

MASTER RESUME

Dr. Abhinav Saxena

Ph.D(Jamia Millia Islamia,New Delhi),M.Tech. (IIT Roorkee)

B.Tech (UPTU, Lucknow)

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D.O.B: 23rd March, 1989

Area of interest:

Renewable energy,Electric machines, power system generation,transmission & distribution, power electronics,control system, Environment sustainability, Communication signals noise & interference mitigations,Electric vehicle, Design of non linear controller,Smart grid, Analog and Digital Electronics, Digital Signal Processing (DSP), energy management,congestion management, Artificial intelligent techniques, Deep learning, IOT, ANN, ANFIS, Machine learning, Image processing

Academic Qualifications:

Sl. No.	Degree Discipline	University/Institution	Year of Passing	CGPA / (%)
1	PhD.(Electrical Engg.)	Jamia Millia Islamia, (Delhi)	July 2020	80.26 %
2	M.Tech. (Electrical)	IIT Roorkee, Roorkee (UK)	2013	7.118
3	B.Tech.(Electrical Engg.)	UPTU,Lucknow	2011	70.62 %
4	Intermediate (PCM)	Army School Bareilly Cantt.	2006	80.00 %
5	High school	Wood Row School,Bareilly	2004	78.0 %

Work Experience (11.5 years)

1. Current working in J.C. Bose University of Science and Technology, YMCA, Faridabad, Haryana(A Haryana State Government University) as Assistant professor in Department of Electrical Engineering Since 22/July/2024.

2. Worked 10 years in JSS Academy of Technical Education Noida as Assistant professor in Department of Electrical Engineering from 07/Oct/2014 to 20/July/2024.

3. 6 Months teaching experience as Assistant professor in Galgotia college of engineering and subject covered is Electrical machines,EMMI, digital electronics in 2014.

4. 10 Month teaching experience in BIT Meerut as Assistant Professor and subjects covered are Control system, sensor & instrumentation from 2013 to 2014.

Ph.D Supervising(4)

1. Co-Supervising a Ph.D student from G.D Goenka University, Gurugram, Haryana

2. Co-Supervising a Ph.D student from Shobhit University,Meerut,U.P

3. Co-Supervising a Ph.D student from Dr. A.P.J AKTU University,U.P

4. Co-Supervising a Ph.D student from BIT Sindri, Jharkhand.

PUBLICATIONS (85)

JOURNALS (31):

1. Abhinav Saxena; Aseem Chandel; Amit Kumar Dash; Shailendra Kumar Gupta; Sampath Kumar V; J. P. Pandey.,' An effective optimal economic sustainable clean energy solution with reduced carbon capturing/carbon utilization/ carbon footprint for grid integrated hybrid system" **IEEE Transactions on Sustainable Computing, SCI**, Impact factor:**3.9**, Volume: 8, Issue: 3, pp:385-399,ISSN: 2377-3782,01July-Sept.2023doi:10.1109/TS USC.2023.3262982,URL: <https://ieeexplore.ieee.org/document/10086645>. **Q1 journal**

2. Abhinav Saxena, Rajat Kumar, Mohammad Amir, Atif Iqbal, Talal Alharbi, A novel development of h-CSLQFL controller for optimal sizing and economic pricing of battery in electric vehicle system, **Energy Reports, Elsevier**, Volume 12, Pages 1474-1487, December 2024. **SCI, Impact factor: 4.7**, Doi: <https://doi.org/10.1016/j.egy.2024.07.028>, **Q2 journal**
3. Md. Abul Kalam; Abhinav Saxena; Md. Zahid Hassnain; Amit Kumar Dash; Jay Singh; Gyanendra Kumar Singh, An explicit investigation in demand side management based on artificial intelligence techniques, *IEEE Access*, July 2024, doi: [10.1109/ACCESS.2024.3432805](https://doi.org/10.1109/ACCESS.2024.3432805), **SCI Journal, Impact factor:3.4, Q2 journal**
4. Abhinav Saxena, Rajat Kumar, Mohammad Amir, S.M. Muyeen,'Maximum power extraction from solar PV systems using intelligent based soft computing strategies: A critical review and comprehensive performance analysis, *HELIYON,Science direct(elsevier)* **SCI, Impact factor: 4.0**, Volume 10, Issue 2, 30 January 2024, e22417,ISSN no. 2405-8440, doi: <https://www.cell.com/action/showPdf?pii=S2405-8440%2823%2909625-1> ,**Q1 journal.**
5. Abhinav Saxena, Mohd. Majid, Love Goel, Ashish Kumar Srivastava, Gyanendra Kumar Singh, Rajesh Ver-ma,Javed Khan Bhutto,Hany S. Hussein,' Firefly Algorithm and Neural Network Employment for Dilution Analysis of Super Duplex Stainless Steel Clads over AISI 1020 Steel Using Gas Tungsten Arc Process', *MDPI Coatings*,Vol.13, no.5, issue:841,pp.1-24,ISSN: 2079-6412, 27-April,2023, **SCI, Impact factor:3.4**, doi: <https://doi.org/10.3390/coatings13050841>, **Q2 journal.**
6. Abhinav Saxena,Amit Dash,Rahul virmani,prashant,Nitya 'Design of LQR based FLC for the optimal regenerative braking controlling of solar PV based electric vehicle system', *IETE Journal of Research*,Taylor and Francis,**SCI, Impact factor:1.877**, feb 2023, <https://doi.org/10.1080/03772063.2023.2171916>, ISSN no.: 0377-2063, **Q3 journal.**
7. Abhinav Saxena, Rajat Kumar, Jay Singh,Gyanendra Kumar Singh,Sampath Kumar, J P Pandey,' An Invasive Weed Optimization For Sensor Less Control of Grid Integrated Wind Driven Doubly Fed Induction Generator', *IEEE Access*, **SCI Journal, Impact factor:3.9**,Vol.10,pp:109082-109096, Date of Publication: 12/10/ 2022,DOI: 10.1109/ACCESS.2022.3213982,ISBN: 2169-3536, **Q1 journal.**
8. Abhinav Saxena, Rajat Kumar,Raj Kumar,Sanjay Marwaha,Jay Singh,Gyanendra Kumar Singh,' A Comprehensive Overview on Modified Versions of Stockwell Transform For Power Quality Monitoring', *IEEE Access*,vol.10, pp: 91963 – 91975, **SCI Journal, Impact factor:3.9**, ISSN: 2169-3536, Doi: 10.1109/ACCESS.2022.3202309, Date of Publication: 26 August 2022, **Q1 journal.**
9. Nirmal Kumar Agarwal, Manish Prateek,Abhinav Saxena, Gyanendra Kumar Singh, A Novel Design of Hybrid Fuzzy Poisson Fractional Order Proportional Integral Derivative Controller for the Wind Driven Permanent Magnet Synchronous Generator, *IEEE Access*, **SCI Journal, Impact factor:3.9**, vol.11, pp. 132641-132651,date:02 November 2023, ISSN no. 2169-3536, doi: <https://ieeexplore.ieee.org/document/10305579?denied=>, **Q1 journal.**
10. Abhinav Saxena, G S singh, Abul kalam, A.Q Ansari,' Different Faults Identification & Categorization in Power System Network using fuzzy logic controller', *Journal of Electrical Engineering & Technology*, **Impact factor:1.9**, **SCI Journal, (Accepted),2022.** ISSN no. 2093-7423, **Q2 journal.**
11. Abhinav Saxena, Rajat,Jai singh, G Singh,' Abnormal health monitoring and assessment of three phase induction motor by using supervised CNN-RNN based machine learning algorithm', *Mathematical Problems in Engineering*, Hindawi, **Impact factor:1.430**, **SCI Journal, Vol.2023 30 Jan 2023, Special Issue**, doi: <https://doi.org/10.1155/2023/1264345>, ISSN No. 1563-5147, **Q2 journal.**
12. Abhinav Saxena,Prashant, Anwar Shahzad Siddiqui,' Optimal Intelligent Strategic LMP Solution & Effect of DG in Deregulated System for Congestion Management' *International Transactions on Electrical Energy Systems (Wiley)*,**Impact factor:2.86**,(**SCI Journal**),Vol.31, Issue.11,first published online: 13-08-2021, ISSN: 2050-7038, <https://doi.org/10.1002/2050-7038.13040>, **Q2 journal.**
13. Arunesh Singh,Abhinav Saxena, N Roy, U chaudhary, "Inter-turn fault stability enrichment & diagnostic analysis of power system network using wavelet transformation based sample data control & Fuzzy logic Controller", *Transactions of the Institute of Measurement and Control*, **SAGE Journal, (SCI Journal) Impact factor:2.141**, first published online 27-04-2021,Vol.43,Issue:12,pp: 2788–2798 doi: <https://doi.org/10.1177/01423312211007006>, ISSN: 1447-0369, **Q2 journal.**
14. A.K Singh,Abhinav Saxena, "A novel neuro-fuzzy control scheme for wind-driven DFIG with ANN-controlled solar PV array", *Environment,Development and Sustainability*,Springer (**SCI Journal**),

Impact Factor:4.90,vol.22,issue.7,pp:6605–6626,doi:<https://doi.org/10.1007/s10668-019-00502-5>,ISSN: 1573-2975,October 2020, Q1 journal.

15. Abhinav Saxena,A k singh, , Shahida Khatoon, Kriti, “Impact Review Analysis & Scope of Noise Pollution for Energy Harvesting”, Journal of engineering research,Kuwait University, Faculty of engineering and petroleum (SCI Journal),EMSME Special Issue,pp. 112-121 ISSN: 2307-1885,doi: <https://doi.org/10.36909/jer.EMSME>,impact factor:0.64, 20-08-2021, Q3 journal.
16. Abhinav Saxena,Prashant, Nirmal Kumar Agarwal, Md. Abul Kalam, Nitin Kumar Pal, “Optimal Converging distributed load allocation of three generating units using Genetic Algorithm (GA)”, Vol. 33 Issue no 12, Baltica Journal (SCI Journal) (Impact factor: 1.037), Dec 2020, ISSN: 0067-3064, Q3 journal, doi: <https://balticajournal.com/show.php?v=33&i=12>.
17. Arunesh Singh ,Abhinav Saxena, “Robust designing of Wind Power based Doubly fed Induction generator (DFIG) using ANN Controlled Solar PV Array feeding 9-IEEE Bus System”, Journal of Engineering Technology (SCI Journal), October 2018(special issue), PP. 485-503,Vol. 7,ISSN: 0747-9964 Impact factor:1.3.
18. Arunesh Singh, Abhinav Saxena, ASharma, Ibraheem, “Modelling, Simulation,controlling of eddy current braking system using intelligent controller”, Journal of fuzzy & intelligent system’ JIFS (SCI Journal) 2018’,Impact factor:1.851, Journal vol.36,no.3,pp. 2185-2194,January 2019 with DOI:10.3233/JIFS-169930, ISBN: 1064-1246, Q2 journal.
19. Arunesh Singh, Abhinav Saxena, ASharma, Ibraheem, “Implicit control of eddy current braking system using fuzzy logic controller (FLC) and particle swarm optimisation (PSO)”, Journal of Discrete Mathematical Science & Cryptography(Taylor & Francis), (ESCI Journal), Vol.22, Pages 253-275, Issue 2, 8 Mar 2019, ISSN: 09720529, Impact factor:0.31, <https://doi.org/10.1080/09720529.2019.1582871>, Q3 journal
20. Abhinav, Anuradha, Amit, Sajid,’ A novel strategic design & optimal controlling of linear quadratic regulator for electric vehicle’, Journal of The Institution of Engineers (India): Series B, scopus journal, ISSN No. 2250-2114, vol.105,no.1,pp. 41–52, issue date: 2024, date: 22/11/2023, <https://doi.org/10.1007/s40031-023-00943-7>, ISSN No. 2250-2106, Q3 journal
21. Abhinav Saxena, A.K Singh, umakant, fazal, Gulshan,ramesh ‘Hybrid poisson-lagrange approach based on genetic algorithm for improving performance of induction motor’International Journal of Modelling and Simulation, Feb 2024, Q2 journal ,doi: <https://doi.org/10.1080/02286203.2024.2320611>
22. Abhinav Saxena, A K sharma,Majid, ‘A robust controlling and management of load with minimum frequency and voltage deviation in network employing Genetic Algorithm’ Journal of Statistics and Management Systems,Vol.25,Issue.7,pp: 1531-1540, Dec- 2022, WoS, doi: <https://doi.org/10.1080/09720510.2022.2130565>, ISSN No. 2169-0014.21.
23. Abhinav Saxena, Nirmal kumar Agarwal, Sudhanshu, Rakesh,“Smart grid in distributed system: A review”, Journal of mechanics of continua and mathematical sciences,2020, (ESCI Journal) (Wos), accepted.
24. Arunesh Singh, Abhinav Saxena, “Implementation Of Fuzzy Logic Controller In Solar Pv Array Based Ac Drives”, International Journal of Recent Technology and Engineering ,IJRTE (Journal Indexed in Scopus & Elsevier), ISSN: 2277-3878, Volume-8, pp.423-428, Issue-2S7, July 2019, Impact factor:0.16, B10780782S719/19©BEIESP DOI: 10.35940/ijrte.B1078.0782S719, Q4 journal
25. Prashant, Abhinav Saxena, Anwar,satyam,vidushi, “An Advance Methodology For Hybrid Modelling And Selection Of Grid Integrated Renewable Energy [Wind/Solar] Profile Through Proteus”, International Journal of Recent Technology and Engineering ,IJRTE (Journal Indexed in Scopus & Elsevier), ISSN: 2277-3878, Volume-8, pp.429-434, Issue-2S7, July 2019, Impact factor:0.16, DOI: 10.35940/ijrte.B1079.0782S719, Q4 journal
26. Abhinav Saxena, G M Patil, ppt, arun, Nirmal Kumar Agarwal, prashant, “Optimal load distribution of thermal generating units using particle swarm optimization (PSO)”, International Journal of Recent Technology and Engineering ,IJRTE (Journal Indexed in Scopus & Elsevier), ISSN: 2277-3878, Volume-8, pp.440-444, Issue-2S7, July 2019, Impact factor:0.16, DOI: 10.35940/ijrte.B1081.0782S719, Q4 journal
27. Abhinav Saxena, A.Singh, “Implicit control of Induction Motor using Genetic Algorithm”, International Journal of Energy Technology and Policy-Publisher Inderscience’2019, scopus journal, (accepted), Q3 journal

28. Abhinav Saxena, shashank, "Construction Of Extra High Voltage Transmission Line Using MATLAB", International Journal of Latest Technology in Engineering, Management & Applied Science" ISSN 2278-2540, Vol.7, Issue.3, april 2018 (UGC Journal)
29. Abhinav Saxena,A singh, "Modeling Of 3 Phase Induction Motor In Different Reference Frame", published in "TIT International Journal of Science & Technology",Vol:04,No:01,June2015,ISSN:2319-6688
30. Abhinav Saxena, A singh, shipra, saurabh, kodank, "Comparison between Wound Rotor Induction Motor and Doubly Fed Induction Motor Under Different Fault Condition", Published in IJERT ISSN: 2278-0181, IJERTV5IS100154 Vol. 5 Issue 10, October-2016
31. Nirmal Kumar Agarwal,Manish Prateek,Neeta Singh,Abhinav Saxena, An Implicit Controlling of Adaptive Neuro Fuzzy Inference System Controller for The Grid Connected Wind Driven PMSG System, Journal of Fusion:Practice and Applications,Vol. 12,No. 2,(2023):193-205,Doi : <https://doi.org/10.54216/FPA.120216>, ISSN no. 2692-4048

INTERNATIONAL/NATIONAL CONFERENCES (47):

- 1) Abhinav Saxena, Aditi Gupta,Zoya Mohsin,Anshuman Singh,Harsh Raghuwanshi,Yogendra Singh, 'An optimal gesture controlling of robotic system', SV-TDFS 2022, May 2022, Manipal university Jaipur, accepted for material today and proceedings(elseveir),Date: 30-December-2022, Volume 79, Part 2, Pages 398-405, April-2023, <https://doi.org/10.1016/j.matpr.2022.12.165>. ISSN NO. 2214-7853
- 2) Abhinav Saxena, Aniket Kumar, Manoj Kumar, ' An enhancement controlling of MPPT solar PV array based Electric vehicle system', SV-TDFS 2022, May 2022, Manipal university Jaipur, material today and proceedings(elseveir),Date:28-02-2023,Volume 79, Part 2, April-2023, Pages: 438-442 doi: <https://doi.org/10.1016/j.matpr.2023.02.205>, ISSN NO. 2214-7853.
- 3) Abhinav saxena,Jay Singh,Medha Singh,Anushka Srivastava,Abhishek Shukla,Harsh Dubey.,'An Exhaustive Analysis of Waste Segregation and Hand Sanitization in Post-Covid Era ", 2nd IEEE International Conference on Computational Intelligence and Sustainable Engineering Solution (CISES-2023),from 28th April 2023 to 30th April 2023, doi: 10.1109/CISES58720.2023.10183605
- 4) Abhinav saxena, Swarnima Singh; Jay Singh; Rakshita Pandey; Yashasvi Saxena, Soft Computing Techniques Implication for the Exhaustive Intelligent Review Analysis for Electric Vehicle Charging System", 2nd IEEE International Conference on Computational Intelligence and Sustainable Engineering Solution (CISES-2023),from 28th April 2023 to 30th April 2023, doi: <https://ieeexplore.ieee.org/document/10183423>
- 5) Abhinav Saxena, Nirmal Kumar Agarwal, Neetu Singh, 'Modeling and analysis of wind driven PMSG for healthy and unhealthy conditions', SIGMA 2022, NSUT New Delhi, August 2022, accepted for lecture notes on electrical engineering, springer.
- 6) Abhinav Saxena, Suyash Binod,Sudhanshu maurya,Om Kapoor, Utkarsh Singh, Rajesh Kumar,Amit kumar Sharma,' Electric Vehicle Intelligent Monitoring and Analysis for Battery', ICACITEE Dec. 2021 held at Greater Noida, AIP Conf. Proc.,Volume 2816, Issue 1, 22 march 2024,doi: <https://doi.org/10.1063/5.0177453>
- 7) Abhinav Saxena, Nirmal Kumar Agarwal, Archana Rani,' To Analyze the Comprehensive Review MPPT Techniques of Wind Driven PMSG' IEEE Conference ICACFCT Dec-2021 MIET Meerut, ISBN: 978-1-6654-2076-1,pp:202-207,doi: <https://ieeexplore.ieee.org/document/9837354>, Date of Xplorer: 27/07/2022
- 8) Abhinav Saxena, Sachin Pachauri, Ramashankar Yadav, Sudhanshu Maurya, Gaurav Verma, Nirmal Kumar Agarwal,'Performance Analysis of Different Techniques of Traffic Control System', IEEE Conference ICACFCT 2021 MIET Meerut, ISBN: 978-1-6654-2076-1,pp:208-211, doi: <https://ieeexplore.ieee.org/document/9837382>, Date of Xplorer: 27/07/2022
- 9) Prashant,Abhinav Saxena, Jay Singh, Amit Kumar Sharma,Nitin kumar pal,' Design of Buck Converter with Modified P&O Algorithm Based fuzzy logic controller for solar charge controller for efficient MPPT, IICS Conference(springer sponsored)2021.
- 10) Abhinav Saxena, Rajesh Kumar, Jay Singh, shilpi Kumari,,Mahima verma, Priyanshi Kumari, A soft computing intelligent technique implication for the comprehensive audit of Electric Vehicle, IICS Conference(springer sponsored)2021.

- 11). Abhinav Saxena, Nirmal Kumar Agarwal, Archit Kumar, Arpit Singh, Arpit Yadav, Arun Kumar , Amit Kumar Sharma, Electric Hazards Analysis: A review, RTPDP Conference, published in IOP series (scopus), Galgotias College of Engineering and Technology (GCET), Greater Noida, India, Date: July 9 - 10, 2021. Doi: <https://galgotiacollege.edu/assets/pdfs/ECE1222/Souvenir-Proceedings.pdf>
12. Nirmal Kumar Agarwal, Abhinav Saxena, Amurt Prakash, Amrit Kumar Yadav, Anant Sharma, Anand Pratap Singh, 'Review on Unified Power Quality Conditioner (UPQC) to mitigate power quality problems, IEEE GCAT 2021, Date of publication: 13-11-2021, doi:10.1109/GCAT52182.2021.9587586
13. Abhinav Saxena, Nirmal Kumar Agarwal, Aman Rathore, Sonali Arora, Akash Yadav and Ayush Yadav, Auto-Intensity Regulation of Streetlights using Arduino, IEEE ISCON 2021, GLA Mathura, 22-23 October 2021, doi: 10.1109/ISCON52037.2021.9702443, 14/02/2022 at Xplorer
14. Abhinav Saxena, G.M Patil, Nirmal Kumar Agarwal, Anushka, Amrut, Kailash, Environmental and Social Aspects of Microgrid Deployment- A Review' IEEE conference on UPCON 2021, Date: 11-13 Nov 2021, Dehradun, doi: [10.1109/UPCON52273.2021.9667612](https://doi.org/10.1109/UPCON52273.2021.9667612)
15. Dr. Abhinav Saxena, Sachin Pachauri, Dr. Rajat Kumar, Ramashankar Yadav, Gaurav Verma and Nirmal Kumar Agarwal, Wireless Power Transmission: A Review, International Conference MARC 2021
16. Abhinav Saxena, Abhishek Kumar Singh, G.M Patil, Sanjeev Kumar Sharma, Sampath Kumar V, Sanjiba Kumar Bisoyi, Rajesh Kumar, Analysis of solar PV array based buck convertor design by using modified P&O Algorithm, NCSEVES 2021, JSSATE Noida
17. G.M Patil, Abhinav Saxena, Aishwarya patil, "Optimization of Second Order Non-linear System using Fuzzy Logic Controller", IEEE International Conference on Computing, Electronics & Communications Engineering 2019 (IEEE ICCECE '19), London Metropolitan University, London, UK, 26 December, 2019, ISBN: 1927-6338. 10.1109/ICCECE46942.2019.8941791
18. Amit kumar sharma, akash pandey, mohd. Ammar khan, abhinav tripathi, Abhinav saxena, pankaj kumar yadav, 'Human following Robot', IEEE International Conference on Advance Computing and Innovative Technologies in Engineering (ICACITE), Greater Noida, doi: 10.1109/ICACITE51222.2021.9404758, Date: 20, April, 2021, ISBN: 978-1-7281-7742-7
19. Abhinav Saxena, G.M Patil, Anuradha, sajid, Siddhartha, abhishek, "A new implicit design & controlling of LQR for electric vehicle", ICCSEMS 2020, 25-26 September 2020, JSSATE Noida
20. Abhinav Saxena, Y.K singh, Ajai, satyam, Mohit, abhishek, "Power failure Fault detection wavelet transformation Algorithm for Transmission line network", ICCSEMS 2020, 25-26 September 2020, JSSATE Noida
21. Abhinav Saxena, A singh, Ankit, Sitesh, Anmol, Sharik, "Vector Control Analysis of Doubly fed Induction generator (DFIG) for different controlled parameters", ISBN 978-93-80544-28-1, IEEE Conference INDIACOM 2018. <http://bvicam.in/INDIACom/news/INDIACom%202018%20Proceedings/Main/papers.html>
22. Abhinav Saxena, A singh, Abhishek, Raj, Tanul, "Wind Power Based Doubly Fed Induction Generator (DFIG) For The Speed Control Using Rotor Side And Grid Side Converter", ISBN 978-93-80544-28-1, IEEE Conference INDIACOM 2018. <http://bvicam.in/INDIACom/news/INDIACom%202018%20Proceedings/Main/papers.html>
23. Abhinav Saxena, Palak Tusyan, A singh, prashant, "Study of various FACTS devices for steady and dynamic state stability of Power System", ISBN 978-93-80544-28-1, IEEE Conference INDIACOM 2018. <http://bvicam.in/INDIACom/news/INDIACom%202018%20Proceedings/Main/papers.html>
24. Arunesh Singh, Abhinav Saxena, Asif, "A Review on DC Distributed System", National Conference (NCSES), JSSATE Noida, ISBN: 978-93-5361-694-6, June, 2019
25. Abhinav Saxena, Nirmal Kumar Agarwal, priya singh, vijay tomar, tushar jain, shivam samrat, "Underground Cable Fault Detection Using Arduino And GSM (5 V D.C.)", National Conference (NCSES), JSSATE Noida, ISBN: 978-93-5361-694-6, June, 2019
26. Abhinav Saxena, ppt, akshay, anshuman, "Advancement in Energy meter Reading", International Conference on SV-TDFS, Manipal University Jaipur, Rajasthan, ISBN: 978-81-938236-5-1, 08-09 October 2018. <http://toc.proceedings.com/51648webtoc.pdf>

27. Abhinav Saxena, ppt, vasu, shreya, anurag, "Photovoltaic Applications through multi-level cascading of DC/DC Converter", International Conference on SV-TDFS 2018, Manipal University Jaipur, Rajasthan, ISBN: 978-81-938236-5-1, 08-09 October 2018
28. Abhinav Saxena, ppt, apar, aprajita, "Scada and its application in power generation and distribution system", International Conference on SV-TDFS 2018, Manipal University Jaipur, Rajasthan, ISBN: 978-81-938236-5-1, 08-09 October 2018
29. Abhinav Saxena, A singh, rinki goyal, "Hybrid approach for Digital Watermarking using Intelligent System and Discrete Wavelet Transform (DWT)", International Conference on SV-TDFS 2018, Manipal University Jaipur, Rajasthan, ISBN: 978-81938236-5-1, 08-09 October 2018
30. A Saxena, A singh, "Sensorless fault analysis of Doubly fed induction motor", IEEE Sponsored Conference, NSC-2017, Dayalbagh(DEL), Dec-2017
31. Abhinav Saxena, A singh, prashant, Nirmal Kumar Agarwal, "ANALYSIS OF 3-PHASE INDUCTION MOTOR IN DIFFERENT SPEED REFERENCE FRAME COORDINATES", IEEE International Conference 'ICPSI 2017' ISBN: 978-1-5386-0814-2, June 2018. Doi: 10.1109/ICPSI.2017.8391772.
32. Abhinav Saxena, Prashant, shipra, saurabh, kodank, aniket, "FAULT INJECTION ANALYSIS OF WOUND ROTOR INDUCTION MOTOR AND DOUBLY FED INDUCTION MOTOR(DFIG)", IEEE International Conference on INDIACOM 2017, ISSN 0973-5658 ; ISBN 978-93-80544-24-3, 2017
33. Abhinav Saxena, A srivastava, vijay, sumeta, pulkit, "ANALYSIS OF SPEED CONTROL OF DOUBLY FED INDUCTION MACHINE (DFIM) USING DIFFERENT TECHNIQUES", IEEE International Conference on INDIACOM 2017, ISSN 0973-5658 ; ISBN 978-93-80544-24-3, 2017
34. Abhinav Saxena, A singh, "Performance of Sensor and Sensorless Doubly fed Induction motor (DFIM) under the current sensor fault", IEEE Explorer International Conference on ICPEICES 2016, ISBN 978-1-4673-8587-9/16/\$31.00 ©2016 IEEE, february 2017, doi: 10.1109/ICPEICES.2016.7853315.
35. Abhinav Saxena, A singh, pawar, sangeeta, "Analysis of Intelligence Techniques on Sensor less Speed Control of Doubly fed Induction machine (DFIM)", IEEE Explorer International Conference on INDIACOM 2016, ISSN 0973-7529; ISBN 978-93-80544-20-5, 2016. DOI: <https://ieeexplore.ieee.org/document/7724426>
36. Abhinav Saxena, divyang, shipra, dushyant, periyal, "Comparative analysis of Sensor-less speed control of Three phase Induction motor", IEEE Explorer International Conference on INDIACOM 2016, ISSN 0973-7529; ISBN 978-93-80544-20-5, 2016, DOI: <https://ieeexplore.ieee.org/document/7724437>
37. Abhinav Saxena, V chandana, "Limitation and improvement in the course outcome", IEEE Explorer International Conference on MITE 2015, ISBN 978-1-4673-6746-2/15, 2015 IEEE, 2015, DOI: 10.1109/MITE.2015.7375286
38. Abhinav Saxena, A singh, International conference 'GYANODAYA 2015' on the topic 'Sensor less Speed estimation of 3 phase Induction motor for open loop system', 2015
39. Abhinav Saxena, A singh, national conference, "torque and speed response of doubly fed induction machine under current sensor fault", ETEEE 2015 at JAMIA MILLIA ISLAMIA 2015
40. Abhinav Saxena, Nirmal kumar Agarwal, Rajesh, "Comparative Analysis of Hydropower Plant Using MATLAB/SIMULINK", INTERNATIONAL CONFERENCE ON ADVANCES IN BUSINESS AND ENGINEERING FOR SUSTAINABILITY, ABES ghaziabad, 27-28 march 2018
41. Abhinav Saxena, a kalam, ppt, priya, "Comparative Analysis of DC-DC Converter for Application in Energy System based on Renewable Energy Resources", INTERNATIONAL CONFERENCE ON ADVANCES IN BUSINESS AND ENGINEERING FOR SUSTAINABILITY, ABES ghaziabad, 27-28 march 2018

42. Abhinav Saxena, bisoyi, prashant, "Protection of 3-phase Induction motor under 1phase fault", INTERNATIONAL CONFERENCE ON ADVANCES IN BUSINESS AND ENGINEERING FOR SUSTAINABILITY, ABES ghaziabad, 27-28 march 2018
43. Abhinav, Nishant, 'Continuous monitoring and classification of the abnormalities in the brain using artificial intelligent and machine learning', UPAPICON 2022.
44. Jay Singh; Priyanka Datta; Nagendra Kumar; Kailash Sharma; Abhinav Saxena; Aditya Verma; A. Ambika Pathy, Power Saving and Power Generating in Automobile (Self-Charging Kit), IEEE ICDDT 2023, 11-12 May 2023, Greater Noida. Doi:10.1109/ICDDT57929.2023.10150450
45. Jay Singh; Priyanka Datta; Nagendra Kumar; Kailash Sharma; Abhinav Saxena , IR Sensor Based Accident Prevention System for Hilly Areas, IEEE ICDDT 2023, 11-12 May 2023, Greater Noida. Doi: 10.1109/ICDDT57929.2023.10150715
46. Abhinav Saxena, A K singh, ppt, palak, waris, "Speed Control of DC Motor Using Chopper Based on Fuzzy Logic", IOP press ,Journal of material science & engineering,(scopus journal), Vol 594, Issue 1, pp:1-9, 1757-899X, 2019. 10.1088/1757-899X/594/1/012018
47. Abhinav Saxena, A.Singh, prashant, waris, A rana, "Novel Power Coefficient for extracting the maximum power in wind power based Doubly fed Induction generator(DFIG) using vector control", IOP press , Journal of material science & engineering,2018,(scopus journal)., Vol 594, Issue 1, pp:1-12,2019, ISBN:1757-899X <https://doi.org/10.1088/1757-899X/594/1/012007>

Book Chapter (7):

1. Abhinav Saxena, A k singh, Imran, Umakanth chaudhary, "A Comprehensive Review on Active & Reactive power control of grid connected converters", lecture notes on electrical engineering, springer, 10 september 2021, vol.788, pp:659-666, ISBN: 978-981-16-4149-7, DOI: https://doi.org/10.1007/978-981-16-4149-7_59
2. Abhinav Saxena, Arunesh Singh, "Adaptive Fuzzy logic controller for the Minimum power extraction under Sensor less control of Doubly fed induction Motor(DFIM) feeding pump storage turbine", DOI: 10.1007/978-981-13-1822-1_40, In book: Applications of Artificial Intelligence Techniques in Engineering, pp.431-441, vol.2, ISBN: 2194-5357, September 2019
3. Abhinav Saxena, A singh, "A Review on Sensor less control of Doubly fed induction machine", International conference 'CSPE 2015' organised by IDES, ISBN: 978-93-85965-79-1(scopus), Advance In Engineering And Technology(book chapter), 9789352603855, 173-179, 2015
4. Dr. Abhinav Saxena, Sachin Pachauri, Dr. Rajat Kumar, Ramashankar Yadav, Gaurav Verma and Nirmal Kumar Agarwal, Wireless Power Transmission: A Review, lecture notes on electrical engineering, springer, vol.915, pp:337-348, ISBN:978-981-19-2827-7, date:18-09-2022, DOI: https://doi.org/10.1007/978-981-19-2828-4_32
- 5) Abhinav Saxena, prashant, Jay Singh, Amit Kumar Sharma, Nitin kumar pal, ' Design of Buck Converter with Modified P&O Algorithm Based fuzzy logic controller for solar charge controller for efficient MPPT, Lecture Notes in Electrical Engineering, vol 982. ISBN: 978-981-19-8136-4, April 2023, Springer, https://doi.org/10.1007/978-981-19-8136-4_18
- 6) Abhinav Saxena, Rajesh Kumar, Jay Singh, shilpi Kumari, Mahima verma, Priyanshi Kumari, A soft computing intelligent technique implication for the comprehensive audit of Electric Vehicle, Lecture Notes in Electrical Engineering, vol 982, ISBN: 978-981-19-8136-4, Springer, 2023, https://doi.org/10.1007/978-981-19-8136-4_15.
- 7) Abhinav Saxena, Nirmal Kumar Agarwal, Neetu Singh, 'Modeling and analysis of wind driven PMSG for healthy and unhealthy conditions' Lecture Notes in Electrical Engineering, vol 1023. Springer, Singapore. ISBN: 978-981-99-0969-8, May 2023. https://doi.org/10.1007/978-981-99-0969-8_18

Research Project(1):

1. Project on the topic “**Maximum power extraction from solar PV Array in distributed system using soft computing technique**” has been granted under AKTU ‘Visvesvaraya Research Promotion Scheme(VRPS)’ worth 500000 INR.

PATENT (17):

1. Dr. Abhinav Saxena, Hemant Ahuja, Rahul Virmani, Gurpreet Singh, Arika Singh, Deepak Gangwar, “System and method For Remotely Controlled Home Appliances”, Application No. 202011056762 A, Date of filing of Application :28/12/2020, Publication Date : 01/01/2021, The Patent Office Journal No. 01/2021.
2. Dr. Abhinav Saxena, Dr. G.M Patil, Dr. Md. Abul Kalam, “autonomous switching & controlling of domestic home appliances in single switch board”, IP intellectual property india, patent no. 201911002166A, Date of filing: 16/01/2019, Published on 28/08/2020, date of file: 16/01/2020.
3. Dr. Abhinav Saxena, Dr. G.M Patil, Nirmal Kumar Agarwal, “Detection and monitoring of Covid-19 from smart phone and digital clock using intelligent technique”, Application No. 202011049427A, Date of filing: 12/11/2020, Date of publication: 09/09/2022
4. Dr. Abhinav Saxena, Nirmal Kumar Agarwal, Rajesh kumar, A K singh, prashant, Dr Md Abul Kalam, Amit Sharma, Nitin pal, Sunil, Kailash, Devendra, “Intelligent controlling and monitoring of charging and discharging of electric vehicle batteries”, Application No. 202111006557A, Date of filing: 17/02/2021, Published: 26/02/2021
5. Dr. Abhinav Saxena, Dr. Amit Kumar Sharma, Dr. Nitin Kumar Pal, Dr. Sunil kumar Chaudhary, Dr. Puneet Chandra Srivastava, Dr. Kiran Srivastava, Dr. Neeraj Kumar, Mr. Chandan Choubey, Mrs. Priyanka Datta, Dr. Bharat Singh, Mr. Manoj Kumar, Mr. Gyanesh Singh, ‘Optimal interference minimization between communication and transmission line using artificial intelligence based electromagnetic waves method’, Date of filing: 30/07/2021’, Date of publication: 10/09/2021, Application No. 202111034313 A
6. Dr. Abhinav Saxena, Mr. Gaurav Verma, Dr. Aseem Chandel, Mr. Nikhil Chaudhary, Mr. Sachin Pachauri, Dr. Chandra Bhan Vishwakarma, ‘A grid integrated hybrid renewable energy system with optimal controlling of carbon emission for sustainable and reliable solution’, Date of filing: 28/10/2021, Application No. 202111049294A, Date of publication: 26/11/2021
7. Dr. Abhinav Saxena, Dr. Md. Abul Kalam, Dr. Rajat Kumar, Mr. Mukesh Yadav, Mr. Pawan Kumar Kashyap, Mr. Amit Kumar Dash, Mr. Brijesh Prasad, Dr. Mohit Kumar, Dr. Govind Singh Patel, ‘Optimal control of electromagnetic waves through artificial intelligent for enhancing the power transmission in high voltage transmission line’, Date of filing: 28/10/2021, Application No. 202111049295A, Date of publication: 26/11/2021
8. Dr. Abhinav Saxena, Mr. Gaurav Verma, Mr. Shivam Yadav, Mr. Desh Deepak, Mr. Vijay pal singh, Mr. Baljeet Yadav, Mr. Sampath Kumar V, Prof. J P Pandey, “Optimal intelligent controlling and management of Electrical Vehicle charging”, Application No. 202211007129A, Date of Filing: 10/02/2022, Date of published: 25/02/2022
9. Dr. Abhinav Saxena, Dr. Prakash Kumar Singh, Dr. Rajat Kumar, Mr. Prashant, Mr. Pawan Kumar Kashyap, Mr. Mukesh Yadav, Mr. Puneet Kumar, Mr. Manoj Kumar, Mr. Gaurav Verma, Mr. Baljeet Yadav, Mr. Gyanesh Singh, Mr. Lokendra Kumar, Dr. Mohit Kumar, “Stragedy economic analysis of plug-in battery of electric vehicle”, Application No. 202211007133A, Date of Filing: 10/02/2022, Date of published: 25/02/2022
10. Dr. Abhinav Saxena, Dr. Md. Abul Kalam, Dr. Srikanth Allamsetty, Mr. Mukesh Yadav, Mr. Tarun Rathi, Mr. Amit Kumar Dash, Dr. Natwar Singh Rathore, Dr. Gurulingappa M. Patil, ‘An implicit approach for power quality assessment and controlling of solar photovoltaic integrated converter system’, Application No. 202211013318A, Date of Filing: 11/03/2022, Date of publishing: 25/03/2022

11. JSS Academy of Technical Education Noida, Abhinav Saxena, Prashant, Anand Kumar Pandey, Mukesh Yadav, Pawan Kumar Kashyap, Ramashankar Yadav, Vikas Kumar Singla,' An effective management of battery selection along with its economic and risk analysis for solar photovoltaic system', Application No.202211036974A , Date of Filing: 28/06/2022, Date of publishing: 29/07/2022
12. JSS Academy of Technical Education Noida, Abhinav Saxena,Divya Ghildyal, Arun Kumar Rawat' A novel algorithm based on poisson-lagrange-Newton Raphson method for the stability and convergence analysis of various engineering application', Application No. 202211042039A , Date of Filing: 22/07/2022, Date of publishing: 29/07/2022
13. Abhinav Saxena, Majid, Omveer,Ankur, Automatic Motor Bike Side Stand', Application No.202311004604 , Date of Filing: 24/01/2023, Date of publishing: 10/02/2023
14. JSS Academy of Technical Education Noida, Abhinav Saxena,Ranu,Bhupendra,Parveen, Vinita' A Lagrange And Poisson Distribution Based Method Controlled With Artificial Neural Network For Various Utilities', Application No. 202311004609 , Date of Filing: 24/01/2023, Date of publishing: 10/02/2023
15. Abhinav Saxena, Md.Majid, Dr. Sanjay Kumar Gupta,Dr Shobhit Srivastava, Development Of Automated Waste Segregation And Hand Sanitization Mechanism For Sustainable Environment, Application No.202411013316 A, Date of filing of Application :23/02/2024, Publication Date : 01/03/2024
16. Abhinav Saxena, Amit Kumar Dash, Mrs. Shweta Shukla,Mr. Arun Rawat,Dr. Mohd Majid,Mrs. Shipra Jain,Sapna Rai, Development of small Scale Integrated Renewable Energy And Rainwater Harvesting System For Domestic Applications, Application No.202411024273 A, Date of filing of Application :27/03/2024, Publication Date : 10/05/2024
17. Abhinav Saxena, Amarjeet singh, arun rawat, rajat saxena, divyani,jagdish, Intelligent Monitoring And Controlling Of Wheat Stubbing Or Parali In Northern Region Of India For Sustainable Environment, Application No.202411030573 A, Date of filing of Application :16/04/2024, Publication Date : 10/05/2024

INVITED LECTURES/KEYNOTE SPEAKER IN CONFERENCES/SEMINAR/FDP

- 1). Invited as Keynote speaker in three days conference 'IRST- 2023' , dated: 23-25th May 2023 organized at Shobhit Univeristy, Meerut, U.P
- 2). Deliver a lecture as eminent speaker in ONE week workshop on 'electrical vehicles: challenges and opportunity (EVCO-22) at BIT Sindri, Dhanbad, Department of higher and technical education, Government of Jharkhand,22-26 August 2022
- 3)Delivered a keynote lecture on topic "Advancement in Green Technology for Sustainable Solutions" in the International Conference on "Advancement in Electrical & Electronics Engineering and Technology (AEEET-2022)" organized by Bansal Institute of Engineering and Technology, Lucknow (UP) India held during November 10-11, 2022
- 4)Delivered a lecture as a resource person in the one week online Faculty Refresher Program on Design Thinking and Innovations, held during 07 – 13, January 2022.
- 5)Delivered a talk on "An autonomous controlling of non linear system using artificial intelligent technique" in "4th IEEE International Conference on Recent Developments in Control Automation & Power Engineering" held during 7th - 8th October 2021 at Amity University Uttar Pradesh, Noida, India.
- 6)Keynote speaker in three days conference 'IEEE AISC 2023' , dated: 27-29th January 2023 organized at G.L Bajaj greater Noida, U.P
- 7) Delivered an Expert lecture on topic "An autonomous controlling of non linear system using artificial intelligent technique" in the Online Faculty Development Program on "Artificial Intelligence" organized by Electrical Engineering Department, Bansal Institute of Engineering and Technology, Lucknow (UP) India held during July 19-25, 2021.
- 8) Keynote speaker in three days conference 'IEEE ICDT 2023' , dated: 11-12th May 2023 organized at G.L Bajaj greater Noida, U.P

SESSION CHAIR IN VARIOUS CONFERENCES/FDP

1. Worked as session chair in IEEE conference ICAC3N-2022 held at GCET Greater Noida,UP during 16-17th December 2022.
2. Worked as session chair in IEEE conference GCAT-2021 held at Bangalore, during 1st -3rd October 2021.
3. Worked as session chair in IEEE conference ICAC3N-2021 held at GCET Greater Noida,UP during 17-18th December 2021.
4. Worked as session chair in IEEE conference ICACFCT-2021 held at MIET Meerut,UP during 16-17th December 2021.
5. Worked as session chair in IEEE conference PARK-2022 held at GLA Mathura,UP during 21-22th January 2022.
6. Worked as Session chairperson in Springer conference MEDCOM-2021 held at G.L bajaj Greater Noida during 29-31th Oct 2021.
7. Worked as Session chairperson in Springer conference IICS-2021 held at G.L bajaj Greater Noida during 17-18th Dec 2021

FACULTY DEVELOPMENT PROGRAMME(FDP)/WORKSHOP

1. One week FDP on Reliable solution and development in JSSATE Noida.
2. One Week FDP on the topic 'ROBOTICS' organised by NITTTR at BIT MEERUT
3. Two Week FDP on the topic ' Research methodology ' organised by NITTTR at JSSATEN
4. One Week workshop on INSPIRE PROGRAMME organised by Ministry of Science(Govt.) at JSSATEN
5. One Week FDP on Power electronics based renewable energy at ABES Ghaziabad
6. One Week FDP on Ethics at GL Bajaj G.B Nagar
7. Two Week FDP on Power system network at VIET Dadri

INTERNSHIP INFORMATION

Bharat Heavy Electrical limited (BHEL) Ranipur, Haridwar (UK)

Turbogenerator (1 month)

Brief study of turbo-generators and its constructional features

PROJECTS

1. IIT ROORKEE

Sensorless control of grid connected Doubly fed Induction machine (1 year)

Firstly, model the doubly fed induction machine using simulation in MATLAB, estimate the speed, current, torque of DFIM, Sensorless means compute the speed and torque estimation without considering the speed sensor by simply transforming the rotor currents in different reference frame, This scheme has advantage in such a way that it reduces the fluctuation in the measurement of grid voltage and current, reduces system complexity, more efficient machine, lesser cost, lesser error in the measurement of speed and torque.

2. IIT ROORKEE

Prepare Detailed project Report(DPR) for SARYU SANTESHWAR HPP in hilly areas of uttrakhand at river bed elevations varying from 832 to 795 . The Catchment area is 1402 sqm. The observed river discharges at Bagheshwar gauge site where catchment area is 1275 sqm. The main objective is to harness renewable energy sources for meet the growing energy demand. Further Power house designing is covered with different aspects of logic gates design for its operational for switch ON/OFF controller and different signal processing devices are assessed in the design of power house.

3. JSSATE NOIDA

Design of Linear Induction motor for the propulsion of MAGLEV (6 month)

Consider linear induction motor having stator on rail track of 1m and rotor on train .Rail track is impinged with electromagnet and rotor is provided permanent magnet. When supply given to stator

terminal through auto transformer, sense of winding in electromagnet in such a way that it will produce same pole as permanent magnet, now this repulsion force will levitate the train above the track and maintain air gap of 5 mm, Now with the help of linear induction motor train will move in forward direction. Linear induction motor will be of Electro dynamic system (EDS) type

Academic Achievements

- 1. Best Teacher award 2021** by Dr. A.P.J Abul kalam technical university lucknow.
- 2. Excellent Teacher award 2022** by AL-FALAH HUMANITY COUNCIL
3. IES 2012, 2015, 2016, 2017 written qualified.
4. Secured above **99 percentile in GATE** 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020,2021
5. More than **10 PSU's** written qualified in NTPC, UPPCL,BARC,SAIL,HPCL, etc.
6. Selected in extended merit list of IIT JEE 2007
- 7. Topper** of the school in 10th class

SKILLS AND ACHIEVEMENTS

- Computer Language: Basic knowledge of C, PYTHON, MACHINE LEARNING
- Software packages: MATLAB, Python
- Languages Known: English (SRW), Hindi (SRW)

EXTRA CURRICULARS

- **IIT ROORKEE (2012):**
PLACEMENT COORDINATOR OF THE IIT ROORKEE
Tech fest of IIT Roorkee 'COGNIZANCE ' (2012)
Work as organising member
- **WIROLOGY (2010)**
Event coordinator OF WIROLOGY in jss noida techfest 'ZEALICON 2010'
- **'OORJA' electrical engineering society of JSSATE NOIDA (2011)**
WORKS AS A TECHNICAL COORDINATOR
- **'EXTREME ENGINEERING' electric train (2009)**
PARTICIPATED
- **INDIAN TALENT PROGRAM ORGANIZE BY HOPE (2006)**
PARTICIPATED
- **MATHS OLYMPIAD (2006)**
QUALIFIED AT CITY LEVEL

PERSONAL DETAILS

Father's Name : Sh. Rajesh Kumar Saxena
Madhu Saxena : Madhu Saxena
Wife : Charu Saxena
Date of Birth : March 23,1989
Gender : Male
Contact No : 9810241846,8909263616
Email : abhinaviitroorkee@gmail.com, abhinav.saxena@jssaten.ac.in
Permanent Address : 164 Civil Lines Near Gayatri Hostel, Bareilly – 243001,U.P

REFERENCES

Dr. Thangaraj Chelliah
Professor

Dr. Arunesh kumar Singh
Assistant professor

IIT Roorkee
ctr.iitr@gmail.com

Jamia Millia Islamia
asingh1@jmi.ac.in

CERTIFICATION

I, the undersigned, certify that to the best of my knowledge and belief, this resume correctly describes me, my qualifications and experience.

Date: March, 2024

Place: Noida (UP)

(Dr. Abhinav Saxena)