

Publications:**(a) Paper publications in International Journals (SCI/SCOPUS indexed journals only):**

S.No.	Title of paper	Author(s)	Name of the Journal	Vol. & Year	Pages
1.	Multi-objective optimal allocation of renewable distributed generation units in a distribution network under high penetration of plug-in hybrid electric vehicles.	Sankar, M.M., Chatterjee, K.	Electrical Energy	2024	1-23
2.	Study the impact of renewable and non-renewable energy sources on micro-grid using time series data based information.	Kumari Sandhya, Kalyan Chatterjee	Energy Reports	Volume 11, 2024	Pages 4957-4966,
3.	A posteriori multiobjective approach for techno-economic allocation of PV and BES units in a distribution system hosting	Matta Mani Sankar, Kalyan Chatterjee	Applied Energy,	Volume 351, 2023,	121851,
4.	A comprehensive review of photovoltaic-thermal (PVT) technology: Performance evaluation and contemporary development	Awaneendra Kumar Tiwari, Kalyan Chatterjee, Sanjay Agrawal,	Energy Reports, ,	Volume 10, 2023,	Pages 2655-2679
5.	. Renewable Energy-Based Multi-source System Under Deregulated Environment Using COKHA Algorithm', .	Biswas, S., Kumar Roy, P. and Chatterjee, K	, <i>IETE Journal of Research</i> ,	69(7), 2021	4772–4790
6.	Two-stage ANN based intelligent technique for optimal positioning and sizing of DERs in distribution system	Kumari Sandhya, Kalyan Chatterjee	Engineering Applications of Artificial Intelligence	121,2023	105932
7.	Design of a maiden synthetic inertia controller using super-capacitor energy storages and electric vehicles and real-time validation of the performance of the controller	Rajasi Mandal, Kalyan Chatterjee	Journal of Energy storage(Q2)	Volume 55 , Part B May 2021 November 22	105559

8.	Flicker Attenuation Using FACTS Device for DFIG-Based WECS Connected to Distribution Network	A. Mishra and K. Chatterjee	IEEE Systems Journal (Q1)	doi: 10.1109/JSYST.2022.3161469	
9.	Coordinated control of Incentive-Based Demand Response Program and BESS for frequency regulation in low inertia isolated grid,	Sandip Kumar Gupta, T. Ghose, Kalyan Chatterjee	Electric Power Systems Research (Q2)	Volume 209, 2022,	108037,
10.	Harmonic analysis and attenuation using LCL-filter in doubly fed induction generator based wind conversion system using real time simulation based OPAL-RT.	Anirban Mishra, Kalyan Chatterjee	Alexandria Engineering Journal(Q1)	Volume 61, Issue 5, 2022,	Pages 3773-3792
11.	. Hybrid CNN-LSTM deep learning model and ensemble technique for automatic detection of myocardial infarction using big ECG data.	Rai, H.M., Chatterjee, K	Applied Intelligence (Q2)	Vol:52, https://doi.org/10.1007/s10489-021-02696-6	5366–5384 (2022).
12.	System Simplification Using Pole Spectrum Analysis (PSA) with the Advantage of Dominant Pole Retention.	Sengar, R.S., Chatterjee, K. & Singh, J.	Circuits Syst Signal Process (Q3)	Vol:41 , (2022). https://doi.org/10.1007/s00034-021-01792-9	102–121
13.	System Approximation via Restructured Hankel Matrix.	Sengar, R.S., Chatterjee, K. & Singh, J.	Circuits Syst Signal Process (Q3)	Vol:40 , 2021 https://doi.org/10.1007/s00034-021-01745-2	6354–6370 (2021).
14.	<u>Real-time implementation of ring based saturated core fault current limiter to improve fault ride through capability of DFIG system</u>	Prashant Mani Tripathi, Kalyan Chatterjee	<u>International Journal of Electrical Power & Energy Systems (Q2)</u>	<u>Volume 131</u> , October 2021	107040
15.	<u>Virtual inertia emulation and RoCoF control of a microgrid with high renewable power penetration</u>	Rajasi Mandal, Kalyan Chatterjee	<u>Electric Power Systems Research (Q2)</u>	<u>Volume 194</u> , May 2021	107093
16.	<u>Automatic and accurate abnormality detection from brain MR images using a novel hybrid UnetResNext-50 deep</u>	Hari Mohan Rai, Kalyan Chatterjee, Sergey Dashkevich	<u>Biomedical Signal Processing and Control</u> (Q2)	<u>Volume 66</u> , April 2021	102477

17.	Disturbance rejection of the powers and DC-link voltage of a doubly-fed induction generator using state-space	Ravi Bhushan, Dipesh Kumar and Kalyan Chatterjee	Int Trans Electr Energ Syst. (SCIE: I.F: 1.692). Q3	Volume -31 May, 2021	Issue 5, e12865
18.	Optimal coordination between PV smart inverters and different demand response programs for voltage regulation in	Sandip Gupta ,Tirthadip Ghose and Kalyan Chatterjee	Int Trans Electr Energ Syst. (SCIE: I.F: 1.692). Q3	Volume -31 March, 2021	Issue 3, e12765
19.	A review on the state of the art of proliferating abilities of distributed generation deployment for achieving resilient distribution system	K. Sandhya,K. Chatterjee	Journal of Cleaner Production (Q1)	Volume 287 , 10 March 2021, 125023	
20.	Detection of brain abnormality by a novel Lu-Net deep neural CNN model from MR images	HM Rai, K Chatterjee	Machine Learning with Applications	Volume 2 , 15 December 2020, 100004	
21.	PN Inference Based Autonomous Sequential Restoration of Distribution System Under Natural Disaster	K. Sandhya, T. Ghose, D. Kumar and K. Chatterjee	<i>IEEE Systems Journal</i> (SCIE I.F:3.987, Q1)	Early access 2020 doi: 10.1109/JSYST.2020.2994585.	
22.	<u>Frequency control and sensitivity analysis of an isolated microgrid incorporating fuel cell and diverse distributed energy sources</u>	Rajasi Mandal, Kalyan Chatterjee	International Journal of Hydrogen Energy (SCIE: I.F: 4.939 Q2)	Volume 45 issue 23 2020	Page : 13009-13024
23.	<u>Effectiveness evaluation of passive resistive element placement on a fault ride through enhancement in a DFIG based wind energy conversion system</u>	Subhendu Sekhar Sahoo, Prashant Mani Tripathi, Kalyan Chatterjee	Wind Energy (SCIE: I.F: 3.646 Q2)	Volume 23 issue 3 2020	Pp: 825-848
24.	<u>Analysis and enhancement of small-signal stability on DFIG-based wind integrated power system through the optimal design of linear quadratic regulator</u>	Dipesh Kumar, Kalyan Chatterjee	IET Renewable Power Generation (SCIE: I.F: 3.894 Q1)	Volume 14, issue-4; 2020	Pp:628-639

25.	<u>Development of improved direct current based saturated core fault current limiter in DFIG system for enhancing the low voltage ride-through capability</u>	Prashant Mani Tripathi, Kalyan Chatterjee	IET Generation, Transmission & Distribution (SCIE: I.F: 2.862 Q2)	Volume 14, issue 1; 2019	Pg:148-156
26.	Enhancing the fault ride through capability of DFIG-based wind energy system using saturated core fault current limiter	P.M.Tripathi , Subhendu Sekhar Sahoo and Kalyan Chatterjee	The Journal of Engineering (IET) (ESCI)	Vol. 2019 Iss. 1 Year : 2019	pp. 4916-4921
27.	<u>A coordinated control strategy using supercapacitor energy storage and series dynamic resistor for enhancement of fault ride-through of doubly fed induction generator</u>	Subhendu Sekhar Sahoo, Kalyan Chatterjee, PM Tripathi	International Journal of Green Energy(Taylor & Francis) (SCIE: I.F: 1.388) Q4	Volume:16, Issue:8 Year 2019	PP: 615-626
28.	Low-cost Non-superconducting DC-fault Current Limiter for the Enhancement of Low-voltage Ride Through Capability of Doubly Fed Induction Generator	Subhendu Sekhar Sahoo, P. M. Tripathi & Kalyan Chatterjee	IETE Technical Review (SCI)) (SCIE: I.F: 1.845) Q3	Published online: 05 Aug 2019 DOI: 10.1080/02564602.2019.1647802	
29.	Hybrid Adaptive Algorithm based on Wavelet Transform and Independent Component Analysis for Denoising of MRI Images	HM Rai, K Chatterjee	Measurement (Elsevier) (SCIE: I.F: 3.364). Q1	Volume 144 , October 2019,	Pages 72-82
30.	Enhancement of Low Voltage Ride Through of Wind Energy Conversion System using Superconducting Saturated Core Fault Current Limiter	P.M.Tripathi , Subhendu Sekhar Sahoo and Kalyan Chatterjee	Int Trans Electr Energ Syst. (SCIE: I.F: 1.692). Q3	Volume -29 April, 2019	Issue 4
31.	Fruit fly algorithm-based automatic generation control of multiarea interconnected power system with FACTS and AC/DC links in deregulated power environment	Shankar R, Kumar A, Raj U, Chatterjee K	Int Trans Electr Energ Syst. 2018; e2690 (SCIE: I.F: 1.692). Q3	Volume -29, January 2019	Issue 1
32.	A unique Feature Extraction using MRDWT for Automatic Classification of Abnormal Heartbeat from ECG Big Data with Multilayered Probabilistic Neural Network Classifier	HM Rai, K Chatterjee	Applied Soft Computing(Elsevier) (SCIE: I.F: 5.472) Q1	Volume 72, 2018	Pages:596-608

33.	A review of harmonic elimination techniques in grid connected doubly fed induction generator based wind energy system	Anirban Mishra, P.M. Tripathi, Kalyan Chatterjee	International Journal of Renewable & Sustainable Energy Reviews(Elsevier) (SCIE: I.F: 12.11)Q1	Volume 89, June 2018	Pages 1-15
34.	Improving the dynamic response of frequency and power in a wind integrated power system by optimal design of compensated superconducting magnetic energy storage	Dipesh Kumar, Ravi Bhushan, Kalyan Chatterjee	International Journal of Green Energy(Taylor & Francis) (SCIE: I.F: 1.388) Q4	Volume 15, Issue 3, February 2018	pages: 208-221,
35.	Availability estimation of a multi-state wind farm in fuzzy environment	Asish Roy, Kalyan Chatterjee ,	International Journal of Green Energy(Taylor & Francis) (SCIE: I.F: 1.388) Q4	Volume 15 ,Issue 2, January 2018	pages: 80-95
36.	Reliability analysis of a multi-state wind farm using Markov process”,	Asish Roy, Kalyan Chatterjee	Safety and Reliability (Taylor & Francis),(ESCI)	Volume 37, Issue 1, 2018	Pages: 3-24 ,
37.	Two degree of freedom internal model control-PID design for LFC of power systems via logarithmic approximations”,	Jay Singh, K.Chatterjee , C . B. Vishwakarama	ISA Transactions (Elsevier) (SCIE: I.F: 4.305) Q1	Volume 72 January 2018	Pages 185-196
38.	Mathematical modeling and control of DFIG-based wind energy system by using optimized linear quadratic regulator weight matrices	Ravi Bhushan, Kalyan Chatterjee	International Transactions on Electrical Energy Systems (Wiely) (SCIE: I.F: 1.692). Q3	Volume 27, Issue 11, November 2017	
39.	A comprehensive state of the art literature survey on LFC mechanism for power system	Ravi Shankar, SR Pradhan, Kalyan Chatterjee , Rajasi Mandal	International Journal of Renewable & Sustainable Energy Reviews (Elsevier) (SCIE: I.F: 12.11)Q1	Volume 76 September 2017	Pages 1185-1207
40.	“Effects of parameter variation in DFIG-based grid connected system with a FACTS device for small-signal stability analysis”.	Ravi Bhushan, Kalyan Chatterjee	IET Generation, Transmission & Distribution(SCIE: I.F: 2.862 Q2)	Volume 11, Issue 11 ,August 2017	Pages 1185-1207
41.	Design and analysis of artificial bee-colony-based MPPT algorithm for DFIG-based wind energy conversion systems	Dipesh Kumar, Kalyan Chatterjee .	International Journal of Green Energy(Taylor & Francis) (SCIE: I.F: 1.388) Q4	Volume 14 Issue 4, November 2016	Pages 416–429

42.	Impact of energy storage system on load frequency control for diverse sources of interconnected power system in deregulated power environment	Ravi Shankar, Kalyan Chatterjee & Ravi Bhushan	Electrical Power and Energy Systems(Elsevier), SCIE: I.F:3.588)Q1	Volume 79 , July 2016	Pages 11–26
43.	A Review of Conventional and Advanced MPPT Algorithms for Wind Energy Systems	Dipesh Kumar, Kalyan Chatterjee ,	Renewable & Sustainable Energy Reviews(Elsevier), (SCIE: I.F: 12.11)Q1	Volume 55 March, 2016	Pages 957-970
44.	<u>Biased reduction method by combining improved modified pole clustering and improved Pade approximations</u>	Jay Singh, C.B. Vishwakarama, K.Chatterjee	Applied Mathematical Modelling(Elsevier) (SCIE: I.F:3.633) Q1	Volume 40 Issue 2	Pages 1418–1426
45.	Small-Signal Stability Analysis for Two-area Interconnected Power System with Load Frequency Controller in coordination with FACTS and Energy Storage device	Ravi Shankar, Kalyan Chatterjee & Ravi Bhushan,	Ain Shams Engineering Journal(Elsevier) (SCIE: I.F:1.949) Q2	Volume 7, issue 2 June, 2016	Pages 603–612
46.	Fuzzy Logic Based Controller for a Grid-Connected Solid Oxide Fuel Cell Power Plant”	Kalyan Chatterjee , Ravi Shankar, & Amit Kumar	Transactions of the ASME, Journal of Fuel cell science and Technology(SCIE) Q3	Vol.11 October 2014	
47.	Performance Analysis of Maximum Power Point Tracking Algorithms Under Varying Irradiation	Bhukya Krishna Naick; Tarun Kumar Chatterjee, Kalyan Chatterjee ,	Int. Journal of Renewable Energy Development(ESCI)	6 (1) 2017:	65-74
48.	Reduced Order Modelling for Linear Dynamic Systems,” <i>Series: Advances C;</i>	Jay Singh, Kalyan Chatterjee , C.B. Vishwakarma,	AMSE JOURNALS, (ESCI)	Vol. 70; No 1, 2015	pp 71-85
49.	Coordination of Economic Load Dispatch and Load Frequency Control for Interconnected Power System”, Ser. B	Ravi Shankar, Kalyan Chatterjee & T.K. Chatterjee,	J. Inst. Eng. India(Scopus))	DOI 10.1007/s40031-014-0113-0.(Scopus)	
50.	“System Reduction by Eigen Permutation Algorithm and Improved Pade Approximations”	Jay Singh, Kalyan Chatterjee , C. B. Vishwakarma,	International Journal of Mathematical, Computational Science and Engineering.(Scopus	Vol:8 No:1, 2014,	PP-117-121)

51.	"A Control Strategy for Load Frequency Control Coordinating Economic Load Dispatch & Load Forecasting Via Kalman Filter", -	Ravi Shankar, Kalyan Chatterjee & T.K. Chattrejee,	International Journal on Electrical Engineering and Informatics(Scopus)	Volume 4, Number 3, October 2012	
52.	"Effect of Battery Energy Storage System on Load Frequency Control under Deregulation" Article(Scopus)	Kalyan Chatterjee	International Journal of Emerging Electric Power Systems(ESCI & Scopus))	Vol. 12 : Iss. 3,2011,	
53.	Design of Dual Mode PI Controller for Load Frequency Control,"	Kalyan Chatterjee	International Journal of Emerging Electric Power Systems(ESCI & Scopus))	Vol. 11 : Iss. 4, 2010, Article 3.(Scopus)	
54.	"PI Controller for Automatic Generation Control Based on Performance Indices),	Kalyan Chatterjee	Int. J. of Electrical and Computer Engineering (Scopus))	Vol.5,No. 3,2011(March	pp. 490-497.(Scopus)

(b) Paper Publications in Conference (SCI/SCOPUS/Web of Science/Internationally renowned Conference)

S.No.	Title of paper	Co-author(s), if any	Name of the Conference	Date
1.	<u>Load frequency control of a single area hybrid power system by using integral and LQR based integral controllers</u>	R Mandal, K Chatterjee, BK Patil	20th National Power Systems Conference ,2018	14-16 Dec. 2018
2.	<u>Droop Based Dynamic Demand Response Controller for HVAC Load</u>	Sandip Kr. Gupta, T Ghose, Kalyan Chatterjee	20th National Power Systems Conference ,2018	14-16 Dec. 2018
3.	<u>State Estimation for DG penetrated Adaptive Distribution System during Disaster</u>	Kumari Sandhya, Kalyan Chatterjee, T Ghose	20th National Power Systems Conference ,2018	14-16 Dec. 2018

4.	<u>Low voltage ride through enhancement of DFIG based WECS using flux control</u>	Shivundu Vats, Subhendu Sekhar Sahoo, PM Tripathi, Kalyan Chatterjee	4th International Conference on Recent Advances in Information Technology (RAIT) 2018	15-17 March 2018
5.	<u>Maximum power point tracking for wind energy system by adaptive neural-network based fuzzy inference system</u>	Dilip Biswas, Subhendu Sekhar Sahoo, PM Tripathi, Kalyan Chatterjee	4th International Conference on Recent Advances in Information Technology (RAIT) 2018	15-17 March 2018
6.	<u>Power and Frequency Control of a Wind Energy Power System using Artificial Bee Colony Algorithm</u>	Dipesh Kumar, Anirban Mishra, Kalyan Chatterjee	2017 Third International Conference on Science Technology Engineering & Management (ICONSTEM)	23-24 March 2017
7.	<u>A Reliability Assessment Model of a Wind Farm for Generation Adequacy Studies of Wind Integrated Power System</u>	Asish Roy, Subhendu Sekhar Sahoo, Kalyan Chatterjee	2017 Third International Conference on Science Technology Engineering & Management (ICONSTEM)	23-24 March 2017
8.	<u>Fault ride-through enhancement of wind energy conversion system adopting a mechanical controller</u>	Subhendu Sekhar Sahoo, Asish Roy, Kalyan Chatterjee	2016 National Power Systems Conference (NPSC)	19-21 Dec. 2016
9.	<u>Modeling and investigation of small-signal stability of dfig-based wind energy system using linear quadratic integral controller</u>	Ravi Bhushan, Kalyan Chatterjee	2016 National Power Systems Conference (NPSC)	19-21 Dec. 2016
10.	Artificial bee colony based MPPT algorithm for wind energy conversion system	Dipesh Kumar, Kalyan Chatterjee	IEEE 6 th International Conference on Power Systems (ICPS) page 1-6, DOI: 10.1109/ICPES.2016.7584157 (SCI)	4-6 March, 2016,
11.	“Designing an optimized pitch controller of DFIG system using frequency response curve”	Kalyan Chatterjee , Ravi Bhushan, Minimala	, IEEE 6th International Conference on Power Systems (ICPS), DOI: 10.1109/ICPES.2016.7584060	4-6 March, 2016,
12.	“Comparison between GA-based LQR and conventional LQR control method of DFIG wind energy system”,	Ravi Bhushan, Kalyan Chatterjee , Ravi Shankar,	3rd International Conference on Recent Advances in Information Technology (RAIT), -219, DOI: 10.1109/RAIT.2016.7507904	3-5 March 2016, Page:214

13.	GA based improved frequency regulation characteristics for thermal-hydro-gas & DFIG model in coordination with FACTS and energy storage system”,	Ravi Shankar, SR Pradhan, SB Sahoo, Kalyan Chatterjee,	IEEE “3rd International Conference on Recent Advances in Information Technology (RAIT), Page:220-225, DOI: 10.1109/RAIT.2016.7507905	3-5 March 2016,
14.	“Load frequency control for interconnected power system in-coordination with SSSC and RFB through AC/DC link”,	Ravi Shankar, MK Babu, Ravi Bhushan, Kalyan Chatterjee	Power, Communication and Information Technology Conference (PCITC), Bhubaneswar, India 2015 IEEE, DOI: 10.1109/PCITC.2015.7438174 .	15-17 Oct.,2015
15.	“SMES Coordinated with SSSC of an Interconnected Thermal System for Load Frequency Control.”	K.Chatterjee , Ravi Sankar T.K.Chatterjee,	IEEE sponsored Asia –Pacific Power and Energy Engineering Conference(APPEEC 2012) during at Shanghai, China	27 th to 29 th March, 2012
16.	“Genetic Algorithm Based Controller for Load-Frequency Control of Interconnected System”	Ravi Sankar, K.Chatterjee , T.K.Chatterjee	IEEE sponsored international conference Recent Advances in Information Technology(RAIT 2012) during at ISM, Dhanbad, India.	15 th to 17 th March, 2012
17.	“PI Controller for Automatic Generation Control Based on Performance Indices”,	K.Chatterjee	international conference of Power System(ICPS 2011) during at Bangkok, Thailand	29 th to 31 th March, 2011

Books/Monographs/Book chapters written:

S.No.	Name of book/monograph/ Book chapters	Name of Co-author(s), if any	Year of Publication	Publisher with address
1.	Systems Thinking Approach for Social Problems Chapter 7: Load Frequency control considering very short term load prediction and Economic load dispatch using Neural Network and its application	Ravi Shankar, K Chatterjee & T.K. Chatterjee	2015	Springer India Lecture Notes in Electrical Engineering 327
2.	Handbook of Renewable Energy Technology and Systems Chapter 2: Study of Mathematical Modeling and Small-Signal Stability of a Wind-Driven DFIG-Based System Using Different Types of Control Approach	Ravi Bhushan & K Chatterjee	2022	World Scientific Publishing Co., UK

3.	Fault ride through/low voltage ride through capability of doubly fed induction generator-based wind energy conversion system: a comprehensive review	Prashant Mani Tripathi, Anirban Mishra, Kalyan Chatterjee	, 2024,	Modeling and Control Dynamics in Microgrid Systems with Renewable Energy Resources, Academic Press.
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Patent

Patent no: 202531004108 dated 17th January 2025 “Compact Three-Phase Saturated Core Fault Current Limiter (SCFCL) for Grid-Connected DFIG Systems” , Kalyan Chatterjee and Prashant Mani Tripathi filing to Indian Patent Office.