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TITLE	YEAR
Nirav Patel, Ajay Kumar, B.Chitti Babu, Nitin Gupta, "Pseudo Affine Projection Assisted Multitasking Approach for Power Quality Improvement in Grid-Interactive Photovoltaic (PV) System", IET Power Electronics, Vol. 13, Iss. 13, Pp. 2905 – 2916, Oct 2020. (Impact factor: 2.7).	2020
Nirav Patel, B.Chitti Babu, Nitin Gupta, "Photovoltaic System Operation as DSTATCOM for Power Quality Improvement Employing Active Current Control", IET Generation, Transmission & Distribution, Vol. 14, Iss.17, Pp. 3518 – 3529, September 2020, (Impact factor: 2.9).	2020
Ajay Kumar, Nirav Patel ,B.Chitti Babu, Nitin Gupta, "Improved robust-mixed-norm-based controller for grid-tied PV systems under voltage disturbances", IET Generation, Transmission & Distribution, Vol.14., Iss. 13, Pp. 2610 – 2619, July 2020.(Impact factor: 2.9).	2020
Nirav Patel, Ajay Kumar, B.Chitti Babu, Nitin Gupta, "An Optimized PI-4VPI Current Controller for Three-Phase Grid-integrated Photovoltaic Inverter under Grid Voltage Distortions", IET Renewable Power Generation, Vol. 14, Iss. 5, pp. 779-792, April 2020, (Impact factor: 3.9).	2020
AsuthoshGiri ,Rakesh Maurya, Sabha Raj Arya, B.Chitti Babu, "Control of Voltage Source Converter for Enhancement of Power Quality in off-Grid Distributed Power Generation", IET Renewable Power Generation ,Vol. 14, Iss. 5, Pp. 771 – 778, April 2020, (Impact factor: 3.9).	2020
Haricharan, B.Chitti Babu, Atanu Banerjee, "Control and Analysis of a 3-Level Diode-Clamped Split Source Inverter in the Applications of Grid-tied Photovoltaic Systems", Intr. Trans. on Electrical Energy Systems, John-Wiley, Vol.30, Iss.11, Pp.01-30, Nov 2020, (Impact factor: 1.7).	
Narendra Babu P, B.Chitti Babu, Ranga Babu Peesapati, Gayadhar Panda, "An optimal current control scheme in grid-tied hybrid energy system with active power filter for harmonic mitigation", Intr. Trans. on Electrical Energy Systems, John-Wiley, Vol.30, No:03, Pp.01-21, March 2020, (Impact factor: 1.7).	2020

P.Balamurugan, B.Chitti Babu, N.Senthil Kumar, "Optimization of DC-Link Voltage Regulator using Bat Algorithm for Proportional Resonant Controller Based Current Control of Shunt Active Power Filter in Distribution Network", Intr. Trans. on Electrical Energy Systems, John-Wiley, Vol.30, No.06, Pp.01-15, June 2020, (Impact factor: 1.7).	2020
Aliva Routray, Khyati D Mistry, Sabha Raj Arya, B.Chitti Babu, "Power Output Evaluation of a Wind-Solar Farm Considering the Influence Parameters", IET Renewable Power Generation (Impact factor: 3.9). In Press.	2020
Subham Ku. Jalan, B.Chitti Babu, Nirav Patel, Ajay Kumar, Nitin Gupta, "A Novel Active Current Co-efficient Extraction based Control for Grid-tied Solar PhotoVoltaic System", IET Power Electronics, September 2020, (Impact factor: 2.7)- In Press.	2020
V.V.S.Kumar Bhajana, Pavel Drabek, Martin Jara, Atif Iqbal, B.Chitti Babu, "Investigation of a Bidirectional DC/DC Converter with ZVS Operation for Battery Interfaces", IET Power Electronics, September 2020, (Impact factor: 2.7)- In Press.	2020
Saurabh kumar, K.Vijayakumar, M.Ashok Kumar, B.Chitti Babu, "An Improved Control Strategy for Cuk Converter Assisted Wind Driven SEIG for DC Nanogrid", IET Electric Power Applications, June 2020, (Impact factor: 2.9) – In Press.	2020
P.Sudheer, V.Sandeep, B.Chitti Babu, "Investigation of Different Loading Conditions on Parallel Inverter Interfaced Islanded AC Microgrid with Impact of Symmetrical Fault Recovery", Energy Sources, Part-A, Taylor & Francis, Oct 2020, (Impact factor: 1.2), In Press.	2020
Nirav Patel, Ajay Kumar, B.Chitti Babu, Nitin Gupta, "Experimental Investigations on Voltage Sourced Inverter Interfaced Photovoltaic Based Distributed Generation System", ", Energy Sources, Part-A, Taylor & Francis, June 2020,(Impact factor: 1.2), In Press	2020
Asuthosh Giri ,Rakesh Maurya, Sabha Raj Arya, B.Chitti Babu, "Power Quality Solutions for Effective Utilization of Single Phase Induction Generator Using Voltage Source Converter", ", Energy Sources, Part-A, Taylor & Francis, May 2020(Impact factor: 1.2), In Press.	2020
Narendra Babu P, B.Chitti Babu, Ranga Babu Peesapati, Gayadhar Panda, "Design, Development, and Implementation of Grid-Connected Solar Photovoltaic Power Conversion System", Energy Sources, Part-A, Taylor & Francis, April 2020 (Impact factor: 1.2), In Press	2020
Ajay Kumar, Nirav Patel, Nitin Gupta, B.Chitti Babu, "Active Power Coefficient Control for Grid-tied Photovoltaic System under Voltage Distortions", Energy Sources, Part-A, Taylor & Francis, June 2020, (Impact factor: 1.2), In Press.	2020

TITLE	YEAR
Design, development, and implementation of grid-connected solar photovoltaic power conversion system N Patel, N Gupta, BC Babu Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 1-20	2019
Control of Voltage Source Converter for Enhancement of Power Quality in off- Grid Distributed Power Generation R Maurya, BC Babu IET Renewable Power Generation	2019
Invasive weed optimization-based automatic generation control for multi-area power systems S Mishra, AK Barisal, BC Babu International Journal of Modelling and Simulation 39 (3), 190-202	2019
A Novel Orthogonal Current Decomposition Control (OCDC) for Grid-connected Voltage Source Converter  A Kumar, N Gupta, V Gupta, BC Babu IEEE Transactions on Industry Applications	2019
VCO-less PLL control-based voltage-source converter for power quality improvement in distributed generation system AK Giri, SR Arya, R Maurya, BC Babu IET Electric Power Applications	2019
Photovoltaic array reconfiguration to extract maximum power under partially shaded conditions S Saravanan, RS Kumar, A Prakash, T Chinnadurai, R Tiwari, Distributed Energy Resources in Microgrids, 215-241	2019
Mitigation of power quality problems in PMSG-based power generation system using quasi-Newton-based algorithm AK Giri, SR Arya, R Maurya, BC Babu International Transactions on Electrical Energy Systems, e12102	2019
Robust detection of real-time power quality disturbances under noisy condition using FTDD OJ Singh, DP Winston, BC Babu, S Kalyani, B Praveen, MS Kumar,	2019

TITLE	YEAR
AUTOMATIKA 60 (1), 11-18	
Dynamic energy management and control of a grid-interactive DC microgrid system BR Naidu, G Panda, BC Babu Smart Power Distribution Systems, 41-67	2019
Dynamic Voltage Restorer (DVR)–A Review VK Remya, P Parthiban, V Ansal, BC Babu Journal of Green Engineering 8 (4), 519-572	2018
* Department of Electrical Engineering, Indian Institute of Technology Kharagpur, Kharagpur, India,† Department of Electrical Engineering, National Institute of Technology BR Naidu, G Panda, BC Babu Smart Power Distribution Systems: Control, Communication, and Optimization, 41	2018
Multi-Objective based Optimal Generation Scheduling Considering Wind and Solar Energy Systems SR Salkuti, V Sandeep, BC Babu, CM Jung International Journal of Emerging Electric Power Systems 19 (5)	2018
High Step-Up Boost Converter with Neural Network Based MPPT Controller for a PEMFC Power Source Used in Vehicular Applications KJ Reddy, N Sudhakar, S Saravanan, BC Babu International Journal of Emerging Electric Power Systems 19 (5)	2018
Simple and Easy approach for Mathematical Analysis of Photovoltaic (PV) Module under Normal and Partial Shading Conditions BCB Ooi Wen Yin OPTIK (Elsevier) 169 (01), 48-61	2018
Implementation of Single-Phase Two-Switch Midpoint Unidirectional Multilevel Converter System PR Roy, P Parthiban, BC Babu International Journal of Emerging Electric Power Systems 19 (4)	2018
Smart Battery Charging Station for ElectricVehicle Using Half Bridge Power Converter BR Ananthapadmanabha, R Maurya, SR Arya, BC Babu International Journal of Emerging Electric Power Systems 19 (4)	2018
A Novel soft switching bidirectional dc dc converter	2018

TITLE	YEAR
B Babu, S Divya 2018 Second International Conference on Inventive Communication and	
Power quality improvement in stand-alone SEIG-based distributed generation system using Lorentzian norm adaptive filter AKK Giri, SR Arya, R Maurya, BC Babu IEEE Transactions on Industry Applications 54 (5), 5256-5266	2018
Control Scheme for DSTATCOM Based on Frequency-Adaptive Disturbance Observer SK Patel, SR Arya, R Maurya, BC Babu IEEE Journal of Emerging and Selected Topics in Power Electronics 6 (3	2018
Features of Power Quality in Single-Phase Distributed Power Generation Using Adaptive Nature Vectorial Filter AK Giri, A Qureshi, SR Arya, R Maurya, BC Babu IEEE Transactions on Power Electronics 33 (11), 9482-9495	2018
Improved Method of Maximum Power Point Tracking of Photovoltaic (PV) Array using Hybrid Intelligent Controller BCB C.Vimala Rani, N.Kamaraj OPTIK (Elsevier) 168 (01), 403-415	2018
Electric Vehicle Battery Charger with Improved Power Quality Cuk-derived PFC Converter BCB Sanjay K. Patel, Sabha Raj Arya, Rakesh Maurya Journal of Green Engineering, Special Issue on Green Energy Systems 7 (1	2017
HCCbased Interleaved Boost Converterwith Optimal Switching Frequency Control of Wind Energy Conversion System for DC Microgrid Application V Karthikeyan, S Rajasekar, BC Babu, P Yadav, P Karuppanan, JOURNAL OF ENGINEERING-JOE	2017
HCC-based interleaved boost converter with optimal switching frequency control of wind energy conversion system for DC microgrid application V Karthikeyan, S Rajasekar, BC Babu, P Yadav, P Karuppanan, The Journal of Engineering 2017 (8), 495-505	2017
Pre-filters based Synchronous rotating reference frame phase locked loop (SRF PLL) design for distorted grid conditions BNPPK SRIDHARAN.K, B.CHITTI BABU Artificial Intelligence and Evolutionary Computations in Engineering Systems	2017
HCC-based Interleaved Boost Converter with Optimal Switching Frequency	2017

TITLE	YEAR
Control of Wind Energy Conversion System for DC Microgrid Application STS V.Karthikeyan, S.Rajasekar, B. Chitti Babu , Karuppanan.P, Haider Abbas IET The Journal of Engineering 25 (01), 01-25	
Experimental Validation of Improved Control Strategy of Grid-interactive Power Converter for Wind Power System BCBKB Mohanty Technology and Economics of Smart Grids and Sustainable Energy 2 (05), 01-12	2017
A Comparative Analysis of Single switch Soft-switching Boost Converter and Interleaved Soft-switching Boost Converter BPP 1. Prativa P. Sahoo, M. Mohapatra, B.Chitti Babu, A.K.Panda Journal of Low Power Electronics 13 (01), 83-93	2017
Mitigation of Subsynchronous Resonance with Fractional-order PI based UPFC controller BCB D. Koteswara Rajua, Bhimrao S. Umrea, Anjali S. Jungharea Mechanical Systems and Signal Processing, Elsevier 85 (01), 698-715	2017
Improved Control Strategy for Subsynchronous Resonance Mitigation with Fractional-order PI Controller BCB D. Koteswara Raju. B.S. Umre. A.S. Junghare International Journal of Emerging Electric Power Systems 17 (06), 683-692	2016
Modeling and Experimental Investigation on Vector Control of Grid-connected Inverter-Based Distributed Generation M.Mohapatra,B.Chitti Babu,K.B.Mohanty Distributed Generation & Alternative Energy Journal 31 (04), 06/26	2016
Implementation of Improved Control Strategy of DC-AC Converter using Delta- Sigma Modulator BCB Mohamayee Mohapatra Smart Grid as a Solution for Renewable and Efficient Energy 1, 249-272	2016
A framework for assessing the awareness of the agile manufacturing environment in indian SMEs MTV Kumar, BG Babu, M Saravanan Int J Adv Engg Tech/Vol. VII/Issue II/April-June 201, 210	2016
Analysis, Design and Experimental Validation of Modified Simple Soft Switching DC-DC Boost Converter L Raghavendran.S, B, Chitti Babu, Piegari International Journal of Emerging Electric Power Systems 16 (04), 331-337	2015

TITLE	YEAR
Analysis of mathematical modeling of PV module with MPPT algorithm BC Babu, T Cermak, S Gurjar, ZM Leonowicz, L Piegari 2015 IEEE 15th International Conference on Environment and Electrical	2015
Modelling of Sliding Goertzel DFT (SGDFT) based phase detection system for grid synchronization under distorted grid conditions K Sridharan, BC Babu, PM Kannan, V Krithika Procedia Technology 21, 430-437	2015
Analysis of Photovoltaic (PV) Module during Partial Shading based on Simplified Two-Diode Model Chitti Babu.B, Asish Maher, Suresh Gurjar International Journal of Emerging Electric Power Systems 16 (01), 15-21	2015