




JSS Mahavidyapeetha
JSS Academy of Technical Education, Noida
Department of Electrical Engineering



FACULTY PROFILE

1. Personal Details

NAME	Dr. NIRMAL KUMAR AGARWAL	
DEPARTMENT	ELECTRICAL ENGINEERING	
DESIGNATION	Assistant Professor-3	
PHONE	9818620392	
EMAIL ID	nirmalkragarwal.eed@jssaten.ac.in	
Date of Joining (JSSATEN)	07/04/2011	

2. Experience

Total Experience in Years 17	Teaching: 17 Years	Industry: NIL	Research: 05 Years
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- i. JSS Academy of Technical Education, Noida (UP) from 07-04-2011 to till date
- ii. Inderprastha Engineering College, Ghaziabad (UP) from 18-01-2011 to 31-03-2011
- iii. Vivekanand Inst. Of Technology & Science, Ghaziabad (UP) from 02-09-2009 to 17-01-2011
- iv. Laxmi Devi Inst. Of Engineering & Technology, Alwar (Raj.) from 16-09-2005 to 14-06-2006

3. Qualifications

COURSES	SPECIALIZATION	Year of Award	INSTITUTION	UNIVERSITY
B.Tech.	Electrical Engineering	2005	Laxmi Devi Institute of Engineering & Technology, Alwar	Rajasthan University, Jaipur
M.Tech.	Advanced Power System & Control	2008	N.I.T. Hamirpur, (HP)	N.I.T. Hamirpur, (HP)
Ph.D.	Electrical & Electronics Engineering	2024	G D Goenka University, Gurugram	G D Goenka University, Gurugram (Haryana)

4. Research & Publications

	INTERNATIONAL	NATIONAL
Papers Published in Web of Science indexed Journals	04	
Papers Published in SCOPUS indexed Journals	09	
Papers Published in other Journals		
Papers Presented in Conferences / Symposium	11	01

Patents

Sl. No.	Title Details	Details of award of patent / Filed
1	An Intelligent Design of Hybrid Fuzzy Poisson Fractional Order Proportional Integral Derivative Controller for The Optimal Controlling of Wind Turbine Based Permanent Magnet Synchronous Generator	Date of filing: 12/07/2024 and Publication Date: 26/07/2024
2	Detection and Monitoring of Covid-19 from Smart Phone and Digital Clock using Intelligent Technique	Date of filing: 12/11/2020 and Publication Date: 09/09/2022
3	Intelligent Monitoring and Controlling of Charging and Discharging of Electric Vehicles Batteries by Solar PV Array	Date of filing: 17/02/2021 and Publication Date: 26/02/2021

5. Publications

i. International Journals

Sl. No.	Title of the paper	Name(s) of Author(s)	Name of the Journal	Volume No. Issue No. Year	WOS / Scopus / Both	Impact Factor	Publisher
1	A Novel Design of Hybrid Fuzzy Poisson Fractional Order Proportional Integral Derivative Controller for the Wind Driven Permanent Magnet Synchronous Generator	Nirmal Kr. Agarwal, e.tal.	IEEE Access	Access, vol. 11, pp. 132641-132651, 2023, doi: 10.1109/ACCESS.2023.3329941.	Wos and SCI		IEEE
2	MPPT Based PMSG Wind Turbine System Using Sliding Model Control (SMC) and Artificial Neural	Nirmal Kr. Agarwal, P K Sadhu, S Chakraborty	IETE Journal of Research		SCI	1.24	Taylor & Francis

	Network (ANN) Based Regression Analysis						
3	Smart Grid in Distributed System: A Review	Abhinav Saxena, Nirmal kumar Agarwal, Sudhanshu, Rakesh	Journal of mechanics of continua and mathematical sciences, 2020	Accepted	WoS & ESCI	accepted	Journal of mechanics of continua and mathematical sciences
4	Optimal Converging distributed load allocation of three generating units using Genetic Algorithm (GAs)	Abhinav Saxena, Nirmal Kumar Agarwal, Prashant, Md. Abul Kalam, Nitin K Pal	Baltica Journal (Publisher Thomson and Router)	Vol 33, Issue 12	Both Scopus & SCI	1.037	BALTICA Journal
5	Optimal Load Distribution of Thermal Generating Units using Particle Swarm Optimization (PSO)	Abhinav Saxena, Nirmal Kr. Agarwal, Prashant, Parveen P Terang	International Journal of Recent Technology and Engineering (IJRTE)	Volume-8, Issue-2S7, 2019	SCOPUS	0.16	Elsevier
6	Geothermal: Future Prospects	Nirmal Kr. Agarwal, V Kakkar	International Journal (IJAET)	Vol-4, Issue-2, Sept- 2012		3.43	IJAET
7	Improvement of Power System Operation Using Simulink Model of UPFC	Nirmal Kr. Agarwal, V Kakkar	International Journal (IJCSC)	Vol-4, Issue-1		5.1	Computer Science & Electronics Journals

ii. National Journals

Sl. No.	Title of the paper	Name(s) of Author(s)	Name of the Journal	Volume No. Issue No. Year	WOS / Scopus / Both	Impact Factor	Publisher
NIL							

iii. Conferences

Sl. No.	Title of the paper	Name(s) of Author(s)	Name of the Conference	Volume No. Issue No. Year	WOS / Scopus	Impact Factor	Publisher
1	Recent Trends on FACTS and DFACTS	N K Agarwal, Vinay Kakkar	International Conference on "Modern Electric	ISBN:978-83-921315-8-8			IEEE

			Power Systems (MEPS) 2010				
2	Analysis of 3-phase Induction Motor in Different Speed Reference Frame Coordinates	Abhinav Saxena, Nirmal kumar Agarwal, Prashant	IEEE International Conference on Power, Control, Signals and Instrumentation Engineering (ICPCSI)	ISBN: 978-1-5386-0814-2 (DOI: 10.1109/ICPCSI.2017.8391772), June 2018	SCOPUS		IEEE
3	SHE PWM technique for three phase three level voltage source inverters	S. K. Bisoyi, N. K. Agarwal	IEEE International Conference on Power, Control, Signals and Instrumentation Engineering (ICPCSI)	ISBN: 978-1-5386-0813-5 (DOI: 10.1109/ICPCSI.2017.8392012)	SCOPUS		IEEE
4	Comparative Analysis of Hydropower Plant Using MATLAB/SIMULINK	Abhinav Saxena, Nirmal kumar Agarwal, Rajesh	International Conference on Advances in Business and Engineering for Sustainability, ABES Ghaziabad	27-28 march 2018			UGC
5	Underground Cable Fault Detection Using Arduino and GSM (5 V D.C.)	Nirmal Kr Agarwal, Priya singh, Vijay tomar, e.tal.	National Conference (NCSES), JSSATE Noida	ISBN: 978-93-5361-694-6, June,2019	SCOPUS		National Conference (NCSES), JSSATE Noida
6	A Strategic Technique for Transient Stability Enhancement by using Coordinated Control of SVC and Optimal Reclosure of Circuit Breaker	Prashant, Nirmal Kumar Agarwal, Dinanath Prasad, Sanjeev Kumar Ojha	2021 5th International Conference on Information Systems and Computer Networks (ISCON)	DOI: 10.1109/ISCON52037.2021.9702403. 14 th Feb, 2022	SCOPUS		IEEE
7	Arduino Employed Power Theft Controller and IoT based Load Controlling for Smart Energy Meter System	Nirmal Kumar Agarwal, Kishore M P, Prateek Kumar Rastogi, Shruti Singh, Shubham Singh, Yash Raj	2023 10th International Conference on Computing for Sustainable Global Development (INDIACom)	04th May, 2023	SCOPUS		IEEE
8	An Analysis of Solar PV System with MPPT for	Nirmal Kumar Agarwal, Arun Kumar Rawat,	2023 10th International Conference on	04th May, 2023	SCOPUS		IEEE

	Home Grid Applications	e.tal.	Computing for Sustainable Global Development (INDIACom)				
9	Performance Analysis of Different Techniques of Traffic Control System	Nirmal Kumar Agarwal, e.tal.	2021 First International Conference on Advances in Computing and Future Communication Technologies (ICACFCT)	DOI: 10.1109/ICACFCT53978.2021.9837382 27th July, 2022	SCOPUS		IEEE
10	An Enhancement of Power Quality in Grid-Connected Renewable Energy Systems Using Fuzzy Logic Control	Nirmal Kumar Agarwal, e.tal.	2024 2nd International Conference on Advancements and Key Challenges in Green Energy and Computing (AKGEC)	DOI: 10.1109/AKGEC62572.2024.10868847 11 February, 2025	SCOPUS		IEEE
11	Mathematical Modeling and Speed Control of Brushless DC (BLDC) Motor using PID Controllers for the Systems Sustainability	Nirmal Kumar Agarwal, e.tal.	2024 1st International Conference on Sustainability and Technological Advancements in Engineering Domain (SUSTAINED)	DOI: 10.1109/SUSTAINED63638.2024.11074008	SCOPUS		IEEE

iv. Workshops /Conferences/FDPs Attended

Sl. No.	Name of the workshop / Conference	Organizer	Date
1	One week FDP on “Recent Advancements in AI & ML”	St Josephs College of Engineering and STEP NITK	30 th June, 04 th July, 2025
2	One week FDP on “Innovations in water treatment & sustainable infrastructure”	Chandigarh Engineering College, Jhanjeri, Mohali	29 th May to 2 nd June, 2023
3	One-week FDP on “Use of Tools and Techniques in Research Based Project”	Central Project Research Committee, GNIOT, Greater Noida.	11 to 17 th Oct, 2022
4	Three-week FDP on “Innovative Interdisciplinary Teaching-Learning & Research Practices for Outcome Based Education?”	In Association with AICTE, GD Goenka University, Gurugram (Haryana)	14 th July to 03 rd Aug, 2022

5	One-week AICTE Approved FDP on "Recent Trends in Electric Vehicles"	Vardhaman College of Engineering, Shamshabad, Telangana.	17 to 23 rd Feb, 2022
6	One week FDP on "Fuel powered, Hybrid Electric and Modern Vehicles"	Department of Automobile Engineering, VNRVJIET, Hyderabad	19 to 24 th July, 2021
7	One week FDP on "Innovation, Incubation, Start-ups: Prospects and Challenges"	Centre of Excellence for Research & Innovation, CT Inst. of Engg. Management and Tech., CT Group of Institutions, Shahpur, Jalandhar (Punjab)	12 th to 16 th July, 2021
8	Certification Course On Complete Python Programming – A Practical Approach	Course conducted by E & ICT Academy, Indian Institute of Technology, Kanpur	22 nd October, 2020
9	One week FDP on "Future trends in Green Technology"	Energy Centre, MANIT, Bhopal (M.P.)	22 nd to 26 th June, 2020
10	Two-week FDP on "Green Energy Technologies for Sustainable Development"	jointly NIT Kurukshetra and GEC, Bikaner (RAJ).	11 th to 20 th June, 2020
11	One-week TEQUIP III STTP on "Life Cycle Analysis for Sustainability"	Engineering college Bikaner (Raj.)	27 th to 31 st May, 2020
12	Two-week online FDP on "Machine Learning and Its Applications"	Electronics and ICT Academy, IIT Roorkee	05 th to 14 th May, 2020
13	Two-week FDP on "Entrepreneurship"	NSTEDB, under the project of Department of Science & Technology (DST) Department of Science & Technology, Govt. Of India (GOI) at ABES Engg. College Ghaziabad, (UP)	02 nd to 15 th Jan, 2019
14	One Week FDP on "Sustainable & Reliable Solutions to Power Quality Problems in Smart Power System Network"	Dept of Electrical Engg., JSSATE, Noida sponsored by Dr. A P J AKTU, Lucknow (UP)	08 th to 13 th Oct, 2018
15	Two Week FDP on "Entrepreneurship"	NIESBUD, under the project of Department of Science & Technology (DST) Department of Science & Technology, Govt. Of India (GOI) at NIESBUD, Noida (UP)	12 th to 26 th Feb, 2018
16	One Week Quality Improvement Programme on "Basics of Cryptography and Information Security"	C-DAC, Noida	18 th to 22 nd Sep, 2017
17	One Week National Workshop " INSPIRE Science Camp-2016 "	JSSATE, Noida under the project of Department of	26 th to 30 th Dec, 2016.

		Science & Technology (DST)	
18	Two Week FDP on “Research Methodology”	NITTTR Chandigarh	28 th Dec, 2015 to 08 th Jan, 2016
19	Two Week FDP on “Power Generation, Transmission & Distribution”	Electrical Engineering Department, VGI, Greater Noida	15 th to 27 th June, 2015
20	One day IEEE UP Section “CCIP”	organized by JSSATE, Noida	02 nd March, 2015
21	One Week QIP on “Control System Techniques and their Applications”	Electrical Engineering Dept., at DTU Delhi	12 th to 18 th Dec, 2014
22	One Week QIP on “Renewable energy resources and their applications”	Energy Dept., at IIT Delhi	11 th to 17 th Dec, 2013
23	One Week Quality Improvement Programme on “Application of Solar system & Photovoltaics”	Energy Dept., at IIT Delhi	12 th to 18 th Dec, 2012

v. Workshops / Conference (Organized)

Sl. No.	Name of the workshop / Conference	Organized by	Date	Role
1	Two days national seminar on “Recent Technological Developments in the field of Electrical Engineering (RTDEE-2013)”	JSSATE, Noida	23-24 th August, 2013	Member of Organizing Team

vi. Conference Attended (those sponsored by AICTE / ISTE /IETE /TEQIP or any other sponsoring body)

Sl. No.	Name of the workshop / Conference	Coordinator	Date
1	Two-Days STTP on Introduction of Cadence Software (Pspice) and Its Application	Dr. Nirmal Kumar Agarwal (Assistant professor) Department of Electrical Engineering, JSS Academy of Technical Education, Noida (UP)	13 th -14 th September, 2024

6. Details of NPTEL / COURSERA courses completed

Sl. No.	Name of the subject	Organized by	Date of completion / Award	Grade / Marks
1	Non-Conventional Energy Resources	NPTEL	10/06/2020	85%

7. Membership of Professional Bodies:

1. Senior Member of IEEE Power & Energy Society Membership (**Member No. 93372452**)