

Dr. C. Umayal

Associate Professor, Grade-2, School of Electrical Engineering
VIT University, Chennai Campus
Vandalur Kelambakkam Road, Chennai-600127
Email: umayal.c@vit.ac.in
9003035785

Publications:

1. Saranya, C & **Umayal, C** 2015, Fuzzy Logic Based Direct Torque Control of B4 Inverter fed BLDC Motor Drive', International Journal of Applied Engineering Research, India, ISSN 0973-4562 vol 10, no 9, pp. 9099- 9105.(10)
2. P. Muthu, **C. Umayal**, M. Jagannath, K. Adalarasu, 2016, 'SEPIC Converter for Power Factor Correction in Free Biomass Induction Heating System', International Journal of Bio Sciences and Engineering, Vol 3(1),15-36, August 2016. ISSN- 2349 5200.
3. Abhishek Kumar Yadav, **Umayal C**, Atul Fartiyal, 2016, 'Simulation and Hardware Implementation of Interleaved Technique Based DC-DC Buck-Boost Converter', International Journal of Engineering Sciences & Research Technology, pp.588-601. September 2016. ISSN: 2277-9655. DOI: 10.5281/zenodo.154569.
4. Abeera Dutt Roy & **C.Umayal**, 2016, Opal-RT based Analysis and Implementation of Single Phase Cascaded Multilevel Inverter with Minimum Number of Switches', Indian Journal of Science and Technology, Vol 9 S(1), DOI: 10.17485/ijst/2016/v9iS(1)/97744 December 2016, pp. 1-6.(13)
5. Parandhaman Balamurugan and **Chandrasahana Umayal**, 2017, Hardware Implementation of PFC Buck-Boost Converter Driven PMBLDC Motor Drive for Mining Applications', ARPN Journal of Engineering and Applied Sciences, Vol. 12, No. 1, Jan 2017, pp.130-139.(14)
6. Muthu Periasamy, **Chandrasahana Umayal**, "Improved Dynamic Response of PFC-SEPIC Converter Based On Induction Heater Using FOPID Controlled System", International Journal of Engineering and Technology (IJET), Vol 9 No 6 Dec 2017-
7. O.Felix and **C.Umayal**, 'Low Voltage Ride-Through Capability Enhancement of DFIG Wind Turbine Using STATCOM And Supercapacitor Energy Storage', International Journal of Pure and Applied Mathematics, Vol. 118 No. 17, 2018, 975-985.
8. K Bhavya Sri, Komal Sachdeva, Sai Nikita, **Dr C.Umayal**, 'Border Security Robot using IoT', International Journal of Advanced Research Methodology in Engineering & Technology, ISSN 2456-6446, Volume 2, Issue 3, May 2018.
9. Gaidhani, S., Singh, T., Verma, Y., & **Umayal, C.** (2018). IoT-Based Home Automation System: A Smart Way to Conserve Energy. International Journal of Engineering Sciences & Research Technology, 7(7), 194-198. ISSN: 2277-9655. <http://www.ijesrt.com/issues%20pdf%20file/Archive-2018/July-2018/24.pdf>.
10. Muthu Periasamy, **Chandrasahana Umayal**, "Improved Time Responses of PI & FL Controlled SEPIC Converter based Series Resonant Inverter-fed Induction Heating System", International Journal of Power Electronics and Drive Systems (IJPEDS), vol.9, no.1, March 2018, pp.305-315.DOI:

10.11591/ijpeds.v9n1.pp305-315.

<https://www.iaescore.com/journals/index.php/IJPEDS>.

11. Kamalpathi, K.; Priyadarshi, N.; Padmanaban, S.; Holm-Nielsen, J.B.; Azam, F.; **Umayal, C.**; Ramachandaramurthy, V.K. A Hybrid Moth-Flame Fuzzy Logic Controller Based Integrated Cuk Converter Fed Brushless DC Motor for Power Factor Correction. Electronics 2018, 7, 288. Nov 2018
12. Abeera Dutt Roy, **Chandrasan Umayal**, 'Implementation of A Solar Based Seven Level Asymmetrical Multilevel Inverter Topology with Reduced Device Count', 'International Journal of Innovative Technology and Exploring Engineering' Volume-8 Issue-9, pp.465-472, July 2019.-
<https://www.ijitee.org/download/volume-8-issue-9/>
13. Kanimozhi. G, **Umayal. C**, Dhanasekar.S," FPGA based Hybrid Resonant Switching DC/DC converter for Electric Vehicles", International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-9, July 2019.

<https://www.ijitee.org/wp-content/uploads/papers/v8i9/E3135038519.pdf>
14. Abeera Dutt Roy and **Chandrasan Umayal**, 'Performance Analysis of a Half Bridge Cell Based Asymmetrical Multilevel Inverter Topology with minimum components', Recent Advances in Electrical & Electronic Engineering, 2020, Vol. 13, No. 4, pp.531-545, Bentham Science Publishers- DOI: 10.2174/2352096512666190417122807
15. S.Bhagyashri, Kanimozhi.G, **Umayal.C**, Xiao-Zhi Gao ,“ Symptomatic Influence of Advancement inTechnology and an Indicative Effect on Human Health “International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-7 Issue-5, January 2019
<https://www.ijrte.org/download/volume-7-issue-5/>
16. Salil Gokhe, **Umayal.C**, Kanimozhi.G, “Multiport DC-DC Boost Converter for Utilization in PV System with Improved Gain”, International Journal of Engineering and Advanced Technology (IJEAT), ISSN: 2249 – 8958,Volume-9 Issue-1, October 2019. <https://www.ijeat.org/download/volume-9-issue-1/>
17. Amritha. G, Kanimozhi. G, Umayal. C, Ravi. S, “Bidirectional Resonant DC-DC Converter for Microgrid applications”, International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-8 Issue-5, January 2020. <http://ijrte.org/download/volume-8-issue-5/>.
18. Abeera Duttroy, Chandrasan Umayal, Sanjeevikumar Padmanaban ,Pandav Kiran Maroti, K Padmanathan, Jens Bo Holm-Nielsen, 'Reliability Analysis of 13-Level Multilevel Inverter With Less Number of Power Devices Configuration', Energies-submitted.

19. Shreya Sinha, C Umayal, G. Kanimozhi, and S Saravanan,'Computer Aided Diagnostic Methods for Detecting Heart Diseases Using ECG', "International Journal of Advanced Science and Technology,-**submitted**
20. Chhavi Saksena, Farhaj Rehana, Kanimozhi G, Umayal .C, 'Smart Sleep Monitoring System', International Journal of Emerging Technologies in Engineering Research Journal (IJETER) Vol. 8 No 8, September 2020.
21. Abeera Dutt Roy and Chandrahasan Umayal, "Performance and reliability analysis of 13 level asymmetrical inverter with reduced devices", Lecture Notes in Electrical Engineering, 2020.
22. Abeera Dutt Roy and Chandrahasan Umayal, "Investigation and reliability analysis of fifteen level asymmetrical multilevel inverter topology using nearest level control technique with low component count", Recent Advances In Electrical and Electronics Engineering,Bentham Publishers, 2020(revisions came)