



# Dr. Ravishankar A. N

Head Of the Department, Electrical & Electronics Engineering

## **Administrative Responsibilities**

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- Head of the Department
- Inspection Committee - Secretary
- Lab In charge – EV Laboratory
- Techfest Event Coordinator
- IEEE PELS Society Faculty Advisor

## **Education Summary**

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- Ph. D. in Electrical Engineering with major area as “Electric Vehicles” from NIT Calicut in 2021.
- M. Tech in Computer Controlled Industrial Power under Electrical Engineering from NIT Calicut in 2010.
- B. Tech in Electrical and Electronics Engineering from NIT Calicut in 2007.

## **Employment History**

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- As Assistant Professor in the Department of Electrical and Electronics Engineering, Christ College of Engineering, Irinjalakuda from 1/3/2021 onwards.
- As Assistant Professor in the Department of Electrical and Electronics Engineering, Amrita University, Kollam from 19/7/2010 to 28/12/2015.
- As Project Technical Assistant in the Department of Electrical Engineering at NIT Calicut from 9/8/2007 to 30/6/2008 for MHRD R&D project on Unified Expert Controller Strategy Design for Hybrid Energy Systems.

## Journal/Papers Published

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- Khushboo Gupta, Ravishankar A. N., Kumaravel S., Ashok S., “Optimal location identification for aggregated charging of electric vehicles in solar photovoltaic powered microgrids with reduced distribution losses”, *Energy Sources Part A: Recovery, Utilization, and Environmental Effects*, Taylor & Francis, doi: 10.1080/15567036.2020.1745335, 2020.
- Ravishankar A. N., Ashok S., Kumaravel S., “Modeling and Scheduling of Residential Electric Loads for Energy Self-Sufficiency”, *Int. Journal of Numerical Modelling*, Wiley, doi: 10.1002/jnm.2782, 2020.
- Kumaravel S., Ravishankar A. N., V. Seshagiri Rao, Ashok S., “Dual Input-Dual Output DC-DC Converter for Solar PV/Battery/Ultra-capacitor Powered Electric Vehicle Application”, *IET Power Electron.*, vol. 12, no. 13, pp. 3351-3358, doi: 10.1049/iet-pel.2019.0123, 2019.
- Ashly Dhanesan, A. N. Ravishankar, J. Anudev, “PV Systems with Continuous Sliding Mode Controlled Quadratic Boost Converter”, *Procedia Technology*, Elsevier, vol. 25, pp. 808-815, doi.org/10.1016/j.protcy.2016.08.182, 2016.
- Sikha Sara Joshua, Ravishankar A. N., “Economic Source Allocation among Multiple Distributed Energy Resources in Regulatory Markets”, *Asian Journal of Engineering and Technology*, vol. 3, no. 4, pp. 281-287, 2015.
- Ravishankar A. N., Kumaravel S., Ashok S., “Bidirectional Dual Input Single Output DC-DC Converter for Electric Vehicle Charger Applications”, 8th IEEE Global Conference on Consumer Electronics (GCCE 2019), Oct. 15-18, 2019, held at Science Exhibition Centre, Osaka, Japan.
- Gayathri M. S., Ravishankar A. N., Kumaravel S., Ashok S., “Battery Condition Prognostic System using IoT in Smart Microgrids”, 3rd International Conference IoT: Smart Innovation and Usages (IoT-SIU 2018), Feb. 24-25, 2018 held at Birla Institute of Applied Sciences, Bhimtal, Nainital, India.
- Ravishankar A. N., Ashok S., Kumaravel S., “Effects of Demand Side Management & Storage on Renewable Energy Penetration to the Grid”, 3rd International Conference on Advances in Electrical, Electronics, Information, Communication and Bio-Informatics (AEEICB17), Feb. 27-28, 2017 held at Prathyusha Engineering College, Chennai, India
- Balaji H., Renjith Mohan, Ravindran Nair, Ravishankar A. N., Ilango K, Sai Shibu N. B., Br. Deepthi, and Nikhila Sanampudi, “Community development and energy equality: Experiences from micro hydro implementation in a tribal settlement in India”, IEEE R10 Humanitarian Technology Conference (R10-HTC), Dec. 21-23, 2016, held at Dayalbagh Educational Institute, Agra, India.

- Sikha Sara Joshua and Ravishankar A. N., “Development of Utility Interactive Inverters for Controlling Renewable Energy Penetration into Grid”, IEEE International Conference on Technological Advancements in Power and Energy (TAP Energy-2015), Jun. 24-26, held at Amrita Vishwavidyapeetham, Amritapuri, Kollam, India.
- Swathy M., S. Smrithi, P. Akhil Rajkoti, P. Kanakasabapathy, A. N. Ravishankar, Soumajit Pal, and Prabakaran Poornachandran, “Development of SCADA automated 33kV substation model as testing platform”, IEEE International Conference on Industrial Instrumentation and Control (ICIC 2015), May 28-30, 2015 held at College of Engineering Pune, Pune, India.
- Praveen K. P. and Ravishankar A. N., “Simulation of Hybrid Energy System using Multiple Input DC-DC Converter and Z-Source Inverter with Maximum Boost Control Strategy”, 3rd IEEE Sponsored International Conference on Computation of Power, Energy, Information and Communication, Apr. 16-17, 2014, held at Adhiparasakthi Engineering College, Chennai, India.
- Muralikrishnan K. and Ravishankar A. N., “Feasibility Analysis of Implementing DC Distribution for Industrial Areas”, National Conference on Technological Advancements in Power & Energy – TAP Energy 2013, July 04-06, held at Amrita Vishwavidyapeetham, Amritapuri, Kollam, India.

## **Specialized Trainings**

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- IEEE International Conference on “Power Electronics, Smart Grid and Renewable Energy” on Jan. 02-04, 2020 at Le Meridian, Kochi.
- IEEE International Conference on “Global Conference on Consumer Electronics” on Oct. 15-19, 2019, Osaka, Japan.
- TEQIP FDP on “Real Time Monitoring, Protection and Control of Power Systems”, on May 21-26, 2018, at NIT Calicut.
- IEEE DLP on “AC and DC Gas Insulated Transmission Lines by Dr. Hermann Koch”, on Feb. 6, 2018, at NIT Calicut.
- Workshop on “Visvesvaraya PhD – Presentation of Research Work”, Nov. 16-18, 2017, AU College of Engineering, Visakhapatnam.
- IEEE International Conference on “Advances in Electrical, Electronics, Information, Communication and Bio-informatics”, Feb. 27-28, 2017, at Prathyusha Engineering College, Chennai.
- Workshop on “Smart Grid and the Internet of Things”, Feb. 02-03, 2017, at CPRI, Bangalore.

- TEQIP FDP on “Modelling and Control in Power Electronics”, Jul. 14-17, 2015 at GEC, Thrissur.
- FDP on “Solar Energy Solutions for Industrial Applications”, Feb. 13-14, 2014, at CPRI, Bangalore.
- Training Programme on “Industrial Automation” during Jan. 25-29, 2010, at NIT Calicut.
- Industrial Training at “Kalki Communication Technologies Pvt. Ltd, Bangalore”, during 25/05/2009 to 26/06/2009.
- Industrial Training at “ITI Limited, Palakkad”, during 18/05/2005 to 20/06/2005.

## **Areas Of Interest**

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- Electric Vehicles
- Energy Optimization
- DC-DC Converters
- Renewable Energy Systems
- Internet of Things.

## **Achievements**

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- Recipient of Visvesvaraya Ph.D. scholarship from Ministry of Electronics and IT, Govt. of India during 2015-2021.
- GATE Score with Year: 315 (2006), 325 (2007) and 361 (2008).
- Secretary, IEEE Education Activity Board – IEEE Kerala Execom in 2014.
- Technical coordinator for Installation of Pico Hydel Station at Komalikudi, Idukki under the supervision of Mata Amritanandamayi Math, Vallikkavu, Kollam, in 2015.