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Winter 11-1-2022

Multi-Terminal Smart Transformer for Data Centre Applications

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Recommended Citation

N, Anandh, "Multi-Terminal Smart Transformer for Data Centre Applications" (2022). *Technical Collection*. 41.

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Past experience:

Assistant Professor - Thiagarajar College of Engineering (A Govt. Aided Autonomous Institution), Madurai, Tamil Nadu from (09 Dec, 2014 – 29 July, 2015).

Teaching Assistant - Indian Institute of Technology Delhi from (21 July, 2012 – 30 June, 2014).

Lecturer - SNS College of Engineering (Autonomous), Coimbatore, Tamil Nadu from (19 July, 2007 – 31 May, 2012).

Lecturer - Annai Mathammal Sheela Engineering College, Namakkal, Tamil Nadu from (14 July, 2006 – 2 July, 2007).

Awards and recognitions:

1. Selected as **Finalist** for the prestigious **Qualcomm Innovation Fellowship India 2022**.
2. Received the “**Best Paper Award**” for the paper titled, “Power Quality Estimation, Analysis and Improvement for Uninterrupted Power Supply,” at the **IEEE International Conference on Control, Instrumentation, Communication and Computational Technologies** held at **Noorul Islam Centre for Higher Education (Deemed to be University)**, Kumaracoil, Kanyakumari, December 16-17, 2016.

Journal publications:

1. S. Julius Fusic, **N. Anandh**, D. Anitha, T. Sugumari, H. Sri Vinodhini, “Impact of implementing project-based assignment (PBA) in CDIO framework for computer numerical control application course,” *Computer Applications in Engineering Education*, Vol. 30, Issue. 5, September 2022, pp. 1577-1590.
2. H Ramesh, S Arockia Edwin Xavier, P Thangapandian & **Anandh N**, “Predictive Control of Axis Drift in Linear Motion Control Systems,” *Journal of Scientific & Industrial Research*, Vol. 81, No. 8, August 2022, pp. 827-836.
3. Fusic, S. Julius, **N. Anandh**, A.N. Subbiah, and D. Bhaven Kumar Jain, “Implementation of the CDIO Framework in Engineering Courses to improve Student-Centered Learning,” *Journal of Engineering Education Transformations*, Vol.35, January 2022, pp. 19-26.
4. **Anandh N.**, Kumar P., “A Case Analysis on Energy Savings and Efficiency Improvement of a Chiller Plant in a Luxury Hotel Building,” *International Energy Journal*, Vol.21, No.4, December 2021, pp. 447-456.
5. **Anandh N.**, Akhilesh Sharma, Julius Fusic S., Ramesh H., “An Improved Zero-Voltage Zero-Current Transition Boost Converter employing L-C-S resonant network,” *International Journal of Power Electronics and Drive Systems*, Vol.11, No.4, December 2020, pp. 1844-1856.

6. Akhilesh Sharma, **Anandh N.**, Sarsing Gao, "Modulation Index effect on Inverter based Induction Motor Drive," *International Journal of Power Electronics and Drive Systems*, Vol.11, No.4, December 2020, pp. 1785-1798.
7. **Anandh N.**, S. Julius Fusic, "Analysis and Design of LCS Resonant Cell based enhanced Zero-Voltage Transition DC-DC Boosting Converter," *Serbian Journal of Electrical Engineering*, Vol.16, No.1, February 2019, pp. 105-121.
8. S. Julius Fusic, D. Kavitha, **N. Anandh**, "A case study of implementing active learning technique in electrical machine course," *Journal of Engineering Education Transformations*, Vol.32, No.1, July 2018, pp. 49-55.
9. **Anandh N.**, Pramod Antony D'sa, M.V. Gautam, V. Sai Sandeep, "Filter Implementation using Output Transformer of UPS for Power Quality Improvement," *International Journal of Power Electronics and Drive Systems*, Vol.8, No.3, September 2017, pp. 1251-1259.
10. Jayalakshmi N.S., D.N.Gaonkar, **Anandh N.**, Nimika Sanjeev Kumar, "Hardware Implementation of Single Phase Inverter Design based on Cuk Converter," *International Journal of Renewable Energy Research*, Vol.7, No.2, June 2017, pp. 585-591.

Conference publications:

1. Dwijasish Das, **Anandh N.**, Chandan Kumar, "UPS Operation of Multi-Terminal Smart Transformer for Islanded Operation of Data Centres," *IEEE 10th Power Electronics, Drives and Energy Systems (PEDES)*, held at Malaviya National Institute of Technology (MNIT), Dec 14 - 17, 2022 in Jaipur, India.
2. Dwijasish Das, **Anandh N.**, Chandan Kumar, "Multi Terminal Smart Transformer for Green Data Centres," *IEEE 13th International Symposium on Power Electronics for Distributed Generation Systems (PEDG)*, held at Science Center CAU, June 26 - 29, 2022 in Kiel, Germany.
3. Chaithanya K. Gowda, Vibhav G. Khedekar, **Anandh N.**, Laxman Rao S. Paragond, Prakash Kulkarni, "Bidirectional on-board EV battery charger with V2H application," *IEEE International Conference on Innovations in Power and Advanced Computing Technologies (i-PACT)*, held at Vellore Institute of Technology (Deemed to be University), March 22 - 23, 2019 in Vellore, India.
4. **Anandh N.**, Jayalakshmi N.S., S. Julius Fusic, "Voltage-mode Digital Controller for a Fifth-Order Zero-Voltage Transition Boost Converter," *IEEE International Conference on Sustainable Energy Technologies and Systems (ICSETS)*, held at Kalinga Institute of Industrial Technology (Deemed to be University), February 26 - March 1, 2019 in Bhubaneswar, India.
5. S. Julius Fusic, **N. Anandh**, I. Leando, M. Manimegalan, "Demo based peer teaching among UG students through innovative assignments," *IEEE Ninth International Conference on Technology for Education (T4E)*, held at Indian Institute of Technology Madras, December 10-13, 2018 in Chennai, India.

6. **Anandh N.**, H. Ramesh, S. Julius Fusic, “Optimization of Energy Storage Elements in a Cross-Connected Capacitors Boost Converter,” *IEEE International Conference on Smart Technologies for Smart Nation (SmartTechCon)*, held at REVA University, August 17-19, 2017 in Bengaluru, India.
7. **Anandh N.**, Pramod Antony D’sa, M.V. Gautam, V. Sai Sandeep, “Power Quality Estimation, Analysis and Improvement for Uninterrupted Power Supply,” *IEEE International Conference on Control, Instrumentation, Communication and Computational Technologies (ICCICCT)*, held at Noorul Islam Centre for Higher Education (Deemed to be University), December 16-17, 2016 in Kumaracoil, India.
8. **Anandh N.**, “Double Input Soft-Transition DC-DC Converter for Photo-Voltaic Applications,” *IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT)*, held at Sri Venkateshwara College of Engineering, May 20-21, 2016 in Bengaluru, India.
9. **Anandh N.** and Jayalakshmi N.S., “Realization of Successful ZVT Operation in a Soft-Transition Converter,” *IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT)*, held at Sri Venkateshwara College of Engineering, May 20-21, 2016 in Bengaluru, India.
10. Veerachary M., Vijay Kumar Tewari and **Anandh N.**, “Two Input Boosting DC-DC Converter for DC Grid Applications,” *IEEE International Conference on Green Computing, Communication and Conservation of Energy (ICGCE)*, held at RMD Engineering College, December 12-14, 2013 in Gummidipoondi, India.