



**P. A. COLLEGE OF ENGINEERING AND TECHNOLOGY
POLLACHI, COIMBATORE - 642 002**

An Autonomous Institution

Accredited by NAAC with 'A' Grade
Accredited by NBA (CSE, ECE, EEE & Mech)

An ISO 9001:2015 Certified Institution



RESEARCH AND DEVELOPMENT CELL

Academic Research – ELECTRICAL AND ELECTRONICS ENGINEERING

Research Facilities

Sl. No.	Facility	Description (Equipments / Software Details)
1	Power Distribution System Laboratory	Pi Section (Distribution Conductor) Resistive Loading Panel Inductive Loading Panel Capacitive Loading Panel 3 Phase Motor Load, SCADA(Monitoring System)
2	Power Quality Analyzer	Fluke
3	Mipower	Power system simulation software of 15 user
4	PLC	Siemens

Supervisors

Sl. No.	Name of the Supervisor	Reference No.	Name of the University	Research Area	E-Mail ID	Phone No
1.	Dr.T.Manigandan	8230117	Anna University	Control Systems, Signal Processing Drives and Soft Computing	manigandan_t@yahoo.com	9443584648
2.	Dr.S.Vijayabaskar	2830015	Anna University	Power system	svbkec@gmail.com	9842780064

Research Scholars

Sl. No.	Name of the Scholar	Reg. No.	Name of the University	Name of the Supervisor	Research Area	Part Time/Full Time	Status
1	Ms. K.Sharmilee	11130532036	Anna University, Chennai	Dr.T.Manigandan	VLSI Design	Part Time	Completed on 22.11.2019
2	Mr.P.Mariaraja	1412369759	Anna University, Chennai	Dr.T.Manigandan	Power Systems	Part Time	Completed on 15.09.2020
3	Mr.K.Senthil Kumar	11210431051	Anna University, Chennai	Dr.T.Manigandan	Image Processing	Part Time	Completed on 22.09.2020
4	Mr.S.Arun	1513369160	Anna University, Chennai	Dr.T.Manigandan	Control Systems	Part Time	Pursuing
5	Mr.A.Vinothkumar	17143697256	Anna University, Chennai	Dr.S.Vijayabaskar	Renewable Energy systems	Part Time	Pursuing

Journals

Sl. No.	Title of the paper	Name of the journal	International / National	Vol. No. / Issue No./ Page No. / Year	Authors
1.	Analysis of radial distribution system optimization with facts devices using hybrid heuristic technique.	Journal of Theoretical & Applied Information Technology	International	Volume -58 Issue-2 2013	S Vijayabaskar, T Manigandan
2.	Stress degradation studies on mebeverine hydrochloride and development of a validated stability indicating UPLC method	Journal of liquid chromatography & related technologies	International	Volume 34/ Issue 16 Pages/1631-1644 https://doi.org/10.1080/10826076.2011.576297	S Vijayabaskar V Srinivasan, H Sivaramakrishnan, B Karthikeyan, TS Balaji,
3.	Capacitor Placement in Radial Distribution System LossReduction using Self Adaptive Hybrid Differential Evolution and Loss Sensitivity Factors	European Journal of Scientific Research	International	Volume 87/ Issue 2 Pages 201-211	S Vijayabaskar, T Manigandan
4.	Analytical method development and validation for the analysis of verapamil hydrochloride and its related substances by using ultra performance liquid chromatography	Journal of pharmaceutical and biomedical analysis	International	Volume 137 / Pages 189-195 https://doi.org/10.1016/j.jpba.2017.01.006	S Vijayabaskar, V Mahalingam
5.	Analytical method development and validation for the analysis of donepezil hydrochloride and its related substances using ultra performance liquid chromatography	Research Journal of Pharmacy and Technology	International	Volume 10 / Issue 8 Pages 2743-2749 Doi:10.5958/0974-360X.2017.00487.5	S Vijayabaskar, V Mahalingam, RA Kalaivani, T Somanathan

6.	Speed Control of Permanent Magnet Synchronous Motor Using Evolutionary Fuzzy PID Controller	International Journal of Electrical and Information Engineering	International	Volume 9 / Issue 12 Pages 1485-1491 doi.org/10.5281/zenodo.1339175	S Vijayabaskar M Umabharathi,
7.	Performance analysis of permanent magnet synchronous motor using hybrid optimization algorithm	International Journal of Advanced Engineering Technology	International	Volume 7 / Issue 2 Pages 748-753	S Vijayabaskar, T Manigandan
8.	Forecasting biofuel production using adaptive integrated optimization network model	Fuel	International	Volume 283 / Pages 118764 https://doi.org/10.1016/j.fuel.2020.118764	S Vijayabaskar, N Paramesh Kumar, L Murali
9.	The Architectural Design of Deblocking Filter for Image Enhancement in the Diagnosis of Cancer	Asian Pacific journal of cancer prevention: APJCP	International	Volume 19 / Issue 9 Pages 2631 2018	S Vijayabaskar KS Neelu Kumari,
10.	Pole Clustering based Modified Reduced order Model for Boiler System	IETE Journal of Research	International	doi: 10.1080/03772063.2020.1754300,	Arun, S, Manigandan, T Mariaraja, P,
11.	Design of ACO based PID controller for zeta converter using reduced order methodology	Microprocessors and Microsystems	International	Volume 81, March 2021, 103629 https://doi.org/10.1016/j.micpro.2020.103629	Arun, S, Manigandan, T
12.	Three Phase Current Source Inverter Using Space Vector Pwm For Grid Connected Applications	The International Journal Of Engineering And Science	International	Volume and Issue No : 03 & 02, Pg 35-38	Arun.S, Sureshkumar.V,
13.	Real Time Implementation of Pollination based Techniques for Radial Distribution Network Reconfiguration',	IETE Journal of Research	International	doi.org/10.1080/03772063.2021.1990803/2021	MariarajaP, Manigandan, T

14.	Design and Implementation of Advanced Automatic Driving System using Raspberry Pi	2020 5th International Conference on Communication and Electronics Systems (ICCES), Coimbatore (Publisher: IEEE)	International	doi: 10.1109/ICCES48766.2020.9138082.	Mariaraja, P, Manigandan, T, Arun, S,
15.	Cascaded Multi-level Inverter Harmonic Mitigation with Reduced Switch Numbers',	Journal of Information and Computational Science	International	Vol. 10, No. 10, pages: 989- 994/ 2020	Mariaraja, P, Manigandan, T, Kuppuswamy A, Arun S
16.	Advanced development and Design of Multiphase Radial Distribution System Workstation for performing load flow analysis under normal and abnormal conditions	Journal of Electrical Engineering,	International	Volume 19 Issue 1, pages: 469 – 476/2019	Mariaraja. P, Manigandan. T, Thiruvankadam. S
17.	Computational Assessment of Commercial Solar V-Trough Concentrator	Journal of Advanced Research in Dynamical and Control Systems	International	Vol. 10, No.11, pages 314-320/2018	Mariaraja. P, Manigandan. T, Sankar, S
18.	An expert system for distribution system reconfiguration through fuzzy logic and flower pollination algorithm	Measurement and Control	International	Vol.51, No.9-10, pages: 371-382/2018	Mariaraja. P, Manigandan. T, Thiruvankadam. S
19.	A New Evolutionary Approach to Power Fluctuations and Voltage Permanence using SMES	International Journal of Scientific Engineering and Research	International	Vol. 3, No. 2./2015	Mariaraja P, Ayyubh. S, Brindha Sakthi B
20.	Induction Motor Rotor Speed Observer using Sliding-Mode Controller based on Back Emf	International Journal of Science, Engineering and Technology Research	International	Vol. 3, No. 12, Pages: 3178 – 3182./2014	Rekha, K, Mariaraja, P, & Kuppuswamy, A
21.	Isolated Unidirectional Full-Bridge DC-DC Converter with Snubber Circuit	International Journal of Engineering Research & Technology Research,	International	Vol. 3, No. 4, Pages: 852-855/2014	Mariaraja P, Prabha Rani, & Kuppuswamy A
22.	A Novel Converter Topology for Photo-Voltaic Application”	International Journal of Engineering Research & Technology	International	Vol. 3, No. 3, Pages: 2233-2237./2014	Mariaraja. P, Sathyapriya. M, Anju. R,

23.	Reduction of Harmonics using Seven Level Cascaded Multilevel Inverter	International Journal of Engineering & Technology	International	Vol. 3, No. 3./2014	Mariaraja P, Brindha Sakthi B, Saranya A V,
24.	Three Phase 11-Level Single Switch Cascaded Multilevel Inverter	The International Journal of Engineering and Science	International	Vol. 3, No. 3, 2014.	Rajmadhan.D, Kuppuswamy.A, Mariaraja.P,
25.	High Proficiency Grid Connected Photovoltaic Power Generation System	International Journal of Research in Engineering and Science	International	Vol. 2, No. 3./2014	Mariaraja P, Brindha Sakthi B Saranya A V,
26.	Performance of Distributed Power Generation System using MPPT	International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering,	International	Vol. 3, No. 2./2014	Mariaraja P, & Brindha Sakthi B,
27.	Speed Control of Brushless DC Motor using Four Switch Topology”	International Journal of Engineering & Technology	International	Vol. 3, No. 2./2014	Chandru K, Mariaraja P, & Kuppuswamy A,
28.	Enhancement of Power Fluctuations and Voltage Permanence Using Facts Device”	International Journal of Advanced Research in Computer Science and Software Engineering,	International	Vol. 4, No. 1,Pages 927-934./2014	Mariaraja P, & Brindha Sakthi B,
29.	Power Factor Correction in Zeta Converter Fed PMLDPCM Drive for an Air Conditioner	The International Journal of Engineering and Science (IJES),	International	Vol. 3, No. 2, Pages 40-45.	Chandru K, Mariaraja P, & Kuppuswamy A,
30.	A Novel seven level h-bridge inverter for Photovoltaic System	International Journal of Engineering Research and Applications.	International	Vol 4, issue 3, March 2013.	A.Vinothkumar, M.Vigneshkumar
31.	Modeling and Analysis of wind energy conversion systems using MATLAB	IOSR journal of Electrical and Electronics Engineering.	International	Vol 8, issue 2, December 2013.	A.Vinothkumar, P.Kumar

32.	Design and Fabrication of improve power quality converter for photovoltaic based UPS system	International Journal of Engineering Trends and technology.	International	Vol 13, issue 1, June2014.	A.Vinothkumar, M.Vigneshkumar
33.	Automatic Bidirectional Starter for Induction Motor”	International Journal of Electrical Engineering.	International	Vol 8, Number 2, pp 103-113, 2015.	A.Vinothkumar, M.Vigneshkumar
34.	Modelling and Analysis of photovoltaic cell fed seven level multi-string inverter	Australian Journal of Electrical and Electronics Engineering.	International	Vol 12, issue 1, pp 73-80, 2015.	A.Vinothkumar, P.Kumar
35.	Maximum Power Point Tracking Using Fuzzy Logic Controller Based Cuk Converter	international journal of Engineering Trends and Technology	International	Volume-67 Issue-11 November 2019.	Mr.P.Prakash M.Vigneshkumar A.Vinothkumar