

PATENTS FILED/PUBLISHED

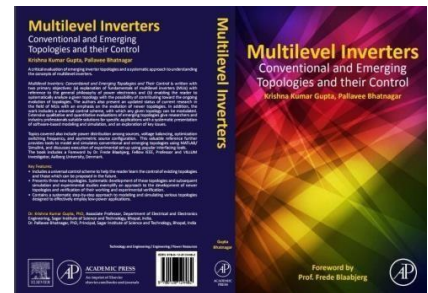
1. 201921023225 TEMP/E-1/24453/2019-MUM, “Circuit for Multilevel dc-to-ac and ac-to-dc Power Conversion” ON 2019/06/12
2. 201921023226 TEMP/E1/24471/2019MUM, “Switched-Capacitors based Circuit for Multilevel dc-to-ac and ac-to-dc Power Conversion” ON 2019/06/12
3. 1 202111023687 TEMP/E1/26516/2021- DEL 1600 18565 FORM 1 Power circuits and working methodology of Power Electronics Transformer (PET) with semiconductor-base
4. Patent published 202311046659 “AN ELECTRIC VEHICLE CHARGING INTERFACE USING MULTILEVEL MULTIOUTPUT BUCK AND BOOST PFC RECTIFIER”11/07/2023

BOOKS

“Multilevel Inverters: Conventional and Emerging Topologies and their Control”

Academic Press (Elsevier) USA

- Role: Co-author ISBN: 9780128124482, Published on 05/12/2017 (First Edition)



PUBLICATIONS

Journals

S.No.	Title	Authors	Journal	Details	Impact Factor
1	Multilevel Inverter Topologies with Reduced Device Count: A Review	K.K. Gupta, A. Ranjan, Pallavee Bhatnagar , L. Kumar, S. Jain	IEEE Transactions on Power Electronics Q1-3.34	Volume 31, Issue 1, pp. 135-151, Jan. 2016 DOI: 10.1109/TPEL.2015.2405012	6.373
2	An Integrated Converter With Reduced Components for Electric Vehicles Utilizing Solar and Grid Power Sources	A.K. Singh, A. K. Mishra, K. K. Gupta, Pallavee Bhatnagar and T. Kim	IEEE Transactions on Transportation Electrification Q1-2.17	vol. 6, no. 2, pp. 439-452, June 2020 DOI: 10.1109/TTE.2020.2998799	5.444
3	A Flying Squirrel Search Optimization for MPPT under Partial Shaded Photovoltaic System	N. Singh, S. K. Jain, K. K. Gupta, N. K. Dewangan and Pallavee Bhatnagar	IEEE Journal of Emerging and Selected Topics in Power Electronics Q1-2.68	Volume: 9, Issue: 4, August 2021) 4963 – 4978 2168-6777 DOI: 10.1109/JESTPE.2020.3024719	4.728
4	A methodology for even-power-distribution within single time-blocks of power-frequency in CHB MLIs for PV systems	Pallavee Bhatnagar , N. Kumar Dewangan, N. Singh and K. Kumar Gupta	Wiley International Transactions on Electrical Energy Systems—Q2-0.6	Volume 31, Issue 1 January 2021 e12591 2050-7038 https://doi.org/10.1002/2050-7038.12591	2.860

S.No.	Title	Authors	Journal	Details	Impact Factor
5	Maximum power point tracking control techniques : State-of-the-art in photovoltaic applications	Pallavee Bhatnagar , R.K. Nema	Elsevier Renewable and Sustainable Energy Reviews Q1-3.68	Volume 23, July 2013, pages 224-241 1364-0321 https://doi.org/10.1016/j.rser.2013.02.011	16.799
6	A Maximum Power Point Tracking Algorithm for Photovoltaic Systems using Bang-Bang Controller	Pallavee Bhatnagar , R.K. Nema	Journal of Renewable and Sustainable Energy (AIP) Q3-0.55	Volume 6, Issue 5, pages 1-156, 053126 (2014); https://doi.org/10.1063/1.4898358 1941-7012	2.84
7	Conventional and global maximum power point tracking techniques in photovoltaic applications: A Review	Pallavee Bhatnagar , R.K. Nema	Journal of Renewable and Sustainable Energy (AIP) Q3-0.55	Volume 5, Issue 3, May 2013 1941-7012 https://doi.org/10.1063/1.4803524	2.84

	ic applications: A Review				
8	Reduced device count version of single-stage switched-capacitor module for cascaded multilevel inverters	Pallavee Bhatnagar , R. Agrawal and K. K. Gupta	IET Power Electronics Q1-0.95	Vol. 12, no. 5, pp. 1079-1086, 15 2019 DOI: 10.1049/iet-pel.2018.6017 , Print ISSN 1755-4535, Online ISSN 1755-4543	2.839

9	Switched capacitors 9-level module (SC9LM) with reduced device count for multilevel DC to AC power conversion	Pallavee Bhatnagar , R. Agrawal, N. Kumar Dewangan , S. K. Jain and K. Kumar Gupta	IET Electric Power Applications Q2-0.78	Vol. 13, no. 10, pp. 1544-1552, 10 2019 DOI: 10.1049/iet-epa.2019.0053 , Print ISSN 1751-8660, Online ISSN 1751-8679	3.051
10	Nine-level voltage-doubler bi-polar module for multilevel DC to AC power conversion	Pallavee Bhatnagar , R. Agrawal, N. K. Dewangan , S. K. Jain and K. K. Gupta	IET Power Electronics Q1-0.95	Volume 12, Issue 15, 18 December 2019, p. 4079 – 4087 DOI: 10.1049/iet-pel.2019.0094 , Print ISSN 1755-4535, Online ISSN 1755-4543	2.839
11	Modified reduced device multilevel inverter structures with open circuit fault-tolerance capabilities	N. Dewangan , K.K.Gupta and Pallavee Bhatnagar	Wiley International Transactions on Electrical Energy Systems Q2-0.6	vol. 30, no. 1, pp. 1-15, Jan 2020 https://doi.org/10.1002/2050-7038.12142 e12142	1.314

S.N o.	Title	Authors	Journal	Details	Impact Factor
12	Open-Switch Fault Tolerance Capabilities of Some Reduced Device Count Multilevel Inverter Topologies	N. Dewangan , Pallavee Bhatnagar , S.K. Jain, S. Gupta and K.K.Gupta	Transactions of Electrical Engineering (Iranian Journ. of Sci. & Tech. Q2-0.45	Vol. 44, pp. 253–264 (2020) Online ISSN:2050-7038 https://doi.org/10.1007/s40998-019-00241-3	2.639
13	A multilevel inverter structure with open circuit fault-tolerant capability	N. K. Dewangan , T. Tailor, R. Agrawal, Pallavee Bhatnagar and K. K. Gupta	Springer Electrical Engineering Q2-0.46	103, pages1613–1628 (2021) 09487921, 14320487 https://doi.org/10.1007/s00202-020-01149-6	1.63
14	Simulation Study of a Novel Switched-Capacitors Based Multilevel Boost Inverter for Three-Phase Applications with Single DC Source	Pallavee Bhatnagar , N. K. Dewangan and K.K.Gupta	International Journal of Modelling and Simulation (Taylor and Francis) Q2-0.35	Accepted for publication (Manuscript ID: TJMS-2019-0248.R2)	Scopus Indexed
15	A Switched –capacitor based 13 level Inverter	Pallavee Bhatnagar , A Singh, K.K Gupta and Y. Siwakoti	IEEE Transaction on Power Electronics Q1-3.34	doi: 10.1109/TPEL.2021.3098827. vol. 37, no. 1, pp. 644-658, Jan. 2022 0885-8993	6.73
16	A Flicker-Free Decoupled Ripple Cancellation Technique	Mr. Manish Kumar Barwar, Lalit Kumar Sahu;	Elsevier: Optik, International Journal for Light and	https://doi.org/10.1016/j.ijleo.2021.168029 Volume 247, December 2021, 168029 0030-4026,	2.443

	for LED Driver Circuits	Pallavee Bhatnagar ; Krishna Kumar Gupta; Allamsetty Hema Chander	Electron Optics Q2-0.523		
17	Performance analysis and reliability estimation of five level rectifiers.	Barwar, Manish Kumar, Lalit Kumar Sahu, Pallavee Bhatnagar , Krishna Kumar Gupta, and Allamsetty Hema Chander.	International Journal of Circuit Theory and Applications Q2-0.45	16 November 2021 Volume 50, Issue 3 March 2022 Pages 926-943 https://doi.org/10.1002/cta.3187 1097-007X	2.378
18	Demystifying the Shadows of Light: LED Driver Circuits	Manish Kumar Barwar, Prabhat Kumar, Hema Chander, Lalit Kumar Sahu, Pallavee Bhatnagar , Krishna Kumar Gupta, Josep Guerrer	IEEE Industrial Electronics Magazine 99 (99), 99 Q1-2.26	doi: 10.1109/MIE.2022.3164526. 16 May 2022 0278-0046	8.162
19	A V2G Enabled Bidirectional Three-Phase EV Charging Interface using Multilevel Buck PFC Rectifier	Anekant Jain *, Krishna Kumar Gupta, Sanjay Kumar Jain, Pallavee Bhatnagar , Hani Vahedi	Electronics 11, no. 12: 1891. Q2-0.59	Electronics 2022, 11(12), 1891; ISSN: 2079-9292 https://doi.org/10.3390/electronics11121891	2.67

20	A Bidirectional Five-Level Buck PFC Rectifier with Wide Output Range for EV Charging Application	Anekant Jain, Krishna Kumar Gupta, Pallavee Bhatnagar	IEEE Transactions on Power Electronics Q1-3-34	DOI: 10.1109/TPEL.2022.3185239 23 Volume: 37, Issue: 11, November 2022 13439 – 13455 Print ISSN: 0885-8993	5.97
21	Reliability Analysis of Flicker-Free LED Driver Based on Five-Level Rectifier	Manish Kumar Barwar, Lalit Kumar Sahu, Pallavee Bhatnagar	Elsevier: Optik, International Journal for Light and Electron Optics Q2-0.523	https://doi.org/10.1016/j.ijleo.2022.169762 2 August 2022, 169762 Volume 268, 2022, 169762, ISSN 0030-4026	2.84
22	A Multilevel PFC Rectifier with Sensor-Less Voltage Balancing Capability	Manish Kumar Barwar, Lalit Kumar Sahu, Pallavee Bhatnagar , Prabhat Ranjan Tripathi	IEEE Transactions on Circuits and Systems Q1-1.34	5029 – 5033 Volume 69, Issue: 12, December 2022) Print ISSN: 1549-7747 DOI: 10.1109/TCSII.2022.3199088	3.691
23	A Novel Single-phase Five-level Transformer less Self-balanced Self-boosting Inverter for Photovoltaic Applications	Pallavee Bhatnagar , Meena Malik, Srete Nikolovski, and Surjit Singh	Energies	Accepted for publication 2023 April	
24	Optimizing the Supercapacitor Energy Storage System	Fernando Davalos Hernandez, b*, Sergei Parsegova	International Journal of Electrical Power & Energy	14 Aug 2023 SSRN: https://ssrn.com/abstract=4540981 or http://dx.doi.org/10.2139/ssrn.4540981	

	based on Modular Multilevel Converter with embedded self-balance control	, Julio C. Rosas-Carob , Pallavee Bhatnagar c , Federico Martin Ibaneza	Systems 000 (2021) 000–000		
25	Single-source three-phase switched-capacitor-based MLI	Kasinath Jena 1, Krishna Kumar Gupta 2, pallavee Bhatnagar 3, Sanjay Kumar Jain 2, Robert Stala 4, Zbigniew Waradzyn 5, Stanisław Piróg 6, Adam Penczek 7, Andrzej Mondzik , Aleksander Skala 6	Power Electronics and Drives 2022;7 (42)	Power Electronics and Drives Volume 7(42), 2022 DOI: 10.2478/pead-2022-0015 eISSN:2543-4292	
26	A Novel Step-Up Multilevel Inverter	Niraj Kumar Dewangan, Krishna Kumar Gupta, Pallavee Bhatnagar	ICONIC RESEARCH AND ENGINEERING JOURNALS	IRE 1700064 © OCT 2017 IRE Journals Volume 1 Issue 4 ISSN: 2456-8880	
27	Four-Level Single-Stage Single-Source Boost-	Stala, Robert, Szymon Folmer, Zbigniew Waradzyn , Adam Penczek, Stanisław Piróg, Aleksander Skala, Andrzej Mondzik,	Inverter." <i>IEEE Access</i> (2024).	- Publication Date: 2024 - Volume: 12 - On Page(s): 120524-120542 - Print ISSN: 2169-3536 - Online ISSN: 2169-3536	

		Krishna Kumar Gupta, Pallavee Bhatnagar , and Sanjay K. Jain.			
28	Comparative Analysis And Performance Evaluation Of Dual Active Bridge Converter Using Different Modulation Techniques	Neeraja, Bathala, Pallavee Bhatnagar , Dankan Gowda, Anupam Kumar, Mada Venkata Sowmya Sri, and Chinde Aishwarya.	International Journal of Electrical and Electronics Research	accepted- - https://ijeer.forexjournal.co.in/ https://www.scopus.com/sourceid/21101067520#tabs=2 Date of submission 01.04.2024	

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24. K.K.Gupta, **PallaveeBhatnagar**, H. Vahedi, K.A. Haddad, "Carrier based PWM for Even Power Distribution in Cascaded H-bridge Multilevel Inverters within Single Power Cycle," 42nd Annual Conference of IEEE Industrial Electronics Society, IECON 2016, October 24-27, 2016, Florence, Italy.
25. **PallaveeBhatnagar** and K.K.Gupta, "A Novel Algorithm for MPPT in Solar PV Systems Implemented with ARM Cortex M4 32-Bit Microcontroller," IEEE Power Electronics, Drives and Energy Systems Conference (PEDES 2018), to be held during 18-21 Dec 2018 at IIT Madras

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