# **Curriculum Vitae**



Name	Sakshi Kalra
Designation	Associate Professor
Department	Electrical Engineering
Date of Joining	Jan 2008
Qualification	B.E (Instrumentation and Control)
	M.Tech (Power System)
	Ph.D.
Area of interest	Power Quality, Control Systems
Teaching Experience	17 Years
E-mail	sakshi@jcboseust.ac.in ,sakshibangia@gmail.com,

### PUBLICATIONS

List of papers published in International/National Journals and Conferences:

- 1. Sakshi Bangia, Sachin Sharma,"DTC Control of Induction Motors Employing Advanced Control Techniques. Journal of Harbin University, Vol 45 No. 4, April 2024
- 2. Gaurav Chauhan, Sakshi bangia," Performance Evaluation of DG Interconnected Radial Distribution System. International Journal of Intelligent Systems and Applications in Engineering, 12(21s), 2120–2126, March 2024
- 3. Rupali Sinha, Sakshi Bangia," Development of a Wireless Charging System Prototype for Electric Vehicles in Motion" Journal of University of Shanghai for Science and Technology, Volume 26, Issue 5, May 2024
- 4. Ritika Thusoo, Sheilza Jain, Sakshi Bangia," An evaluation of UAV path following and collision avoidance using NFMGOA control algorithm", wireless personal communication, vol 122, Issue 2,2021

- 5. Rupali Sinha, Sakshi Bangia, "Performance Analysis of Electric Vehicle Based on various working Scenarios" International Transaction of Engineering management and Applied Sciences and Technologies ,Vol 1 2021
- 6. Gaurav Chauhan, Sakshi Bangia, "Performance Evaluation of DG in Distribution System: An Extensive Review", International Transaction of Engineering management and Applied Sciences and Technologies ,Vol 2 2021
- 7. Ritika Thusoo, Sheilza Jain, Sakshi Bangia "Quadrotors in the Present Era: A Review" Information Technology In Industry, Vol9 2021
- 8. Ritika Thusoo, Sheilza Jain, Sakshi Bangia "PID Control of Quadrotor", Advances in Communication and Computational Technology, Book chapter Springer LNEE, vol 668
- Ritika Thusoo, Sheilza Jain, Sakshi Bangia "PID and MRAC control of a Quadrotor"-3rd International Conference on Recent Developments in Control, Automation & Power Engineering Oct 2019
- 10. Rupali Sinha, Sakshi Bangia "A review: Electric vehicles charging system", 8th International symposium on fusion of Science and Technology Jan 2020.
- 11. Sakshi Bangia, Pooja Dalal "Voltage Flicker Compensation Using STATCOM to Improve Power Quality" National Conference on Role of Science and Technology Towards Make in India, RSTTMI-2016, 3-5 March 2016
- 12. Sakshi Bangia, Sarika Kumari "Design and Analysis of Single-Phase Inverter Controlled by PI Controller" National Conference on Role of Science and Technology Towards Make in India, RSTTMI-2016, 3-5 March 2016
- Sakshi Bangia, Jyoti "Adaptive Controller for Speed Control of Dc Motor "National Conference on Role of Science and Technology Towards Make in India, RSTTMI-2016 ,3-5 March 2016
- 14. Sakshi Bangia, Shuchi Singh, "Analysis and Controlling Water Level of Two Input and Two Output Interacting Tank System" National Conference on Role of Science and Technology Towards Make in India, RSTTMI-2016, 3-5 March 2016
- 15. Sakshi Bangia, Neha Aggarwal, "Gain Scheduling Control of Infante UAV Using LMI" International Journal of Science, Engineering and Technology Research (IJSETR), Volume 5, Issue 3, March 2016, 749
- Sakshi Bangia, Komal Sharma," Development of Modified Smith Predictor Design for Compensation of Time", International Journal of Research, Volume 2, Issue 8 page 766-776, August 2015
- 17. Sakshi Bangia, Neha Aggarwal "Depth Control of Autonomous Vehicle using MPC" International Journal of Research, Volume 2, Issue 8, August 2015
- Sakshi Bangia, Neha Aggarwal, "Robust Smith Predictor Design for Time Delayed Processes" The International Journal of Engineering and Science Research August 2015/ Vol-5/Issue-8/1017-1024
- Sakshi Bangia, "Design and Analysis of LQR on D-STATCOM", International Journal of Innovative Research in Science, Engineering and Technology, Vol. 4, Issue 6, June 2015
- 20. Sheilza Jain, Sakshi Kalra, Komal Sharma, "Design and Analysis of Smith Predictor Compared with PI Controller, IJSER, Vol. 5 (5), May 2015.

- Sakshi Bangia, Sheilza Jain, Neha, "DC Motor Control System Using Model Predictive Controller", International Research Journal of Engineering and Technology (IRJET), Vol. 02 (2), May-2015.
- 22. Sheilza Jain, Sakshi Bangia, Ashish Kumar, Identification and Position Control of Nano positioning System using Double Integral Action, International Journal of Engineering Technology, Management and Applied Sciences, May 2015, Volume 3, Issue 5, ISSN 2349-4476.
- 23. Sheilza Jain, Sakshi Kalra, Jitendra Kumar Goyal, "System Identification and Creep Compensation of Nano positioning System Using Proportional and Double Integral Action", International Journal of Advanced Research in Computer and communication Engineering, Vol. 4, Issue 5, May 2015.
- 24. Sheilza Jain, Sakshi Bangia, Jitendra Kumar Goyal, "Tracking Control of Nano positioning System Using Proportional and Double Integral Action", International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395 -0056 Volume: 02 Issue: 02 | May-2015.
- 25. Sakshi Bangia, P.R. Sharma, Maneesha Garg," Reduction in the Transient Time of Shunt active filters using intelligent controllers", International Journal of Soft Computing, Mathematics and Control, Vol. 2, No 2, May 2013.
- Sakshi Bangia, P.R. Sharma, Maneesha Garg," Novel Control Strategies for Distributed Active Filters", Electrical and Electronics Engineering: An International Journal (ELELIJ) Vol 2, No 1, February 2013
- 27. Sakshi Bangia, P.R. Sharma, Maneesha Garg," Simulation of fuzzy logic-based shunt hybrid active filter for power quality improvement", International journal of Intelligent system and application, Vol 02, page 96-104, Jan 2013.
- 28. Sakshi Bangia, P.R. Sharma, Maneesha Garg Comparison analysis of shunt active filter and transformer less parallel hybrid active filter International conference on artificial intelligence, soft computing ,2013 Bangalore, India (springer conference)
- 29. Sakshi Bangia, P.R. Sharma, Maneesha Garg," A Novel Control Strategy for Enhancement of Power Quality Using Fuzzy Logic", International Journal of Instrumentation and Control Systems (IJICS), Vol.2, No.4, October 2012
- 30. Sakshi Bangia, P.R. Sharma, Maneesha Garg," Reference current generation using SMC and SRF for power quality", Journal of Electrical Engg, Vol 2, Oct- Dec 2012
- 31. Sakshi Bangia, P.R. Sharma, Maneesha Garg," Design of an optimal PI controller PSO for power quality improvement", International Journal of Engineering Sciences conferences. Paper From proceeding from national conference SIM, YMCAUST DEC .2012
- 32. Sakshi Bangia, P.R. Sharma, Maneesha Garg, "Performance of DSTATCOM using SRF and Energy Based Control Strategy for Power Quality Improvement. IEEE Conference SCES-2012 MNNIT Allahabad
- 33. Sakshi Bangia, P.R. Sharma, Maneesha Garg Fuzzy Logic Based Reduction in the Response Time of Active Filter 2nd International IEEE Conference ICPCES-2012 MNNIT Allahabad

- 34. Sakshi Bangia, P.R. Sharma, Maneesha Garg Comparison of AI techniques for the enhancement of power quality IEEE International conference on power energy and control,2012 Dindigul ,India
- 35. Sakshi Bangia, P.R. Sharma, Maneesha Garg Design of distributed active filet using neural network for enhancement of power quality 3rd IEEE international advance computing conference, 2012 Ghaziabad, U.P
- 36. Sakshi Bangia, P.R. Sharma, Maneesha Garg Distributed active power filter for power quality International conference on energy trends in electrical communication and information technologies, 2012 Anantpur A.P(Elsevier conference)
- 37. Sakshi Bangia, P.R. Sharma, Maneesha Garg," Energy Based Control Strategy for the Reduction in the Response Time of DSTACOM", WSEAS Transactions on Power Systems, Volume 6, Issue 4, October 2011
- 38. Munish Vashistha, Sakshi Bangia, Vijay Singh Design of Power System Stabilizer using single input fuzzy Logic Controller National Conference on "Design Techniques for modern electronic devices, VLSI & Communication System (DTVC-2007) NIT Hamirpur, H.P
- 39. Sakshi Bangia and Richa Khera,, "Power Quality Event Recognition Using S Transform Techniques", National Conference on "Control and Instrumentation NCCI 2007, NIT Kurukshetra, Haryana
- 40. Sakshi Bangia and Richa Khera, "A Single Input Fuzzy Control of AVR in Power System" National Conference on Control and Instrumentation NCCI 2007, NIT Kurukshetra, Haryana

#### **PROFESSIONAL MEMBERSHIP:**

- 1. Life Member of The Indian Society for Technical Education, LM 108045
- 2. Life Member of Institution of Engineering and Technology (IET)- 1100800007
- 3. Life Member of Institution of Engineers (India), M-063746-1
- 4. IEEE membership 97970894 (Till Dec 2023) ,Delhi section
- 5. Life Member of IAENG- 159092.

#### **PROJECT SUPERVISION:**

- 1. Supervised more than 18 M.Tech students
- 2. Presently supervising 3 Ph.D scholars

#### **EVENTS ORGANIZED:**

- 1. Convener of International Conference on Recent Development in Electrical and Electronics Engg, ICRDEEE April15-16, 2022 at JCBUST,YMCA,Faridabad, sponsored by AICTE under GOC Scheme.
- 2. Convener of National Conference on New Horizons in Technology for sustainable Energy and Environment, NHTSEE March 9-10,2017 at YMCAUST, Faridabad.
- 3. Coordinator of International Symposium on Fusion and Technology, 6-10 Jan 2020

- 4. Organizing Committee member of International Conference on Advances in Sustainable Energy, and Engineering (ICASEE 2021) 16-17 April 2021
- 5. Organizing Committee member of National Conference on Role of Science and Technology Towards Make in India, RSTTMI-2016, 3-5 March 2016
- 6. Convenor/Coordinator of various number of workshops, AICTE approved FDPs, STTP and Expert Lectures

# ACHIEVEMENTS:

- 1. Editor of Recent Developments in Electrical and Electronics Engineering: Select Proceedings of ICRDEEE 2022: 979 (Lecture Notes in Electrical Engineering)
- 2. 4 days Training Program & Internal Audit on "Laboratory Quality Management System as per IS/ISO/IEC 17025:2017".(NBQP REGISTERED)
- 3. Successfully Completed Innovation Ambassador Training by innovation cell, Ministry of Education:
- 4. Certificate of Appreciation for outstanding contribution coordination and participation during the Global Student Solar Ambassador Workshop,2<sup>nd</sup> Oct 2019
- 5. Committee member for HAREDA award won by Electrical Engg. Dept, JCBUST YMCA
- 6. Chaired Session in International Conference on Electrical and Electronics Engineering (ICEEE 2020) February 28-29, 2020 ,organized by Galgotia University and NPTI

## **RESPONSIBILITIES UNDERTAKEN:**

- 1. Member Coordinator of Internal Quality Assurance Cell of University
- 2. Member of various Accreditation (NAAC / NIRF ) core team of University
- 3. Coordinator of Unnat Bharat Abhiyan Scheme at University Level (a MHRD initiative)
- 4. Member of Institution Innovation Council (IIC) of University ,an Initiative of MHRD
- 5. Member of Consultation work group at University Level regarding effective teaching learning methodologies.
- 6. Worked as Coordinator of various task of Department like TEQIP Coordinator Academic Audit Coordinator, Internal Examinations Coordinator and many more,
- 7. Actively involved in various cultural, technical and social events organized at University level.
- 8. Organizing member of Various Hackathon organized at University level
- 9. Coordinator of M.Tech /Minor Degree programme(Scheme and Syllabus)
- 10. Member Secretary of Board of Studies of Electrical Engg. Dept.

Sr. No.	Name of Course/ Workshop/ programe Attended	Sponsoring Institution	Duration
1.	Short Term Programe on "AICTE	YMCA Institute of	17/7/06 to
	Sponsored Induction Training	Engg. Faridabad.	28/7/06

# SHORT TERM COURSES ATTENDED

	Programe for Newly Recruited Technical Teachers"		
2.	Workshop on MATLAB	Apeejay college of Engg. Sohna.	2/1 /07 to 8 /1/ 07
3.	Workshop on "Onsite LabVIEW Training"	YMCA Institute of Engg. Faridabad	2/3/09 to 7/7 09
4.	Short Term Training Program on "Recent Challenges in Power Grid Operation And Control"	D.C.R.U.S.T, Murthal	16/5/11 to 20/5/11
5.	Workshop on "Digital Signal Processing & its Application"	IGIT, Delhi.	20/6/11 to 24/6/11
6.	Short Term Training Program on" Design & Analysis of Engineering Experiments"	Gautam Buddha University, Greater Noida.	4/7/11 to 8/7/11
7.	AICTE Staff Development Programe on Flexible A.C. Transmission Systems and Power System Voltage Stability: Recent Advances"	DTU, Delhi	11/7/11 to 22/7/11
8.	AICTE Staff Development Programe on "Recent Advances in Electrical Power & Energy System"	Jamia Millia Islamia, Delhi	9/12/11 to 22/12/11
9.	AICTE Staff Development Programe on Quality Assurance in Teaching Learning Process"	BVIMR, Delhi.	14/5/12 to 27/5/12
10.	Faculty Development Programe on "Application of Artificial Intelligence Tools in Power System"	YMCAUST, Faridabad.	19/6/12 to 25/6/12
11.	ISTE approved Faculty Development Program on "Effective Teaching and Research"	YMCAUST, Faridabad.	7/7/14 to 11/7/ 14
12.	ISTE approved Faculty Development Program on "Soft Skills &Personality Development"	YMCAUST, Faridabad.	15/7/14 to 21/7 /14
13.	Faculty Development Program on "Application of MATLAB and SPSS in Research"	YMCAUST, Faridabad	22/7/14 to 28/7/14
14.	Faculty Development Programe on "Neural Network using MATLAB"	YMCAUST, Faridabad	1/6/15 to 5/6/15
15.	STC on" New Trends in Electronics and Communication"	YMCAUST, Faridabad	17/8/15-21/8/15

16.	AICTE Staff Development Programe on "Communication Skills through ICT"	YMCAUST, Faridabad	11/1/16 to 15/1 16
17.	Faculty Development Programe on" Environment, development and sustainability	YMCAUST, Faridabad	04/7/16 to 8/7/16
18.	Faculty Development Programe on "Process Control"	MRIU, Faridabad	19/12/16 to 23/12/16
19.	Faculty Development Programe on "Intelligent Management of Renewable Energy Technologies"	YMCAUST, Faridabad	18/1/18 to 23/1/18
20.	AICTE recognized Short Term Course on "Life Skill Development"	NITTTR Chandigarh	09/7/18 to 13/7/18
21.	AICTE recognized Short Term Course on "Embedded World"	NITTTR Chandigarh	26/11/18 to 30/11/18
22.	Training on Application Development for IOT	RVCE, Bangalore	18/11/19 to 23/11/19
23.	One Week workshop on Hands on Training on "Design and Fabrication of PCB	JCBOSE UST YMCA Faridabad	18/07/19 to 24/7/19
24.	One Week online FDP on "Industry-Academia Convergence-Bridging the Skill Gap"	JCBOSE UST YMCA Faridabad	22/6/2020 to 26/6/2020
25.	One Week online Staff Development Programe on "Basic Computer skill and ICT tools"	JCBOSE UST YMCA Faridabad	10/7/2020 to 14/7/2020
26.	AICTE recognized "Recent Trends in Industrial Automation"	MRIU, Faridabad	04/8/20 to 09/8/20
27.	One week online Short Term Course on "Research and Development in Composite Materials"	JCBOSE UST YMCA Faridabad	27/7/20 to 31/7/20
28.	International Symposium on Data Science	SDIET, Faridabad	14/7/20 to 18/7/20
29.	FDP on "Green Technology"	JCBOSE UST YMCA Faridabad	18/7/2020 to 20/7/2020
30.	AICTE Training And Learning (ATAL) Academy Online FDP on " Digital Circuit Implementation Using Zynq FPGA IC"	JCBOSE UST YMCA Faridabad	16/9/2020 to 20/9/2020

31.	One week online Short Term	AISSMSCOE Pune	13/7/2021 to
	Course on "Innovative		18/7/2021
	&Inventive Problem Solving		
32.	AICTE Sponsored Online Short	JCBOSE UST YMCA	20/7/21 to
	Term training Program on	Faridabad	25/7/21
	"Electric Vehicle Techniques		
	with OPAL-RT Solutions		

Dr. Sakshi Kalra Assistant Prof. Electrial Engg. Dept. JCBOSE UST YMCA, Faridabad