

## Faculty Profile

Name : Dr. Jyoti Jain  
Designation : Associate Professor  
Qualifications : M Tech, PhD  
Phone : 9899503602  
Post at the time of Joining : Lecturer  
Date of Joining MSIT: : 18-1-2002  
Email : jyotiee@msit.in  
Area of Interest/Specialization: Power System Optimization, electrical Machines  
Experience : 28 years

Papers published in journals / presented in International Conferences:

1. Jyoti Jain “Energy Conservation and Resource Management in Industrial Sector” 2nd National Conference on Advances in Energy Conversion Technologies (AECT 2008), April 18-19, 2008
2. Jyoti Jain “Energy Audit And Energy Conservation in Industrial Sector”, National Conference on Advances in Power Systems & Energy Management, Chitkara Institute of Engineering & Technology, Patiala,2008.
3. Jyoti Jain “Energy Audit & Management in Industrial Sector”, International conferences on Electrical power & energy systems, August 2010, Bhopal, India.
4. Jain N.K., Nangia Uma & Jyoti Jain, “GA Based Multiobjective Economic Load Dispatch By Maximization Of Minimum Relative Attainments”, 2012 IEEE Fifth International Conference on Power Electronics(ICPEICES 2012), Dec. 6-8, 2012, Delhi Technological University, Delhi.
5. Jain N.K., Nangia Uma, Jyoti Jain, “Effect of Population and Bit Size on Optimization of Function by Genetic Algorithm”, 3<sup>rd</sup> International Conference on Computing for Sustainable Global Development, 16<sup>th</sup>-18<sup>th</sup> March, 2016, Bharati Vidyapeeth Institute of Computer Applications and Management (BVICAM), New Delhi (INDIA).
6. Jain N.K., Nangia Uma, Jyoti Jain, “An improved PSO based on Initial selection of particles”, IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES), 4-6 July 2016, DTU, Delhi, India.
7. Jain N.K., Nangia Uma, Jyoti Jain, “An improved PSO based on Initial selection of Particles (ISBPSO) for Economic load Dispatch ”, IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES), 4-6 July 2016, DTU, Delhi, India.

8. Jain N.K., Nangia Uma, Jyoti Jain, “A Review of Particle swarm optimization”, Journal of Institution of Engineers (India): Series B ISSN 2250-2106, Vol.99, issue 4, pages 407–411 (2018), <https://doi.org/10.1007/s40031-018-0323-y>.
9. Jain N.K., Nangia Uma, Jyoti Jain, “Economic load Dispatch using Adaptive Social Acceleration Constant based Particle Swarm Optimization”, The Institution of Engineers (India): Series B, ISSN 2250-2106, Vol.99, issue 5, pp.431-439. DOI 10.1007/s40031-018-0322-z. 01 August 2018.
10. Multiobjective Economic Load Dispatch Studies in 2-D and 3-D Space by Particle Swarm Optimization Technique to Journal of the Institution of Engineers (India): Springer Series B, (J. Inst. Eng. India Ser. B) 100, 233–247 (2019). <https://doi.org/10.1007/s40031-019-00386-z>, 07 February 2019.
11. N. K. Jain, Uma Nangia, Jyoti Jain, “Multiobjective Economic Load Dispatch using Fuzzy Logic Decision System” IEEE second International Conference on Power Electronics, Intelligent Control and Energy, Delhi, pp.1-5, (22-24 October, 2018) .
12. N. K. Jain, Uma Nangia, Jyoti Jain, “Impacts of PSO Parameters on its Convergence” IEEE second International Conference on Power Electronics, Intelligent Control and Energy, Delhi, pp.1-5, (22-24 October, 2018).
13. Pulkit Jain, Pranjal Bhatia, Rashika Mann, Nidhi Kumari, Jyoti Jain, “Economic Load Dispatch Using Particle Swarm Optimization” International Journal of Technology and Science, ISSN (Online) 2350-1111, (Print) 2350-1103, Vol. 5, Issue 2, 2018.,
14. Sachin Prakash, Jyoti Jain, Shahbaz Hasnat, Nikhil Verma, Sachin, “Economic Load Dispatch with Valve Point Loading Effect Using Optimization Techniques”, International Conference on Artificial Intelligence and Applications, ICAIA 2020, 02 July 2020, Proceedings of International Conference on Artificial Intelligence and Applications ICAIC 2020 at MSIT, pp. 407-416.
15. Jyoti Jain, Jagriti Krishnan presented a paper on “Machine Learning” NATIONAL Conference on Advances in Information, Science and Technology-2021, organized by Sagar Institute of Research & Technology Bhopal, Madhya Pradesh, India.
16. Jyoti Jain, Ms. Soumya Chaudhary Presented a poster on “ADVANCES IN SENSOR TECHNOLOGIES AND THEIR APPLICATIONS” organized by Sagar Institute of Research & Technology Bhopal, Madhya Pradesh, India.
17. Jyoti Jain, Pulkit Jain “Socio-Economic impacts of Covid-19 Pandemic in India” at International Conference on “Resurgence of Economies Globally Post Pandemic: Issues and Challenges” at Maharaja Surajmal Institute on dated 29-30/10/21.
18. Jyoti Jain, Arpita “Universal Health and Sanitation Tool kit” at **International Conference on “Resurgence of Economies Globally Post Pandemic: Issues and Challenges”** at Maharaja Surajmal Institute on dated 29-30/10/21.

19. Jyoti Jain, poster presentation on “Social Economy – Pandemic Driven Challenges “at International Conference on “Resurgence of Economies Globally Post Pandemic: Issues and Challenges” at Maharaja Surajmal Institute on dated 30/10/21.
20. Jyoti Jain poster presentation on “Small scale industries and starts up”at International Conference on “Resurgence of Economies Globally Post Pandemic: Issues and Challenges” at Maharaja Surajmal Institute on dated 30/10/21.
21. Jyoti Jain presented a paper in the National conference on “Electric Drives and Control for Transport Systems”, 16 to 18<sup>th</sup> Jan.97, EDCOTS’97.
22. Jyoti Jain presented the paper “Solar Photovoltaic lighting systems” in the national seminar on Recent Trends in Energy Efficient Lighting Systems at SATI Vidisha 5-6 February 1999.

**Jyoti Jain Participated in the following FDP/Seminar/Workshop:**

<b>FDP. Seminars and Workshops Attended</b>	<b>Date</b>	<b>Place</b>	<b>No of Days</b>
Advances in Renewable energy Technologies	25-8-21 to 31-8-21	Jodhpur Institute of engineering and technology, Jodhpur	6
Online orientation training programme for Mentors	21-6-21 to 25-6-21	All India Council for Technical Education ,New Delhi	5
Role of Energy Management Systems in Smart Grid	7-12 June, 2021	AICTE sponsored One Week (Online) Short Term Training Programme (STTP)organized by Department of Electrical Engineering of JAMIA MILLIA ISLAMIA (JMI), NEW DELHI	6
Use of ICT in Engineering Education	7-4-21 to 13-4-21	Maharaja Surajmal Institute of Technology, New Delhi	6
Implementation of outcome based education to enhance the quality of HEIs	9-3-21 to 13-3 21	Sri Ramakrishna college of arts and science	6
Power electronics applications for smart grid, electric vehicles and renewable energy	16-12-20 to 21-12-20	JSS Mahavidyapeetha , JSS academy of technical education, Noida	6
Computational techniques	02-11-20 to 07-11-20	Sagar institute of research and technology, Bhopal	6
Machine learning and it's application in big data	19-10-20 to 24-10-20	Jodhpur Institute of engineering and technology, Jodhpur	6
Implementation of Outcome Based Education to Enhance the Quality of HEIs	5-10-20 to 10-10-20	SRI RAMAKRISHNA college of ARTS AND SCIENCE, Nava India, Coimbatore, TAMIL NADU	6
Learning Management System	21-9-21to 25-9-21	National Institute of Technical Teachers Training and Research.	5
Machine learning and its application to big data	14-9-21to19-9-21	Jodhpur Institute of Technology, Jodhpur	6
Raspberry Pi and Python Programming	24-08-20 to 29-08-20	Sagar Institute of research and technology, Bhopal	6

Optimization Techniques through Machine Learning for IOT	27-7-20 to 01-08-20	MRCEW, Maisammaguda, Telangana, India.	6
Optimization techniques through machine learning for wireless and IOT	13-7-20 to 18-7-20	MRCEW, Maisammaguda, Telangana, India.	6
Power Quality and Reactive Power Management	06-7-20 to 10-7-20	Clariant Power System Ltd., Pune	5
Understanding Power System Simulation Concepts through Case Studies	20-6-20 to 26-6-20	IEEE PES-IAS Chapter Delhi Section and PES India Chapters Council	7
Python Programming	23-6-20 to 26-6-20	BPIT DELHI	4
Artificial Intelligence	15-6-20 to 19-6-20	AICTE Training And Learning (ATAL) Academy	5
Machine Learning Using Python	2-6 March 2020	Maharaja Surajmal Institute of Technology, New Delhi	5
Indian Electricity rules and code of practice	16-12-19 to 20-12-19	NITTR KOLKATA	5
Recent Research directions and key concepts in Electrical Engineering	02-12-19 to 06-12-19	DTU	5
Classroom communication through ICT	28-5-18 to 1-6-18	Education and Educational based Management department of NITTR Chandigarh	5
Power electronics and its applications	27-11-2017 to 1-12-17	MSIT	6
Advances in Soft Computing Techniques for Solving Engineering Problems	17-7-17 to 21-7-17	NSIT ,New Delhi	5
Statistical Methods & a Brief on LaTeX	18-7-16 to 22-7-16	DTU Delhi	5

## **Awards and Recognitions**

1. I have received an Outstanding Engineer Award (OEA) (IEEE PES IAS Chapter) for 2020.
2. I am working as a Treasurer for IEEE PES IAS Delhi Chapter, 2021.
3. Under my guidance PES chapter MSIT has received 4<sup>th</sup> Position globally as a High performance student branch chapter award in 2017.

## **Memberships of Professional bodies**

- |   |                                 |
|---|---------------------------------|
| (1) <b>IEEE</b>                           | <b>Senior Member</b>            |
| (2) <b>Power and Energy Society (PES)</b> | (3) <b>ISTE (Life Member)</b>   |
| (4) <b>IEEE Sensors Council</b>           | (5) <b>IEEE Systems Council</b> |

**Contribution as a Chapter Advisor of IEEE PES Student branch  
Chapter MSIT:**

Activities organized by IEEE PES MSIT Chapter are given below:

Module /Activity Description	Institute/ Industry	Date	Resource persons	Remarks
<b>International Engineering and Technology Fair (IETF)</b>	Pragati Maidan, New Delh	27-2-15	IEEE-PES Chapter Advisor	To enhance the knowledge of students in the field of INDUSTRY.
Visit to Grid-Tech	ITPO, Pragati Maidan, New Delhi	9-4-15	IEEE-PES Chapter Advisor	To enhance the knowledge of students in the field of Power system.
S.I.G (special interest Group) S.P.A.R.C. Smart Power Application & Resource Consumption objective: to make students aware about latest power related technology and deliver basics of Technology	MSIT	15 <sup>th</sup> Oct, 2015	1-House wiring 2-Introduction to motor 3-Introduction Generators/Alternators 4-Introduction Transformers 5-Basic switching circuits 6-Introduction of Power System 7-Introduction to Power Electronics	To enhance the knowledge of students in the field of Power system, Electrical Engineering.

IEEE DAY, was celebrated as a PROJECT WEEK' where a team of students registered themselves and shared their ideas for their projects.	MSIT	3 <sup>rd</sup> October 2015 to 8 <sup>th</sup> October 2015	Faculties of MSIT and Students. Each team were assigned a mentor, who guided them throughout the project work. On 6 <sup>th</sup> October 2015, which was the final day of this project week, students showcased their hard work and creativity with the presentation of their innovative projects they made.	To share innovative idea for working project. The Chief Guest Mr. Jasmeet Singh, Founder of JMOON Technologies Pvt. Ltd., who was the sponsor for this event, was very impressed with the projects of the students .
Solar Industry and its Prospects Guest Lecture	MSIT	4-11-15	Mr. Mohak Thakur. Manager, Genso engineering Pvt Ltd.	To know about Solar Industry
Visit to BSES	BSES	31-12-15	BSES Engineer at Patparganj, Delhi	Exposure relating to different component of power system
SKILL INDIA MISSION	MSIT	11-4-16	Experts from skill India Mission	To develop the technical skills of students.
Workshop On Career guidance	MSIT	11-8-16	Experts from Triumphant Institute of Management Education Private Limited	Exposure relating to different technical career
Workshop on MATLAB Optimization Toolbox	MSIT	21-10-16	Expert from Sofcon	To enhance the knowledge of students in MATLAB.
Project Week activity by PES students	G.D Goenka Public School Rohini	5-10-16	2 <sup>nd</sup> , 4 <sup>th</sup> and 6 <sup>th</sup> sem EEE and ECE Students	To motivate the School students
Project Week activity by PES students	Jain S.S. School.	20-10-16	Members of IEEE PES STUDENT Chapter	To motivate the School students
Industrial visit	Kalinga Cable	29-12-16	Engineer of Kalinga Cable	Industrial exposure to students.
Participation in Conference	I. H. C. Lodhi Road Delhi	11to 12 March 17	Mr.Jai Giri, Prof. Mini Thoms, S.K.Soonee prof G Bhuvnesvari etc.	To enhance the knowledge of students

Summer-project	MSIT	June to August 2017	Vikrant and Devansh	To enhance the practical Knowledge
Project presentation		September 27,2017		
RES KIT	MSIT	24-7-17	Students of MSIT PES, Demonstrate the Renewable Energy in Schools (RES) project.	To motivate the students in the field of RES
IEEE Day	MSIT	October 4,2017	IEEE Advisor shares their technical ideas. Demonstrate the ways in local communities join together to collaborate on ideas that leverage technology for a better tomorrow.	A meeting was held to explain the mission to the members.
Solar skill development workshop	Village	September 30,2017	IEEE Member and residents of Meerpur Majra village in Hapur, Tehsil to enlighten them about solar energy	The volunteers took a 1 hour session and had a brief discussion with the panchayat about Solar skill.
Res kit	Different schools	October 29,2017	Started IEEE PES Networking without Borders project (NwB). Educational kits to visualize the idea of renewable energy development for school students.	Initiative on IEEE-PES- RES Project
Seminar on Automatic Control	MSIT	8/2/18	Expert from SOFCON company	To understand Application of Control
INDUSTRIAL VISIT	DMRC	9/2/18	Engineers at DMRC Station	To Enhance knowledge of power Station
Opportunity in career for EEE Students	MSIT	10/3/18	Expert from T.I.M.E.	To guide the EEE STUDENTS for Career
MATLAB Seminar	MSIT	20/4/18	Optimization Toolbox	To help in project work
Activities to recognize PES volunteers	MSIT	2/6/18	To write articles and making posters, by all students of MSIT	To promote Power and Energy awareness

Guest Lecture	MSIT	23/10/18	Dr. DP Kothari	Power system optimization
OPEN DISCUSSION 1.0	MSIT	28/10/18	PES MSIT TEAM	To know about IEEE
International Engineering and Technology Fair (IETF).	Pragti Meidan Delhi	4/2/19	Expert from Health Organization and Industry	To Know, Real Life application of the Artificial Intelligence
Interaction with other IEEE units	Think and Research at MSIT	25/2/19	Mr. Apoorv Arora and Mr. Aakash Bansal	To know how to implement the idea into reality
Technical Project exhibition	MSIT	9/3/19	Expert from Industry	To Know, Real Life application
Visit at Receiving End Substation 66Kv	Indira Gandhi International Airport	18/3/19	Mr Sinthil Kumaran (Senior Engineer)	To know Receiving End substation component.
PES humanitarian activities	Mahila Ashram	18/6/19	Chapter advisor Jyoti jain	To solve the problem of Math's subject
Guest Lecture on Integrated Operations of Power System	MSIT	7/9/19	Sh. Naveen Kumar, Manager (SLDC), Delhi	To know working of SLDC
Expert lecture DC-DC Converters	MSIT	17/10/19	Dr G. Bhuvanewari, professor at IIT Delhi	Real life application of Power Electronics
<b>Membership Recognition Activities</b>	MSIT	<b>20/10/19</b>	<b>Chairman and Team of MSIT</b>	<b>To increase membership</b>
<b>Student Transition and Evaluation Programme (STEP)</b>	MSIT	<b>25/10/19</b>	<b>Chairman and Team of MSIT</b>	<b>To increase membership</b>
<b>Administrative Meetings</b>	MSIT	<b>Yearly four, times</b>	<b>To make the plan of activity and new Executive committee.</b>	<b>To know how to pursue in future</b>
Energy Efficiency in Smart Buildings through IoT Sensor Integration	Webinar	20 -6-20	Prof. Saifur Rahman	To know about Energy Efficient Buildings



Internet of Thing	Webinar	25-5-20	Expert from Mapping Skills	To know about IOT
Electrical Switch Gear and its Applications	Webinar	10-7-20	Mr. Shivanandam D.V.,CEO, Universal Motor	To know Switch Gear application
Applications of AI in Power Systems	Webinar	31/7/20.	Mr. Shreenivasalu Ala from Pantech E Learning	To know AI Applications
Design of Electrical Vehicle	Webinar	10-8-20	Mr. Shreenivasalu Ala from Pantech E Learning	To know Electrical Vehicle
Power Electronic Simulation - Simplified	Webinar	19-8-20	Mr. Shreenivasalu Ala from Pantech E Learning	To know Power Electronic Simulation
Career Guidance for B. Tech Students and Machine Learning	Webinar	<b>7/10/20</b>	Expert from 4Achievers, Noida	How to make career after B.Tech.
PLC SCADA and INTERNET OF THINGS(IOT)	webinar	<b>11<sup>th</sup> June 2021</b>	Expert from Sofcon India Pvt. Ltd.	To give exposure for PLC SCADA and IOT
TECH-SIMPLIFIED	Video series	<b>18<sup>th</sup> JUNE 2021</b>	Video series started at IEEE PES day	The videos cover the roadmaps of the topic Arduino, Raspberry Pi, Machine Learning, and much more.: <a href="http://bit.ly/PES_DataAnalytics">http://bit.ly/PES_DataAnalytics</a>
Dr. Celia. Shahnaz Chair, IEEE Bangladesh Section Guest Speaker	webinar	<b>16-8-21</b>	<b>Role of Artificial Intelligence for Clean Energy and other WIP-YP initiatives to enhance Member Elevation</b>	<a href="https://www.msit.in/media/2021/09/28/4-9-21-seminar-webinar-ieee-pes.pdf">https://www.msit.in/media/2021/09/28/4-9-21-seminar-webinar-ieee-pes.pdf</a>
Mr. Chandan Kumar, Manager of System Study and Reliability Eastern Regional Load Despatch Centre in Kolkata POSOCO	Seminar	<b>4-9-21</b>	<b>Basics of Power System Resilience &amp; its Importance Globally</b>	<a href="https://www.msit.in/media/2021/09/28/4-9-21-seminar-webinar-ieee-pes.pdf">https://www.msit.in/media/2021/09/28/4-9-21-seminar-webinar-ieee-pes.pdf</a>
RUKMI DUTTA Associate Professor at UNSW, Sydney	webinar	<b>6-9-21</b>	Transport Electrification and Renewable Energy Conversions- a push in the right direction (for the advancement of Electric Machines and Drives) on	To enhance knowledge in the field of Electrical Machine. <a href="https://www.msit.in/media/2021/09/28/6-9-21.pdf">https://www.msit.in/media/2021/09/28/6-9-21.pdf</a>
Dr. Praduman Chaturvedi	Guest lecture	<b>9-12-21</b>	Switch Mode power supply	To enhance knowledge in the field of power Supply

### **Other Contributions for IEEE and IEEE Power and Energy Society Chapter (Delhi Section & Chapter)**

- Attended all the IEEE IAS-PES Delhi Chapter Annual General meeting (Held during 2013-2021).
- I am a **senior member of IEEE**, an **Executive member of IEEE Delhi Section**.
- I am working as a **Chapter Advisor of IEEE PES MSIT** since 2013.
- I have worked as an **Executive member of IEEE PES DELHI** section from **2013 to 2019** continuously.
- I have worked for different committees of **IEEE IAS - PES Delhi Chapter**.
- I have worked as an **Executive member of IEEE Delhi Section in 2020**.
- I am working as a Treasure for IEEE IAS-PES Delhi Chapter.
- I participated in different activities of IEEE, Lecture series, Virtual Distinguished Lectures, webinar organized by IEEE Region 10 and all the Regions.

### **Contribution to IEEE PES MSIT:**

Our society came into existence on 6th April 2013. This is the first ever society, specifically for Electrical and Electronics Engineering Department under IEEE at MSIT which was established by me. I have organized seminars, workshops, industrial trips and so many activities. With various regular activities like Workshops, Industrial Visits, Panel Discussions, Talks, Seminars, Project competition and many other activities, it aim to educate and lead the technological advancements.

- The IEEE PES MSIT has also conducted programme using RES kits for kids in different schools of the Delhi, under IEEE PES NwB (Networking without Borders) project drive which shows the inherent will to every part of community.
- IEEE PES MSIT chapter has been receiving High Performing Student Branch Chapter Programme award since 2014 and in 2017 MSIT has got fourth global position.

### **Contribution to Institute:**

- I worked as a Deputy Superintendent for Examination Centre of MSIT.
- I have set up / developed Electrical Machines Laboratory for III semester and IV semester, Electrical Science and Circuits & Systems Laboratories at MSIT.

- Besides this, I also contributed towards the development of Lecture Plans / Syllabus / Question papers of various courses of GGSIPU as well as organized various Seminars/ Workshops/ Industrial Visits in the department. I also worked as Departmental in-charge of Labs of Electrical Engineering department of MSIT.
- I worked as an Auditor for Labs of ECE department of MSIT.
- I attended and received the Certificate of “**orientation training preprogram for mentors**” Organized by National Institutes of Technical Teachers' Training & Research (NITTTR) of INDIA from 21-06-21 to 25-06-21.
- Worked as a Purchase committee In-charge for March 2021 to July 2021 and member.
- I have Organized International, National webinars to enhance the knowledge of Students and Faculties.

**My h index is 4 according to Google Scholar.**

**The impact of my research can be gauged from my Google Scholar page:  
[https://scholar.google.com/citations?view\\_op=list\\_works&hl=en&hl=en&user=6SUJr\\_IAAAAJ](https://scholar.google.com/citations?view_op=list_works&hl=en&hl=en&user=6SUJr_IAAAAJ)**

