

K.S.R COLLEGE OF ENGINEERING, TIRUCHENGODE-637215

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

FACULTY PROFILE

Name : Dr.K.LAKSHMI
Designation : Professor
Date of Birth : 04.05.1977
Date of Joining : 17.08.2022
Supervisor Recognition No. : 2530039



Educational Qualifications:

S.No	Name of the Degree	Specialization	Name of the College	Name of the University	Year of Completion	Class obtained
1.	Ph.D	Electrical Engineering	Coimbatore Institute of Technology	Anna University	2014	Highly Commended
2.	M.E	Power Systems	Annamalai University	Annamalai University	2004	First Class with Distinction
3.	B.E	EEE	Institute of Road and Transport Technology	Bharathiyar University	1999	First

Title of Ph.D. Thesis : Thermal and Wind Power Profit Based Unit Commitment using Evolutionary Computational Algorithms

Area of Interest : Restructured Power Systems, Renewable Energy Systems, Intelligent Techniques

Academic Experience:

S.No	Name of the College	Designation	From	To
1.	K.S.R College of Engineering, Tiruchengode.	Professor/ EEE	17.08.2022	Till date
2.	Sri Krishna College of Technology, Coimbatore	Professor and Head, EEE	03.08.2020	16.06.2022
3.	Sri Krishna College of Engineering and Technology, Coimbatore	Professor and Head, EEE	28.06.2017	31.03.2020
4.	PSG Institute of Technology and Applied Research, Coimbatore.	Associate Professor /EEE	01.06.2016	31.05.2017
5.	K.S.Rangasamy College of Technology Tiruchengode-637215.	Professor /EEE	24.05.1999	30.04.2016

ACADEMIC HONORS/AWARDS:

- ✚ Received “**Overall College level Contributor Award**” from Sri Krishna College of Engineering and Technology, Coimbatore, April 2018.
- ✚ Received “**Appreciation Award**” from STEPS Knowledge Services Pvt Ltd, (Authorized Training Partner for Texas Instruments University), Jan 2018.
- ✚ Received “**Outstanding Women Achiever Award**” from Venus International Foundation, Chennai, Feb. 2016.
- ✚ Received “**Certificate of Honor**” for achieving excellence in Anna University Examinations from PSG Institute of Technology and Applied Research, Coimbatore, April 2017.
- ✚ Received “**Best Teacher Award**” from K.S.Rangasamy College of Technology for the Academic year 2013-2014.
- ✚ Received “**Best Paper Award**” from International Conference on Digital Factory (ICDF 2008), jointly organized by Coimbatore Institute of Technology, Coimbatore, BIRC & University of Massachusetts-Dartmouth, USA, Aug.2008.
- ✚ Received “**Results Achievement Appreciation**” from K.S.Rangasamy College of Technology for the Academic year 2014-15, 2013-14, 2012-13, 2011-12, 2010-11 and 2009-10.

COUNTRIES / UNIVERSITIES VISITED:

- ✚ **Malaysia:** Presented a Research Paper in an IEEE International Conference on Power and Energy, PECon, Kuala Lumpur.
- ✚ **Singapore:** Visited significant places to gain the cutting edge technologies.
- ✚ Visited National Institute of Technical Teachers Training and Research (NITTTR) **Chandigarh** and Lovely Professional University (LPU), **Punjab** to gain the knowledge on best practices in technical education and technology areas.

PATENTS PUBLISHED / FILED:

1. Patent Published with IPR Journal no. 15/2021 titled on “**Implementation of IoT based secured riding system**” with Application No: 202141012377, 2021.
2. Patent Published with IPR Journal no. 12/2021 titled on “**EV Smart Charging using Wireless Microwave Power Transmission**” with Application No: 202141049567, 2021.
3. Patent Published with IPR Journal no. 31/2019 titled on “**Traffic Signal Controller using Dense of the Android Devices**” with Application No: 201941028647A, 2019.
4. Patent Published with IPR Journal no. 63/2019 titled on “**Smart Walking Stick**” with Application No: 201941045736A, 2019.
5. Patent filed with IPR ref. no. E-12/316/2019-CHE titled on “**Development of Wireless based Current Controlled Stimulator for Paralyzed patients**” with Application No: 201941007868, 2019.
6. Patent filed with IPR ref. no. E-2/639/2019-CHE titled on “Shock Wave Treatment for Dye Management to Induce Zero Waste Outcome” with Application No: 201941007882, 2019.
7. Patent filed with IPR ref. no. E-2/3834/2017 titled on “**Power Transfer of Grid Connected Wind Farm System using an Interline Power Flow Controller**” with Application No: 201741044388.

PROFESSIONAL SOCIETY MEMBERSHIP:

- ✚ Life Time Member in ‘Indian Society for Technical Education (ISTE)’, India -Membership No: LM41977.
- ✚ Member in International Association of Engineers (IAENG), Hong Kong - MembershipNo: 208637.
- ✚ Professional Member in Institute For Engineering Research and Publication (IFERP), India Membership No: PM43122.

Research Publications:

1. Muniraj C and **Lakshmi K** and Guna priya D, “ Integrated PCA and FIS approach to the selection of Current and Vibration Signal features for Induction Motor Mechanical Fault Classification” Journal of Intelligent & Fuzzy Systems (ISSN: 1064-1246), pp. 1-19, 2021.
2. Loganathan, N., **Lakshmi, K.**, and Mayurapriyan, S, “An Novel Evolutionary Energy- Preserve Rate Clustering Technique Based Wind Power Generation Forecasting”, Interciencia Journal (ISSN: 0378-1844), vol.45, no.11, pp.138-175, 2020.
3. B. Lalitha, **K. Lakshmi**, G. Ramya, R. Sampathkumar, T G M.Moinuddeen “ Harmonic Analysis of Reduced Device Count Multilevel Converter” Advances in Mathematics: Scientific Journal (ISSN: 1857-8365) , Vol.9, no.10, pp. 8175–8185, 2020.
4. Muniraj C and **Lakshmi K** Guna priya D, “Detection and classification of mechanical faults of three phase induction motor via pixels analysis of thermal image and adaptive neuro-fuzzy inference system” **Springer Journal** of Ambient Intelligence and Humanized Computing (ISSN: 1868-5137), Vol,11, no.10 pp. 1-12, 2020.
5. S Boobalan, **K Lakshmi**, KN Thirukkuralakani, “Comparative Study and Analysis of Human Knee Angle Measurement System” **Springer Book Series: Innovations in Electrical and Electronics Engineering**, vol.626, pp.769-775, March 2020.
6. Y Pavithra, **K Lakshmi**, “Performance Analysis of Grid Connected Modified Z-Source High Step up Inverter for Solar Photovoltaic System” **Springer Book Series: Intelligence in Big Data Technologies—Beyond the Hype**, vol. 1167, pp. 559-569, July 2020.
7. S. Karthikeyan, **K. Lakshmi**, and S. Gobhinath, “Design and Implementation of SEPIC Converter Based Nine-Level MLI Fed IM with PI, FLC, and ANN Controller” , Recent Trends in Mechanical Engineering, **Springer Nature Singapore Pte Ltd**, pp.621- 631,2020.
8. S.Karthikeyan, **K.Lakshmi**, S. Sivaranjani , V.Ravirajan, D.Louis Fernandas, “Rental Battery Management System for Electric Vehicles” Journal of Test Engineering and Management, vol.83, pp. 25541 – 25545, 2020.
9. Boobalan.S, **K.Lakshmi** and Gobhinath.S, “Mathematical Modelling and Simulation of Non-Linear PID Controller for Spherical Tank Level Control in oil and Gas Industry” International Journal of Innovative Technology and Exploring Engineering (ISSN: 2278- 3075), Vol.8, No.7, pp.1389-1394, 2019.
10. **Lakshmi, K.** and Kesavan T, “Design and Study of Interleaved Step up DC Converter with High Level Gain for the Application of Solar Photovoltaic Module” International Journal of Recent Technology and Engineering (ISSN: 2277-3878), Vol.7, No.6, pp.1426-1431, 2019.

11. M.Gayathiri and **K. Lakshmi**, “Battery Less Solar Photovoltaic Water Pumping System using Incremental Conductance Method” Indian Journal of Science and Technology (ISSN: 0974-5645), Vol.12, No.23, pp.1-6, 2019.
12. Loganathan, N., **Lakshmi, K.**, and Mayurapriyan, S, “ Demand side EMS using artificial neural network-based LP method”, IOP Conference Series: Materials Science and Engineering (ISSN: 1757-899X), vol.623, No. 012001, pp.1-8, 2019.
13. S.Karthikeyan and **K.Lakshmi**, “Performance Analysis of Multilevel Inverter with Reduced Number of Switches”, Journal of Computational and Theoretical Nanoscience (ISSN: 1546-1963), Vol. 16, pp.1–6, 2019.
14. **K. Lakshmi** and N.Loganathan, “Distribution Side Energy Management and Scheduling in Smart Cities”, International Journal of Pure and Applied Mathematics (ISSN 1314- 3395), Vol. 119, No. 12, pp. 923-935, 2018.
15. G.Radhakrishnan, A.Maideen Abdhulkader Jeylani, **K.Lakshmi**, K.Rameshkumar, “Steady state performance of a grid connected system using solar based multilane power flow controller”, International Journal of Pure and Applied Mathematics (ISSN 1314- 3395), Vol.119, No. 12, pp.1717-1727, 2018.
16. K.Rameshkumar, **K.Lakshmi**, R.Sakthiganesh, and R.Saran, “Design and Implementation of Data Transfer through Visible Light”, International Journal of Pure and Applied Mathematics (ISSN 1314-3395), Vol.119, No. 12, pp.1807-1816, 2018.
17. Loganathan, N., **Lakshmi, K.**, “Smart energy management systems: a literature review”, MATEC Web of Conferences (ISSN: 2261-236X), vol.225, No.01016, pp.1-8, 2018.
18. T.Kesavan, **K. Lakshmi**, R.Kavin and S.SheebaRani Gnanamalar, , “Local Search Optimization Algorithm Based Monitoring and Controlling of Virtual Power Plant for Distribution Network”, International Journal of Pure and Applied Mathematics (ISSN 1314-3395), Vol.119, No.12, pp.1851-1864, 2018.
19. S.Karthikeyan, **K.Lakshmi** and S.Boobalan, “Regenerative Braking System for Electric Vehicle based on ANN”, International Journal of Pure and Applied Mathematics (ISSN 1314-3395), Vol.119, No.12, pp.1865-1875, 2018.
20. S.Boobalan, **K.Lakshmi** and S.Karthikeyan, “Automated Driver Assistance Systems for Agricultural Robots using Matduino”, International Journal of Pure and Applied Mathematics (ISSN 1314-3395), Vol.119, No.12, pp.1877-1886, 2018.
21. R.Kavin, **K.Lakshmi**, T.Kesavan, and S.Sheebarani Gnanamalar, “Wireless Power Transfer from PV with Ripple Reduction and RF Based Charging Control”, International Journal of Pure and Applied Mathematics (ISSN 1314-3395), Vol. 119, No.12, pp.1887- 1894, 2018.
22. K.Rameshkumar, V.Indragandhi, **K.Lakshmi** and G.Radhakrishnan. “Performance analysis of DC-link capacitor voltage control based single phase shunt active filter with direct and indirect current control technique”, International

Journal of Pure and Applied Mathematics (ISSN 1314-3395), Vol.119, No.12, pp.1905-1914, 2018.

23. Loganathan, N., **Lakshmi, K.**, and Arun Venkatesh, J., “ A Robust Energy Management System for Smart Grid” International Journal of Advances in Intelligent Systems and Computing (ISSN: ISSN: 2194-5357), **Springer Series**, Vol. 467, pp.423-435, 2017.
24. Karthik, S. and **Lakshmi, K.**, “PMU Based Wide Area Backup Protection Scheme in Power Transmission Lines”, International Journal of Applied Engineering Research(ISSN 0973-4562), Vol. 10 No.20, pp.20037-42, 2015.
25. Oshiya, A. and **Lakshmi, K.**, “Hydro and Wind Power Coordination Using Interval Optimization to Attain Profit Intervals”, International Research Journal of Engineering and Technology (ISSN: 2395-0072), Vol. 2, No.9, pp.341-347, 2015.
26. Loganathan, N.and **Lakshmi, K.**, “Demand Side Energy Management for Linear Programming Method” TELKOMNIKA Indonesian Journal of Electrical Engineering (ISSN: 2302-4046), Vol 14, No 1, pp.72-79, 2015.
27. Karthik, S. and **Lakshmi, K.**, “PMU Based Wide Area Backup Protection Scheme in Power Transmission Lines”, International Research Journal of Engineering andTechnology (ISSN: 2395-0072), Vol. 2, No.9, pp.273-281, 2015.
28. Kaleeswari, M.and **Lakshmi, K.**, “Optimal Energy Management Algorithm for Plug in Hybrid Electric Vehicles”, International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (ISSN: 2320– 3765), Vol. 4, No. 2, pp. 600-606, 2015.
29. Loganathan, N.and **Lakshmi, K.**, “ANN Based Linear Programming Approach for Demand Side Energy Management” , International Journal of Innovative Research in Advanced Engineering (ISSN: **2349-2163**), Vol.2, No.3, pp.46-51, 2015.
30. **Lakshmi, K.** and Vasantharathna, S., “Gencos Wind-Thermal Scheduling Problem using Artificial Immune System Algorithm”, International Journal of Electrical Power and Energy Systems (ISSN: 0142-0615), **Elsevier**, Vol.54, pp.112-122, 2014.
31. **Lakshmi, K.** and Vasantharathna, S., “Genco’s Profit Based Unit Commitment Using Artificial Immune System in Day Ahead Competitive Electricity Markets” Journal of Applied Science and Engineering (ISSN:1560-6686), Vol. 17, No. 3, pp. 275-282, 2014.
32. Anil Kumar,C., and **Lakshmi, K.**, “Monitoring and detection of fault using phasor Measurement units” International Journal of Electrical, Electronics and Mechanical Controls (ISSN: 2319-7501), Vol. 3, No. 2, 2014.

33. Shalini, S.P., and **Lakshmi, K.**, “Solving Environmental Economic Dispatch Problem with Lagrangian Relaxation Method” International Journal of Electronic and Electrical Engineering (ISSN: 0974-2174), Vol.7, No.1, pp. 9-20, 2014.
34. **Lakshmi, K.** and Vasantharathna, S., “Hybrid Artificial Immune System Approach for Profit Based Unit Commitment Problem” Journal of Electrical Engineering and Technology (ISSN: 1975-0102), **Korean IEEE**, Vol.08, No. 05, pp.959-968, 2013.
35. **Lakshmi, K.** and Vasantharathna, S., “Refined Genetic Algorithm for Short Term Generation Scheduling Problem in Regulated and Deregulated Power System”, International Journal of Electrical Engineering (ISSN:0974-2158), Vol. 6, No.2, pp.115- 120, 2013.
36. **Lakshmi, K.** Dhanapal, M. and Vasantharathna, S., “Stochastic Modeling to Investigate the Impacts of Wind Power on Thermal Scheduling”, International Journal of Advanced Scientific and Technical Research (ISSN: 2249-9954), Vol.1, No.3, pp. 518-527, 2013.
37. **Lakshmi, K.** Karthickkumar, K and Vasantharathna, S., “Renewable Energy Sources Scheduling with Thermal Unit under Uncertainty in Deregulated Power System”, International Journal of Advanced Research in Electrical and Electronics Engineering (ISSN: 2321-4775), Vol.1,No.2, pp.49-57, 2013.
38. **Lakshmi, K.** Karthickkumar, K and Vasantharathna, S., “Wind and Solar Energy Sources Scheduling with Thermal Unit in Deregulated Power System”, i-manager’s Journal on Power Systems Engineering (ISSN: 2321-7499), Vol.1, No.1, pp.30-36, 2013.
39. **Lakshmi, K.** and Vasantharathna, S., “Improved Genetic Algorithm for Constrained Generation Scheduling in Restructured Electricity Markets”, International Journal of Engineering Research and Studies (ISSN:0976-7916), Vol.1, No.1, pp. 71-82, 2010.