

Name Shakuntla
Designation Assistant Professor
Date of Joining Jan 10, 2007
Qualification B.E (Electrical Engg.)
M.E(Power System & Drives)
Ph.D
Area of interest Electrical Machines, Renewable Energy
Technologies, Electric Vehicles
Teaching Experience 17.5 Years
E-mail shakuntla@jcbouseust.ac.in



Publications: 46

International/National Journals:

1. Singla, P., Boora, S., Singhal, P. *et al.* Design and simulation of 4 kW solar power-based hybrid EV charging station. *Sci Rep* **14**, 7336 (2024). <https://doi.org/10.1038/s41598-024-56833-5>, **SCI**
2. Sumit Kumar Yadav, Shakuntla Boora and Nitin Goel, “Design and Implementation of Electromagnetic Suspension Systems using FEM Parameterized Linear Actuator,”*European Chemical Bulletin*, Vol.11, Issue 11, 2022, Scopus.
3. Shakuntla Boora, S.K Agarwal, K.S Sandhu, “A Takagi-Sugeno (T-S)-Type FIS-Based Controller for an Autonomous Induction Generator (AIG),” *IETE Journal of Research*, pp.1-14, 2022, <https://doi.org/10.1080/03772063.2022.2030811>, **SCI**.
4. Sagar Sharma, Shakuntla Boora, “Neural network based novel controller for hybrid energy storage system for electric vehicles,” *Indonesian Journal of Electrical Engineering and Computer Science*, pp. 670-680, Vol. 30, No. 2, May 2023, <http://doi.org/10.11591/ijeecs.v30.i2>.
5. Boora, S., Agarwal, S.K. & Sandhu, K.S, “Experimental and simulation testing of an EGLC controller for an IAG-EGLC system for electrifying off-grid rural sites,” *SN Appl. Sci.* 3, 616-2021, <https://doi.org/10.1007/s42452-021-04599-0>, **ESCI**.
6. Shakuntla Boora, S.K. Agarwal, K.S. Sandhu, “Optimization Based Performance Evaluation of CEIG for Rural Sites,” *Procedia Computer Science*, Vol. 132, pp. 849-862, 2018, <https://doi.org/10.1016/j.procs.2018.05.097>, **Scopus Indexed**.
7. Shakuntla Boora, S.K Agarwal, K.S Sandhu, “Traditional PI and FPIL Based VFCU for an Isolated Induction Generator (IIG),” *International Journal of Intelligent Systems and Applications, MECS*, **Scopus Indexed**, Vol.9, No.12, pp. 10-19, Dec 2017, DOI: [10.5815/ijisa.2017.12.02](https://doi.org/10.5815/ijisa.2017.12.02).
8. Shakuntla Boora, “On-set theory of self-excitation in Induction Generator”, *International Journal of Recent Trends in Engg* , Vol. 2, Issue 5, Nov2009, pp. 325-330, November 2009.

9. Shakuntla Boora, "Analysis of self-excited induction generator under balanced or unbalanced conditions", *International Journal of Recent Trends in Engg.*, Vol.3, No.3, pp. 59-63, May 2010
10. Shakuntla Boora, S.K Agarwal, K.S Sandhu, "Dynamic D-Q axis modelling of three-phase asynchronous machine using MATLAB," *International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, IJAREEIE*, **UGC Approved**, Vol. 2, Issue 8, pp. 3942-3951, August 2013.
11. Shakuntla Boora, "Performance Assessment Techniques for the 3-phase IAG," *IJEAT*, Blue Eyes Publisher, **UGC Care Approved**, Vol.9, Issue 2, Dec 2019.
12. Shakuntla Boora, "Voltage and Frequency Regulation Schemes for an IAG Feeding Balanced/Unbalanced Loads," *Compliance Engineering Journal CEJ*, **UGC Approved**, Volume 10, Issue 12, pp.586-597, December 2019.
13. Shakuntla Boora, Chander Sain and Chetan, "Simulation of HCA Based MPPT control of PV System, *Compliance Engineering Journal CEJ*, **UGC Approved**, Vol.11, issue 1, pp. 48-51, 2020.
14. Shakuntla Boora, S.K Agarwal, K.S Sandhu, "Electronics based Dump load Controller for an Grid Isolated Asynchronous Generator (GIAG)," *International Journal on Emerging Technologies*, Vol.2, pp. 9-14, August 2015.
15. Shakuntla Boora, S.K Agarwal, K.S Sandhu, "Matlab Simulation Based Study Of Various Types Of Faults Occurring In The Transmission Lines," *International Journal of Engineering Research and Technology, IJERT*, Volume.8, Issue. 12, pp. 131-134, December 2019.
16. Shakuntla Boora, Geetanjali Dass, "Simulink Modelling of Induction Machine Performance in Different reference frames," *International Journal of Electronics, Electrical and Computational System, IJEECS*, **UGC Approved**, Volume 5, Issue 4, pp.1-5, April 2016.
17. Shakuntla Boora, S.K Agarwal, K.S Sandhu, "Analysis of self-excited induction generator under balanced or unbalanced conditions," *International Journal on Electrical and Power Engineering, ACEEE*, Vol.3, No.3, pp. 59-63, May 2010.
18. Shakuntla Boora, K.S Sandhu and P.R Sharma, "Excitation requirement for an isolated three-phase star-connected induction generator," *Int. J. of Recent Trends in Engineering and Technology, ACEEE*, Vol. 4, No.3, Nov 2010.
19. Shakuntla Boora, Geetanjali Dass, "The Dynamic Modelling of Self-Excited Induction Generator," *International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering IJAREEIE*, Vol.5, Issue 6, pp. 5178-5187, August 2016.
20. Bhanu Bhatla, Shakuntla Boora, "An analytical approach to find size of Distributed Generator for allocation in Radial Distributed Networks," *International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering IJAREEIE*, Vol.5, issue7, pp. 6073-6082, July 2016.
21. Shakuntla Boora, "Analysis of three-phase star connected Isolated asynchronous generator," *IJEET*, pp. 133-141, 2016.
22. Shakuntla Boora, S.K Agarwal, K.S Sandhu, "Analytical and Experimental Investigations of Shunt Capacitor-Stimulated Induction Generator (SCSIG)," *International Journal Series in Engineering Science*, Vol. 4, pp.1-25, 2018.

23. Shakuntla Boora, "Voltage and Frequency Regulation Schemes for an IAG Feeding Balanced/Unbalanced Loads," *Compliance Engineering Journal CEJ*, **UGC Approved**, Volume 10, Issue 12, pp.586-597, December 2019.
24. Shakuntla Boora, Geetanjali Dass, "Simulink Modelling of Induction Machine Performance in Different reference frames," *International Journal of Electronics, Electrical and Computational System, IJEECS*, **UGC Approved**, Volume 5, Issue 4, pp.1-5, April 2016.

International / National Conferences Attended:

1. Shakuntla Boora, S.K Agarwal, K.S Sandhu, "Implementation of Mamdani type FIS and PI based 3-legged VSI Controller for an Asynchronous Generator(AG)," IEEE Conference *SPIN 2020*, **Scopus Indexed**, 27-28 February 2020.
2. Shakuntla Boora and Geetanjali Dass, "Review on Induction Machine Analysis," *National Conference: NHTSEE*, 9-10 March 2017, YMCAUST, Faridabad
3. Shakuntla Boora, Amandeep Kaur and Shalini," Solar Power Way Better than Methane: Its Potential and Future Prospects," *National Conference: Energy Sustainability: Sources, Expectations and Uncertainties (NCESSU)*, 9-10 March 2018.
4. Shakuntla Boora, S.K Agarwal, K.S Sandhu, "Self-excitation Phenomenon in an Isolated Induction Generator," *National Workshop on Nanotechnology and Embedded Systems*, 23rd July to 3rd August 2012.
5. Shakuntla Boora, Abhinesh, "Different operating modes of induction machine," *National conference Role of Science and Technology towards 'Make in India'*, 23rd July to 3rd August 2012.
6. Nitin Goel, Shakuntla Boora & Sunil Jadav, "Diagnose of Transformer Using DR Technique", *National Conference on Recent Technologies in Electronics*, VCE Meerut April 2011.
7. Shakuntla Boora, "Review of Electric Motor towards the Advancement in Automobile Sector", International Conference on Advances in Sustainable Energy, Environment and Engineering, ICASEE 2021, **ISBN: 978-93-91681-04-3**, April 16-17, 2021.
8. Shakuntla Boora and Neha Jadaun, "A STATCOM based control Scheme for Grid Connected Wind Energy System for Power Quality Improvement", International Conference on Advances in Sustainable Energy, Environment and Engineering, ICASEE 2021, **ISBN: 978-93-91681-04-3**, April 16-17, 2021.
9. Shakuntla Boora, "Review of Different Methods of Speed Control of Brushless DC Motor", International Conference on Advances in Sustainable Energy, Environment and Engineering, ICASEE 2021, **ISBN: 978-93-91681-04-3**, April 16-17, 2021.
10. Shakuntla Boora, " SVPWM Technique Operated Matrix Converter for the Speed Control Of the Induction machine", International Conference on Advances in Sustainable Energy, Environment and Engineering, ICASEE 2021, **ISBN: 978-93-91681-04-3**, April 16-17, 2021.
11. Shakuntla Boora, "SPWM Operated Inverter", International Conference on Advances in Sustainable Energy, Environment and Engineering, ICASEE 2021, **ISBN: 978-93-91681-04-3**, April 16-17, 2021.
12. Jalaj Tayagi, Poonam Singhal, Shakuntla Boora and Atma Ram, "Vehicle a Game Changer Technology in Automobile Sector-An Extensive Review," International Conference on Integrated Approaches in Science and Technologyfor Sustainable Future, IASTSF, 2022, Feb 28-March 01, 2022.

13. Shiva Singh and Shakuntla Boora, "Arduino Based Battery Thermal Management for Electric Vehicle, IASTSF, 2022, Feb 28-March 01, 2022.
14. Jalaj Tayagi, Sumit Kumar Yadav, Shakuntla Boora, "Implementation of Battery and Ultra capacitors Based storage for Electric Vehicle System, 7-9 Oct 2022, IEEE, GCAT 2022.
15. Yash Tayagi, Shakuntla Boora and Poonam Singhal, "A Performance Analysis Based Comprehensive Review of Permanent Magnet Brushless DC Motors," ICETESTB, May10-11, 2023.
16. Himanshu Gera, Shakuntla Boora , Poonam Singhal and Yogendra Arya, "An Insight into Techno-Economic and Feasibility Analysis of Wind/Solar Integrated System-A Review," ICETESTB, May10-11, 2023.
17. Shintu, Sujit Kumar, Yash Tyagi and Shakuntla Boora, "Design and Development of PWM Based Speed Controller for PM-BLDC Motor," ICETESTB, May10-11, 2023.
18. Akash Yadav¹, Hardik Khatri¹, Kashish Nagpal¹, Shakuntla Boora and Poonam Singhal, "A Implementation of Dc Microgrid Integrated with Renewable Energy Sources," in 5th International Conference on Recent Developments in Control, Automation & Power Engineering (RDCAPE-2023) from 12-13th Oct 2023.
19. Prateek Nara, Shakuntla Boora, Poonam Singhal, "A Literature Review on Smart Cities," National Conference on G20 India: Vasudhaiv Kutumbakam (One Earth One family One Future) on 5th October 2023.
20. Mayank Bansal¹, Kartikey Dahiya², Mukul Bansal³, Shakuntla Boora⁴, "Detection Strategies for Preventing Cyber Attacks in Smart Grids: A Comprehensive Literature Review," ISFT 2024.

Book Chapter:

1. Sumit Kumar Yadav, Shakuntla Boora and Nitin Goel, "A Hybrid approach to PMBLAC machine for High speed mobility," Lecture Notes in Electrical Engg, AICTE sponsored International Conference on Recent Developments in Electrical and Electronics Engineering, ICRDEEE, 2022, April 2023
2. Sujit Kumar, Shakuntla Boora, Poonam Singhal, "Comparative study and Performance Analysis of Various Fibonacci pattern of Solar Photovoltaic Tree-An Extensive Review", Lecture notes in Network System: Advances in Information Communication Technology and Computing, May 2023.

Patents Details

1. **Utility Patent Published on** Regenerative Hybrid Energy Storage System for Electric Vehicles vide **Application Number:** 202211073672 dated 30/12/2022 from The Patent Office Govt. of India
2. **Design Patent Granted on** Smart Dustbin vide Design Number 378751-001 dated 06/02/2023 from The Patent Office Govt. of India
3. **Design Patent Granted on** Energy Efficient Electric Cycle vide Design Number 406597-001 dated 05/02/2024 from The Patent Office Govt. of India
4. **Design Patent Granted on** Three-Wheeler E Rickshaw vide Design Number 403753-001 dated 04/01/2024 from The Patent Office Govt. of India
5. **Design Patents Filed on** Light Weighted Surveillance Drone vide **Application Number:** 405534-001 on Jan 2024.

Project Details

University Project: Renewable Energy Solutions for University Premises

- **Amount Sanctioned:** 60,000/-
- **Duration:** 2 years (5th April 2021-5th April 2023)
- **Status:** Completed

Book Published:

1. Fundamentals of Solar Photovoltaic Power Systems, ISBN: 978-93-5757-703-8.
2. AI Tools for Research, ISBN 978-81-975273-8-8

Awards:

- Got the Research Excellence Award 2023 for the publication entitled “A Takagi-Sugeno (T-S) Type FIS controller for an Autonomous Induction Generator (AIG)” in IETE Journal of Research by InSc Institute of Scholars.

Reviewer of International Journals

- Journal of The Institution of Engineers (India): Series B
- American Journal of Electrical and Computer Engineering
- InSc International Publishing Platforms
- IEEE /International/National Conferences

FDP Conduction:

- Received an amount of Rs. 93,000/ from AICTE Training and Learning (ATAL) for conducting an online FDP on “Digital Circuit Implementation using Zynq FPGA IC” held from 16/09/2020 – 20/09/2020.

Short Term Courses/ Workshops/Seminar Attended:

Sr.No	Title	Organized by	Session
1.	Attended National Conference on Science in Media (SIM 2012)	YMCAUST, Faridabad	03-04/12/2012
2.	Application of Artificial Intelligence Tools in Power System	YMCAUST, Faridabad	19-25/06/2012
3.	Simulation of Data Analysis	GBU, Greater Noida	09-14/07/2012
4.	Nanotechnology and Embedded Systems	YMCAUST Faridabad	23/07/2012-03/08/2012
5.	Analog Electronics	KIIT, Gurgaon	01-14/06/2013
6.	Cyber Forensics and Information Security	YMCAUST, Faridabad	25-27/09/2013
7.	Soft skills and Personality Development	YMCAUST, Faridabad	15-21/07/2014
8.	MATLAB and SPSS in Research	YMCAUST, Faridabad	22-28/07/2014
9.	Attended a two-day BARC Outreach programme on Atomic Energy: Gearing up for Future	YMCAUST, Faridabad	2-3/09/2014
10.	Artificial Neural Network	YMCAUST, Faridabad	25-29/04/2016
11.	STC on Research Methodology	YMCAUST Faridabad	6-17/06/2016
12.	STC on MATLAB and SIMULINK	YMCAUST Faridabad	18-22/07/2016
13.	STC on Environment, Development and Sustainability	YMCAUST Faridabad	4-8/07/2016
14.	Big Data Analytic, data Text Mininig	YMCAUST, Faridabad	19-24/12/ 2016

15.	Attended a Workshop/Seminar on Women Health Awareness and Depression	Deptt. Of Electronics Engg. In collaboration with Rotary Club of Faridabad-Sanskar	07/04/2017
16.	Workshop on Geo-spatial approach in power sector	NPTI, Faridabad	8/12/ 2017
17.	Intelligent Management of Renewable Energy Technologies	YMCAUST, Faridabad	18-23/1/ 2018
18.	Real time data acquisition and analysis using LAB VIEW	YMCAUST, Faridabad	08- 12/05/2017
19.	Automation: PLC and SCADA	YMCAUST, Faridabad	17-21/1/ 2017
20.	MATLAB Application in AI	YMCAUST, Faridabad	6/2/ 2017
21.	Data Science and Big Data Analytics	Computer Deptt	28-1/8/2018
22.	Curriculum Implementation	Electronics Deptt	8-12/10/ 2018
23.	Embedded World	YMCAUST, Faridabad	26-30/11/ 2018
24.	Graphics and Animation for Instructional Material Development	YMCAUST, Faridabad	11.-15/02/2019
25.	Next Generation Power Converters: Design, PWM Strategy and Control	IIT Delhi	1-5/7/2019
26.	Hands on training on Design and Fabrication of PCB	JCBUST, YMCA, Faridabad	18-24/06/2019
27.	How to write a good research paper and using E-resources effectively	JCBUST, YMCA, Faridabad	17-20/01/ 2020
28.	NPTEL Workshop	IIT Madras and JCBUST, YMCA, Faridabad	31/1/ 2020
29.	Digital Transformation in Teaching Learning process	TEQIP-3 Online Certificate, NPTEL	6 – 22/4/2020
30.	Webinar on “GEM Sustainability Certification Program and Briefing on GEM Certified Professional (GEM CP) Online Exam”	ASSOCHAM INDIA	27/6/2020
31.	Online Quiz Competition on “ Industrial Electronics and Drives”	ADCET, Astha	06/07/2020
32.	National level online Quiz on “Electrical safety”	AISSMS COE Pune in association with MSEDCL	07/06/2020
33.	National Webinar on “Effective and Efficient writing of Research papers for Web of Science, Scopus Indexed Journal and Conference papers using Typeset Research Studio”	AISSMS COE Pune	01/07/2020
34.	Live Webinar on “How to Publish a High Quality technical Journal Paper”	IEEE	24/04/2020
35.	Quiz on “Chhatrapati Rajarshi Shahu Maharaj	AISSMS COE Pune	26/06/2020
36.	ISTE and IEI approved National Level one week online FDP on “ Advanced Teachnig Tools, techniques and Methodologies for Outcome based Education	AISSMS COE Pune	1-5/06/2020
37.	Active participation in “ Online earth Week Challenges Amid COVID-19”	Deptt of Enviornmental Science, JCBUST ,YMCA, Faridabad	22-29/04/2020
38.	Online international Symposium on COVID 19 and Beyond: The new Normal in HEIs.	IQAC, JCBUST YMCA Faridabad	10/6/2020
39.	A Webinar on Industry 4.0 Thinking with ThingworX Platform for IIOT4.0	Electrical Engg Deptt, JCBUST, YMCA Faridabad	22/6/2020
40.	A Webinar on “ Artificial intelligence, machine learning and Robotics: A Paradigm for new generation”	Electrical Engg Deptt, JCBUST, YMCA Faridabad	19/6 2020
41.	A Webinar on “Building motivation and Nuturing Opportunities: Post COVID 19 lockdown- A Special talk to Parents and Students	Electrical Engg Deptt, JCBUST, YMCA Faridabad	20/6/ 2020

42.	One Week online Staff Development Programme (SDP) on Computer Skills and ICT tool “Google Classroom”	Electrical Engg Deptt, JCBUST, YMCA Faridabad	10-14/7/ 2020
43.	Attended AICTE sponsored FDP on “ Power Electronics Aplcations in microgrid and electric vehicle Systems”	Electrical Engg Deptt, JCBUST, YMCA Faridabad	1-6/03/ 2021
44.	TEQIP-III sponsored PDTP	IIM Jammu	17-19 /03/ 2021
45.	TEQIP-III Sponsored Green Technology	Deptt of Electrical Engg. JCBUST. YMCA, Faridabad	18- 20/07/2020
46.	Hands on Workshop on Virtual Labs	At JCBUST, YMCA Faridabad	3/06/2021
47.	Process of Writing and Publishing Quality Research Papers in Indexed Journals	Deptt of Electrical Engg. JCBUST, YMCA, Faridabad	7/07/2021
48.	4 days Training Programme on Laboratory Management Systems and Internal Audit as per IS/ISO/IEC17025:2017	Belz Training Institute	26-29.08.21
49.	Six days STTP on Electric Vehicle Techniques with OPAL RT Solutions	Deptt of Electrical Engg. JCBUST, YMCA, Faridabad	20-25/12/2021.
50.	two days Online Workshop on “Design and Development of Electric Vehicle using ANSYS”,	Deptt of Electrical Engg. JCBUST, YMCA, Faridabad	26-27/11/ 2021
51.	Webinar on “Machines (Electrical Engineering)”, 4th	Deptt of Electrical Engg. JCBUST, YMCA, Faridabad	4/12/ 2021
52.	Webinar on Converting Research to Patents	Deptt of Electrical Engg. JCBUST, YMCA, Faridabad	4/03/2022.
53.	One week FDP on “Recent Advancements in Power Electronics and Drives for the Integration of Future Energy Sources.	Deptt of Electrical and Electronics Engg, Lendi Institute of Engineering and Technology, Jonnad, Vizianagaram, AP India	19-24/12/2022
54.	FDP on Recent Trends in Electric Vehicle Technology	Online mode	19-23/06/2023
55.	FDP on E-Mobility and Associated Power Electronics	Online mode Organised by Electrical and Electronics Engg Ajay Kumar Garg Engineering College, Ghaziabad	21- 25/08/2023
56.	3-day Face-to-Face FDP on the theme “Inculcating Univer Human Values in Technical Education	Organised by All India Council for Technical Education (AICTE) at JC Bose University of Science and Technology YMCA Faridabad	13-15/10/2023
57.	One day Karam Yogi Training	JCBUST YMCA Faridabad	23/01/2024
58.	AICTE Recognized Faculty Development Programme NEP-2020: Science and Technology	Organised by Applied Science Deptt, NITTTR Chandigarh	13-17/05/2024

Project Supervision:

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|--------------------------|----------------|
| 1. Ph.D: | 01 Ongoing |
| 2. M.Tech Minor Project: | 16 (Completed) |
| 3. M.Tech Dissertation: | 16 (Completed) |
| 4. M.B.A. Project : | 03 (Completed) |

ACHIEVEMENTS:

1. **One Utility Patent Published on** Regenerative Hybrid Energy Storage System for Electric Vehicles vide **Application Number:** 202211073672 dated 30/12/2022 from The Patent Office Govt. of India
2. **Three Design Patent Granted** from The Patent Office Govt. of India with brief details below:
 - i) Smart Dustbin (Design Number 378751-001, dated 06/02/2023)
 - ii) Energy Efficient Electric Cycle (Design Number 406597-001 dated 05/02/2024)
 - iii) Three-Wheeler E Rickshaw (Design Number 403753-001 dated 04/01/2024)
3. **One Design Patent Filed on** Light Weighted Surveillance Drone vide **Application Number:** 405534-001 on Jan 2024.
4. Conducted a Community Outreach Skill Development Programme (COSDP) on “**Domestic Manufacturing of Show Lights (LED lights) for Rural and Underprivileged People - A Start-Up Concept Idea**” by the Department of Electrical Engineering under MoU with Bareja Solar and Projects Pvt Limited from 6-10/11/ 2023.
5. Got the Research Excellence Award 2023 for the publication entitled “A Takagi-Sugeno (T-S) Type FIS controller for an Autonomous Induction Generator (AIG)” in IETE Journal of Research by InSc Institute of Scholars
6. Chaired Session in International Conference on Smart Generation Computing, Communication and Networking (SMART GENCON 2022) during 23-25/12/2022 organized by IEEE Bangalore Section.
7. Successfully completed 4 days Training Program & Internal Audit on “Laboratory Quality Management System as per IS/ISO/IEC 17025:2017 (NBQP REGISTERED) from 26-29/08/2021.
8. Committee member for HAREDA award won by Electrical Engg. Dept, JCBUST, YMCA.
9. Got certificate of Commendation for Contribution and Visionary Guidance in Developing Employment by Bharti Global Education Society during academic year 2020-2021.
10. Got certificate of Appreciation from AICTE Training And Learning (ATAL) Academy for successfully coordinated ATAL Online Faculty Development Programme on "Digital Circuit Implementation Using Zynq FPGA IC" during 16-20 September 2020.
11. Got certificate of Appreciation for two papers publication in Scopus Index journal during the year 2017 and 2018.

Responsibilities/Positions held at University/ Department Level University/Department

1. Worked as Power System Lab In-charge
2. Worked as Sessional Exam Coordinator (2016-2022)
3. Worked as Time Table Co-coordinator (2016-2018)
4. Worked as AICTE and UGC Coordinator (2016-2018)
5. Worked as Remedial class coordinator (2012-till date)
6. Working as a Member of Department Purchase Committee (2020 to 2024)
7. Worked as Power Quality Lab In-charge
8. Working as CBS Coordinator (2019-2022)

9. Working as Mtech Coordinator (2020-2022)
10. Worked as NBA Co-coordinator (2021)
11. Worked as NBA Co-coordinator (2020)
12. Member and Member Secretary of Board of Studies UG (2022)
13. Member and Member Secretary of Board of Studies PG (2022)
14. Member of Faculty of Engineering and Technology (FET)
15. MOU Coordinator of Bareja Solar
16. MOU Coordinator of Reckers and Mechatronics
17. BET Lab In charge (2023 to till date)
18. Member of anti-ragging squad
19. Departmental AQAR Coordinator (2022-till date)
20. Departmental NBA Criteria 3 Coordinator (2024)
21. Member of Document verification committee at both UG and PG level during admissions
22. Worked as Centre Superintendent and Deputy Centre Superintendent during End Semester Exams.

Membership of Technical Societies

1. Institution of Engineering and Technology (IET)
2. LM of Institute of Engineers (India): M-1537444
3. LM of IAENG International Association of Engineers: 168089
4. The Indian Science Congress Association: L 29244
5. The Indian Society for Technical Education: LM-111437
6. LM of InSc International Publisher

Activities conducted

1. Conducted Expert Lecture on “**Three Secrets about The Electric Vehicle**” on 06/08/2024.
2. Conducted a value-added course in “**Power Electronics Circuits Simulation using LT Spice and MATLAB Simulink**” during the session from January to May 2024.
3. Conducted Value Added Course in “**MS Office for Report Writing and Presentation**” during July-Dec 2022 session.
4. Conducted a Community Outreach Skill Development Programme (COSDP) on “**Domestic Manufacturing of Show Lights (LED lights) for Rural and Underprivileged People - A Start-Up Concept Idea**” by the Department of Electrical Engineering under MoU with Bareja Solar and Projects Pvt Limited from 6th November to 10th November 2023.
5. Conducted an Expert Lecture on “**Plastics- Boon or Curse**” under MoU with Bareja Solar and Projects Private Limited on 15th sept 2023.
6. Conducted an Expert lecture on “**Electric Vehicle: A future Projection for India Automobile Segment**” on 15th Sept 2022 for the UG/PG students by Er. Ankur Mittal, Manager and Program Leader- Energy Management ICCM

7. A national quiz will be conducted in association with Vigyan Bharti (VIBHA). It will be consisting of 50 MCQ questions related with Smart Grid and Renewable energy and will be conducted.
8. Conducted an expert lecture on “**Plastics- Boon or Curse**” under MoU with Bareja Solar and Projects Private Limited on 14th Sept 2023.
9. Conducted an expert Lecture On “**E-House: Recent Trends in Substation Design**” on 4th Sept 2023 by Mr. Hemkant Rajput, Senior Manager - Customer Satisfaction & Quality, Global Customer Project, Global Operations at Schneider Electric.
10. Conducted an expert lecture on “**Career Opportunities after B.E/B.Tech**” by ACE Engineering Academy, Delhi on 31st Oct, 2023.
11. Conducted an expert lecture on “**Basics of Electric Vehicle Trends and Future Prospects**” on 20 Oct 2023 by Mr. Vinod Chaudhary, Managing Director, Elite Auto Engineers Private Limited.
12. Conducted an Expert Lecture on “**Role of cable impedance in functioning of controls**” on 29/11/2022 by Dr. (Er. Prof) Raj Kumar Singh, a YMCIAN member of 1983 EMPA batch.
13. Member of the organising committee (co-convenor) for the expert lecture on “**Impact of the Bulk Power System Operation due to High Penetrated DERs at DN and Interoperability as a key for TSO-DSO interaction**” organised by International Affair Cell in coordination with Electrical and Electronics Engg. Deptt. on 16/08/2023 at JCBUST YMCA Faridabad in Online mode.
14. Conducted an expert Lecture on “**Detection and Design of False Data Injection Attack on Cyber Physical System**” 09/08/2022 by Dr. Arpan Chattopadhyay, Department of Electrical Engineering, IIT Delhi
15. Conducted an Industrial Visit to “**Bareja Solar and Projects Private Limited**” under MoU.
16. Member of organising team of “**Youth Action for Climate Correction (YACC)- Energy Literacy Training for Youths**” organised by AICTE in association with Energy Swaraj Foundation (SWF).
17. Conducted an **55th Engineer’s Day Celebration** in association with Institution of Engineers (India) and Vigyan Bharti, Haryana (VIBHA) on 15th September 2022.
18. Conducted AICTE Sponsored Online Short-Term Training Programme on “**Electric Vehicle Techniques with OPAL RT Solutions**”, 20-25 December 2021.
19. Conducted two days Online Workshop on “**Design and Development of Electric Vehicle using ANSYS**”, 26-27 November 2021.
20. Conducted a Webinar on “**Converting Research to Patents**”, 4th March 2022.
21. Conducted a Webinar on “**Machines (Electrical Engineering)**”, 4th December 2022.

22. Conducted six days AICTE Training and Learning (ATAL) Sponsored FDP on “**Digital Circuit Implementation Using Zynq FPGA IC**”, 16-20 September 2020.
23. Conducted TEQIP-III sponsored Faculty Development Program on “**Green Technology**”, 18-20 July 2020.
24. Conducted Online Staff Development Programme (SDP) on “**Basic computer skills and ICT Tool "Google Classroom"**”, 10-14 July, 2020.
25. Conducted a National Quiz on “**Renewable Energy for Sustainable Development in India**”, 17 June 2020.
26. Conducted a Webinar on “**Solar Pumping Technology -A Boon for Agricultural Sector**”, 8th May 2020.
27. Conducted a TEQIP-III sponsored Workshop on “**Hands on training on Design and fabrication of PCB**”, 18-24 July 2019.
28. Conducted a six days STTP on “**AutoCAD for engineers with PLC Basics**”, 25/06/21 to 02/07/2021.
29. Conducted an Online National webinar on “**Process of Writing and Publishing Quality Research Papers in Indexed Journals**”, 7th July 2021.
30. Conducted an **International Conference on Advances in Sustainable Energy, Environment and Engineering, ICASEE-21**, 16-17 April 2021.
31. Member of organizing committee of National Conference on “**New Horizons in Technology for Sustainable Energy and Environment**”, 9-10 March 2017.
32. Member of organizing committee of National Conference on “**Role of Science and Technology towards Make in India**”, 5-7 March 2016.
33. Member of organizing committee of International Conference on “**Recent Developments in Electrical and Electronics Engineering**”, ICRDEEE, 2022, April 15-16, 2022.
34. Member of organizing committee of International Conference on “**International Conference on Integrated Approaches in Science and Technology for Sustainable Future, IASTSF, 2022**”, Feb 2-March 01, 2022.
35. Member of organizing committee in the short-term course on “**Electric Vehicle technologies**”, August 07-11, 2023.
36. Member of organizing committee in one day exhibition on “**Renewable Energy and Energy Conservation**”, organised by J.C Bose University of Science and technology, YMCA, Faridabad in collaboration with New and Renewable Energy department, HAREDA held on 28th Feb, 2023.

37. Member of organizing committee in the AICTE-ATAL sponsored Faculty Development Programme on “**Advancing Renewable Energy Technologies for Sustainable E-Mobility**”, conducted by the Department of Electrical Engineering, J.C. Bose University of Science and Technology, YMCA, Faridabad (Haryana) during 29.01.24 to 03.02.24.

Expert Lectures Delivered:

- Delivered a talk on “**MS PowerPoint**” in One Week Online Staff Development Program (SDP) on Basic Computer Skills and ICT Tools “Google Classroom” conducted by the Department of Electrical Engineering, JCBOSEUST, YMCA, Faridabad during July 10-14, 2020.
- Conducted a session and delivered an expert lecture on “**Basics of Microsoft Excel**” dated 14/10/2022 as part of the Value-Added Course titled “MS-Office for Report Writing and Presentation” organised by the Department of Electrical Engineering, J.C. Bose University of Science and Technology, YMCA, Faridabad during the session July-Dec 2022.
- Conducted a session and delivered an expert lecture on “**Role of MS-Office in Technical Writings and Presentations**” dated 30/09/2022 as part of the Value-Added Course titled “MS-Office for Report Writing and Presentation” organised by the Department of Electrical Engineering, J.C. Bose University of Science and Technology, YMCA, Faridabad during the session July-Dec 2022.
- Delivered a talk on “**Introduction of various Hybrid drive train topologies and its power flow control**” in the Department of Electrical Engineering, JCBOSEUST, YMCA, Faridabad during 24th November 2022.
- Delivered a talk on “**Solar power applications**” in the Department of Electrical Engineering, JCBOSEUST, YMCA, Faridabad during 24th November 2022.
- Delivered a talk on “**Solving Simple DC Circuits using LTspice**” as part of value-added course titled “LTspice circuit simulation and Analysis Fundamentals” in the Department of Electrical Engineering, JCBOSEUST, YMCA, Faridabad during Oct-Nov 2023.
- Delivered a talk on “**Analysis of Circuits with Switching components in LTspice**” as part of value-added course titled “LTspice circuit simulation and Analysis Fundamentals” in the Department of Electrical Engineering, JCBOSEUST, YMCA, Faridabad during Oct-Nov 2023.