Faculty Profile on University Website

www.mjpru.ac.in

Title	**Dr.**	**First Name**	**Desh Deepak**	**Last Name**	**Sharma**	**Photograph**

Designation		**Associate Professor**	
Department		**Electrical Engineering**	
Address	**Campus**	**Electrical Engineering Department MJP Rohilkhand University, Bareilly**	
	Residence	**1/54 Suresh Sharma, Bareilly**	
Mobile No.		**7906950194**	

Email ID	Personal	deshdeepak101@gmail.com
	University Domain	desh.sharma@mjpru.ac.in
Professional Networking ID, i.e. Linkedin, Twitter etc.	https://www.linkedin.com/feed/	

Educational Qualifications (Graduation Onwards)

Course/Degree	Institution	Year	Details/Thesis Topic/Subjects
B.E.	**M.M.M. Engineering College , Gorakhpur**	**1993**	Electrical Engineering
M.Tech	**N.I.T. Kurukshetra**	**2000**	Control System
Ph.D.	**IIT Kanpur**	**2016**	Development of distributed control schemes for energy storage systems using distribution system load patterns

Career Profile

Organization / Institution	Designation	Duration	Nature of Duties
MJP Rohilkhand University, Bareilly	**Associate Professor**	**07 yr**	**Teaching, research and administration**
---do---	**Reader**	**05yr**	**Teaching, research and administration**

----- do -----	**Sr. Lecturer**	**01y11m**	**teaching**
-------do------	**Lecturer**	**05yr**	**teaching**
AKG Engg. College, Ghaziabad	**Lecturer**	**02yr**	**teaching**

Research Interests / Specialization

Distributed control system, model predictive control, adaptive control, robust optimal control, multi-agent system, Smart grid, energy storage system, demand side management, application of data mining techniques in load profiling and distribution system, distributed control schemes for distributed generation and energy storage systems, cyber-physical system, and cyber security issues in power system. Blockchain based peer to peer energy transactions, smart contracts, and energy crypto currencies.

Drone technology

Research Experience in Years

05

No of Research Scholars Successfully Guided

Name of Programme	Awarded	Under Supervision
Ph.D.		**05**
M.Phil.		
Dissertation (M.Ed./M.A.)		

Researcher/ Expert ID	**Scopus**	**Orchid**	**Publons**	**Vidwan**	**Google Scholar**
		https://orcid.org/0000-0003-4512-4878	https://publons.com/researcher/1416710/desh-deepak-sharma		

Teaching Experience (Subjects/Courses Taught)

22 years

Theory subjects : Control System, Nonlinear Control System, Basic Electrical Engineering, Network Analysis And Synthesis, Computer simulation of power system

Labs : Control system lab, Power Electronics lab, Basic Electrical Lab, CCS Lab

Honours/ Awards & Fellowship FOR OUTSTANDING WORK			
Name of Award/ Fellowship	**Awarded By**		
	Name of Governmental Agency	**Name of Government Supported Organization/ Department**	**Name of International Recognized Body**
Letter of appreciation (2016)	IEEE Smart Village		
Best paper award	IEEE UPCON 2018		
Post Doc fellowship 2019			Loyola Institute of Science and Technology, UNIVERSIDAD LOYOLA ANDALUCÍA, Seville, Spain
Letter of appreciation (2020)			VCOP2020:, Bangladesh
Shikchak Samman (2021)	MJP Rohilkhand University, Bareilly		
Best Faculty Award (2022)		International Scientist Awards on Engineering, Science and Medicine , Pondicherry, India	

Publications /Academic Activities (Numbers Only)									
Books & Monographs (Single Author)		Research Papers Published in International Journals	**14**	Papers Presented in Seminars/ Conferences	**08**	Seminars/ Conferences Organized	**01**	Research Projects (Completed)	**04**
Books (Co-authored)		Research Papers Published in Other Journals		Seminar/ Conferences Attended		Workshops Organized	**01**	Research Projects (Ongoing)	**01**
Books (Edited)		Articles Published in Popular Fora, e.g., Websites, Blogs, Newspapers, Magazines etc.	01	Sessions Chaired in Seminars/ Conferences	**04**	Membership of Academic/ Professional Bodies	**01**	Foreign Countries Visited for Academic Assignments	USA And Spain
Chapters in Edited Books	**02**			Resource Lectures Delivered	**01**				

Details of Publications /Academic Activities (2010 Onwards)

(a) Authored Books/ Monographs

Name of Book	Year of Publication	Publisher	ISBN No

(b) Edited Books

Year of Publication	Title	Publisher	ISBN	DOI No.	Citations

(c) Papers Published in UGC Care Listed /Indexed/ Peer Reviewed Journals

Year of Publication	Title	Name of Journal	ISSN No	Citations	Impact Factor
2017	Agent-Based Distributed Control Schemes For Distributed Energy Storages Under Cyber Attacks	IEEE Journal On Emerging And Selected Topics In Circuits And Systems	**2156-3357**	**23**	**4.6**
2016	Multi-Agent Based Distributed Control Of Distributed Energy Storages	Journal Of Energy Storage, Elsevier	**2196-5420**	**22**	**9.4**
2015	Aberration Detection In Electricity Consumptions Using Clustering Technique	International Journal Of Energy Sector Management, Emerald	**2196-5420**	**12**	**3.1**
2017	Identification and characterization of unusual consumptions of load data	Journal of Modern Power System and Clean Energy (MPCE), Springer	**2196-5420**	**15**	**6.3**
2017	A Comparative Study On Various Dielectric Barriers And Their Effect On Breakdown Voltage	IET Journal, High Voltage	**2397-7264**	**27**	**4.4**
2015	Model Predictive Control System Design For Energy Management With Optimal Usage Of Battery Energy Storage System	International Journal Of Electrical And Electronics Engineers	**2321-2055**		
2020	Designing Community Energy Storage System For Peak Shaving Application With Load Pattern Data	Compliance Engineering Journal (UGC CARE Journal)	**0898-3577**		
2020	Vulnerability Assessment In Power Network With Topological Approach	Compliance Engineering Journal	**0898-3577**		

2020	Hierarchical Structure of Active Distribution Network in Power System	International Journal of Engineering and Engineering and Advanced Technology	**2249-8958**		
2020	Model Predictive Control System Design For Optimal Usage Of Battery Energy Storage System	GIS Science Journal (UGC CARE Journal)	1869-9391		
2020	Vulnerability Assessment In Power Network With Topological Approach	Compliance Engineering Journal (UGC CARE Journal)	0898-3577		
2020	Game Theoretic Distributed Model Predictive Control for Battery Energy Storage System	Proteus Journal (UGC CARE Journal)	. 0889-6348		
2020	Optimal Strategies of Virtual Power Plants Development: A Review	Proteus Journal (UGC CARE Journal)	0889-6348		
2021	Planning and operation of EV charging stations by chicken swarm optimization driven heuristics	Energy Conversion and Economics , IET, Wiley Publication	2634-1581	**15**	
2023	Token-Based Smart Power Contract for Interoperable Blockchains of Networked Microgrid System	New Energy Exploitation and Application	2754-5652		
2023	Asynchronous blockchain-based federated learning for tokenized smart power contract of heterogeneous networked microgrid system	IET Blockchain	2634-1573		

(D) Chapter/Paper Published In Edited Books

Publication		Title Of The Book	Title Of The Chapter	Name & Address of Publisher	Year	ISBN	DOI	Citation Google/ web of science
National	International							
	International	Robust optimal planning and operation of electrical energy systems,.	Robust Optimal Multi-Agent Based Distributed Control Scheme for Distributed Energy Storage System	Springer	2018	**978-3-030-04**		
	International	Blockchain Based Systems For the Modern Energy Grid,	BlockChain Enabled Energy Sector	**Elseveier**	2023	97803 23918 510	https://doi.org/10.1016/B978	

		Elsevier	Management				-0-323-91850-3.00006-8	

(e) Invited as Resource Lectures Person/Examiner/Expert

Resource person	Detail of Event	Title of Lecture	Date	Institution
Dr. D. D. Sharma	International workshop on Agent based self- healing energy systems: Design and implementation	Distributed control agent based system	Feb 21-22, 2017	IIT Kanpur
Dr. D. D. Sharma	FDP on Recent Advances in Power Electronics	Recent developments on energy storage devices applications in India	July 12, 2018	SRMS College of Engineering and Technology, Bareilly
Dr. D. D. Sharma	Game theory in energy market	FDP on smart grid technology	Sept 2019	IET Lucknow
Dr. D. D. Sharma	Peer to Peer Energy Market with Renewable Energy	FDP on renewable energy	Feb 2020	REC Bijnor
Dr. D. D. Sharma	Blockchain based peer to peer energy trading	FDP on advancement in smart grid technology	Feb 2020	REC, Mainpuri
Dr. D. D. Sharma	Comparative Modeling of aging effect in different kind of battery	7th World Congress of Smart Energy	02/ 11/2017	BIT Group.

(f) Seminars/Conferences/Workshops Organized

1. IEEE IEEE International Symposium , Internet of Things: Smart Innovation & Usages (28-Feb-2017 - 01-Mar-2017)
2. 05 days EDP on Solar Energy, Feb 17 -21,in collaboration with NISE sponsored by TEQIP-3
3. Hardware in Loop Typhhon HIL workshop, Nov 06-07, 2019 .
4. Workshop on Outcomes-Based Education & NBA Accreditation Process Feb 01 2018-05 ,2018
5. Six days International Faculty Development Program on “Recent Trends in Electrical Engineering and Applications”, Aug 08-13, 2020, Electrical Engineering Department, MJP Rohilkhand University, Bareilly
6. A seminar on Innovation during 13/02/2021 (under GRIC)

   Resource person : Prof. J. Ramkumar, Mechanical Department, IIT Kanpur
7. INNOVATION SUMMIT 2021 during 27/09/2021 (under GRIC)
8. A webinar on “Pushing the boundaries –Innovation from the ordinary (under GRIC)

   Dr Nitin Mourya , Scientist, National Innovation Foundation, India. During 29/12/2021
9. A webinar on Department for Promotion of Industry & Internal Trade under Ministry of Commerce & Industry(DPllT) IPR AWARENESS PROGRAMME in collaboration with National Intellectual Property Awareness Mission (NIPAM) during 14/07/2022.

10. A 04 weeks training program on MATLAB in the month of July 2022 (date of commencement (10/07/2022).
11. Rohilkhand Atal Innovation Summit 2022 on 25/12/2022 (under GRIC)
12. A seminar on Cyber Security in collaboration with CDAC Noida on 11/10/2023.

(g) Projects (With Title, Year, Grants, Funding Agency and Collaborations)

Year	Name of Project	Funding Agency	Amount	Duration	
				From	Till
02	Development Of Intelligent Energy System In the Building (Established Remote Monitoring Of Solar Power System)	MHRD,TEQIP-III	02 lacs	28/9/2018	28/9/2020
02	Solar PV Integration With Hybrid Multilevel Inverter For Efficient Standalone System	MHRD,TEQIP-III	17.3	18/6/2019	30/03/2021
02	Development Of Advanced Compact Sized EMI Filter	MHRD,TEQIP-III	12.8	18/6/2019	30/03/2021
02	Stochastic Charging Of Electric Vehicles In Distribution Grid	MHRD,TEQIP-III	11.6	18/6/2019	30/03/2021

(h) Administrative Positions/Assignments Held

Post	Organization	Duration	
		From	To
HOD	Electrical Engineering Department	Dec 2021	Till date (30/08/2023)
HOD	Electrical Engineering Department	July 2009	July 2012
HOD	Electrical Engineering Department	DEC 2016	DEC 2019
TEQIP Nodal Officer Finance	MJP Rohillkhand University, Bareilly	January 2018	Sept, 2021
Coordinator, GRIC	Grass Root Innovation Center, MJP Rohilkhand University, Bareilly	29/10/2020	Till date

(i) Seminar/Conference Presentations

- D.D.Sharma, "Particle swarm optimazation for PID controller : peak overshoot a performance criteria," National Conference on Mechatronics , NITTTR, Chandigarh, March 8-9,2007.
- D.D.Sharma, "Demand response an integral part of smart grid: A survey paper," National Conference on Power System,M.M.M.Engg. College ,Gorakhpur, March 21-23, 2011
- D.D.Sharma and Rajatvarshney," Estimation of parameters of venous return curves using neural network and particle swarm optimization", National Symposium on Instrumentation(NSI- 36), Invertis University, Bareilly , 20-22 oct,2011
- D. D. Sharma, S. N. Singh, "Electrical Load Profile Analysis and Peak Load Assessment using

Clustering Technique", IEEE PES General Meeting -14, Washington D.C.,USA, July 2014.

- D. D. Sharma, S. N. Singh, B. S. Rajpurohit, F. G. Longatt "Critical Load Profile Estimation for Sizing of Battery Storage System", IEEE PES General Meeting -15, Denver, USA July 2015.
- D. D. Sharma, S.N. Singh, Jeremy Lin, ElhamForuzan, ``Distributed control scheme based on agents' behaviour for distributed energy storages," 2016 IEEE PES General Meeting, Boston, USA, July 2016.D. D. Sharma, S. N. Singh, "Designing community energy storage system for peak saving application with load pattern data", International Conference GRIDTECH 2015, N. Delhi.
- D. D. Sharma, S.N. Singh, Jeremy Lin, ElhamForuzan, ``Agent-based distributed control scheme for distributed energy storages based on forecast uncertainties ," 2017 IEEE PES General Meeting, Chicago, USA, July 2017.
- ElhamForuzan, KavehNiayesh, Jeremy Lin, Desh Deepak Sharma , Hossein Sangrody, "Simulation and Modeling of Dielectric Barrier Impact on Heterogeneous Electric Field" 2017 IEEE International Conference on Electro Information Technology (EIT), Lincoln, Nebraska, U.S.A. May, 2017
- D. D. Sharma, "Optimal day ahead strategy based on capacity loss for battery energy storage system" IEEE International Conference on Power System, ICPS17, Pune.
- D.D. Sharma, "The challenges in development of internet of things based smart power distribution system," IEEE UPCON 2018
- D. D. Sharma, "Receding horizon control strategy for energy storage devices incorporating capacity loss", IEEE UPCON 2018.
- Vidhya T, Vaishnavi NK, P. Meena, Desh Deepak Sharma, "Remote Monitoring and Control of Electrical Systems with Augmented Reality and Digital Twin" 16th International Conference on Remote Engineering and Virtual Instrumentation, BMS College Banglore , 2019
- C. Lakshminarayana, A. Mohammed, Desh Deepak Sharma, "Design and Development of Solar Electric Hybrid Heated Bed Smart Electric Stove" 16th International Conference on Remote Engineering and Virtual Instrumentation, BMS College Bangalore , 2019
- D. D. Sharma, Ayan Sharma, Antas Sharma, Jeremy Lin, Atul Sarojwal , "Blockchain Based Adaptive Non-Cooperative game Strategy For Smart Power Contracts" The 8th International Conference for Convergence in Technology (I2CT) , April 07-09, 2023 Pune , India.
- D.D. Sharma , Ravindra Kumar, "PI Controlled Bridged Grid Connected Solar PV Network for Electric Vehicle Charging" International conference on advancements and key challenges in green Energy and Computing , 24-25, Feb , 2023 .
- D.D.Sharma, Ayan Sharma, Antas Sharma, "Neural Network Based Prediction of Feedback Gain Parameters in Networked Control System" IEEE IC2E3 , NIT Uttrakhand , India, June 8-9, 2023

(j) Memberships of Academic/Professional Bodies

IEEE

(k) Participation in Community Service / Exchange Programme / Consulting Activity

(l) International Academic Exposure

Worked at *Loyola Institute of Science and Technology, UNIVERSIDAD LOYOLA ANDALUCÍA, Seville, Spain*	Title: An Integrated Platform for IncreditedFLEXIbility in smart TRANSmission grids with STORAGE Entities andLarge penetration of Renewable Energy Sources (FLEXITRANSTORE)	A European Union's Horizon 2020 research and innovation programme under grant agreement No 774407	Post Doc Research Fellowship 2019
Research paper presentation	Electrical Load Profile Analysis and Peak Load Assessment using Clustering Technique	**IEEE PES General Meeting 2014**	Washington D.C.,USA

(m) Any Other Details

- **IEEE Smart Grid eNewsletter**

D.D. Sharma"Redefining Contingency Analysis for Development of Resilient Cyber Physical Power System, " October 2018 (https://smartgrid.ieee.org/newsletters/october-2018/1168-redefining-contingency-analysis-for-development-of-resilient-cyber-physical-power-system)

- **Skill Development**

1. Expertise on GAMS software
2. Expertise on Hardware in Loop Typhon Hill software and Hardware
3. Expertise on MATLAB software and Python

- **New Lab Developments**

4. Tinkering lab
5. Renewable lab

- Coordinator , Grass Root Innovation Center
- Ph.D. Supervisor : Prof. S.N. Singh , Director (ABV - IIITM) Gwalior
- International Collaborations
    - Dr. Jeremy Lin (Principal , National Grid USA)
    - Cesar Martin –Gomez (Sub Director) Escuela de Arquitectura Universidad de Navara
    - Shengzhi Du , Professor Tshwane University of Technology Pretoria, South Africa
    - Alexandra Professor Pretoria, South Africa

Signature of Faculty Member