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[Dr. K. Vijayakumar](#)

DR. K. VIJAYAKUMAR



Dr. K. Vijayakumar

Designation: Professor & Head of the Department

Area: Power systems

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Affiliation: Department of Electrical and Electronics Engineering, Kattankulathur Campus, SRM Institute of Science and Technology (formerly known as SRM University)

Admission Enquiry

Education

Ph.D	Power System Deregulation	SRM Institute of Science and Technology (formerly known as SRM University), 2013
M.E	Power Systems	Annamalai University, 1997
B.E	Electrical & Electronics Engineering	Annamalai University, 1995

Other Details:

Research Interests

→ Power Electronics Applications in Power Systems

Areas Of Interest

→ Power system : Deregulation, Modeling, Control and Operation, Optimization, Power Converters, Hybrid Energy systems,

Selected Publications

- Karthikeyan, D., Krishnasamy, V., Sathik, M.A.J. " Development of a switched diode asymmetric multilevel inverter topology" (2018) Journal of Power Electronics, 18 (2), art. no. JPE 18-2-10, pp. 418-431.
- Mohd.Ali, J.S., Krishnaswamy, V., "An assessment of recent multilevel inverter topologies with reduced power electronics components for renewable applications" (2018) Renewable and Sustainable Energy Reviews, 82, pp. 3379-3399.
- Palanisamy, R., Vijayakumar, K., " A hysteresis current controller for PV-wind hybrid source fed STATCOM system using cascaded multilevel inverters" (2018) Journal of Electrical Engineering and Technology, 13 (1), pp. 270-279.
- Navamani, J.D., Krishnasamy, V., Ramiah, J., "Stability analysis of a novel switched inductor based quadratic boost DC-DC converter,"(2017) Advances in Electrical and Electronic Engineering, 15 (5), pp. 788-798.
- Selvakumar, K., Vijayakumar, K., Boopathi, C.S., "CSO based solution for load kickback effect in deregulated power systems,"(2017) Applied Sciences (Switzerland), 7 (11).
- Ramasamy, P., Krishnasamy, V., "A 3D-space vector modulation algorithm for three phase four wire neutral point clamped inverter systems as power quality compensator,"(2017) Energies, 10 (11) .
- Selvakumar, K., Vijayakumar, K., Boopathi, C.S., "Demand response unit commitment problem solution for maximizing generating companies' profit,"(2017) Energies, 10 (10), art. no. 1465 .
- Divya Navamani, J., Vijayakumar, K., Jegatheesan, R., " Non-isolated high gain DC-DC converter by quadratic boost converter and voltage multiplier cell," (2016) Ain Shams Engineering Journal.
- Divya Navamani, J., Vijayakumar, K., Jegatheesan, R., Lavanya, A., " High step-up DC-DC converter by switched inductor and voltage multiplier cell for automotive applications," (2016) Journal of Electrical Engineering and Technology, 12 (1), pp. 189-197.
- Jayachandran, D.N., Krishnaswamy, V., Lavanya, A., Dhandapani, K., "Modelling and analysis of voltage mode controlled Luo converter,"(2015) American Journal of Applied Sciences, 12 (10), pp. 766-774.
- Vidyasagar, S., Vijayakumar, K., Ramanujam, R., Sattianadan, D., Kumar, N., " Voltage profile improvement using DG in reconfigured distribution system,"(2015) International Journal of Control and Automation, 8 (6), pp. 393-410.
- Divya Navamani, J., Lavanya, A., Vijayakumar, K., " Implementation of voltage controlled multi device interleaved boost converter using FPGA" (2014) International Review on Modelling and Simulations, 7 (3), pp. 422-427. Cited 2 times.
- Vijayakumar, K., Jegatheesan, R., " Optimal location of multiple TCSCs for congestion management (2013) International Review of Electrical Engineering, 8 (3), pp. 1036-1042.
- Sattianadan, D., Sudhakaran, M., Dash, S.S., Vijayakumar, K., " Cost / loss minimization by the placement of DG in distribution system using ga and PSO - A comparative analysis," (2013) International Review of Electrical Engineering, 8 (2), pp. 769-775.
- Sattianadan, D., Sudhakaran, M., Vidyasagar, S., Vijayakumar, K., " A novel performance index for placement of distributed generation in distribution system," (2013) International Review on Modelling and Simulations, 6 (6), pp. 1809-1813

- Hari, N., Vijayakumar, K., Dash, S.S.," A novel control strategy for performance enhancement of unified power quality conditioner," (2012) International Review of Automatic Control, 5 (6), pp. 798-803.
- Vijayakumar, K., Jegatheesan, R.," A multi objective fuzzy evolutionary programming and NSGA-II approaches for congestion management in deregulated power systems," (2012) International Review on Modelling and Simulations, 5 (1), pp. 8-14.
- Vijayakumar, K.," Multiobjective optimization methods for congestion management in deregulated power systems," (2012) Journal of Electrical and Computer Engineering, art. no. 962402, .
- Vijayakumar, K., Kumudinidevi, R.P.," A new method for locating TCSC for congestion management in deregulated electricity markets," (2009) International Journal of Power and Energy Conversion, 1 (4), pp. 313-326.

Papers Published in National/International Journals

National : 27

International : 77

Projects Guiding

Ph. D Guiding: 08

M.Tech Guided: 65+

Academic Experiences

- Professor, SRM Institute of Science and Technology (formerly known as SRM University), January 2014 to till date
- Assistant Professor, SRM Institute of Science and Technology (formerly known as SRM University), from July 2009 to December 2013
- Assistant Professor, SRM Institute of Science and Technology (formerly known as SRM University), from April 2005 to 2009
- Senior Lecturer, SRM Institute of Science and Technology (formerly known as SRM University), from May 2002 to 2005 March
- Lecturer, SRM Institute of Science and Technology (formerly known as SRM University), from June 1997 to 2001 December

Other Professional Experiences

- Serving in the board of examiners in various universities (Pondicherry University, Anna University, Annamalai University, Karunya University, etc).
- Serving as result passing board member in Rajalakshmi Engineering College
- Vice Chairman IET Chennai Local network
- IEEE Branch counselor for SRM Student chapter
- Member in Tamil Perayam, SRM Institute of Science and Technology (formerly known as SRM University)
- TCP Member/ Reviewer of the "5th International Conference on Advanced Computing and Communication Systems (ICACCS 2019)" at Sri Eshwar College of Engineering, Coimbatore.

- Panel Member, Joint International Conference on Communication, Computing and Power Technologies (ICCCPT-2015) at Velammal Engineering college on 23- 24 April 2015

Consultancy

- Evaluation of electrical installation "Silicon valley auto components (p) Ltd. Maraimalai nagar, 1992-98.
- Electrical installation "Silicon valley process work (p) Ltd, 2001-02
- Had been course tutor for Temasek Polytechnic, Singapore at SRM Institute of Science and Technology (formerly known as SRM University), Kattankulathur.
- Harmonics measurement in real time industries M/s Kaleesuwari Refineries Ltd and GE Industries India Pvt. Ltd., 2017-18

Patent Applied

- A Novel Portable solar peltier cooler system
- A Novel small scale power generating wind mill system
- Vegetable sea food and meat cleaner and slicer
- Helmet with lock
- A device for preventing extreme climatic conditions

Online Courses Attended

- Wind, Waves and Tides: Alternative Energy Systems on Coursera at University of Toronto December 16, 2014
- Principle of Written English on EDX at University of California, March 5th, 2014
- Principle of Electric Circuits on EDX at Tsinghua University, January 19th, 2015

Reviewer in the Journals

- IEEE Transactions on Power Electronics
- International journal of Electrical and Computer Engineering
- International journal of Electrical power components and system.
- International Journal of Electronics.

Books/ Book Chapters published

- "Basic Electrical Engineering", First Edition, Vijay Nicole Imprints Pvt. Ltd, 2013
- "Electrical Engineering Practice Lab Manual", Vijay Nicole Imprints Private Ltd., First Edition, 2013.
- "Proceedings of ICAIECES 2016," Artificial Intelligence and Evolutionary Computations in Engineering Systems", Springer, 2016
- "Advances in Intelligent Systems and Computing", Springer, 2017

Achievements and Awards

- Best Teacher Award 2005-06 and 2007-2008 Dept of EEE, at SRM Institute of Science and Technology (formerly known as SRM University).

- Fellow Member of IE(I)
- Senior Members of IEEE

Conferences/Seminars/Workshops Attended/Organized

National : 45
International : 35
STTP attended: 60
STTP organized : 52

Memberships in professional bodies

- Fellow Member in Institution of Engineers (India): F-1217603
- Senior Member of IEEE: 92035134
- Member of IET:1100321748
- Life Member in Indian Society for Technical Education Membership Number :LM27412
- Life Member of Indian Science Congress Association: L30374

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