Dr.S.Chellam, M.E., Ph.D.,

Assistant Professor II / Department of EEE

Velammal College of Engineering and Technology, Madurai
scv@vcet.ac.in

Educational Qualification:

Discipline	Branch/Specialization	Institution/University	Year of Pass	% of Marks with class obtained
Ph.D	Electrical Engineering	Anna University, Chennai	2019	-
M.E	Power Systems Engineering	K.L.N. College of Engineering, Madurai	2011	9.33 (First Class with Distn.)
B.E	EEE	Dr. Navalar Nedunchelian College of Engineering, Madras University	2000	72.2 (First Class)

Experience in Years: 19 years 3 months

Employment History:

S.no	Institution	Designation	From	То
1.	Velammal College of Engineering and Technology, Madurai	Assistant Professor	June 2018	Till date
2.		Head of the Department	April 2017	May 2018
	Latha Mathavan Engineering College,	Associate Professor	Feb 2012	March 2017
	Madurai	Assistant Professor	June 2011	Jan 2012
		Lecturer	Sep 2007	May 2009
3.	Latha Mathavan Poly.College, Madurai	Lecturer	Aug 2005	Aug 2007
4.	Thanthai Roever Institute of Poly. College, Perambalur	Lecturer	Sep 2001	Jan 2002
5.	Alagappa Chettiar College of Engineering and Technology, Karaikudi	Lecturer	Dec 2000	Aug 2001

Interested Research Areas:

Deregulated Power System, Transmission Pricing, Optimization Technique

Ph.D Guidance:

Recognized Supervisor (No. 4330017) - Anna University, Chennai

Scholarships and Awards received:

- ➤ Received best project award -My Idea My India, 2022
- > Secured 'University First Rank' in M.E.(PSE), Anna University, 2011
- Received 'Outstanding Student' award in PG level, 2011
- Received 'Best behaved Student' award in PG level, 2011

Patent rights received:-

- Received grant certificate (Appl.No: 409759-001) for the patent titled as 'Industrial IoT based Smart Locking Unit' on June 2024
- ➤ Published patent in IPR journal "System for the Rapid Diagnostic of Novel Corona virus Pneumonia Based on Artificial Intelligence" on 24.03.2023
- ➤ Received grant certificate (No. 390738-001) "Device for detection of System Malware on October 2023

Journal Publication Details:

- 1. **Dr.S.Chellam**, "Mitigation of attack detection via multi-stage cyber intelligence technique in smart grid" Measurement: Sensors, Volume 33, June 2024, 101077(SCOPUS INDEXED)
- 2. **Dr.S.Chellam**, "Wind Energy Conversion System using Cascading H-Bridge Multilevel Inverter in High Ripple Scenario" IJEER ,Volume 12, Issue 1 | Pages 178-186,2024 (SCOPUS INDEXED)
- Dr.S.Chellam, "Modified Elephant Herd Optimization-Based Advanced Encryption Standard" Smart Innovation, Systems and Technologies, 2023, 371, pp. 519–528(SCOPUS INDEXED)
- 4. **Dr.S.Chellam**, "Congestion cost estimation using Adaptive Rex Fox algorithm in Restructured electricity market" Journal of Intelligent & Fuzzy Systems, vol. 45, no. 5, pp. 8465-8477, 2023, November (**SCOPUS INDEXED**)
- 5. **Dr.S.Chellam**, "Estimation of Wind Energy Reliability Using Modeling and Simulation Method" Smart Innovation, Systems and Technologies, 2023, 371, pp. 473–480 (**SCOPUS INDEXED**)

- 6. **Dr.S.Chellam**, "ATC calculation in Deregulated Power System Using Power World Simulator" NeuroQuantology | December 2022 | Volume 20 | Issue 20 | Page 1361-1367 (**SCOPUS**)
- 7. **Dr.S.Chellam**, Girija, Jeyapreeethi, "An Adaptive Energy Management Scheme for Green IoT Environment" Gradiva Review Journal, Volume 9 Issue 4, April 2023, Page No: 435-440 (**UGC approved**)
- 8. **Dr.S.Chellam**, Dr.S.Dhanalakshmi, "Intelligent Based Sewage Block Detection and Clearance System Using IoT" Neuro Quantology, January 2023 | Volume 21 | Issue 1 | Page 857-862 (**SCOPUS**)
- 9. **Dr.S.Chellam**,, Mr.A.Madhan, "IoT Based Real-Time Monitoring of Transformer" Journal For Basic Sciences, Volume 23, Issue 1, 2023, Page:1031-1036 (**UGC approved**)
- 10. **Dr.S.Chellam**, "Operation Cost Minimization for electric vehicle charging station with battery energy storage system" Dickensian Journal, vol.22, issue.1, May 2022 (**SCOPUS**))
- 11. **Dr.S.Chellam**, "Generation and Estimation of Electricity from Food waste" International Research Journal of Modernization in Engineering Technology and Science, vol.4, issue.6, June 2022
- 12. **Dr.S.Chellam**, "Sensor based Peak Demand Management" on Suraj Punj Journal for Multidisciplinary Research, Vol.11, issue.4, Apr 2021 (**UGC approved**)
- 13. **Dr.S.Chellam**, "Dissolved gas analysis of mineral oil for power transformer Fault diagnosis using soft computing techniques" on International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering Vol.9, issue.5, May 2021
- 14. **Dr.S.Chellam**, Dr.S.Kalyani, "Congestion Cost Estimation in Deregulated Transmission Network Using Optimal Power Flow Tracing" Tierärztliche Praxis journal, Vol:41, pp.391-399 Feb 2021 (Impact Factor -0.388).(**Web of Science**)
- 15. **Dr.S.Chellam**, "Municipal Waste Handling using IoT" on International Research Journal of Engineering and Technology, Vol.7, issue.3, March 2020. (Impact Factor -7.529).
- 16. **Dr.S.Chellam**, "Implementation of Aadhar card based voting machine" on International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol.9, issue.5, May 2020. (Impact Factor -7.122).
- 17. **S.Chellam**, Dr.S.Kalyani, "Usage based Power flow for Transmission Line Cost Estimation in Bilateral Power Market using Power Flow Tracing Principle" Journal of Electrical Engineering, Vol.18, issue.2, pp.299-308, Sep 2018 (Impact Factor -0.34).
- 18. **S.Chellam**, Dr.S.Kalyani "Power flow tracing based transmission congestion pricing in deregulated power market" in International Journal of Electrical Power and Energy System , Vol.83, pp.570–584, Dec 2016 (Impact Factor -4.418). (**SCOPUS**)
- 19. **S.Chellam**, Dr.S.Kalyani, "Optimization Based Power Flow Tracing in Deregulated Power Systems" Advances in Natural and Applied Sciences, special issue, AENSI publications, 60-66, Dec 2014 (Impact Factor -0.34).(**SCI**)
- 20. **S.Chellam**, S.Venkatesan, Dr.N.Kamaraj "Estimation of Maximum Load at Buyer Bus by Using HPSO with Cauchy Mutation" published in International Review on Electrical Engineering, Vol. 6. no. 5, pp.2440-2447, 2011. (**SCOPUS**)

Conference Presentation Details:

- 1. **Dr.S.Chellam**, "Determining Optimal buses for implementing Demand response as an effective Congestion Management method" 5th Doctoral Symposium on Computational Intelligence (International conference) Shaheed Rajguru College of Applied Sciences for Women, University of Delhi and University of Calabria, Italy on 10th- 11th May 2024.
- 2. **Dr.S.Chellam**, "DC Motor Speed Synchronisation for Rolling Mills" International conference on Emerging Trends in Electrical Machines, Power and Energy Systems, SRMIST, Chennai on 26.04.2024 & 27.04.2024
- 3. **Dr.S.Chellam**, "Modified Elephant Herd Optimization -based Advanced Encryption Standard" in FICTA-2023 held at Cardiff School of Technologies, Cardiff Metropolitan University, Cardiff, UK, 11-12 April 2023.
- 4. **Dr.S.Chellam**, "Estimation of Wind Energy Reliability Using Modeling and Simulation Method" in FICTA-2023 held at Cardiff School of Technologies, Cardiff Metropolitan University, Cardiff, UK, 11-12 April 2023.
- 5. **Dr.S.Chellam**, Dr.B.Kiruthiga, Dr.R.Narmatha Banu, "Power Quality Analysis in the Low Tension Power System Distribution Network", Innovation in clean energy Technologies, Maulana Azad Institute of Technology, MP, 8-10 April 2023
- 6. **Dr.S.Chellam**, "Optimal Location of Electric Vehicle (EV) Charging Station" International Conference on Power and Energy Systems (ICPES-23), Velammal College of Engineering and Technology, Madurai, 17.03.2023 & 18.03.2023.
- 7. **Dr.S.Chellam**, "AN Adaptive Energy Management Scheme for Green IoT Environment" International Conference on Power and Energy Systems (ICPES-23), Velammal College of Engineering and Technology, Madurai, 17.03.2023 & 18.03.2023.
- 8. **Dr.S.Chellam**, "Integrated Hybrid Power Supply for Distributed Generation Applications Fed by Nonconventional Energy Sources" International Conference on Power and Energy Systems (ICPES-23), Velammal College of Engineering and Technology, Madurai, 17.03.2023 & 18.03.2023.
- 9. **Dr.S.Chellam**, Kamalika S, "Automated dual Axis Solar Tracking System" National Conference on Advanced Science, Engineering and Technology, Latha Mathavan Engineering College, Madurai on 21.04.2022
- 10. Dr.S.Chellam, Barathy Venkat kumar, Abdul Azeez, Sivamanikandan RM, "Operation Cost Minimization of Electric Vehicle Charging Station with Energy Storage" National conference on Sustainable Infrastructure with responsible consumption and production, Velammal College of Engineering and Technology, Madurai, 24-25 March 2022
- 11. Dr.S.Chellam, Hrithik vel, Jeyvsihnu, Vijay Krishna, "Commercial Power Saver Project" National conference on Sustainable Infrastructure with responsible consumption and production, Velammal College of Engineering and Technology, Madurai, 24-25 March 2022
- 12. **Dr.S.Chellam**, Salini, Susee, "Sensor based Peak Demand Management" 5th International Conference on Engineering, Technology and Science at Muthayammal College of Engineering, Rasipuram on 26th March 2021

- 13. **Dr.S.Chellam**, Bavitha PET T, Kaushika R, "Smart ECG alert system using IoT" Virtual conference on Advanced Technologies in Electrical Engineering at Kamaraj college of Engineering and technology, Virudhunagar, 06.08.20 to 07.08.20
- 14. **Dr.S.Chellam**, Narendra Sibi H, "Smart Water Irrigation System" Virtual conference on Advanced Technologies in Electrical Engineering at Kamaraj college of Engineering and technology, Virudhunagar, 06.08.20 to 07.08.20
- 15. **Dr.S.Chellam**, Madhumica, Indhupriya, Samyukatha, "Sold waste Management using IoT" in 7th International Conference on Emerging Trends in Engineering and Technology at Pandian Saraswathi Yadav Engineering College, Madurai on 13 -14 March 2020.
- 16. **S.Chellam**, Dr.S.Kalyani, "Congestion Cost Minimization by Generator Rescheduling Using Firefly Optimization Technique in a Deregulated Power System Network" in AICTE sponsored International Conference on Advanced Technologies in Electrical Engineering at Kamaraj College of Engineering and Technology, Madurai on 4-5 Oct 2019
- 17. **S.Chellam**, Dr.S.Kalyani, "Congestion Cost Calculation in Deregulated Transmission System" in ICEAT'18 at Sri Krishna College Of Technology, Coimbatore On 22-23 Mar 2018
- 18. S.Chellam, A.Angalaeswari, B.Kiruthika, M.Louis Jesintha, S.Rajeswari, "Time of Utilization based Pricing in Smart meter for Demand Management" International Conference on Recent Innovations in Engineering, Technology and Management at Nandha Engineering College, Erode on 25th March 2017
- 19. **S.Chellam**, P.Latha, K.M.Nivetha, M.Swathi, "Fault Detection using GSM Technology in Overhead Distribution Lines" National level conference at P.S.R.R. Engineering College for women, sivakasi on 3rd March 2017
- 20. **S.Chellam,** Dr.S.Kalyani, T.Karthick, S.Thirusenthilbala, "Determination of ATC using optimization algorithm in deregulated power system" NCAES-16 at Sasurie College of Engineering. Tiruppur on 21.3.2016
- 21. **S.Chellam**, Dr.S.Kalyani, R.Mohanraj, M.Sivakumar, "Real Power Loss Allocation In Transmission Line Using Optimal Tracing For A Deregulated Power System" International Conference on Electrical, Electronics and Computer Engineering (ICEECE'16) on 22nd and 23rd March, 2016
- 22. **S.Chellam**, Dr.S.Kalyani, K.Suganyadevi, R.Vinotha" Congestion Management Using Differential Evolution In Deregulated Power Market" in National conference (ARIVAM'15)held at Kalasalingam Institute of Technology on 23rd MAR 2015
- 23. **S.Chellam**, Dr.S.Kalyani, N.Vijayalaksmi, R.Hemapriya "Congestion Cost Calculation In Deregulated Power Market" in International Conference on Evolving Trends in Engineering and Technology ICETET2015 at Latha Mathavan Engineering College on 28 Feb 2015
- 24. **S.Chellam**, Dr.S.Kalyani, "Power flow tracing using optimization technique in deregulated power system" in International conference held at Karpagam College of Engineering on Dec 2014
- 25. **S.Chellam**, Dr.S.Kalyani, M.Balasundar, Maruthupandi, "congestion Management using OPF in Deregulated Environment" in National level conference held at University College of Engineering, Panruti on 23rd March 2014
- 26. **S.Chellam**, Dr.S.Kalyani, "Transmission Pricing in Deregulated Power Market" in International conference held at Anna University, Chennai on 27, 28 February 2014

- 27. **S.Chellam**, S.Kuruseelan, "Identification of wheeling path in Deregulated Environment" in National Level conference held at Bannari Amman Institute of Technology, Sathyamangalam, April 2012
- 28. **S.Chellam**, S.Venkatesan "Maximize IPP using PSO in Deregulated Environment" in National Level conference held at Thyagarajar College of Engineering and Technology, Madurai on 2nd and 3rd of December 2010

Journal Reiewer:

- ➤ Journal of Intelligent and Fuzzy Systems
- ➤ Measurement: Sensors
- > Scientia Iranica
- ➤ Intelligent Automation and Soft Computing
- Advancesin Science, Technology and Engineering Systems journal

Book / Book Chapter Publications:

- 1. Published a Book Chapter, "Application of digital twin technology in model-based systems engineering" IET Digital Library, May 2023, (**Scopus**)
- 2. Published a Book Chapter, "Block chain enabled Electric vehicle charging" in Block Chain Based Systems for Modern Energy Grid, Elsevier (**Scopus**), Sep 2022, page no.199-203
- 3. Published a Book Chapter, "Computation of Congestion Cost in Transmission Lines" in Research challenges in science, Engineering and Technology, Nova Publishes(**Scopus**), Nov 2021, Page no. 85-94. [ISBN: 978-1-68507-008-3]
- 4. Published a Book, "Basic Electrical and Electronics Engineering" Mechanical Engineering Branch Anna University Chennai Regulation 2021, Charulatha Publications, March 2022. [ISBN: 978-93-93479-65-5]
- 5. Published a book titled "Basic Electrical and Electronics Engineering" under Anna University, Chennai, Regulation 2013 in the year 2013 by Genesis Publications

Online/ NPTEL Course:

- 1. Completed NPTEL course "Outcome based Pedagogical Principles for Effective Teaching" with **Elite** Certificate on Apr 2024
- 2. Received certificate "Energy Literacy" from Energy Swaraj course, March 2024
- 3. Completed NPTEL course "Effective Engineering Teaching in Practice" with **Elite Silver** Certificate on Mar 2023
- 4. Completed NPTEL course (8weeks) "Patent search and Analysis" with **Elite Certificate** on Oct 2022
- 5. Received NPTEL Elite Certificate, "Patent drafting for Begineers", Mar 2022
- 6. Online internship on PCB design using Allegro, Pantech e-Learning Pvt Ltd, Chennai, 18.01.2023 to 18.02.2023
- 7. Online course "Electric vehicles and Mobility" ISIE(I), E-Learning, 08.09.2021

- 8. 30 days master class on "Renewable Energy" Pantech e-Learning Pvt Ltd, Chennai, 17.10.2021 to 16.11.2021
- 9. Internship, "Renewable Energy" Pantech e-Learning Pvt Ltd, Chennai, 17.10.2021 to 16.11.2021
- 10. One week internship, National Institute of fire and Safety "Management, Dec'23 to Jan'24

Department/Institute Responsibility

- ➤ Anna University Affiliation Incharge
- ➤ Department **Research & Development** board incharge
- ➤ Department **Time Table Incharge**
- **Board of Study (BoS)** department incharge
- > NBA-Criterion III incharge
- ➤ **GATE coaching** in charge from 2018 to 2022, Velammal College of Engineering and Technology, Madurai
- ➤ Newsletter incharge of EEE department from 2019 onwards Velammal College of Engineering and Technology, Madurai
- ➤ Acted as **Chief Superintendent** of Anna University exams held during April 2018 to May 2018
- ➤ **Department in charge** from April 2017 to May 2018, LMEC, Madurai
- ➤ Organized International Conference, FDPs, Department events and symposium in department level

Google Scholar report:

