Rashmi Agarwal, Associate Professor (Electrical Engineering)

Associate Professor, Phone:, M: +91-9891595209 J C Bose University of Science & Technology,YMCA, Email: rashmiagarwal404@gmail.com Faridabad, Haryana -121101.

Education

<u>PhD</u>	Jamia Millia Islamia , New Delhi, India, 2012
M.Tech	Maharishi Dyanand University, Rohtak ,Haryana.

<u>B.sc(Engg.)</u> Aligarh Muslim University, Aligarh, India, 2002.

Research Interests

Renewable Energy, Standalone PV system, Economics and life cost analysis of PV systems, Economic Dispatch.

Academic Experience

July,08– Till date:Associate tProfessor, Electrical Engineering, J C Bose University of Science && Technology, YMCA, Faridabad ,India.

July,06– July, 08: Senior Lecturer, Electrical EngineeringManav Rachana University of Engineering ,Faridabad.

March,03 – May,05 :Guest Faculty, Electrical Engineering Department, YMCA Institute of Science && Technology, YMCA, Faridabad ,India.

Jan,93 – Mar, 94 : Engineer Trainee at Professiona Envirotech Instruments Private ltd ,Okhla ,New Delhi.

July92-Nov ,92: Graduate Engineer Trainee, Mothersons Sumi System ltd, Noida .

Courses taught

Renewable Energy, Fundamentals of Electrical Engineering, Artificial Intelligence, Elements of Power System, Recent trend in Power Systems etc.

Course Projects Guided

Doctoral (01 in progress) Post Graduate Thesis Guided (21) Graduate

Referred International Journal Publications:(Total citation: 1100, i-10 Index-24, h-index-19) as per Google scholar

- Abhishek Kumar, Rashmi Jain, Bhim Singh, Seema Kewat Double stage PV-BES weak grid connected system," Electrical Engineering, Received: 31 December 2022 / Accepted: 12 April 2023, published 05 may 2023, Springer-Verlag GmbH Germany, part of Springer Nature 2023
- Varun Agarwal, Vatsala Singh, Prerna Gaur & Rashmi Agarwal," PV Output forecasting based on weather classification, SVM and ANN" published in Indian Journal of Engineering & Material Sciences, Volume 29, April 2022, pp 211-217
- Abhishek k, Seema, Bhim Singh, Rashmi Jain, "An Integration of Solar Photovoltaic Generation to Three-Phase Utility Using Adaptive Control Algorithm (Vol-101,43,54) <u>Number-1</u>,25th feb2020", 'Journal of The Institution of Engineers (India): Series B Electrical, Electronics &Telecommunication and Computer Engineering, 'Int. Journal of Engineering Research and Application ISSN: 2250-2106'...
- Abhishek k, Seema, Bhim Singh, Rashmi Jain, "CC-ROGI-FLL based control for gridtiedphotovoltaic system at abnormal gridconditions Accepted on 20th May 2020 (doi: 10.1049/iet-gtd.2019.0765)". 'IET Generation, transmission and distribution' .ISSN 1751-8687..
- Abhishek k, Seema, Bhim Singh, Rashmi Jain "Double Stage Grid Integrated SPV System under Weak Distribution Grid' Accepted on 2nd nov2020 IET Generation," 'transmission and distribution'..
- Sunil Kumar, Jahid, MD Mokkadam ,Rashmi Agarwal ,"Optimal Load Frequency Controller of Two Area Interconnected Power System Using Physical Constraints "International Journal of Advanced Science & Technology ,vol 20.No.7s(2020) pp.5802-5811
- Himani Sharma, Birinchi Bora , Shubham Sharma , Rajesh Kumar , Rashmi Jain 'Reliabilitystudy of Solar PV Power Production In Terms Of Weather Parameters Using Monte Carlo Simulation ,'Int. Journal of Engineering Research and Application ISSN : 2248-9622, Vol. 7, Issue 7, (Part -5) July 2017, pp.37-45.
- 8. Rashmi Jain, Abhishek Kumar ,' Implementation And Performance Evaluation Of Three Phase Solar PV-UPQC For Power Quality Enhancement 'International Journal of Engg and Management Research, Volume 7 Issue 3 May –June 2017.
- 9. Rashmi Jain, Preeti ,"Bidding Strategy for Deregulated Power Markets "Carpathian Journal of Electronic and Computer Engineering 9/1 (2016) 8-16.
- 10. Rashmi Jain, VarunSachdeva " Available transmission capability computations using AC Power Flow Method in Deregulated Power systems' International Journal of Engineering Science and Computing, June 2016. ISSN 2321 3361, Volume 6, Issue6..
- 11. Rashmi Jain, VarunSachdeva "" Modelling of Standalone PV power plant with MPPT controller in SIMULINK/MATLAB,"International Journal of Engineering Science and Computing,June 2016.ISSN 2321 3361,Volume 6,Issue6.
- 12. Rashmi Jain, Devender Singh, , Vishant Kumar, "Modelling of Fuel cell using MATLABSIMULINK", Int. J. on Advance research in Electrical and Electrinics EngineeringVolume 2, Number 8 April-June (2015) pp. 19-22.
- Rashmi Jain , Anwar S Siddiqui, MajidJamil, C P Gupta Preeti," A strategy for FTR bidding in deregulated electricity markets ," published in International Journal of System Assurance Engineering and Management ISSN 0975-6809 ,Volume 4,Number 2,Int J SystAssurEngManag (15 June 2014),DOI 10.1007/s13198-014-0275-9.
- 14. Rashmi Jain, Seha "A novel approach of photo-voltic module modelling ," International Journal of innovative research & studies, Volume 3, Issue 7, 2014.

- 15. Rashmi Jain , Anwar S Siddiqui, MajidJamil, C P Gupta ,Preeti," A novel approach for phase locked loop modeling using Matlab ," published in International Journal of System Assurance Engineering and Management ISSN 0975-6809 ,Volume 4,Number 2,Int J SystAssurEngManag (2013),129-137 , DOI 10.1007/s13198-013-0163-8.
- 16. Preeti, SandeepDogra, Rashmi Jain, "DC Drives: Microcontroller Based Control," International Journal of Engineering and Advanced Technology, Volume: 2, Issue:2, December 2012.
- 17. Rashmi Jain, Anwar S Siddiqui, MajidJamil, C P Gupta, "FACTS Application for Congestion Management Using Fuzzy Logic", Int. J. on Recent Trends in Engineering and Technology, Vol. 6, No. 2, Nov 2011, ACEEE, pp 140 - 146.
- 18. Anwar S Siddiqui, Rashmi Jain, MajidJamil, C P Gupta, "Congestion Management in High Voltage Transmission Line Using TCSC" Journal of Electrical and Electronics Engineering Research, UK, ISSN-2141-2367, Vol. 3(9) September 2011.
- 19. Rashmi Jain, Anwar S Siddiqui and MD Sarwar, "Combined Effect of HVDS and Reconductoring in Distribution Feeder Power Loss Minimisation" in International Journal of Electrical and Electronics Engineering Research in vol3 Issue 5, 2013.
- 20. Rashmi Jain, Anwar S Siddiqui, MajidJamil, C P Gupta and Preeti, "Maximizing Profits of Electrical Entities using Load and Price Forcasting" publishedin International Journal of Electrical and Electronics Engineering Research(IJEEER), Vol3 Issue5 ,2013.
- 21. Anwar ShahzadSiddiqui, Rashmi Jain, MD Sarwar and Ms. NarinderKaur, "A New Scheme for Inter-Zonal Congestion Management Using SFT" published in International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol 2 Issue 10 ,Oct 2013.
- 22. Rashmi Jain, Anwar S Siddiqui, MajidJamil and C P Gupta, "Genetic Algorithm Technique for Social Welfare Improvement Using FACTS and Generation Rescheduling" published in International Journal of Innovative research in Electrical, Electronics, instrumentation and control Engineering vol. 1, issue 7, Oct 2013.
- 23. Rashmi Jain, BhawanaGoel,'Prediction of Global Solar Radiation USING Artificial Neural Network, published in International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol 2 Issue 10, Oct 2013.
- 24. RashmiAgarwal and NarinderKaur"Green Building in India" published in IJMRS's International Journal of Engg. Science ISSN (online),2277-96982012.
- 25. Rashmi Jain, Chander Prakash, Preeti,, "Three phase Inverter for Grid connected PV Generation System using SPWM Techniques, published in International Journal of Research, Vol 1, July 2013.

Refereed International Conference Publications:

- 26. Sunil Kumar,Rashmi Agarwal, Preeti "Study of optimization techniques with physical constraints to optimal LFC for Interrelated Power system" at IEEE INDICON 2020 on11th-13th Dec 2020.
- Abhishek k,Seema ,Bhim Singh,Rashmi Jain "Improved CLO-FLL Based Control for PV-Battery Grid-Tied System under Weak Grid" at 2020 IEEE International Conference on Computing, Power and Communication Technologies (GUCON), Greater Noida, India, India on 2-4 Oct. 2020.

- 28. Abhishek k,Seema ,Bhim Singh,Rashmi Jain "Double Stage Grid-Tied Solar PV System Using HC-LMS Control at 2020 IEEE 9th Power India International Conference (PIICON), SONEPAT, India, India on28 Feb.-1 March 2020.
- 29. Abhishek k,Seema ,Bhim Singh,Rashmi Jain Modified NVSSLMS Based Control for Single Stage 3P3W Grid-Interfaced PV System at 2020 IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE2020), Kochi, India, India on 2-4 Jan 2020.
- Abhishek k,Seema ,Bhim Singh,Rashmi JainMultifunctional Grid-Tied PV System Using Modified KLMS Control at 2019 IEEE Energy Conversion Congress and Exposition (ECCE), Baltimore, MD, USA, USA 29 on Sept.-3 Oct. 2019.
- 31. Abhishek k,Seema, Bhim Singh, Rashmi JainAWILOG Based Control for Grid-Tied PV System Under Weak Grid Conditions at 2019 International Conference on Computing, Power and Communication Technologies (GUCON), NCR New Delhi, India, India on 27-28 Sept. 2019.
- 32. Abhishek k,Seema, Bhim Singh, Rashmi JainROGI with FsLMS Based Control Technique for Solar PV System under Weak Grid at 2019 IEEE International Conference on Environment and Electrical Engineering and 2019 IEEE Industrial and Commercial Power Systems Europe (EEEIC / I&CPS Europe), Genova, Italy, Italy on 1-14 June 2019.
- 33. Vikrant, Rashmi Jain "Implementation of VAREB technology in Electric Vehicles ' at National Conference on New Horizon in Technology for Sustainable Energy and Environment on 9-10th March 2017 by YMCAUST.
- 34. KaushalPrakash, Abhishek, Rashmi Jain "Review paper of HVDC trend in India ' at National Conference on New Horizon in Technology for Sustainable Energy and Environment on 9-10th March 2017 by YMCAUST.
- 35. Abhishek, Rashmi Jain," Design of Shunt Active using PI/ IRPI controller ' at New Horizon in Technology for Sustainable Energy and Environment on 9-10th March 2017 by YMCAUST.
- 36. KaushalPrakash, Abhishek, Rashmi Jain," Waste to Energy Technology in India ' at New Horizon in Technology for Sustainable Energy and Environment on 9-10th March 2017 by YMCAUST.
- 37. MunishNagar,Sanjay Singh, Sushil Kumar, RashmiJain,"Study of Quantum motivated evolutionary Algorithm" at **Sustainable Development through Research in Engineering and Management** (SDREM 2016)"on 26-27 Dec. 2016 by YMCAUST.
- 38. Rashmi Jain ,VarunSachdeva ," Optimal Sizing of Solar PV Power Plant in India" National Conference on Role of Science and Technology Towards 'Make in India'organised by YMCAUST ,Faridabad 05-07 March ,2016.
- 39. Rashmi Jain ,VarunSachdeva ," Optimal Sizing of Solar PV Power Plant in India" National Conference on Role of Science and Technology Towards 'Make in India'organised by YMCAUST ,Faridabad 05-07 March ,2016.
- 40. RashmiJain, C.P.Gupta,"Bipolar HVDC transmission (Rihand to Dadri) power flow control using GA & PSO algorithm ,IEEE INDICON conference ,17-25th Dec 2015, JamiaMilliaIslamia ,New Delhi.
- 41. Rashmi Jain, Devinder Singh, Deepak Kumar, Vishant Kumar," "Comparison OF HVAC And HVDC Tie Line Between Interconnected Thermal And Nuclear Power Generating," Emerging Trends in Electrical And Electronics Engineering (ETEEE-2015) JamiaMilliaIslamia, New Delhi

- 42. Rashmi Jain, Preeti "Damping of Oscillations with PI controlled Static Var Compensator using MATLAB," International Conference on Control, Communication, Computer and Mechanical Engineering, 4th November 2012, Delhi, ISBN: 978-93-82208-33-4
- 43. Rashmi Jain, Anwar S. Siddiqui and MajidJamil, "Comparison of SPWM and PI Controller Technique used in Three Phase Inverter for Grid connected PV Generation System", The 3rd National Conference on Power Electronics and Intelligent Control (NCPEIC-2012), MNIT Jaipur, pp. 21-27. Nov. 2012.
- 44. Rashmi Jain, NarinderKaur, Preeti, "Nanotechnology in Solar Industry," National Conference on Science in Media, YMCAUST, Faridabad, 3-4 December 2012.
- 45. Rashmi Jain , Anwar S Siddiqui, MajidJamil, C P Gupta ," "LMP technique for locating series FACTS device (TCSC) for social welfare benefits in deregulated electricity market," IEEE Xplore, IICPE 2012, Delhi, India, pp 1-6, December 6-8, 2012.
- 46. Rashmi Jain, ManishaHooda, Anwar S Siddiqui, MajidJamil and C P Gupta, 'Dynamic Analysis of Two Machine System Using UPFC', Proceedings of National Conference on Power, Instrumentation, Energy and Control (PiCON-2011), ISBN: 978-93-80510-95-8, p.p. 77-84, AMU, Aligarh, India, 12 – 13 Feb 2011.
- 47. Rashmi Jain, Anwar S Siddiqui, MajidJamil, C P Gupta, and RuchiMakein, "Genetic Programming for Congestion management using FACTS Devices", NationalElectricrical Engineering Conference (NEEC-2011), Delhi Technical University, Delhi, December 16 - 17, 2011.
- 48. Rashmi Jain, A S Siddiqui, MajidJamil and C P Gupta, Sonia Bansal, 'Static Var Compensator Controller Design Using Genetic Algorithm', International conference on Electrical Power and Energy Systems, August 26-28, 2010, NIIT, Bhopal (M.P.) 462051.
- 49. Rashmi Jain, C P Gupta, MajidJamil and A S Siddiqui, 'Analytical Analysis of SVC Model', International Conference on Computer Applications in Electrical Engineering-Recent Advances, IIT Roorkee, (Uttarakhand) India, February, 19 – 21, 2010.
- 50. Rashmi Jain ," A novel entropy based reduction feature method for document clustering"In IEEE International conference on Computer Engg&Technology (ICCET'10) at Jodhpur Institute of Engg&Technology,Jodhpur,INDIA 13-14 Nov,2010.
- 51. RashmiAgarwal," Small Hydro in India : Environment friendly alternative energy source in seminar on "New horizons in science &Tech:Challenges&options" held during May 22-23, 2008.
- 52. RashmiAgarwal," Fuzzy Logic and Control Applications in Power Systems"in AICTE sponsored National Conference in MRCE ,Faridabad held during July 4-5, 2008.
- 53. RashmiAggarwal, Dr. Ashok Kumar, Dr. P.R.Sharma, 'Power flow Analysis with Thyristor Controlled Series Capacitor(TCSC) by Newton Raphson method 'in National Conference on Problems Practices and Prospect in Power Distribution Systems, operation and Control (PPPPDSOC)-2009) 23^{rd—}24th January 2009 at PEC, Chandigarh, India.

Books Chapter published

1, "Grid integration of single stage solar photovoltaic system using the exponential-based variable-stepsize least mean square filtering control technique" publisher – Elseveir, United Kingdom. ISSN/ ISBN No-978-0-12-824337-4

2. Synchronization, Fault Detection of PV Array and Grid with MPPT Techniques Using MATLAB/Simulinkpublisher-Innovations in Electrical and Electronic Engineering. Lecture Notes in Electrical Engineering, vol 661". Springer, Singapore.ISSN/ ISBN No-981-15-4692-1_21

3. "Load Comparison of Solar Plant Generation and Solar Hydrogen Energy System." publisher-Applications of Computing, Automation and Wireless Systems in Electrical Engineering. Lecture Notes in Electrical Engineering, vol 553. Springer, Singapore.ISSN/ ISBN No-978-981-13-6772-4

4. Sharma, P., Kumar, A., Agarwal, R. (2023). Grid Integration of 3P3W Single-Stage Solar PV System Using Modified Digital Filter Control. In: Singhal, P., Kalra, S., Singh, B., Bansal, R.C. (eds) Recent Developments in Electrical and Electronics Engineering. Lecture Notes in Electrical Engineering, vol 979. Springer, Singapore. https://doi.org/10.1007/978-981-19-7993-4_32

Awards

- 1. Best paper award in National Conference "in Emerging Trends in Electrical And Electronics Engineering (ETEEE-2015), Jamia Islamia Isamia ,New Delhi
- Best paper award for paper titled 'Grid Integration of 3P3W Single Stage SolarPV system using modified digital filter in Inter National Conference " on Recent Developments in Electrical and Electronics Engineering during 15-16h April 2022 at J C Bose University of Science & Technology, YMCA, Faridabad
- **3.** Contribute in two modules of SWAYAM MOOC 'Principles of Electrical Sciences', five modules in SWAYAM Project on 'Renewable Energy Technologies and their uses '
- **4.** Honorary SAC Recognition Award was awarded 2020-21 by IEEE Delhi Section for contribution as Student Activities Committee Member
- **5.** Honorary SAC Recognition Award was awarded 2021-22 by IEEE Delhi Section for contribution as Student Activities Committee Member
- **6.** Honorary SAC Recognition was awarded 2022-23 by IEEE Delhi Section for contribution as Student Activities Committee Member

Reviewer of International Journals

- International Journal of System Assurance and Management, Springer
- International Journal of Control and Automation.
- IEEE Conference.
- International Journal of Concurrent.

Professional Memberships

- Institution of Engineers
- Institute of Electrical and Electronics Engineers (Execom Member Delhi Section 2020, 2021, 2022,2023 WIE Joint Secretary ,SAC Chair (Delhi ,NCR),

Positions Assigned

- WIE IEEE Delhi Section Chair (2023)
- President Institution of Innovation Cell (JCBUST, YMCA) 2023

Dr RashmiAgarwal