

FACULTY-PROFILE

Name : **Dr. Sushma Gupta**

Date of Birth : 8-5- 1971

Highest Qualifications : B. E., M. E., Ph. D

Academic Performance :

(High School to Highest Qual.)

S. No.	University/Board	Qualifications	Year	Result
1.	M. P. Board	High School	86	70%
2.	M. P. Board	High Secondary	88	73%
3.	Barkatullah Univarsity	B. E.	93	76%
4.	Barkatullah Univarsity	M. E.	99	84%
5.	I.I.T. Delhi	Ph. D.	2005	-



Date of Joining : 21 -5- 2010

Status as on date of Joining : Associate Professor

Salary as on date of Joining : 46,400/- (Basic)

Present Status : Head and Professor

Salary as on date : 1,84,500/- (Basic)

E-mail ID : sush_gupta@yahoo.com

Phone No. : 9893482260

Specialization : Power Electronics, Electrical Drives and Instrumentation

Publication : International Journals-**55 (Ann.I)** National Journals-**02**

International Conferences -**57** National Conferences-**06**

Project : **1)** Design, Implementation and Performance Evolution of SEIG based small Hydro Turbine in Micro Grid System”, Funded by DST, Project Cost Rs. 28,87,080/- No. SB/S3/EECE/182/2013.- **Completed.**

	2) Development of Fast Bidirectional Battery Chargers for Electric Vehicles Considering Power Quality Aspects, Funded by MPCST, Project Cost Rs. 7,40,000/- No. 2702/CST/R&D/Phy.&Engg and Pharmacy/2021-22, Dated: 27-01-2022, Completed
Training Organized	05
Training Attended	24
Ph. D. and M. Tech. Guided	: Ph. D. - 09, M. Tech. - 30
Ph. D. (In Progress)	: 02
Reviewer	: 1. IEEE Transaction of Industrial Electronics. 2. Inderscience- Int. J. of Power and Energy Conversion. 3. Institution of Engineers (India)- Series B.
Member	: 1. LM of ISTE 2. IEEE Member

ANNEXURE-I

INTERNATIONAL JOURNAL PAPERS

1. S.S. Mutthy, B. Singh, **Sushma Gupta** and B.M. Gulati "General Steady State Analysis of Three-Phase Self- Excited Induction Generator Feeding Three-Phase Unbalanced Load/Single-Phase Load for Stand-Alone Applications", IEE Proc.-Gener. Transm. Distrib., Vol. 150, No. 1, January 2003, pp. 49-55. **Impact Factor-1.84**
2. B. Singh, S.S. Murthy and **Sushma Gupta**, "Analysis and Implementation of Electronic Load Controller for Self-Excited Induction Generator", IEE Proc.-Gener. Transm. Distrib., Vol. 151, No. 1, January 2004, pp. 51-60. **Impact Factor-1.84**
3. B. Singh, S.S. Murthy and **Sushma Gupta**, "Analysis and Design of STATCOM Based Voltage Regulator for Self-Excited Induction Generator", IEEE Trans. on Energy Conversion, Vol. 19, No.4, Dec. 2004, pp. 783-790. **Impact Factor- 3.808**
4. B. Singh, S.S. Murthy and **Sushma Gupta**, "Solid State Controller of Self-Excited Induction Generator for Voltage Regulation, Harmonic Compensation and Load Balancing", Journal of Power Electronics, JPE 5-2-4, pp. 109-119. **Impact Factor-1.17**
5. B. Singh, S.S. Murthy and **Sushma Gupta**, "Transient Analysis of Self-Excited Induction Generator with Electronic Load Controller (ELC) Supplying Static and Dynamic Loads", IEEE Trans. on Industry Application, Vol. 41, No.4, Sep/Oct. 2005, pp. 1194-1204. **Impact Factor- 2.13**

6. B. Singh, S.S. Murthy and **Sushma Gupta**, "A Voltage and Frequency Controller for Self-Excited Induction Generator", *Electrical Power Component and Systems*, Vol. 34, pp. 141-157. **Impact Factor- 0.39.**
7. B. Singh, S.S. Murthy and **Sushma Gupta**, "Analysis and Design of Electronic Load Controller for Self-Excited Induction Generator", *IEEE Trans. on Energy Conversion*, Vol. 21, No.1, March 2006, pp. 285-293. **Impact Factor-2.14.**
8. B. Singh, S.S. Murthy and **Sushma Gupta**, "Field Experience on a Novel Pico- Hydel System Using Self-Excited Induction Generator and Electronic Load Controller", *IEEE Industry Application Magazine*, July/August, 2006, pp. 65-76. **Impact Factor- 0.26.**
9. B. Singh, S.S. Murthy and **Sushma Gupta**, "SATCOM Based Voltage Regulator for Self-Excited Induction Generator Feeding Non-Linear Loads", *IEEE Trans. on Industrial Electronics*, Vol. 53, No.5, October. 2006, pp. 1437-1452. **Impact Factor- 2.17**
10. B. Singh, S.S. Murthy and **Sushma Gupta**, "Stand-Alone Generating System using Self-Excited Induction Generator in Extraction and Refining Petroleum and Chemical Products", *IEEE Trans. on Industry Application*, Vol. 46, No. 1, Jan.-Feb. 2010, pp.94-101. . **Impact Factor- 2.73.**
11. Sweeka Meshram, Ganga Agnihotri, **Sushma Gupta**, "A Modern Two DOF Controller For Grid Integration With Solar Power Generator", *International Journal of Electrical Engineering & Technology (IJEET)*, Vol. 3, Issue 3, October-December 2012, pp. 164-174.
12. Monika Jain, **Sushma Gupta**, Deepika Masand, and Gayatri Agnihotri, "Analysis of a Microgrid under Transient Conditions Using Voltage and Frequency Controller", *Research Article, Hindawi Publishing Corporation Advances in Power Electronics*, Volume 2012, Article ID 208231, 18 pages, USA.
13. Sweeka Meshram, Ganga Agnihotri, **Sushma Gupta**, "An Efficient Z-Source Inverter based Solar Power Generation System Fed IM Drive", *International Journal of Scientific & Engineering Research (IJSER)*, Volume 4, Issue 1, January-2013, ISSN 2229-5518 pp. 1-6. **Impact Factor- 3.2**
14. Sudhir Ranjan, **Sushma Gupta** and Ganga Agnihotri, "Impedance Source Buck-Boost Converter for Linear and Non-Linear Load using MATLAB Simulink", *International Journal of ChemTeh Research Sphinx Knowledge House*, March 2013, pp. 993-1002.
15. Ashish Kumar, Sachin Tiwari and **Sushma Gupta**, "Comparative Analysis of Renewable Energy Sources for Self-Excited Induction Generator", *International Journal of Environmental Research and Development (IJERD)* ISSN No. 2249-3131, Vol. 3, Number 2 (2013), pp. 51-57.
16. Sweeka Meshram, Ganga Agnihotri, **Sushma Gupta**, "Performance Analysis of Grid Integrated Hydro and Solar Based Hybrid Systems", *Research Article, Hindawi Publishing Corporation, Advances in Power Electronics*, Volume 2013, Article ID 697049, 7 pages, USA.
17. Sweeka Meshram, Ganga Agnihotri, **Sushma Gupta**, "Modeling Of Grid Connected Dc Linked Pv/Hydro Hybrid System", *Electrical and Electronics Engineering: An International Journal (ELELIJ)* Vol 2, No 3, August 2013, pp. 13-27.
18. Sweeka Meshram, Ganga Agnihotri, **Sushma Gupta**, "Power Management Strategy for Active Power Sharing in Hydro/PV/Battery Hybrid Energy System," *Chinese Journal of Engineering (Hindawi)*, vol. 2013, Article ID 723860, 7 pages, Dec. 2013. doi:10.1155/2013/723860.
19. Sweeka Meshram, Ganga Agnihotri, **Sushma Gupta**, "Advanced Photovoltaic/Hydro Hybrid Renewable Energy System for Remote Areas", *Journal of Renewable and Sustainable Energy, AIP*, **6**, 013140-(1-17)(2014); doi: 10.1063/1.4866261USA.
20. B.Madan Lal, U.Raja Kiran, **Sushma Gupta**, Savita Nema, "Solar Power Fed Adjustable Speed Drive System", *IJRET: International Journal of Research in Engineering and Technology* ISSN: 2319-1163 | ISSN: 2321-7308, Volume: 03 Issue: 04 | Apr-2014, pp. 816-820.

21. B. Madan Lal, D.V.Rao, Savita Nema, **Sushma Gupta**, "Speed Control of Solar Powered Induction Motor Drive using SVPWM Technique", International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC) ISSN: 2321-8169 Volume: 2 Issue: 6 1484 – 1489, June 2014.
22. Manoj Hirani, **Sushma Gupta** and D. M. Deshpande, "Closed Loop Control of Three-Phase Induction Motor using Xilinx", International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, Vol. 3 Issue 6, June – 2014, pp. 1323-1327.
23. Sachin Tiwari, **Sushma Gupta** and Shailendra Jain and Bhim Singh, "Soft Computing Techniques for Static Series Voltage Regulator of Self Excited Induction Generator", Journal of Circuits, Systems, and Computers, Vol. 24, No. 2, Feb. 2015, 1550025 (26 pages), World Scientific Publishing Company, Nov. 2014, DOI: 10.1142/S0218126615500255.
24. Sachin Tiwari, **Sushma Gupta**, Shailendra Jain, and Bhim Singh, "Artificial neural network based series active power filter for self excited induction generator" Journal of Renewable and Sustainable Energy, (AIP) 7, 013106 (2015); doi: 10.1063/1.4905699.
25. Tiwari, **S. Gupta**, S. Jain, S. Singh, B., "Fuzzy logic controller based SAPF for isolated asynchronous generator", Journal of Electrical Engineering, 2015.
26. Akash Garg, Ashish Singhvi, Prateek Agrawal, R. Akhil Raj and Sushma Gupta, "Modelling and Simulation of Fuzzy Based Speed Control of Separately Excited DC Motor", International Journal of Research in Technology, Vol. 2, No. 1, February 2015, pp. 37-41.
27. Rakeshwri Pal and Dr. Sushma Gupta, "State of the art: dynamic voltage restorer for power quality improvement", Electrical & Computer Engineering: An International Journal (ECIJ) Volume 4, Number 2, pp.79-98, June 2015.
28. Monika Jain, Sushma Gupta, Deepika Masand and Gayatri Agnihotri, "Soft Computing Technique-Based Voltage/Frequency Controller for a Self-Excited Induction Generator-Based Microgrid", International Journal of Circuit System and Computers, Vol. 25, No. 2, February 2016 (SCI), DOI: 10.1142/S0218126616500122.
29. Monika Jain, Sushma Gupta, Deepika Masand, Gayatri Agnihotri, and Shailendra Jain, "Voltage And Frequency Regulation With Synchronization Of Micro Grid Under Islanding Operation", Journal of Electrical Engineering, Vol. 15 Edition 2, Dec. 2015, pp. 186-195.
30. Monika Jain, Sushma Gupta, Deepika Masand, Gayatri Agnihotri, and Shailendra Jain, "Real-Time Implementation of Islanded Microgrid for Remote Areas", Journal of Control Science and Engineering, Hindawi Publishing Corporation, Article ID 5710950, March 2016.(Scopus)
31. Manju Gupta, Sushma Gupta and Tripta Thakur, "A Systematic Approach Towards Developing Prototype of AMI Based DSM Model for Load Management", The Journal of CPRI, Special Issue on Recent Trends in Power Engineering, Vol. 12, Issue 01, March 2016, ISSN 0973-0338, pp.35-42.
32. Rakeshwri Pal and **Dr. Sushma Gupta**, "Performance Analysis of Modified Dynamic Voltage Restorer (DVR) Employed to a Grid Connected Solar PV System", International Journal of Engineering & Technology, UAE (SCOPUS), 7 (3), 2018, pp. 1351-1359 .
33. Mohd Salim Qureshi, Pankaj Swarnkar and **Sushma Gupta**, "A supervisory on-line tuned fuzzy logic based sliding mode control for robotics: An application to surgical robots", Robotics and Autonomous Systems, Volume 109, November 2018, Pages 68-85. (SCI)
34. Mohd Salim Qureshi, Pankaj Swarnkar and **Sushma Gupta**, "Fuzzy PID Sliding Mode Control for Robotics: An Application to Surgical Robot", Recent Advances in Electrical & Electronic Engineering, Volume 11, Issues 4, 2018. (Scopus).
35. Rakeshwri Pal and **Dr. Sushma Gupta**, "Recapitulation of various typologies and control strategies implicated in dynamic voltage restorer (DVR) for power quality improvement", **Accepted for Publications**, International Journal of Engineering & Technology, UAE (SCOPUS).

36. Manju Gupta, Sushma Gupta and Tripta Thakur, "A Novel Design and Development of Advanced Metering Infrastructure based Demand Side Management Scheme", Issue: 14-Special Issue, Year: 2018, Pages: 1461-1472. (Scopus SJR).
37. Monika Jain, Sushma Gupta, Deepika Masand, Gayatri Agnihotri, and Shailendra Jain, "Isolated Operation of Micro Grid under Transient Conditions using AI based VF Controller ", Online Published in IETE Journal of Research, August 2019, <https://doi.org/10.1080/03772063.2019.1644970>.
38. Nisha Prasad, Shailendra Jain and Sushma Gupta, "Electrical Components of Maglev Systems: Emerging Trends", Publications in Urban Rail Transit, Vol.5, 2019, 67-79 (ESCI/Web of science)
39. Nisha Prasad, Shailendra Jain and Sushma Gupta, "Design and Analysis of a New Improved Force Linear Switched Reluctance Motor for Transit Application", Journal IETE Journal of Research, *Published online: 17 Oct 2019*, <https://doi.org/10.1080/03772063.2019.1676664>.
40. Nisha Prasad, Shailendra Jain and Sushma Gupta, "Measurement and Optimization of Performance Parameters of Linear Switched Reluctance Motor Using Finite Element Method", MAPAN-Journal of Metrology Society of India, Springer Publisher, Published on Line on 14 October 2019.
41. Manju Gupta, Sushma Gupta and Tripta Thakur, "Implementation of New Electricity Norms for Deviation Settlement: A Case Study of India", Cogent Engineering (Taylor & Francis Group) May 2019, 6: 1623152 <https://doi.org/10.1080/23311916.2019.1623152>) (Scopus).
42. Naseam Haider Jafri and Sushma Gupta, "Pollution Free Operation of Rail Vehicle with Diesel Engine using Fuel Cell", International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9 Issue-3, January 2020.
43. Dhananjay Kumar, R.K.Nema, Sushma Gupta, "A Comparative Review on Power Conversion Topologies and Energy Storage System for Electric Vehicles", Published in International Journal of Energy Research- Wiley Publishing (SCIE), August 2020, DOI: 10.1002/er.5353.
44. Nisha Prasad, Shailendra Jain and Sushma Gupta, "Comparative analysis of new improved force split-teeth Linear Switched Reluctance Motor for high speed transit systems," *Sādhana* (Springer), **volume 45**, Article number: 147 (2020), Published: 04 June 2020, **Published (SCIE/ Class Q2)**
45. Dhananjay Kumar, R. K. Nema and Sushma Gupta, "Investigation of Fault-Tolerant Capabilities of Some Recent Multilevel Inverter Topologies", International Journal of Electronics (SCI), International Journal of Electronics (Taylor & Francis) SCI, December 2020, <https://doi.org/10.1080/00207217.2020.1870752> .
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47. Dhananjay Kumar, R. K. Nema and Sushma Gupta, "Development of Fault-Tolerant Reduced Device Version with Switched-Capacitor Based Multilevel Inverter Topologies", May 2021, (SCIE) <https://doi.org/10.1002/2050-7038.12893>
48. Nisha Prasad, Shailendra Jain, Sushma Gupta, "An Educational Tool Based on Finite Element Method For Electro-magnetic Study", The International Journal of Electrical Engineering & Education, July 2020.<https://doi.org/10.1177/0020720920940572>. Status: Published (SCIE/ Class Q3)
49. Nisha Prasad, Shailendra Jain, Sushma Gupta, "A Comparative Analysis of Linear Switched Reluctance Motor using Finite Element Method", International Journal of Power and Energy Systems (ACTA Press), Vol.41, No.2, April 2021, DOI: [10.2316/J.2021.203-0201](https://doi.org/10.2316/J.2021.203-0201)Status: Published (ESCI & Scopus/ Class Q4).

50. Dhananjay Kumar, R.K.Nema and Sushma Gupta, "A Fault Tolerant Sensor Less Approach in Five Level Packed U Cell (PUC5) Multilevel Inverter", Accepted for publication in International Journal on Power & Energy System, October 2021 (Scopus).
51. Dhananjay Kumar, Rajesh Kumar Nema, Sushma Gupta, Savita Nema and Niraj Kumar Dewangan, "A New Fault-Tolerant Multilevel Inverter Topology with Enhanced Reliability for PV Application", Arabian Journal for Science and Engineering, <https://doi.org/10.1007/s13369-022-06992-2>, Published Online 4th July 2022 (Springer, Scopus).
52. Dhananjay Kumar, Rajesh Kumar Nema, Sushma Gupta, and Niraj Kumar Dewangan, "Development of Open Switch Fault-Tolerant Capability in CCS-MLI Topology", ECTI TRANSACTIONS ON ELECTRICAL ENGINEERING, ELECTRONICS, AND COMMUNICATIONS VOL.20, NO.2 JUNE 2022, pp.197-205 (Scopus).
53. Nisha Prasad, Shailendra Jain, Sushma Gupta, "Review of Linear Switched Reluctance Motor Designs for Linear Propulsion Applications", Accepted in China Electrotechnical Society Transactions on Electrical Machines and Systems, April 2022 (Scopus).
54. Uliya Mitra, Anoop Arya and Sushma Gupta, "A Comprehensive and Comparative Review on Parameter Estimation Methods for Modelling Proton Exchange Membrane Fuel Cell", Volume 335, 1 March 2023, 127080, in Journal of Fuel, Elsevier, Dec. 2022, <https://doi.org/10.1016/j.fuel.2022.127080> (SCI).
55. Uliya Mitra, Anoop Arya, Sushma Gupta, Priyanka Paliwal, Anshul Verma, "Parameter Estimation of Proton Exchange Membrane Fuel Cell Model using Chaotic Embedded Particle Swarm Optimization Technique", SN COMPUT. SCI. 4, 473 (2023). <http://dx.doi.org/10.1007/s42979-023-01957-0>. (SCOPUS)