

1. Name : **Dr. R. Sarjila**
 2. Designation : Assistant Professor
 3. Qualification : M. Sc., B. Ed., M. Phil., Ph. D.
 4. Mobile number : 8015153323
 5. E-mail id : sarjilar@auxiliumcollege.edu.in
 6. Teaching Experience : 18 years
 7. Area of specialization : IoT, Solar Photovoltaics
 8. Positions held in Auxilium :
 • Department Quality Assurance Cell Coordinator (DQAC)
 • Tutor for PG Students.
 • Mentor for PG Students
 • Quiz Club Coordinator

9. Research Experience and Guidance :
 • **Ph. D.** - Investigations on Application of Heuristic Techniques for Parameter Extraction and Maximum Power Point Tracking in Photo Voltaic system. – Vellore Institute of Technology, Vellore, Tamil Nadu, India.
 • **M.Sc. Projects Guided:** 10 Nos.

10. Projects Completed / Ongoing : 01 : Seed grant for- Smart Meter: AI Powered Energy Monitoring

11. No. of Papers Published in Journals : 07

12. No. of Papers Presented in the National/ International/ Seminars/ Workshops/ Conferences : 09

13. No. of Seminars/Workshops/Conferences organized : 08

14. No. of Books Published/Edited/Co-edited : Nil

15. Responsibilities held
 • Department Quality Assurance Cell Coordinator (DQAC)
 • Tutor for PG Students.
 • Mentor for PG Students
 • Quiz Club Coordinator

16. Current Responsibilities
 • Department Quality Assurance Cell Coordinator (DQAC)
 • Tutor for PG Students.
 • Mentor for PG Students

Membership in professional bodies (Descriptive)
 • Life member - The Indian Society for Technical Education – LM83041.

17. Other bodies (Descriptive)
 • Member of Board of Studies Meeting

18. Honors & awards received (Descriptive)
 • Invited as Chief Guest and Judge for the “Vani Medhai Science Expo” organized by Vani Vidyalaya Matriculation Higher Secondary School on 19th October 2024.

19. No. of Online Courses completed (Minimum of 4 Weeks): 04

20. Any Other (Descriptive)
 • Consultancy work – Bharathidasan group of Schools – Physics Text book proof reading
 • Technical Reviewer – IEEE International Conference i-PACT2017, i-PACT2019, i-PACT2021, i-PACT2023 & i-PACT2025

PUBLICATIONS

Publications in Journals

- R. Sarjila, K. Ravi, J. Belwin Edward and K. Sathish Kumar (2017), Parameter Extraction of Solar Photovoltaic Modules Using Gravitational Search Algorithm, in Hindawi Publishing Corporation, 'Journal of Electrical and Computer Engineering', 1(6), pp. 1-6.
- R. Sarjila and K. Ravi (2017), A Self Tuned Adaptive Maximum Power Point Tracker for a Photovoltaic Power System, in 'Journal of Engineering and Technology', 12(1), pp.14-22.
- R. Sarjila, K. Ravi, J. Belwin Edward, Avagaddi Prasad and K. Sathish Kumar, (2016), An AIS Based approach for Extraction of PV Module Parameters, Springer, in 'Information Systems Design and Intelligent Applications', 435(1), pp. 405-422.
- Edward JB, Ravi K, Sarjila R, Sakthigokulrajan C and Prasad A. (2015), Optimal Rating and Position of Distributed Generators under Variable Loading Conditions using Bacterial Foraging Algorithm, in 'Indian Journal of Science and Technology', 8(35). pp. 1-6.
- Rini Venugopalan, Neeraja Krishnakumar, R. Sarjila and N. Rajasekar (2013), Application of Particle Swarm Optimization Technique for the Design of Maximum Power Point Tracking, in 'Advanced Material Research', 768(1), pp. 47-56.
- J. Belwin Edward, N. Rajasekar, K. Sathiyasekar, N. Senthilnathan and R. Sarjila, (2013), An Enhanced Bacterial Foraging algorithm for optimal power flow problem including FACTS devices considering system loadability, in 'Elsevier, ISA Transactions' 52(5), pp. 622-628.
- Performance Comparisons of interface circuits for measuring capacitances, Ramanathan, P., Marimuthu, R., Sarjila, R., Ramasamy, S., Arulmozhivarman, P., 2012, Journal of Theoretical and Applied Information Technology, 39(1), pp. 1-5

Conference Publications

- Analytical study of fuel cell stack behavior under variable high-frequency ripple using adaptive converter control, Preethi Raj, Belwin Edward J, Narendra, Sarjila R., International Conference on Innovations in Power and Advanced Computing Technologies, i-PACT 2025.
- MINDEASE: an empathetic AI companion for women's mental wellness, Suman Shyam, Jahnavi Gayatri D, Sarjila R., Monica Subashini, International Conference on Innovations in Power and Advanced Computing Technologies, i-PACT 2025.
- Interpretation of PMSG Based Wind System with High Gain Converters and MPPT Controllers, Kumar, K., Devi, V.L., Prasad, A., Sarjila, R., Edward, J.B., 2021, 3rd IEEE International Virtual Conference on Innovations in Power and Advanced Computing Technologies, i-PACT 2021.
- Indoor Automated Vertical Farming Using the Concept of Microgrid, Gowrishankar, J., Balasundaram, G., Raglend, I.J., Edward, J.B., Rajan, V.R., 2021, 3rd IEEE International Virtual Conference on Innovations in Power and Advanced Computing Technologies, i-PACT 2021.
- Implementation of Modified Gravitational Search Algorithm for Solar Panel Parameters Extraction, Sarjila, R., Ravi, K., Belwin Edward, J., Manimegalai, A., Innovations in Power and Advanced Computing Technologies, i-PACT 2019.
- R. Sarjila and K. Ravi (2018), A review on Parameter Extraction Schemes for Solar Photovoltaic Systems, in 'National Conference on Communication and Networking', NCOCN-2018, pp. 66-74.
- R. Sarjila, Bacterial Foraging Algorithm based parameter estimation of solar PV model", IEEE International Conference on 'Microelectronics, communication and Renewable Energy'(AICERA 2013: ICMiCR) during 4th - 6th June 2013.
- R. Sarjila, Application of Particle Swarm Optimization Technique for the Design of Maximum Power Point Tracking", IEEE – International conference on Energy Efficient Technologies for Sustainability, 10th - 12th April 2013.
- Fusion of MRI and CT using wavelet transform, National conference on Convergent communication technologies (NCCCT- 09) on 17th April 2009, organized by Department of ECE, VMKV Engineering College, Salem.

- Growth of Whewellite crystal added with some headache killing drugs, First Multi-Disciplinary National Seminar of Scott Research Forum (SRF), Scott Christian College, Nagercoil, on 24th Sep 2004.

FDP's/ Seminars/ Workshops/Webinars

- Completed the **NEP 2020 orientation & Sensitization program under Malaviya Mission Teacher Training Program (MM-TTP) of University Grants Commission (UGC)**, organized by UGC-Malaviya Mission Teacher Training Centre (UGC-MMTTC), Bharathidasan University, Tiruchirappalli, Tamil Nadu during 03.06.2024 - 13.06.2024 and obtained the Grade 'A'.
- Participated in the five days online Faculty Development Programme on "**Emerging Trends in Chemical Sciences**" organized by the PG & Research Department of Chemistry, Sacred Heart College (Autonomous) during 02.12.2024 - 06.12.2024.
- A Five-Day National Level Online FDP from 26.12.2024 to 30. 12. 2024 on **Beyond Boundaries: Driving Innovation in Research**" Organized by Committee for Research Ethics, Publication & IPR, Auxilium College (Autonomous), Gandhi Nagar, Vellore in Collaboration with Northeast Institute of Social Sciences & Research, Dimapur, Nagaland.
- Participated Online Five-Day Faculty Development Programme from 03.02.2025 - 07.02.2025 on "**Mathematical Foundations of Artificial Intelligence and Machine Learning**" conducted by PG and Research Department of Mathematics, Sacred Heart College(Autonomous), Tirupattur in collaboration with Mathematics Division, Department of Science & Humanities, Jerusalem College of Engineering (Autonomous), Chennai.
- Participated 7 -Day International online Faculty Development Programme on "**Recent Developments and Applications in Advanced Materials**" organized by the department of Physics and Chemistry, St. Joseph College of Engineering, Sriperumbudur during 03.03.2025 to 09.03.2025
- Participated in the five day National Level online Faculty Development Programme on "**Advancing Scientific Knowledge**" organized by Department of Physics, Sacred Heart College (Autonomous) , Thirupattur In collaboration with Department of Physics Auxilium College(Autonomous), Vellore during 24.03.2025 to 28.03.2025
- Participated in the Six-Day Online International Faculty Development Programme on "**Next Generation Research on Energy Materials**" organized by the Department of Physics and Chemistry, Vel Tech Multi Tech. Engineering College, Avadi, Chennai, from 4th August 2025 to 9th August 2025.
- Participated in the Five-Day Online International Faculty Development Programme on "**Role of Physics in the Development of Advanced Materials**" organized by the Department of Physics, NPSBCET, from 25th August 2025 to 29th August
- Participated in 5-Day International Online Faculty Development Program (FDP) on "**Sustainable Materials and Advanced Research Technologies**", jointly organized by the Departments of Physics, Sacred Heart College, Tirupattur & Scott Christian College, Nagercoil from September 18, 2025 to September 23, 2025.
- Participated in Five Day online FDP on "**Advanced Materials for Energy Applications**" organized by Sathyabama Institute of Science and TechnologyChennai, during 09.10.2023 to 13.10.2023
- National Workshop on "**Intellectual Property Rights**", Organized by TNSCST, Research and IPR Cell, Auxilium College, Vellore, 13 Sep 2019.
- FDP on **Enriching & Enhancing the Effectiveness of Teaching using 21st Century Skill Sets**, organized by Auxilium college, Vellore and The Haskalah Academy, 5-7 JUN 2019
- Workshop on **Laboratory Practical Skills Training in Electrical Engineering**, VIT University, Vellore, 2 & 3 AUG 2019.
- FDP on **Synergia to Revitalize, Reform and Refresh ourselves as agents to ensure Quality Education** organized by Auxilium college, Vellore, 01-06-2020 to 07-06-2020.
- FDP on **Evolving best teaching and learning practices in the pandemic era 2**, organized by Auxilium College, Vellore, 15-06-2020 to21-06-2020.
- FEP on **Cell Designer** organized by Department of Biochemistry, Auxilium College, Vellore, 25-05-2020 to 31-05-2020.
- FDP on **LaTeX and Scilab** organized by Department of Mathematics, D.K.M. College for Women, Vellore, 30, April 2020 to 04 May 2020
- 7 Days FDP on **GChemPaint and LibreOffice Suite Writer** organized by Department of Chemistry, D.K.M. College for Women, Vellore, Tamil Nadu, 04-10, May 2020.

- National level intercollegiate Online FDP on " **Outcome Based Education**" organized by Auxilium College, Vellore & IPSR Solutions, 22/11/2021 to 27/11/2021.
- One week FDP on " **Patents and innovative teaching & Research methodology**", organized by Bishop Heber College, Trichy, 02/03/2022 to 06/03/2022.
- 5-week online FEP on " **Libre office Suite writer, Calc and Impress**", organized by Auxilium College, Vellore, 26/05/2022 to 10/06/2022.
- 2-days workshop on "**Laboratory Practical Skills Training in Electrical Engineering**" held on 15th and 16th June 2017 at VIT University, Vellore
- 2-days Workshop on "**Arduino Based Designs**" on 11th and 12th March 2016, at GTEC.
- 1-day national workshop on "**Power Systems Planning in Smart Grid**" held on 15 October 2016 at VIT University, Vellore.
- 2-day National Workshop on" **Embedded Systems Architecture and ARM Processors – Hands on**" held on 22nd to 23rd July 2016 at VIT university, Vellore.
- Attended online course on "**Geoweb Services and Geoportal applications**" conducted by IIRS from June28,2016 to July 15, 2016.
- 2-day Faculty Development on "**principles of Digital Signal Processing**" on 9-10, June 2016 at Rajalakshmi engineering college.
- Attended the basic course on "**Remote Sensing, Geographical Information system & Global Navigation Satellite System**" Conducted by IIRS from Aug10 to Nov 27, 2015 at GTEC.
- 2-day National workshop on "**Make your own PCB design**" on 3rd &4th Feb 2015 at GTEC.
- 2-day hands –on training on "**problem solving of Electrical power Engineering using Modern Software Tools**" on 20th &21st March 2015, at VIT university, Vellore.
- 1-day workshop on "**Software Defined Radio**", on 15th July 2015, at GTEC.
- 1-day FDP on "**Research Methodologies using MATLAB**" on 28th Oct 2015 at GTEC.
- 1-day Training program on "**Design Trends in Adobe Photoshop**" on **6th Nov 2015**, at GTEC.
- 1-day seminar on "**Energy and water conservation Awareness**" on 19th Nov 2015,at GTEC.
- 2-days FDP on "**Robotic designs using AVR and Arduino**" on 20th & 21st Nov 2015, at GTEC.
- 1-day national level Technical seminar on "**Digital India**" held on 15th Dec 2015, at GTEC in association with IEEE Madras section.
- 2-day national level workshop on "**Challenges in power system Monitoring on control**" on 25th and 26th April 2014 at VIT university, Vellore.
- 1-day National workshop on "**VLSI to MEMS & NEMS Era**" on 12th May 2014, at GTEC.
- 4-days FDP on "**Design of Electrical and Electronic Circuits and Networks**" on 24th to 27th June 2014 ,at GTEC.
- 2-week National workshop on "**Analog Electronics**", School of Electronics Engineering, VIT University, Vellore, 4th to 14th June 2013.
- 2-day National workshop on "**Recent Trends in Energy Management System**", School of Electrical Engineering, VIT University, Vellore, 1st and 2nd March 2013.
- 2-day ISTE workshop on "**Research methods in educational technology**", NMEICT (MHRD, Govt. of India), 2nd and 9th February 2013.
- 2-week ISTE workshop on "**Introduction to Research Methodology**", NMEICT (MHRD, Govt. of India), 25th June to 4th July 2012
- 2-day ISTE workshop on "**Writing Effective Conference paper**", NMEICT (MHRD, Govt. of India), 18th and 19th Feb 2012.
- 2-week ISTE workshop on "**Software Development Techniques for teachers of Engineering and Science Institutes**", National Mission on Education through ICT (MHRD, Govt. of India)– VIT University (Remote centre) Nov 5th to Dec 4th, 2011
- 2-week ISTE workshop on "**Basic Electronics**", National Mission on Education through ICT (MHRD, Govt. of India) –VIT University (Remote centre) June 28th to July 8th, 2011
- State level Seminar on "**E-media and education**", organized by Annamal College of Education for Women, 6th and 7th December 2002.

- Seminar on “**Effective Class room Communication**”, organized by Annammal College of Education for Women, 14th December 2002.
- Completed one year “**Office Automation Course**” conducted by Annammal College of Education for Women, Tuticorin, during 2002 – 2003.
- Webinar on “**Dating Sand Using Luminescence**” , organized by Voorhees College, Vellore, June 6th, 2020.
- International Webinar on “**Recent Trends in Material Science**”, organized by Muthurangam Govt. Arts College (A), Vellore, June 6th 2020.
- Webinar on “**Materials to Device Applications**”, organized by Sree Ayyappa College for Women, Nagercoil.
- International Webinar on “**Connecting the Dots between Biochemistry-Bioinformatics-Genomics for a road towards precision medicine**”, May 28th 2020.
- International Webinar on “**Optical Sources and Their Applications** “ organized by QUBIT Physics Society, Bhaskaracharya College of Applied Science, Delhi, May 28th 2020.
- International Webinar on “**Recent Trends in Physics**”, organized by Joseph’s College (Arts & Science), Kovur, Chennai, June 12th,2020.
- Webinar on “**Nano Materials**”, organized by Research Department of Chemistry, Sadakathullah Appa College, June 6th 2020.
- Second National Conference on “**Advanced Materials and Applications**” Organized by Auxilium college, 13th and 14th October2022.
- 2 Day State level workshop on " **Intellectual Property Rights**" , Organized by Auxilium college, 2nd and 3rd AUG 2019.
- National Seminar on **Material Science**, Organized by Department of Physics, Auxilium College, Vellore, 13th September 2019.
- National webinar on " **Modeling of Novel Materials Through Atomistic Molecular Dynamic Simulations**”, organized by Department of Physics, Auxilium college, 11th JUN 2021.
- International webinar on " **Sensors and Applications**” organized by Department of Physics, Auxilium college , 22nd and 23rd JULY 2021.
- National Conference on " **Teaching, Learning and Evaluation: Changes and Challenges**”, Organized by Auxilium College, Vellore, 30 & 31 January 2020.
- International webinar on” **Nanotechnology in Aerospace** “ organized by Department of PG Physics, Auxilium college 22nd JUN 2020.