



## NEW PRINCE SHRI BHAVANI COLLEGE OF ENGINEERING AND TECHNOLOGY

(Affiliated to Anna University)

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### Department of Electrical and Electronics Engineering

#### Personal Details

Name:	Dr.R.Venkatasubramanian
Designation:	Professor & Head
Educational Qualification:	M.E.,Ph.D.
Experience:	25 years
Area of Specialization:	Power Electronics, Electrical Machines, Renewable Energy

#### Educational Details

S.No.	Degree	Branch/Specialization	Institute/University	Year
1	BE	Electrical and Electronics Engineering	Kongu Engineering College, Bharathiyar University, Coimbatore	1998
2	ME	Power Electronics and Industrial Drives	Sathyabama University, Chennai.	2007
3	Ph.D.	Faculty of Electrical Engineering	Sathyabama Institute of Science and Technology, Chennai.	2019

#### Publication Details

- 1. An efficient minimum cost battery charging and discharging scheduling scheme for electric vehicle using hybrid energy valley-pathfinder algorithm, Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2024 | Journal article, DOI: [10.1080/15567036.2024.2336174](https://doi.org/10.1080/15567036.2024.2336174), EID: 2-s2.0-85190067359, Part of ISSN: [15567230 15567036](https://doi.org/10.1016/j.ies.2024.15567036), CONTRIBUTORS: Sampath, M.; Musthafa, M.T.A.; Venkatasubramanian Ramaswamy. Source: Scopus - Elsevier**
- 2. Comparative Analysis of Deep Learning and Machine Learning Algorithm for Concrete Crack Detection, AIP Conference Proceedings, 2024 | Conference paper, DOI: [10.1063/5.0222363](https://doi.org/10.1063/5.0222363), EID: 2-s2.0-85202880866, Part of ISSN: [15517616 0094243X](https://doi.org/10.1063/1.5517616),**

Padmavathy, R.; Kalaiarasi, G.; Venkatasubramanian, R.; Devi, M.; Joshila Grace, L.K. **Source:** Scopus - Elsevier

**3. Integrating AI-driven Fault Detection and Protection Technique for Electric Power Components and Systems, International Journal of Renewable Energy Research, 2024** | Journal article, DOI: [10.20508/ijrer.v14i2.14553.g8890](https://doi.org/10.20508/ijrer.v14i2.14553.g8890), EID: 2-s2.0-85196661220, Part of ISSN: [13090127](https://doi.org/10.13090127), Venkatasubramanian, R.; Diwakar, G.; Subhashini, P.; Kumar, V.V.; Rayudu, K.; Isaac, J.S.; Teja, K.B.; Rajaram, A. **Source:** Scopus - Elsevier

**4. Integrating Hydrogen Energy Storage into Urban Mobility Solutions, E3S Web of Conferences, 2024** | Conference paper, DOI: [10.1051/e3sconf/202454011009](https://doi.org/10.1051/e3sconf/202454011009), EID: 2-s2.0-85198059105, Part of ISSN: [22671242\\_25550403](https://doi.org/10.22671242_25550403), : Suresh, A.R.; Venkatasubramanian, R.; Hussien Jasim, L.; Santhoshkumar, M.P.; Aggarwal, S.; Kale, **Source:** Scopus - Elsevier

**5. Smart Safety Helmet For Coal Miners, Proceedings of the 2024 10th International Conference on Communication and Signal Processing, ICCSP 2024,** | Conference paper, DOI: [10.1109/ICCSP60870.2024.10543398](https://doi.org/10.1109/ICCSP60870.2024.10543398), EID: 2-s2.0-85195934038, Part of ISBN: [9798350353068](https://doi.org/10.9798350353068), Puviarasi, R.; Raja, A.; Venkatasubramanian, R.; Gomathi, M. **Source:** Scopus - Elsevier

**6. Discussion and Application of Virtual Garment Design Technology, 2023 2nd International Conference on Smart Technologies for Smart Nation, SmartTechCon 2023** | Conference paper, DOI: [10.1109/SmartTechCon57526.2023.10391308](https://doi.org/10.1109/SmartTechCon57526.2023.10391308), EID: 2-s2.0-85184803122, Part of ISBN: [9798350305418](https://doi.org/10.9798350305418), Venkatasubramanian, R.; Vidhya, V.; Sankar Ganesh, S.; Khadjibekov, S.; Alawady, A.H.; Uma Reddy, N.V. **Source:** Scopus - Elsevier

**7. Privacy-Preserving Data Mining Methods for Sensitive Information, Proceedings - International Conference on Technological Advancements in Computational Sciences, ICTACS 2023, 2023** | Conference paper, DOI: [10.1109/ICTACS59847.2023.10390087](https://doi.org/10.1109/ICTACS59847.2023.10390087), EID: 2-s2.0-85185370377, Part of ISBN: [9798350342338](https://doi.org/10.9798350342338), Singh, S.; Jasim, L.H.D.; Dhote, V.; Suseela, D.; Venkatasubramanian, R. **Source:** Scopus - Elsevier.

**8. Monitoring of Photovoltaic Fed Induction Motor Control using IoT, 2023 2nd International Conference on Edge Computing and Applications (ICECAA), 2023-07-19** | Journal article, DOI: [10.1109/icecaa58104.2023.10212286](https://doi.org/10.1109/icecaa58104.2023.10212286), M. Nandhini; G. Arunsankar; S. Daisylin Anbu Sujitha; R. Venkatasubramanian.

**9. E-waste infused bituminous mix for flexible pavements Materials Today: Proceedings 2023-05** | Journal article, DOI: [10.1016/j.matpr.2023.05.354](https://doi.org/10.1016/j.matpr.2023.05.354), Part of ISSN: [2214-7853](https://doi.org/10.2214-7853), Su. Suganthi; R. Arunkumar; R. Premkumar; P. Suthahar; R. Venkatasubramanian, **Source:** grade Preferred source (of 2).

**10. AC to DC Converter Execution using EMI Filtration System 2023 IEEE International Conference on Integrated Circuits and Communication Systems (ICICACS),2023-02-24** | Conference paper, DOI: [10.1109/icicacs57338.2023.10099711](https://doi.org/10.1109/icicacs57338.2023.10099711), CONTRIBUTORS: Kathir I; Venkatasubramanian R; Sivakumar S; Muthuraj B; Shelly Garg; Siranthini B. **Source:** grade Preferred source (of 2).

**11. Integrating Nanomaterial and High-Performance Fuzzy-Based Machine Learning Approach for Green Energy Conversion Journal of Nanomaterials 2022** | Journal article, DOI: [10.1155/2022/5793978](https://doi.org/10.1155/2022/5793978), EID: 2-s2.0-85124659682, Part of ISSN: [16874129\\_16874110](https://doi.org/10.16874129_16874110). CONTRIBUTORS: Sujith, A.V.L.N.; Swathi, R.; Venkatasubramanian, R.; Venu, N.; Hemalatha,

S.; George, T.; Hemlathadhevi, A.; Madhu, P.; Karthick, A.; Muhibbullah, M. et al. **Source:** Scopus – Elsevier.

**12. Power yield improvement of wind turbine and fatigue load mitigation using predictive-based Active flow controller** *Energy Reports* **2022-11** | Journal article, DOI: [10.1016/j.egy.2022.10.285](https://doi.org/10.1016/j.egy.2022.10.285), Part of ISSN: [2352-4847](https://www.elsevier.com/locate/energy), G. Srinivasa Sudharsan; R. Venkatasubramanian; N. Hemalatha; Radhika G. Deshmukh; Mohana Alanazi; Ahmad Almadhor; S. Lokesh; Karthikeyan N.; M. Sudhakar. **Source:** grade Preferred source (of 2).

**13. Integrating Nanomaterial and High-Performance Fuzzy-Based Machine Learning Approach for Green Energy Conversion** *Journal of Nanomaterials*, **2022-01-29** | Journal article **Source:** VENKATASUBRAMANIAN R.

**14. Smart Grid Based Multiagent System in Transmission Sector** *Proceedings of the 3rd International Conference on Inventive Research in Computing Applications, ICIRCA 2021*, 2021 | Conference paper, DOI: [10.1109/ICIRCA51532.2021.9544644](https://doi.org/10.1109/ICIRCA51532.2021.9544644), EID: 2-s2.0-85116924822 **CONTRIBUTORS:** Rubavathy, S.J.; Venkatasubramanian, R.; Kumar, M.M.; Ganthia, B.P.; Kumar, J.S.; Hemachandu, P.; Ramkumar, M.S. **Source:** Scopus – Elsevier.

**15. Investigation of Matrix Converter for Wind Energy Conversion** *IOSR Journal of Electrical and Electronics Engineering (IOSR-JEEE)* **2021-07-18** | Journal article, VENKATASUBRAMANIAN R.

**16. Propeller Load Characteristic Pmsm Vector Control System Simulation Based** *Annals of the Romanian Society for Cell Biology* **2021-05-08** | Journal article, VENKATASUBRAMANIAN R

**17. SMART LANDWIRTSCHAFT** *Journal of critical reviews* **2020-09-02** | Journal article, DOI: [10.31838/jcr.07.05.259](https://doi.org/10.31838/jcr.07.05.259), Part of ISSN: [2394-5125](https://www.crijournal.com/).

**18. POWER CONTROL OF DOUBLY FED INDUCTION GENERATOR USING DPC METHOD** *International Journal of Electrical Engineering and Technology (IJEET)* **2020-07-11** | Journal article, VENKATASUBRAMANIAN R.

**19. Investigation of ANFIS based grid integration of DFIG using matrix converter in wind energy conversion system** *International Journal of Engineering & Technology* **2019-03-22** | Journal article VENKATASUBRAMANIAN R.

**20. Fuzzy logic control based grid integration of doubly fed induction generator using matrix converter** *Journal of Computational and Theoretical Nanoscience* **2017** | Journal article DOI: [10.1166/jctn.2017.6487](https://doi.org/10.1166/jctn.2017.6487), EID:2-s2.0-85021750811, Part of ISSN: [15461963](https://www.crijournal.com/) [15461955](https://www.crijournal.com/) Venkatasubramanian, R.; Raghavendiran, T.A. **Source:** Scopus – Elsevier.

**21. Quest for energy efficiency in digital signal processing: Architectures, algorithms, and systems** *VLSI: Circuits for Emerging Applications, 2017* | Book chapter Part of DOI: [10.1201/b17635](https://doi.org/10.1201/b17635), EID: 2-s2.0-85051995285, ISBN: [9781466599109](https://www.tandfonline.com/doi/abs/10.1201/b17635) [9781466599093](https://www.tandfonline.com/doi/abs/10.1201/b17635) **Source:** Scopus - Elsevier

**22. Heterogeneous NEMS-CMOS DCM buck regulator for improved area and enhanced power efficiency,** *IEEE Transactions on Nanotechnology*, **2015** | Journal article, DOI: [10.1109/TNANO.2014.2371992](https://doi.org/10.1109/TNANO.2014.2371992), EID: 2-s2.0-84921029456 Part of ISSN: [1536125X](https://www.tandfonline.com/doi/abs/10.1109/TNANO.2014.2371992), Manohar, S.K.; Venkatasubramanian, R.; Balsara, P.T. **Source:** Scopus - Elsevier

**23. Noval three phase to three phase matrix converter for high power applications** *International Journal of Applied Engineering Research* **2014** | Journal article

EID: 2-s2.0-84941083260 Part of ISSN: [09739769](https://www.tandfonline.com/doi/abs/10.1080/09739769.2014.934562) [09734562](https://www.tandfonline.com/doi/abs/10.1080/09739769.2014.934562) Venkatasubramanian,

R.; Raghavendiran, T.A. **Source:** *via* Scopus - Elsevier

#### **24. ROLE OF POWER CONVERTERS FOR DFIG BASED WIND ENERGY CONVERSION SYSTEMS**

**i-manager's Journal on Power Systems Engineering 2014** | Journal article  
DOI: [10.26634/jps.2.3.3032](https://doi.org/10.26634/jps.2.3.3032) Part of ISSN: [2321-7499](https://doi.org/10.26634/jps.2.3.3032) Part of ISSN: [2322-0376](https://doi.org/10.26634/jps.2.3.3032)

VENKATASUBRAMANIAN R; RAGHAVENDIRAN T.A.; Research Scholar, Sathyabama University, Chennai, India; Principal, Anand Institute of Higher Technology, Chennai, India. **Source:**

#### **25. NEM relay-based sequential logic circuits for low-power design IEEE Transactions on Nanotechnology 2013** | Journal article DOI: [10.1109/TNANO.2013.2252923](https://doi.org/10.1109/TNANO.2013.2252923) EID: 2-s2.0-84877870730 Part of ISSN: [1536125X](https://doi.org/10.1109/TNANO.2013.2252923)

Venkatasubramanian, R.; Manohar, S.K.; Balsara, P.T. **Source:** Scopus – Elsevier.

### **Professional Society Membership**

1. ISTE (The Indian Society for Technical Education )Life Member- **LM63725**
2. International Association of Electrical, Electronic and Energy Engineering (IAEEEE)- **71050611**
3. IEEE - Institute of Electrical and Electronics Engineers

### **Program Attended**

1. Attended Faculty Development Programme on “Microcontroller 8051 and DSP 320 C5X” Sponsored by DOTE, Chennai held at VSVN Polytechnic College, Virudhunagar during 10<sup>th</sup> To 15<sup>th</sup> November, 2003.
2. Attended Faculty development Programme on “PLC and Applications” Organized by National Institute of Technical Teachers Training & Research, Chennai during 13<sup>th</sup> to 17<sup>th</sup> November 2004.
3. Attended Faculty Development Programme on “Microcontrollers”, conducted by VI Micro systems, Chennai held at Elumalai Polytechnic College, Villupuram during 17<sup>th</sup> and 18<sup>th</sup> December 2004.
4. Participated in one day Workshop on “Industrial Applications of Finite Elements Methods”, organised by Department of EEE held at Sathyabama University on 9<sup>th</sup> October, 2009.
5. Participated in one day Workshop on “Computational Intelligence”, organised by Department of EEE held at Sathyabama University on 18<sup>th</sup> June, 2010.
6. Participated in one day Workshop on “Robotics and its Industrial Applications”, organised by Department of E&I held at Dr. M.G.R University on 4<sup>th</sup> Feb, 2011.
7. Participated in Three days National Workshop on “Modelling and Control of Wind Energy Conversion Systems”, organised by Department of EEE held at RMK Engineering College on 28<sup>th</sup> to 30<sup>th</sup> December, 2011
8. Participated in the AICTE sponsored National Level Seminar on “Future Trends in Communication Networks”, organised by Department of ECE held at SRR Engineering College, Chennai on 5<sup>th</sup> & 6<sup>th</sup> July, 2012.
9. Participated in Two days National Workshop on “Power Electronics For Renewable Energy Systems”, organised by Department of EEE held at Prathyusha Institute of Technology and Management on 4<sup>th</sup> and 5<sup>th</sup> December 2013.

10. Participated in National Level Seminar on “Smart Grid”, organised by Department of EEE held at Karpaga Vinayagar College of Engineering and Technology, on 25<sup>th</sup> Feb, 2015.
11. Participated in one day Workshop on “Glimpses on Effective Research & Proposal Writing”, organised by Department of EEE held at St. Joseph’s Institute of Technology, Chennai on 20<sup>th</sup> October, 2016.
12. Participated FDP on Online FDP Bio- Inspiring Learning 20.12.2021- 24.12.2021 (5 days) at Sri Sairam Engineering College, Chennai.
13. Participated FDP on Emerging Advancements of Wireless Communication and Applications of Power Electronics in Smart Grid Systems 28.02.2022- 05.03.2022 (6 days) at Jeppiaar Institute of Technology, Chennai.
14. Participated FDP on Impact of Artificial Intelligence in the field of Engineering 26.09.2022 - 30.09.2022 (5 days) at Vels Institute of Science Technology and Advanced Studies, Chennai.
15. Participated FDP on Recent Trends in Electric Vehicle technology 19.06.23- 23.06.23 (5 days) at Nadimpillai Satyanarayana Raju Institute of Technology, Visakhapatnam.
16. Advancement in Quantum Computing and Sensor Technology for Viksit Bharat@2047 15.4.24 to 27.4.24(two weeks) at The OXFORD college of Engineering, Bengaluru.
17. Participated FDP on .Application of Power Electronics in Renewable Energy System 13.5.2024 - 17.5.2024 (5 days) at Dr.M.G.R Educational and Research Institute, Chennai.
18. Participated FDP on Powering the future Integrating Electric vehicles with Smart Grid 27.08.2024 – 31.08.2024 (5 days) at BHARATH Institute of Educational and Research, Chennai.

#### Other Details

1. **Dr.R.Venkatasubramanian** (2021), Book chapter “ Electrical Power Transmission systems inn Reactive-Power control” has been published in Lulu Publication, USA, ISBN: 978-1-300-39582-9, Volume II(ICT and Engineering), pp. 41-45.
2. **Dr.R.Venkatasubramanian** (2023), Book chapter- Development and Characterization of a Low Cost Solar air Collector has been published with ISBN 978-93-94521-13-1
3. The title of Invention Institutional patent 2022 ECONOMIC AND ENVIRONMENTAL CONTROLS FOR SMART GRIDS FROM SPATIOTEMPORAL OPTIMIZATION OF ELECTRIC VEHICLE CHARGING, New Prince Shri Bhavani College Of Engineering And Technology, **Dr.R.Venkatasubramanian**, has been published and granted.
4. The title of Invention Institutional patent 2024 - PNEUMATIC-BASED POWER TRACKING DEVICE FOR PV PANEL , New Prince Shri Bhavani College Of Engineering And Technology, **Dr.R.Venkatasubramanian**, has been published and granted.
5. **Dr.R.Venkatasubramanian** - reviewer in Journal of Emerging Technologies and Innovative Research..