

CURRICULUM VITAE

DR. DHARMBIR PRASAD

Associate Professor, Department of Electrical and Electronics Engineering
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Research Interest: - *Energy Dynamics Study of Renewable System Integration and Structural Analysis*
- *Evolutionary Optimization Computing for Economic Operation of Power Systems*
- *Modeling of Electric Mobility, Green Hydrogen and Energy Storage Systems*

Degree	Specialization	Institute / University	Year of Passing
Ph.D.	Economic Operation of Power System	Indian Institute of Technology (Indian School of Mines), Dhanbad	2018
M.Tech.	Electrical Engineering (Power System)	West Bengal University of Technology	2011
B.Tech.	Electrical Engineering	West Bengal University of Technology	2009

EXPERIENCE

1. TEACHING

- *Associate Professor*
Department of Electrical and Electronics Engineering,
SRM Institute of Science & Technology, Delhi-NCR Campus, Ghaziabad, India
Duration: 28th January, 2025 – till date
- *Assistant Professor*
-Department of Electrical Engineering, Asansol Engineering College, West Bengal, India
Duration: 8th July, 2011 – 27th January, 2025
- *Assistant Professor (Probation)*
Department of Electrical Engineering, Asansol Engineering College, West Bengal, India
Duration: 17th August, 2010 - 7th July, 2011

2. INDUSTRY

- *Technical Advisor*
Supreme & Co. Pvt. Ltd., Kolkata, West Bengal, India
Duration: 1st July, 2014 – 27th April, 2019
- *Energy Management and Research Consultant*

Supreme & Co. Pvt. Ltd., Kolkata, West Bengal, India
Duration: 1st June, 2012 – 30th June, 2014

- *Trainee Research Engineer (Intern)*
Supreme & Co. Pvt. Ltd., Kolkata, West Bengal, India
Duration: 1st February, 2008 - 31st July, 2009

RESEARCH PUBLICATIONS

International Journal:

Sl.	Authors	Title of the research paper	Name of the journal	Year, Vol. No. Page, ISSN No.	Impact factor	Latest H- index
1	Rai, P., <u>Dharmbir Prasad</u> , Singh, R.P. and Roy, R.,	A self-powered hybrid dual-axis solar tracker with integrated PV-TEG model for improved grid injection and autonomous operation	Results in Engineering	Year: 2025, Vol. 29, Pages: 1-21, ISSN: 2250-0553	7.9	H-Index: 56 / Ranking: Q1/SCIE https://doi.org/10.1016/j.rineng.2025.108480
2	<u>Prasad Dharmbir</u> , Mukherjee V.	A novel symbiotic organisms search algorithm for optimal power flow of power system with FACTS devices	Engineering Science and Technology, an International Journal	Year: 2016, Vol. No.: 19, Pages: 79-89, ISSN No.: 2215-0986	5.4	H-Index: 83 / H-5 Index: 54 / Ranking: Q1 https://doi.org/10.1016/j.jestch.2015.06.005
3	<u>Prasad Dharmbir</u> , Mukherjee Aparajita, Mukherjee V.	Application of chaotic krill herd algorithm for optimal power flow with direct current link placement problem	Chaos, Solitons and Fractals	Year: 2017, Vol. No.: 103, Pages: 90-100, ISSN No.: 2590-0544	5.6	H-Index: 132 / Ranking: Q1 https://doi.org/10.1016/j.chaos.2017.05.037
4	Ranadip Roy, V. Mukherjee, Rudra Pratap Singh, <u>Dharmbir Prasad</u>	Modified student psychology-based optimization based model order reduction of power system	e-Prime - Advances in Electrical Engineering, Electronics and Energy	Year: 2024, Vol. 7, Pages: 100497, ISSN: 2772-6711	1.5	H-Index: 12 / Ranking: 8198 (ISSN: 27726711)/ Ranking: Q1 https://doi.org/10.1016/j.prime.2024.100497
5	<u>Prasad Dharmbir</u> , Mukherjee Aparajita, Shankar Gauri, Mukherjee Vivekananda	Application of chaotic whale optimization algorithm for transient stability constrained optimal power flow	IET Science, Measurement & Technology	Year: 2017, Vol. No.: 11, Pages: 1002-1013, ISSN No.: 1751-8830	1.3	H-Index: 56 / H-5 Index: 27 / Ranking: Q2 DOI: 10.1049/iet-smt.2017.0015
6	<u>Prasad Dharmbir</u> , Mukherjee Aparajita, Mukherjee Vivekananda	Temperature dependent optimal power flow using chaotic whale optimization algorithm	Expert Systems: The Journal of Knowledge Engineering	Year: 2021, Vol. No.: 38, Pages: 149-160, ISSN No.: 1468-0394	2.3	H-Index: 35 / H-5 Index: 24 / Ranking: Q2 https://doi.org/10.1111/exsy.12685
7	<u>Prasad Dharmbir</u> , Mukherjee Vivekananda	Solution of Optimal Reactive Power Dispatch by Symbiotic Organism Search Algorithm Incorporating FACTS	IETE Journal of Research	Year: 2017, Vol. No.: 64, Pages: 149-160 ISSN No.:	1.3	H-Index: 22 / H-5 Index: 19 / Ranking: Q3 https://doi.org/10.1080/03772063.2017.133

		Devices		0974-780X		4600
8	<u>Prasad Dharmbir</u> , Mukherjee V., Singh Rudra Pratap	Application of SOS Algorithm for Solution of ORPD Problem	Journal of The Institution of Engineers (India): Series B	Year: 2022, Vol. No.: 103, Pages: 747-766, ISSN No.: 2250-2114	SJR 2022: 0.309	H-Index: 13 / Ranking: 21213 (ISSN: 2250-2106)/ Ranking: Q3 https://doi.org/10.1007/s40031-021-00700-8
9	Rudra Pratap Singh, V. Mukherjee, <u>Dharmbir Prasad</u>	Re-entry Vehicle Tracking using Adaptive Extended Kalman Filter from Discrete Noisy Measurements	Journal of The Institution of Engineers (India): Series C	Year: 2024, Vol. 106, Pages: 97-107, ISSN: 2250-0553	SJR 2024: 0.296	H-Index: 26 / Ranking: 16161/ Ranking: Q3 https://doi.org/10.1007/s40032-024-01129-w
10	Mukherjee Sushri, Chattaraj Sumana, Khan Md. Irfan, <u>Prasad Dharmbir</u> , Barua Pradip, Agarwal Harish	Transmission Line Restoration using ERS Structure	Advances in Science, Technology and Engineering Systems Journal	Year: 2019, Vol. No.: 4, Pages: 394-400, ISSN No.: 2415-6698	SJR 2019: 0.59	H-Index: 7 / Ranking: Q3/Scopus DOI: 10.25046/aj040551
11	Mukherjee Sushri, Chattaraj Sumana, Khan Md. Irfan, <u>Prasad Dharmbir</u> , Singh RP., Khan Md. I., Agarwal Harish	Development of Hexa Spacer Damper for 765 kV Transmission Lines' Vibration Damping	Advances in Science, Technology and Engineering Systems Journal	Year: 2021, Vol. No.: 6, Pages: 472-478, ISSN No.: 2415-6698	SJR 2021: 0.59	H-Index: 7 / Ranking: Q3/ Scopus DOI: 10.25046/aj060151

National Journal:

Sl.	Authors	Title of the research paper	Name of the journal	Year, Vol. No. Page	Impact factor	Latest H- index
1	<u>Prasad Dharmbir</u> , Kumaran R., Agarwal G., Reddy P.K., Md. Khan I.	Emerging Solutions for Line Compaction	International Council on Large Electric Systems (CIGRE India) Journal	Year: 2016, Vol. No.: 5(2), Pages: 21-26, ISSN No.: 2250-009X	NA	Central Board of Irrigation & Power (CBIP) / Ranking: 32673 (Non-Scopus, No-SCI)

Book Chapter:

Sl.	Name of Book/Book chapter
1	<i>Handbook of Neural Computation</i> / Chapter-17: Transient Stability Constrained Optimal Power Flow Using Chaotic Whale Optimization Algorithm (pp. 311-332) <u>Prasad Dharmbir</u> , Mukherjee Aparajita and Mukherjee V. ISBN: 978-0-12-811318-9, DOI: 10.1016/B978-0-12-811318-9.00017-X 1st January 2017 (Editor: Pijush Samui, Sanjiban Sekhar Roy, Valentina Emilia Balas)

	Academic Press, Cambridge, USA
2	<p><i>Handbook of Research on Predictive Modeling and Optimization Methods in Science and Engineering</i> / Chapter-23: Whale Optimization Algorithm with Wavelet Mutation for the Solution of Optimal Power Flow Problem (pp. 500-553)</p> <p>Mukherjee V., Mukherjee Aparajita and <u>Prasad Dharmbir</u> ISBN: 9781522547662, DOI: 10.4018/978-1-5225-4766-2.ch023 June, 2018 (Editor: Dookie Kim, Sanjiban Sekhar Roy, Tim Länsivaara, Ravinesh Deo, Pijush Samui) IGI Global, Pennsylvania, USA</p>
3	<p><i>Advances in Computer, Communication and Control (Lecture Notes in Networks and Systems book series, volume 41)</i> / Chapter-26: Optimal Reactive Power Dispatch Using Modified Differential Evolution Algorithm (pp. 275-283)</p> <p><u>Prasad Dharmbir</u>, Banerjee Abhik and Singh Rudra Pratap ISBN: 978-9811331213, DOI: 10.1007/978-981-13-3122-0_26 15 February 2019 (Editor: Utpal Biswas, Amit Banerjee, Sukhomay Pal, Arindam Biswas, Debashis Sarkar, Sandip Haldar) Springer Nature, Singapore</p>
4	<p><i>Advances in Computer, Communication and Control (Lecture Notes in Networks and Systems book series, volume 41)</i> / Chapter-44: Process Enhancement of Sparks Erosion Machining System Using FPGA Algorithm (pp. 441-447)</p> <p>Shit Koushik, <u>Prasad Dharmbir</u> and Singh Rudra Pratap ISBN: 978-9811331213, DOI: 10.1007/978-981-13-3122-0_44 15 February 2019 (Editor: Utpal Biswas, Amit Banerjee, Sukhomay Pal, Arindam Biswas, Debashis Sarkar, Sandip Haldar) Springer Nature, Singapore</p>
5	<p><i>Advances in Computer, Communication and Control (Lecture Notes in Networks and Systems book series, volume 41)</i> / Chapter-52: Kinematics Application: As a New Mechanical Cycle (pp. 525-532)</p> <p>Singh Braj Kishore, Kumar Kundan, Raj Achyut, Roy Aakash Kumar and <u>Prasad Dharmbir</u> ISBN: 978-9811331213, DOI: 10.1007/978-981-13-3122-0_52 15th February 2019 (Editor: Utpal Biswas, Amit Banerjee, Sukhomay Pal, Arindam Biswas, Debashis Sarkar, Sandip Haldar) Springer Nature, Singapore</p>
6	<p><i>Advances in Smart Grid Power System: Network, Control and Security</i> / Chapter-5: Approaches to Smart grid network communication and security (pp. 103-158)</p> <p><u>Prasad Dharmbir</u>, Singh, R.P., Mukherjee, S., Chattaraj, S., Sarkar, K. and Khan, M.I. ISBN: 9780128243374 DOI: 10.1016/B978-0-12-824337-4.00005-9 April, 2021 (Editor: Anuradha Tomar and Ritu Kandari) Academic Press, Cambridge, USA</p>
7	<p><i>Role of IoT in Green Energy Systems</i> / Chapter-9: MPPT-Based Solar Powered Water Pumping With RMS: Augmentation of IoE Technology (pp. 194-224)</p> <p>Mukherjee, S., Chattaraj, S., <u>Prasad Dharmbir</u>, Singh, R.P. and Khan, M.I. ISBN: 9781799867098, DOI: 10.4018/978-1-7998-6709-8.ch009 February, 2021 (Editor: Vasaki Ponnusamy, Noor Zaman, Low Tang Jung, Anang Hudaya Muhamad Amin) IGI Global, Pennsylvania, USA</p>
8	<p><i>Proceedings of the 3rd International Conference on Communication, Devices and Computing. Lecture Notes in Electrical Engineering, vol 851</i> / Chapter-64: Study of Automatic Solar Power-Based Micro-Irrigation System (pp. 559-224)</p> <p>A. Bardhan, P.K. Mondal, A. Karmakar, S.K. Prasad, S. Mukherjee, <u>Prasad Dharmbir</u>, R.P. Singh ISBN: 978-981-16-9153-9, DOI: 10.1007/978-981-16-9154-6_64 18th February 2022 (Editor: Biplab Sikdar, Santi Prasad Maity, Jagannath Samanta, Avisankar Roy) Springer Nature, Singapore</p>
9	<p><i>Proceedings of the 3rd International Conference on Communication, Devices and Computing. Lecture Notes in Electrical Engineering, vol 851</i> / Chapter-52: Android Application for Effective Timing Management of Classes (pp. 699-707)</p> <p>J.K. Shaw, N. Ghosh, A. Srivastava, S. Singh, S. Mukherjee, <u>Prasad Dharmbir</u>, R.P. Singh ISBN: 978-981-16-9153-9, DOI: 10.1007/978-981-16-9154-6_52 18th February 2022 (Editors: Biplab Sikdar, Santi Prasad Maity, Jagannath Samanta, Avisankar Roy)</p>

	Springer Nature, Singapore
10	<p><i>Intelligent Data Mining and Analysis in Power and Energy Systems: Advances in models and applications as drivers for smarter efficient power systems</i> / Chapter-13: Harmonic Dynamic Response Study of Overhead Transmission Lines (pp. 257- 280)</p> <p><u>Prasad Dharmbir</u>, Rudra Pratap Singh, Md. Irfan Khan, Sushri Mukherjee ISBN: 978-1-119-83402-1, DOI: 10.1002/9781119834052.ch13 2nd December 2022 (Editor: Zita A. Vale; Tiago Pinto; Michael Negnevitsky; Ganesh Kumar Venayagamoorthy) Wiley-IEEE Press, New Jersey, USA</p>
11	<p><i>Proceedings of the 3rd International Conference on Innovations in Energy Management and Renewable Resources - Select Proceedings of IEMRE 2023. Lecture Notes in Electrical Engineering, vol 1239</i> / Chapter-6: Safety Risk Management of Low Voltage Power Distribution Line Supporting Structure (pages 65-77)</p> <p><u>Prasad Dharmbir</u>, Rudra Pratap Singh, Aritra Roy, Azizul Islam, Ranadip Roy, Sushri Mukherjee Vol. 1239, ISBN: 978-981-97-6390-0, DOI:10.1007/978-981-97-6390-0_6 02 October 2024 (Editors: Madhumita Pal, Josep M. Guerrero, Pierluigi Siano, Debapriya Das, Swati Chowdhuri) Springer Nature, Singapore, https://link.springer.com/chapter/10.1007/978-981-97-6390-0_6</p>
12	<p><i>Proceedings of the 3rd International Conference on Innovations in Energy Management and Renewable Resources - Select Proceedings of IEMRE 2023. Lecture Notes in Electrical Engineering, vol 1239</i> / Chapter-5: Stability Analysis of Wind Tree for Renewable Power Generation (pages 49-63)</p> <p><u>Prasad Dharmbir</u>, Rudra Pratap Singh, Swaraj Das, Ranadip Roy, Sushri Mukherjee Vol. 1239, ISBN: 978-981-97-6390-0, DOI: 10.1007/978-981-97-6390-0_5 02 October 2024 (Editors: Madhumita Pal, Josep M. Guerrero, Pierluigi Siano, Debapriya Das, Swati Chowdhuri) Springer, Singapore, https://link.springer.com/chapter/10.1007/978-981-97-6390-0_5</p>
13	<p><i>Operational Research for Renewable Energy and Sustainable Environments</i> / Chapter-8: Modeling of Anti-Islanding Protection for Solar Energy-Based Microgrid (pages 170-198)</p> <p><u>Dharmbir Prasad</u>, Rudra Pratap Singh, Anis Hakim, Ranadip Roy, Md. Irfan Khan ISBN: 9781668491300, DOI: 10.4018/978-1-6684-9130-0 February, 2024 (Editor: Joshua Thomas, Gerhard Wilhelm Weber, Roman Rodríguez Aguilar, Elias Munapo, Pandian Vasant) IGI Global, Pennsylvania, USA</p>
14	<p><i>Energy Alliance for Realistic and Profitable Energy Transition</i> / Environmental Sustainability Roadmap with Green Energy Transition at Coal Mining Regions of West Bengal State</p> <p><u>Prasad Dharmbir</u>, Rudra Pratap Singh, Gaurav Gupta, Ranadip Roy ISBN: 9798369308882, DOI: 10.4018/979-8-3693-0888-2 February, 2025 (Editor: Mustapha Hatti) 2025 (in press) IGI Global, Pennsylvania, USA</p>
15	<p><i>Energy Alliance for Realistic and Profitable Energy Transition</i> / Microgrid Deployment Strategy for Optimal Energy Access with Multiple Renewable Energy Resources</p> <p><u>Prasad Dharmbir</u>, Rudra Pratap Singh, Gaurav Gupta, Ranadip Roy ISBN: 9798369308882, DOI: 10.4018/979-8-3693-0888-2 February, 2025 (Editor: Mustapha Hatti) (in press) IGI Global, Pennsylvania, USA</p>
16	<p><i>Optimization Techniques for Hybrid Power Systems: Renewable Energy, Electric Vehicles, and Smart Grid</i> / Chapter-1: Techno-Economic Feasibility Study of Multi-Energy-Based Hybrid Power System at an Industrial City (pages 1-32)</p> <p><u>Prasad Dharmbir</u>, Rudra Pratap Singh, Gaurav Gupta, Md. Irfan Khan ISBN: 9798369304921, DOI: 10.4018/979-8-3693-0492-1.ch001 17th July 2024 (Editor: Sunanda Hazra, Sneha Sultana, Provas Kumar Roy) IGI Global, Pennsylvania, USA</p>
17	<p><i>Energy Crises and Their Impact on Global Business</i> / Chapter-3: Sustainable Energy Supply for Decarboization of Direct Reduced Steel Manufacturing With Green Hydrogen (pages 45-78)</p> <p><u>Prasad Dharmbir</u>, Rudra Pratap Singh, Ariba Rizwan, Sayan Mondal, Ranadip Roy, Irfan Khan ISBN: 9798369306185, DOI: 10.4018/979-8-3693-0618-5.ch003 31 July 2024 (Editor: Sadia Shaheen, Mohsin Bashir, Mohammed) Khurram Bhutta) IGI Global, Pennsylvania, USA</p>
18	<p><i>Developing Advanced Technologies for Hydrogen Storage and Production</i> / Chapter-4: Green Hydrogen for Cement Production: A Decarbonisation Pathway with Renewable Energy Sources (pages 63-98)</p> <p>Rai, P., <u>Prasad Dharmbir</u>, Rudra Pratap Singh, Tanuja, Ranadip Roy, Md. Irfan Khan ISBN: 9798369308271, DOI: 10.4018/979-8-3693-0827-1.ch004 (Editor: Tolga Taner, Hafiz Muhammad Ali), June, 2025</p>

	IGI Global, Pennsylvania, USA
19	<i>Developing Advanced Technologies for Hydrogen Storage and Production / Chapter-6: Green Computing for Hydrogen Energy Production as Supplementary Facility in Renewable Energy-Integrated Systems (pages 119-160)</i> Parihar, P., Prasad, D., Singh, R.P., Singh, R., Rizwan, A., Roy, R. and Verma, S. ISBN: 9798369308271, DOI: 10.4018/979-8-3693-0827-1.ch006 (Editor: Tolga Taner, Hafiz Muhammad Ali), June, 2025 IGI Global, Pennsylvania, USA
20	<i>Developing Advanced Technologies for Hydrogen Storage and Production / Chapter-7: Optimization for Unified Production of Electricity and Green Hydrogen with Hybrid Renewable Energy Sources (pages 161-196)</i> Maurya, R.K., Prasad Dharmbir, Rudra Pratap Singh, Aditya Arya, Ranadip Roy ISBN: 9798369308271, DOI: 10.4018/979-8-3693-0827-1.ch007 (Editor: Tolga Taner, Hafiz Muhammad Ali), June, 2025 IGI Global, Pennsylvania, USA
21	<i>Advancements in Renewable Energy and Green Hydrogen / Chapter-9: Integrated Approach for Green Hydrogen Production and Sustainable Electrification of Railway Platform With Solar Energy Sources (pages 154-182)</i> Prasad Dharmbir, Rudra Pratap Singh, Jatin Anand, Ranadip Roy, Sudhangshu Chakraborty ISBN: 9798369310144, DOI: 10.4018/979-8-3693-1014-4.ch009 26th April 2024 (Editor: Maria Simona Raboaca, Saheb Djohra, Omar Moussaoui, Traian Candin Mihaltan, Mustapha Koussa) IGI Global, Pennsylvania, USA
22	<i>Advancements in Renewable Energy and Green Hydrogen / Chapter-6: Energy-Efficient Grid Interactive Building Optimization With Green Energy for Net-Zero Emission (pages 106-129)</i> Prasad Dharmbir, Rudra Pratap Singh, Gaurav Gupta, Manish Kumar, Jatin Anand, Ranadip Roy ISBN: 9798369310144, DOI: 10.4018/979-8-3693-1014-4.ch006 26 April 2024 (Editor: Maria Simona Raboaca, Saheb Djohra, Omar Moussaoui, Traian Candin Mihaltan, Mustapha Koussa) IGI Global, Pennsylvania, USA
23	<i>Emerging Materials, Technologies, and Solutions for Energy Harvesting / Chapter-12: Green Energy Harvesting for Supply Autonomy of a Tourist Town With Solar and Wind Energy Resources (pages 286-315)</i> Prasad Dharmbir, Rudra Pratap Singh, Tanuja, Ranadip Roy, Md. Irfan Khan ISBN: 9798369320037, DOI: 10.4018/979-8-3693-2003-7.ch012 4 March 2024 (Editor: Shilpa Mehta, Arij Naser Abougreen, Shashi Kant Gupta) IGI Global, Pennsylvania, USA
24	<i>Principles and Applications in Speed Sensing and Energy Harvesting for Smart Roads / Chapter-2: Renewable Energy-Integrated Electric Vehicle Charging Infrastructure Across Cold Region Roads (pages 42-75)</i> Prasad Dharmbir, Rudra Pratap Singh, Tanuja Tiwary, Ranadip Roy, Md. Irfan Khan ISBN: 9781668492147, DOI: 10.4018/978-1-6684-9214-7.ch002 24 June 2024 (Editor: Luay Taha, Sohail Anwar) IGI Global, Pennsylvania, USA
25	<i>Impact of Renewable Energy on Corporate Finance and Economics / Chapter-10: Renewable Energy Trading to Enhance Sustainability Transition Across Vehicle Parking Station (pages 160-181)</i> Prasad Dharmbir, Rudra Pratap Singh, Ariba Rizwan, Sourbh Kumar, Md. Irfan Khan ISBN: 9798369339329, DOI: 10.4018/979-8-3693-3932-9.ch010 28th May 2024 (Editor: Ali Ahmadi) IGI Global, Pennsylvania, USA
26	<i>Promoting Multi-Sector Sustainability with Policy and Innovation / Chapter-8: Green Energy Supply for Sustainable Tourism Accommodation Center in Smart City (pages 177-209)</i> Prasad Dharmbir, Rudra Pratap Singh, Sneha Mahata, Ranadip Roy, Md. Irfan Khan ISBN: 9798369321133, DOI: 10.4018/979-8-3693-2113-3.ch008 20 May 2024 (Editor: Aftab Ara, Renuka Thakore) IGI Global, Pennsylvania, USA
27	<i>Contemporary Solutions for Sustainable Transportation Practices / Chapter-5: Involving Communities in Green Energy-Powered Sustainable Transportation Solutions (pages 128-156)</i> Prasad Dharmbir, Rudra Pratap Singh, Jatin Anand, Ranadip Roy, Anish Mitra ISBN: 9798369337554, DOI: 10.4018/979-8-3693-3755-4.ch005 1st August 2024 (Editor: Shakerod Munuhwa) IGI Global, Pennsylvania, USA
28	<i>Design Strategies for Efficient and Sustainable Building Facilities / Chapter-11: Optimization of Hybrid Renewable Energy Systems for Sustainable Townships With Net Zero Emission Solution (pages 245-274)</i>

	<p>Prasad Dharmbir, Rudra Pratap Singh, Jatin Anand, Ranadip Roy, Sudhangshu Chakraborty ISBN: 9798369332009, DOI: 10.4018/979-8-3693-3200-9.ch011 5th August 2024 (Editor: Roberto Alonso González-Lezcano, Sunil Kumar Sansaniwal) IGI Global, Pennsylvania, USA</p>
29	<p><i>Green Transition Impacts on the Economy, Society, and Environment</i> / Chapter-8: Techno-Economic Analysis for Energy Supply to Sustainable Pilgrimage Market: A Green Religious Transition (pages 125-148) Prasad Dharmbir, Rudra Pratap Singh, Tanuja, Ranadip Roy, Md. Irfan Khan ISBN: 9798369339855, DOI: 10.4018/979-8-3693-3985-5.ch008 8th August 2024 (Editor: Seda Yıldırım, Durmuş Çağrı Yıldırım, Işıl Demirtaş, Vinay Kandpal) IGI Global, Pennsylvania, USA</p>
30	<p><i>Solving Fundamental Challenges of Electric Vehicles</i> / Chapter-12: Renewable Energy-Based Charging Solutions for Incorporation of Electric Rickshaws Into Electrical Grid Supply Network (pages 314-351) Prasad Dharmbir, Rudra Pratap Singh, Sneha Mahata, Sourbh Kumar, Sudhangshu Chakraborty ISBN: 9798369343142, DOI: 10.4018/979-8-3693-4314-2.ch012 8th August 2024 (Editor: Mazhar Hussain Shaik) IGI Global, Pennsylvania, USA</p>
31	<p><i>Intelligent Methods and Alternative Economic Models for Sustainability</i> / Chapter 2: Modeling of Green Hydrogen and Electricity Coproduction System for Techno-Eco-Environmental Analysis of Sustainable Microgrid (pages 21-43) Prasad Dharmbir, Rudra Pratap Singh, Rahul Kumar, Ranadip Roy, Azizul Islam, Md. Irfan Khan ISBN: 9798369314180, DOI: 10.4018/979-8-3693-1418-0.ch002 22 April 2024 (Editor: Latifa Dekhici, Khaled Guerraiche, Rabia Azzemou, Jihène Jlassi) IGI Global, Pennsylvania, USA</p>
32	<p><i>Harnessing Green and Circular Skills for Digital Transformation</i> / Chapter-3: Renewable Energy for Agriculture Sustainability Conservations: A Step Towards Green Revolution (pages 33-60) Prasad Dharmbir, Rudra Pratap Singh, Jatin Anand, Ranadip Roy, Md. Irfan Khan ISBN: 9798369328651, DOI: 10.4018/979-8-3693-2865-1.ch003 21 June 2024 (Editor: Patricia Ordóñez de Pablos, Muhammad Anshari, Mohammad Nabil Almunawar) IGI Global, Pennsylvania, USA</p>
33	<p><i>Harnessing Green and Circular Skills for Digital Transformation</i> / Chapter-6: Green Energy Supply to Pre-School Cluster for Sustainable Anganwadi Educational Transformation (pages 86-107) Prasad Dharmbir, Rudra Pratap Singh, Jatin Anand, Ranadip Roy, Md. Irfan Khan ISBN: 9798369328651, DOI: 10.4018/979-8-3693-2865-1.ch003 21 June 2024 (Editor: Patricia Ordóñez de Pablos, Muhammad Anshari, Mohammad Nabil Almunawar) IGI Global, Pennsylvania, USA</p>
34	<p><i>Achieving Sustainable Transformation in Tourism and Hospitality Sectors</i> / Chapter-6: Green Energy Supply Analysis to Sustainable Inland Water Tourism Regions in Eco-Friendly Cities (pages 90-113) Prasad Dharmbir, Rudra Pratap Singh, Sneha Mahata, Ranadip Roy ISBN: 9798369333907, DOI: 10.4018/979-8-3693-3390-7.ch006 22 April 2024 (Editor: Pankaj Kumar, S.K. Gupta, Maximiliano E. Korstanje, Prakash Chandra Rout, Madhurima) IGI Global, Pennsylvania, USA</p>
35	<p><i>Green Supply Chain Management Practice and Principles</i> / Chapter-9: Renewable Energy Supply Chain for Sustainability of Bus Stand Transportation Network (pages 168-195) Prasad Dharmbir, Rudra Pratap Singh, Tanuja Tiwary, Ranadip Roy, Md. Irfan Khan ISBN: 9798369334867, DOI: 10.4018/979-8-3693-3486-7.ch009 10th July 2024 (Editor: Javier Martínez-Falcó, Bartolomé Marco-Lajara, Eduardo Sánchez-García, Luis Antonio Millán-Tudela)</p>
36	<p><i>Modeling, Analysis, and Control of Smart Energy Systems</i> / Chapter-11: Modelling of Grid Management Strategy for Handling Intermittent Renewable Energy Generation in Island Regions (pages 197-226) Prasad Dharmbir, Rudra Pratap Singh, Ariba Rizwan, Ranadip Roy, Shubham Verma ISBN: 9798369329993, DOI: 10.4018/979-8-3693-2999-3.ch011 8th August 2024 (Editor: Mohamed Naoui, Romdhane Ben Khalifa, Lassaad Sbita)</p>
37	<p><i>Utilizing Renewable Energy, Technology, and Education for Industry 5.0</i> / Chapter-8: Green Computing-Based Optimization Technique for Sustainable Educational Center With Hybrid Renewable Energy Sources (pages 199-225) Prasad Dharmbir, Rudra Pratap Singh, Ariba Rizwan, Shubham Verma, Md. Irfan Khan ISBN: 9798369328149, DOI: 10.4018/979-8-3693-2814-9.ch008 August, 2024, (Editor: Safaa Najah Saud Al-Humairi)</p>
38	<p><i>Contemporary Solutions for Sustainable Transportation Practices</i> / Chapter-14: Green Energy Supply for</p>

	Sustainable Electric Farming Mobility Charging Application (pages 374-407) Rudra Pratap Singh, <u>Prasad Dharmbir</u> , Sandip Pal, Ranadip Roy, Md. Irfan Khan ISBN: 9798369337554 DOI: 10.4018/979-8-3693-3755-4.ch014 1st August 2024 (Editor: Shakerod Munuhwa)
39	<i>Next Generation Artificial Intelligence Driven Smart and Renewable Energy</i> / Chapter-7: Integrated modeling and fabrication of electric vehicles for multi-criteria framework-based racing frontier ecosystems (pages 95-118) Dharmbir Prasad, Rudra Pratap Singh, Sunetra Bhomik, Koushik Sarkar, Ranadip Roy, Jatin Anand (Editors: Provas Kumar Roy, Sunanda Hazra, Chandan Paul), 1st Edition, 7 July 2025, ISBN: 9781003628279 CRC Press-Taylor & Francis, UK, 7 July 2025
40	<i>Photoelectrochemical and Enzymatic Conversion of CO2 into Fuels: A Shift Towards Net Zero Energy Landscape</i> / Chapter-14: Technoeconomic analysis of electrochemical and photoelectrochemical reduction of CO2 (pages 457-479), Prasad, D., Bhattacharya, S., Singh, R.P., Rai, P., Singh, R., Roy, R. and Khan, M.I. ISBN: 978-0-443-29285-9, 1st Edition - November 7, 2025 Elsevier, Amsterdam, Netherlands Editors: Rohit Srivastava, Bishnu Bastakoti
41	<i>Hydrogen Fuel Cell Electric Vehicles: Fundamentals, Design, Performance, Applications, and AI-Driven Commercialization</i> / Chapter-8 Techno-Economic Analysis of Green Hydrogen-Powered Fuel Cell-Based Sustainable E-Mobility Solution (Editors: Morteza Nazari-Heris, Ashkan Safari, Hamed Kheirandish Gharehbagh) ISBN: 9780443291708, 1st Edition - 1st Edition - March 1, 2026 (in press) Elsevier, Amsterdam, Netherlands
42	<i>Energy Efficiency in Critical Times: Security, Economics, and Transition</i> / Chapter-19: Green hydrogen transition as alternative renewable source of energy across European regions (pages 277-301) Prasad, D., Singh, R.P., Rizwan, A. and Roy, R. ISBN: 9780443289507, 1st Edition - July 23, 2025 Elsevier, Amsterdam, Netherlands

International Conference:

Sl.	Authors*	Singh RP, Prasad D , Kumar P, Khan MI		
1	Title*	Modified differential evolution algorithm for optimal power flow with FACTS devices		
	Conference*	2017 International Conference on Smart grids, Power and Advanced Control Engineering (ICSPACE) on 17 th - 19 th August, 2017 at Bangalore, India.		
	Pages	48-52	DOI	10.1109/ICSPACE.2017.8343404
	Paper Type*	International	Indexed by*	IEEE International Conference
	Role*	Supervisor	Year*/Month	2018/April
2	Authors*	Srishti Chowdhury, Milee Singh, Sayeli Ghosh, Sushri Mukherjee, Dharmbir Prasad and Rudra Pratap Singh		
	Title*	Hybrid Powered Auto-irrigation System using Embedded Controller		
	Conference*	3rd International Conference on ICT for Digital, Smart, and Sustainable Development, on March 24-25, 2022 at Jamia Hamdard (Deemed to be University), New Delhi, India		
	Pages	1-10	Article No.	0065 (ICIDSSD'22)
	Paper Type*	International	Indexed by*	EAI CORE
	Role*	Supervisor	Year*/Month	2022/March
3	Authors*	Koushik Shit, Nilanjan Maji, Dharmbir Prasad , Rudra Pratap Singh		
	Title*	Development of single-sided linear induction motor with advanced regenerative braking system		
	Conference*	9 th International Conference on Electrical Rotating Machines and Drives (ELROMA-2017), on 14 th - 15 th September, 2017 at Mumbai, India.		
	Paper Type*	International	Indexed by*	IEEMA International Conference
	Role*	Supervisor	Year*/Month	2017/September
4	Authors*	Dharmbir Prasad, Rudra Pratap Singh, Sushri Mukherjee, Anurag Kumar, Kunal Kumar and Koushik Shit		
	Title*	IoT enabled e-Bicycle: An ecofriendly solution to ease Local Mobility		
	Conference*	3rd International Conference on ICT for Digital, Smart, and Sustainable Development, on March 24-25, 2022 at Jamia Hamdard (Deemed to be University), New Delhi, India		
	Pages	1-11	DOI	http://dx.doi.org/10.4108/eai.24-3-2022.2318993
	Paper Type*	International	Indexed by*	EAI CORE

	Role*	First Author	Year*/Month	2022/March
5	Authors*	Gaurav Kumar, Dharmbir Prasad, Rudra Pratap Singh		
	Title*	Target tracking using adaptive Kalman Filter		
	Conference*	2017 International Conference on Smart grids, Power and Advanced Control Engineering (ICSPACE) on 17 th - 19 th August, 2017 at Bangalore, India.		
	Pages	1-6	DOI	10.1109/ICSPACE.2017.8343461
	Paper Type*	International	Indexed by*	IEEE International Conference
	Role*	Supervisor	Year*/Month	2018/April
6	Authors*	Md. Irfan Khan, Dharmbir Prasad , Koushik Sarkar, Sushri Mukherjee, Pradip Barua, Harish Agarwal		
	Title*	Finite Element Modeling of 400 kV ERS Bypass Transmission Line Quantifying Installation Difficulty		
	Conference*	IEEE-PES GTD Grand International Conference & Exposition Asia 2019 from 19 th - 23 rd March, 2019 in Bangkok, Thailand.		
	Pages	526-531	DOI	10.1109/GTDAsia.2019.8715871
	Paper Type*	International	Indexed by*	IEEE International Conference
	Role*	Supervisor	Year*/Month	2019/March
7	Authors*	Prasoon Mallik, Praphul Kumar, Dharmbir Prasad		
	Title*	Assessment of Lightning Protection for Overhead Distribution Lines		
	Conference*	2 nd International Conference SURGEPROTECH on 28 th - 29 th April 2016 at New Delhi, India.		
	Pages	109 - 113	DOI	--
	Paper Type*	International	Indexed by*	IEEMA International Conference
	Role*	Supervisor	Year*/Month	2016/April
8	Authors*	Shvetshankar Prajapati, Bivaskar Pandey, Dharmbir Prasad		
	Title*	Lightning transient analysis of HVDC transmission line		
	Conference*	2 nd International Conference SURGEPROTECH on 28 th - 29 th April 2016 at New Delhi, India.		
	Pages	103 - 108	DOI	NA
	Paper Type*	International	Indexed by*	IEEMA International Conference
	Role*	Supervisor	Year*/Month	2016/April
9	Authors*	Sumana Chattaraj, Sushri Mukherjee, Md. Irfan Khan, Dharmbir Prasad and Harish Agarwal		
	Title*	Reliability improvement of 400 kV transmission line using Quad Spacer Damper and Quad Rigid Spacer		
	Conference*	Impact of Changing Energy Mix in the Power Sector (ICIEMPS-2019), 23 rd & 24 th November, 2019, Kolkata, India.		
	Pages	36	ISBN	978-81-942561-2-0
	Paper Type*	International	Indexed by*	IE(I) International Conference
	Role*	Supervisor	Year*/Month	2019/Nov
10	Authors*	Sushri Mukherjee, Sumana Chattaraj, Md. Irfan Khan, Dharmbir Prasad and Harish Agarwal		
	Title*	Power distribution line infrastructure consensus for Extra Low Voltage DC Microgrid: A comprehensive study		
	Conference*	Impact of Changing Energy Mix in the Power Sector (ICIEMPS-2019), 23 rd & 24 th November, 2019, Kolkata, India.		
	Pages	28	ISBN	978-81-942561-2-0
	Paper Type*	International	Indexed by*	IE(I) International Conference
	Role*	Supervisor	Year*/Month	2019/November
11	Authors*	Singh RP, Mukherjee V, Prasad D, Ansari WA		
	Title*	Solution of optimal power flow problem of system with FACTS devices using MDE algorithm		
	Conference*	3 rd International Conference on Computer Applications & Information Security (ICCAIS) 19-21 March 2020, Riyadh, Saudi Arabia		
	Pages	1-6	DOI	10.1109/ICCAIS48893.2020.9096778
	Paper Type*	International	Indexed by*	IEEE International Conference
	Role*	Supervisor	Year*/Month	2020/March
12	Authors*	Harish Agarwal, Sushri Mukherjee, Sumana Chattaraj, Md. Irfan Khan, Dharmbir Prasad		
	Title*	Development of Quad Spacer Damper to suppress oscillation in 765 kV Transmission Line		
	Conference*	11 th International Conference on Computing, Communication and Networking Technologies (ICCCNT) on Jul 1-3, 2020 at IIT Kharagapur, West Bengal, India.		
	Pages	1-6	DOI	10.1109/ICCCNT49239.2020.9225394
	Paper Type*	International	Indexed by*	IEEE International Conference
	Role*	Supervisor	Year*/Month	2020/July

13	Authors*	Dharmbir Prasad, Kumaran Ramdass, Gautam Agarwal, Md. Irfan Khan		
	Title*	Impact of Surge Arrester Failure		
	Conference*	2 nd International Conference SURGEPROTECH on 28 th - 29 th April 2016 at New Delhi, India.		
	Pages	58 - 63	DOI	NA
	Paper Type*	International	Indexed by*	IEEMA International Conference
	Role*	Supervisor	Year*/Month	2016/April
14	Authors*	Dharmbir Prasad, Rudra Pratap Singh, Azizul Islam, Aritra Roy, Ranadip Roy, Sushri Mukherjee		
	Title*	Performance Analysis of Three-Phase Cascaded H-Bridge Multi Level Inverters		
	Conference*	International Conference on Emerging Computation Intelligence (ICECI 2023) on 19 th - 21 th January 2023 at Kolkata, India		
	Pages	1-6	DOI	10.1109/ICCECE51049.2023.10085108
	Paper Type*	International	Indexed by*	IEEE International Conference
	Role*	Supervisor	Year*/Month	2023/January
15	Authors*	Aritra Roy, Sayandeep Kundu, Sourabh Mukherjee, Dharmbir Prasad, Rudra Pratap Singh, Sushri Mukherjee		
	Title*	Health Safety Management by Automatic Mask Dispenser and Hand Sanitizer Machine at Hospital		
	Conference*	8th International Conference on Computing in Engineering and Technology · July 14-15, 2023, Patna, India		
	Pages	1-5	DOI	10.1049/icp.2023.1478
	Paper Type*	International	Indexed by*	IET International Conference
	Role*	Supervisor	Year*/Month	2023/July
16	Authors*	Parijat Rai, Dharmbir Prasad, Rudra Pratap Singh, Ranjeet Singh		
	Title*	Optimizing Flywheel-Based Renewable Energy Storage in Smart Grid		
	Conference*	16th International IEEE Conference on Computing, Communication and Networking Technologies (ICCCNT), July 6 - 11, 2025, IIT - Indore, Madhya Pradesh, India.		
	Pages	1-5	DOI	In press
	Paper Type*	International	Indexed by*	IEEE International Conference
	Role*	Supervisor	Year*/Month	2025/July
17	Authors*	Parijat Rai, Dharmbir Prasad, Rudra Pratap Singh		
	Title*	Integrating Hydrogen Storage in Renewable Energy Systems for Smart Grid Supplement		
	Conference*	16th International IEEE Conference on Computing, Communication and Networking Technologies (ICCCNT), July 6 - 11, 2025, IIT - Indore, Madhya Pradesh, India.		
	Pages	1-5	DOI	In press
	Paper Type*	International	Indexed by*	IEEE International Conference
	Role*	Supervisor	Year*/Month	2025/July
18	Authors*	Raju Kumar Maurya, Dharmbir Prasad, Rudra Pratap Singh		
	Title*	Optimizing Renewable Energy Supply and Battery Storage Systems for Electric Vehicle Integration		
	Conference*	16th International IEEE Conference on Computing, Communication and Networking Technologies (ICCCNT), July 6 - 11, 2025, IIT - Indore, Madhya Pradesh, India.		
	Pages	1-5	DOI	In press
	Paper Type*	International	Indexed by*	IEEE International Conference
	Role*	Supervisor	Year*/Month	2025/July
19	Authors*	Raju Kumar Maurya, Dharmbir Prasad, Rudra Pratap Singh, Ranjeet Singh		
	Title*	EV Charging Infrastructure with Renewable Energy Incorporated Super-capacitor Storage in Smart Grid		
	Conference*	16th International IEEE Conference on Computing, Communication and Networking Technologies (ICCCNT), July 6 - 11, 2025, IIT - Indore, Madhya Pradesh, India.		
	Pages	1-5	DOI	In press
	Paper Type*	International	Indexed by*	IEEE International Conference
	Role*	Supervisor	Year*/Month	2025/July
20	Authors*	Preeti Parihar, Dharmbir Prasad		
	Title*	Integrated ELVDC Microgrid Modeling for Sustainable Education Centre		
	Conference*	5th International Conference on Internet of Things: Smart Innovation & Usage (IoT~SIU 2025) Conference, Nov 27-28, 2025-2025, held at SRHU, Dehradun, India.		
	Pages	1-5	DOI	In press
	Paper Type*	International	Indexed by*	IEEE International Conference

	Role*	Supervisor	Year*/Month	2025/November
21	Authors*	Preeti Parihar, Dharmbir Prasad		
	Title*	Sustainable Smart Grid Solutions with Pumped Hydro Storage in Renewable Energy Integrated Systems		
	Conference*	5th International Conference on Internet of Things: Smart Innovation & Usage (IoT~SIU 2025) Conference, Nov 27-28, 2025-2025, held at SRHU, Dehradun, India.		
	Pages	1-5	DOI	In press
	Paper Type*	International	Indexed by*	IEEE International Conference
	Role*	Supervisor	Year*/Month	2025/November

National Conference:

Sl.	Authors*	Santosh Kumar Singh, Dharmbir Prasad , Surajit Chattopadhyay		
1	Title*	Transient Analysis in Three-Phase Power System with Static Load		
	Conference*	National Conference on Modern Trends in Electrical Engineering (NCMTEE-2009) on Nov. 1-2, 2009 jointly organized by IET (UK), Kolkata Network and Hooghly Engineering and Technology College.		
	Paper Type*	National	Indexed by*	Institutional Proceedings
	Role*	Other	Year */Month	2009/July
2	Authors*	Abhik Banerjee, Rudra Pratap Singh, Dharmbir Prasad		
	Title*	Smart reactive power control of hybrid power system model by Seeker Optimized Algorithm		
	Conference*	ETES-2015 conference organized by IET on 16-17 th July, 2015 at Asansol, West Bengal, India.		
	Paper Type*	National	Indexed by*	Institutional Proceedings
3	Role*	Other	Year */Month	2015/July
	Authors*	Rudra Pratap Singh, Abhik Banerjee, Dharmbir Prasad		
	Title*	Solution of optimal power flow problem using modified differential evolution algorithm		
	Conference*	National Conference on Emerging Trends in Engineering & Science 2014 (ETES 2014) on January 30 - 31, 2014 organized by Asansol Engineering College, Asansol, India and sponsored by IEEE Kolkata Section, IE(I) and IETE India.		
4	Paper Type*	National	Indexed by*	Institutional Proceedings
	Role*	Other	Year*/Month	2014/January
	Authors*	Harish Kumar Agarwal, Dharmbir Prasad , SM Takalkar		
	Title*	Development of Hardware Fittings of ACCC High Temperature Low Sag Conductor used for Transmission Lines and the Substations		
5	Conference*	National Seminar on Substation Design, Engineering & Construction on 10th - 11th Oct, 2014 Vadodara, Gujarat (India) organized by The Society of Power Engineers (I) Vadodara Chapter		
	Paper Type*	National	Indexed by*	Institutional Proceedings
	Role*	Other	Year*/Month	2014/October
	Authors*	Prasoon Mallik, Dharmbir Prasad		
5	Title*	Electricity Production from Brewery Wastewater		
	Conference*	National Students Conference on Engineering Trends (NSCET), NIT Jamshedpur		
	Paper Type*	National	Indexed by*	Institutional Proceedings
	Role*	Other	Year*/Month	2014/April

Technical Report:

Sl.	Authors*	Prasad Dharmbir, Sumana Chattaraj, Harish Agarwal, Md. Irfan Khan, Sushri Mukherjee		
1	Title*	ERS Extends Life of Aging Transmission Lines		
	Magazine*	T&D World Magazine,		
	Paper Type*	International	Indexed by:	Transmission & Distribution World Publication, Year */Month: 2019/September
	Role*	Supervisor		
1	Authors*	Harish Agarwal, Md. Irfan Khan, Prasad Dharmbir , Sushri Mukherjee		
	Title*	Distribution Line Capacity Optimization for AC Microgrid		
	Magazine*	T&D World Magazine		

2	Paper Type*	International
	Role*	Indexed by: Transmission & Distribution World Publication, Year*/Month: 2019/June Supervisor
3	Authors*	R.K. Yadav, R.P. Singh, Sumana Chattaraj, Md. Irfan Khan, <u>Prasad Dharmbir</u> , Sushri Mukherjee
	Title*	Electric Vehicle Trends in India
	Magazine*	T&D World Magazine
	Paper Type*	International
	Role*	Indexed by: Transmission & Distribution World Publication, Year*/Month: 2021/June Supervisor

PATENT

Sl.	Title	Application No.	Contributor	Status	Authority
1	Integrated Modeling of Standalone Electric Vehicle Fast-charging System with Invoicing Solution	202311077152	Dharmbir Prasad, Rudra Pratap Singh, Sambit S. Mondal, Avishek Banerjee, Ranadip Roy	Under process (filed on: 12/11/2023)	Indian Patent Office

MEMBERSHIP OF PROFESSIONAL BODIES

Sl.	Name of the professional body
1	Institution of Engineers (India), 2018, Life Member: M-163161-0
2	Indian Society for Technical Education, 2020, Life Member, LM 130396
3	Institution of Engineering and Technology (UK), 2007-2009, Student Member, 1100132256
4	International Association of Engineers, 2023, Life Member, 357965