTEL Online Certification on “DC Microgrid and Control Systems”	08 Weeks	Indian Institute of Technology (IIT), Roorkee
8.	NPTEL Online Certification on “Digital Circuits”	12 Weeks	(IIT Kaharagpur)

9.	NPTEL Online Certification on “Advance Power Electronics and Control” (Elite Silver)	8 Weeks	NPTEL (IIT Roorkee)
10	NPTEL Online Certification on “Electronic Systems Design Hands-on Circuits and PCB Design with CAD Software” Elite Silver (2% Topper)	12 Weeks	NPTEL (IIT Madras)

#### 2.4 Expert Lecture Delivered:

S.No	Title	Venue	Date
1	A Review of Electronics and Circuit Troubleshooting [IE (I) NEC]	National Engineering College, Kovilpatti,	5 <sup>th</sup> October, 2013
2	PCB preparation using software [ IEEE Student Branch]	National Engineering College, Kovilpatti,	15 <sup>th</sup> February 2014
3	Hands on Training –PROTEUS software [ IEEE Student Branch]	National Engineering College, Kovilpatti,	3 <sup>rd</sup> January 2015
4	Hands on Training in Arduino – by Embedded Systems SIG	National Engineering College, Kovilpatti,	Even Sem. 2016-17
5	Hands on Training in Arduino – by Embedded Systems SIG	National Engineering College, Kovilpatti,	Even Sem. 2017-18
6	Hands on Training in Arduino – by Embedded Systems SIG	National Engineering College, Kovilpatti,	Even Sem. 2018-19
7	Hands on Training in Arduino – by Embedded Systems SIG	National Engineering College, Kovilpatti,	Even Sem. 2019-20
8.	DIY Electronics – Online Course for +2 Students	Online	May 2020
6.	DIY Electronics – Online Course for +2 Students	Online	June 2021
7.	Hands on Training in Arduino – by Embedded Systems SIG	National Engineering College, Kovilpatti,	Even Sem. 2021-22
8.	Offline Course “DIY Electronics” for +2 students	National Engineering College, Kovilpatti,	02.06.2025 to 06.06.2025
9.	Pre Conference Workshop “Embedded Systems using Arduini and ESP32”	National Engineering College, Kovilpatti,	25.03.2026

#### 2.5 Industrial Know how:

S.No	Name of the Industry	Duration	Month & Year
1	Wind Turbine Test Station/Wind Turbine Research Station, Kayathar	1 Week	11th April 2017 to 15th April 2017.
2	PROGEN Energy Solutions, Coimbatore	1 Week	1.04.2017 to 15.04.2017
3	Alcon Power Systems, Coimbatore	1 Week	15.03.2021 to 19.03.2021

4.	Adroit Power Systems, Coimbatore	1 Week	28.02.2022 to 04.03.2022
5.	Enthu Technologies, Coimbatore	1 Week	07.02.2023 to 11.02.2023
6.	Tessolve Semiconductors Pvt. Ltd, Bangalore	1 Week	24.07.2023 to 29.07.2023

### 3. Research Achievements

#### 3.1 National/International Conference Publications

S.No	Title of the Paper	Name of the Conference	Organizer	Month & Year
1	Single-Stage Soft switching Converter with boost type of active clamp circuit	NCPED'10 National Conference	Government college of Engineering Tirunelveli	31-03-2010
2.	Real time implementation of Railway Track Fault detection system using GPS	NCSETM 2K18 National Conference	Annapoorana Engineering College, Salem	25 <sup>th</sup> January 2018
3	Performance Analysis of Grid-Tie Inverter for Reactive Power Injection Mode in Hybrid Wind Solar Energy System	(ICOEI 2018) IEEE International Conference	SCAD College of Engineering and Technology	11-12, May 2018
4	Smart Security System for <b>Domestic</b> Application using GSM and Cloud	ICRAECC 2019 IEEE International Conference	St. Xavier's College of Engineering	07.03.2019
5	Smart Garbage System	International Conference ICRACIA 2021	M.Kumarasamy College of Engineering	31.03.2020
6	Smart Controller for Ceiling Fan using IoT	International Conference 2021 (ICCET)	Prince Shri Venkateshwara Padmavathy Engineering college	10.04.2021
7	Smart vehicle accident reporting system using raspberry pi	International Conference ICPERES 2021	SRM Institute of Science and Technology	21st to 23th April, 2021
8	Early flood alerting system using IOT	International Conference ICPERES 2021	SRM Institute of Science and Technology	21st to 23th April, 2021
9.	IoT based Smart Home with Voice Controlled Appliances using Raspberry Pi	International Conference on Trends in Electronics and Informatics (ICOEI)	SCAD College of Engineering and Technology	28-30 April 2022

10.	IoT based Smart Controller for Ceiling Fan	International Conference on Trends in Electronics and Informatics (ICOEI)	SCAD College of Engineering and Technology	11-13 April 2023
11.	Intelligent Street Lighting System Using RF Communication	International Conference on Trends in Electronics and Informatics (ICOEI-2025)	SCAD College of Engineering and Technology Tirunelveli, India.	24-26, April 2025
12.	Smart Information System for Motorcycle	International Conference on Trends in Material Science and Inventive Materials (ICTMIM-2025)	Rohini College of Engineering and Technology Kanyakumari, Tamil Nadu	7-9, April 2025

### 3.2 International Journal Publications:

S.No	Title of the Paper	Name of the Journal	Vol.No & Page No.	Month & Year
1	A High Efficiency Non-Inverting Synchronous Buck-Boost Converter for Photovoltaic System	International Journal of Applied Engineering Research	Vol. 10 No.5 pp.4945-4950	2015
2.	Smart Vehicle Monitoring System Using OpenCV	International Journal of Scientific & Technology Research ( <b>Scopus</b> )	Volume 9, Issue 03, March 2020 (Page no.761-764)	2020
3.	Modeling and Power Quality Analysis of Grid-Connected PV Inverter with Active and Reactive Power Injection Mode	Journal Of Electrical Engineering And Technology ( <b>Annexure -I</b> )	Vol 6, Pages1375–1387 (March 2021) ( <b>I.F0.736</b> )	2021
4.	Interval type-2 fuzzy logic controller based grid-tied solar PV inverter with active and reactive power control	Journal of Intelligent & Fuzzy Systems ( <b>Annexure -I</b> )	Vol. 43, No. 3, pp. 2299-2314, 2022 ( <b>I.F 1.737</b> )	2022

### 3.3 Sponsored Projects:

Sponsored Agency	Title of the Project	Period	Amount (Rs)	Status
NewGen IEDC- DST	Smart theft Prevention system using GSM and cloud	2017-18	2,50,000-	Completed
NewGen IEDC- DST	Pro Gas Stove	2018-19	2,50,000-	Completed
NewGen IEDC- DST	Wastage Pay Dust Bin	2018-19	2,50,000	Completed
NewGen IEDC- DST	Smart Controller for Ceiling Fan	2019-20	2,50,000	Completed

NewGen IEDC- DST	LoRa based Smart Starter for Agriculture	2021-22	2,50,000	Completed
NewGen IEDC- DST	Smart Info system for Bike	2021-22	2,50,000	Completed

### 3.4 Patent Filed/Granted:

Sl. No	Title of the Invention	Application Number	Date of Publication	Patent Number/ Granted
1	Smart Theft Prevention System using GSM and Cloud	201841037699A	10-12-2018	466641 07/11/2023
2	Automatic Waste Segregating Bin	202041006564A	21/02/2020	508605 08/02/2024
3	Pro Gas Stove	202041006561A	21/02/2020	498056 11/01/2024
4	An Apparatus for Surveilling Air Disseminating Members	202241010736A	03.04.2022	486794 21/12/2023
5	Smart Starter for Agriculture Using LoRa WAN	Patent Draft Submitted		
6.	Smart Info System for Bike	Patent Draft Submitted		

### 3.4 Consultancy Project:

S.No	Title of the Invention	Amount	Date of Completion	Academic Year
1	“Automatic Irrigation System” 2 acers Irrigation automation Implemented with 10 valve system at Thonugal village, Kovilpatti.	1.06 Lakhs	26.03.2024	2023-24

### 3.5 Membership in Professional bodies :

Name of Society	Grade of Membership
IE(I)	Associate Member

### 3.6 Additional Responsibilities held :

- Tutor for IV year Students.
- Microprocessors and Microcontroller lab Assist.
- Mini Project Forum In-charge
- Project Laboratory In-charge
- Web site department In-charge
- Co-Curricular activities In charge
- NBA, Tier-I Report Preparation

***PERSONNEL SOCIAL MEDIA AND RESEARCH MEDIUM LINK***

- ❖ *Vidwan\_ID* <https://vidwan.inflibnet.ac.in/profile/214277>
- ❖ *GoogleScholar\_ID* <https://scholar.google.com/citations?user=nIuD7KIAAAAJ&hl=en>
- ❖ *YouTube\_Channel* [https://www.youtube.com/channel/UCbkRtBXhB9eVtpKqE6Ik\\_nw](https://www.youtube.com/channel/UCbkRtBXhB9eVtpKqE6Ik_nw)
- ❖ *Facebook\_Profile* <https://www.facebook.com/venkatasamy vijayaraj/>
- ❖ *Instagram\_Profile* [https://www.instagram.com/vijiayaraj\\_b/](https://www.instagram.com/vijiayaraj_b/)
- ❖ *LinkedIn\_Profile* <https://www.linkedin.com/in/venkatasamy-b-18749aa1/>
- ❖ *Twitter\_Profile* <https://twitter.com/vijinec>