

Name Rachna
Designation Assistant Professor
Date of Joining Feb 28, 2014
Qualification B.Tech (Electrical Engg.), YMCAUST,Fbd
M.Tech (Power systems), DTU
Ph.D(pursuing), DTU

Area of interest Power Systems, Renewable Energy
Teaching Experience 10 years (as on 28th Feb 2024)
E-mail rachna@jcboseust.ac.in



Publications:

Article:

1. An Article on “Adaptive Relaying: A new direction in Power System Protection” in IEEE’s BEACON 2012

International/National Journals:

1. Rachna Dhir, Rachana Garg,”Performance of High Voltage Transmission Network equipped with series compensated device”, International Journal of Applied Engineering Research, Issue 07, Vol8, 2013
2. Rachna, “Behavioural study of TCSC in a transmission line using MATLAB/SIMULINK”, IJRAR, Feb 2019 Issue1, Vol6
3. Anubha Gautam, Rachna Dhir. **Optimizing deregulated power systems: Facts devices for congestion alleviation and cost reduction.** Int J Adv Electr Eng 2024;5(1):22-30. DOI: [10.22271/27084574.2024.v5.i1a.49](https://doi.org/10.22271/27084574.2024.v5.i1a.49)
4. Gautam, Rachna. (2024). A Comprehensive Topology Review and Comparative Analysis of Wind Energy Conversion Systems. International Journal of Science and Research (IJSR). 13. 1518-1524. 10.21275/SR24220190528.
5. Anubha Gautam, Rachna Dhir. **Optimizing deregulated power systems: Facts devices for congestion alleviation and cost reduction.** Int J Adv Electr Eng 2024;5(1):22-30. DOI: [10.22271/27084574.2024.v5.i1a.49](https://doi.org/10.22271/27084574.2024.v5.i1a.49)
6. Rachna Dhir, Anubha Gautam,” Investigation into Behavioral Characteristics of Photovoltaic Cells using MATLAB//Simulink” Journal of University of Shanghai for Science and Technology,63-72, Volume 26, Issue1, January2024.

International/National Conferences:

1. Rachna, Shipra Aggarwal, Rashmi Aggarwal,” India's Energy Scenario and Trends in Renewable Energy”, National Conference on Role of Science and Technology Towards Make in India, RSTTMI-2016, 3-5 March 2016, YMCAUST, Faridabad

2. Rachna,” Fault location on a high voltage series compensated transmission network”, National Conference on Role of Science and Technology Towards Make in India, RSTTMI-2016, 3-5 March 2016, YMCAUST, Faridabad
3. Rachna, Shipra Aggarwal , “Speed Control Methods of induction motor”, National Conference on Role of Science and Technology Towards Make in India,RSTTMI-2016, 3-5 March 2016, YMCAUST, Faridabad
4. Rachna, “Solar Energy in India: Strategies and Challenges”, International Conference on Sustainable Development Through Research In Engineering And Management,” 26-27 Dec 2016, YMCAUST, Faridabad.
5. Rachna, “Review on various optimal location techniques for FACTS devices”, National Conference NHTSEE17 , 9-10 March 2017, YMCAUST, Faridabad
6. Rachna, “Review of Demand Side Management Techniques”, IEEE Conference, ICPEICES 2018, DTU
7. Priyanka, Sakshi Bangia, Rachna ,”Speed Control Of SRM Motor Using Fuzzy Logic Controller” International Conference on Advances in Sustainable Energy, Environment, and Engineering (ICASSEE-2021), April 21(presented only)
8. Nisha, Rachna , “Study of Behavioural aspects of a PV Cell”, International Conference on Advances in Sustainable Energy, Environment, and Engineering (ICASSEE-2021), April 21 (110-117)
9. Rachna, Rachana Garg, Priya Mahajan,” A Review of Microgrid Control Strategies”. IEEE Delhi Section International Conference on Electrical, Electronics and Computer Engineering IEEE (DELCON-2022).
10. Samarth Mishra,Shruti Thakur,Piyush Kaushik,Rachna Dhir,"Electric Vehicle Adoption in India:Current Scenario, Challenges and Future Prospects",10th International Symposium on Fusion of Science and Technology 2024(ISFT-2024) ,04-08th Jan'2024
11. Rachna Dhir,"Examination of Photovoltaic-Battery System in Standalone and Grid Connected Mode ",1st International Symposium on Battery Technology Advances and Future Trends, PDEU Gandhinagar,19-21st Jan'2024

BOOK CHAPTERS:

1. Rachna, “Modeling and Simulation of a Single-Phase Single-Stage Grid Connected System”, ICRDEEE-2022, 15-16th April’22

Short Term Courses/Workshops/Seminar Attended:

Sr. No	Topic	Organised by	Date
1.	Soft Skills and Personality Management	JCBoseUST, YMCA	15.07.2014-21.07.2014

2.	MATLAB and SIMULINK	JCBoseUST, YMCA	11.02.2015-16.02.2015
3.	New Trends in Electronics and Communication Engineering	JCBoseUST, YMCA	17.08.2015-21.08.2015
4.	Environment, Develop and Sustainability	JCBoseUST, YMCA	04.07.2016-08.07.2016
5.	Big Data Analytics and Data/Text Mining	JCBoseUST, YMCA	19.12.2016-24.12.2016
6.	Automation: PLC and SCADA	JCBoseUST, YMCA	17.01.2017-21.01.2017
7.	Real time data acquisition and analysis using labview	JCBoseUST, YMCA	08.05.2017-12.05.2017
8.	Intelligent Management of renewable Energy Technologies	JCBoseUST, YMCA	18.01.2018-23.01.2018
9.	Climate Change and Sustainable Infrastructure Development	JCBoseUST, YMCA	04.06.2018-09.06.2018
10.	Outcome based accreditation for undergraduate Engineering program	JCBoseUST, YMCA	02.05.2018-03.05.2018
11.	Embedded World	JCBoseUST, YMCA	26.11.2018-30.11.2018
12.	Communication Skills	JCBoseUST, YMCA	01.07.2019-05.07.2019
13.	Hands on Training on “ Design and Fabrication of PCB”	JCBoseUST, YMCA	18.07.2019-24.07.2019
14.	Digital Transformation in Teaching Learning Process	JCBoseUST, YMCA	06.04.2020-22.04.2020
15.	Industry-Academia Convergence “Bridging the skill gap”	JCBoseUST, YMCA	22.06.2020-26.06.2020
16.	Basic Computer Skills and ICT Tool “ Google Classroom”	JCBoseUST, YMCA	10.07.2020-14.07.2020
17.	Green Technology	JCBoseUST, YMCA	18.07.2020-20.07.2020
18.	Control Systems and Sensor Technology(Digital Circuit Implementation Using Zynq FPGA IC)	JCBoseUST, YMCA	16.09.2020-20.09.2020
19.	Basic Computer Skills and ICT Tools Google Classroom	JCBoseUST, YMCA	10.07.2020-14.07.2020
20.	Power Electronics Applications in Microgrid and Electric Vehicle Systems	JCBoseUST, YMCA	01.03.2021-06.03.2021
21.	Recent Advancements in Artificial Intelligence and Machine Learning	JCBoseUST, YMCA	22.03.21-27.03.21
22.	AICTE sponsored online STTP on ‘Electric Vehicle Techniques with OPAL-RT Solutions,	JCBoseUST, YMCA	20.12.2021-25.12.2021
23.	Two days online workshop on “Design and Development of Electric Vehicle using ANSYS”	JCBoseUST, YMCA	26.11.2021-27.11.2021
24.	AICTE sponsored online STTP on “Recent Challenges and Developments in Solar Energy Techniques and its Applications”	JCBoseUST, YMCA	24.01.2022-29.01.2022
25.	Web based Courseware Development	NITTTR, Bhopal	12.09.22-16.09.22
26.	Training Program on ‘Smart Distribution System & Storage’	IIT Kanpur	21.08.23-25.08.23
27.	FDP on “Electric Vehicle and Microgrid Applications”	VIT Chennai	16.10.23-18.10.23

28.	FDP on “Advancing Renewable Energy Technologies	JCBoseUST, YMCA	29.01.24-03.02.24
29.	FDP on “Cyber Attacks and Defense”	C-DAC Noida	02.01.24-06.01.24
30.	FDP on “Navigating Harmonics in Variable frequency Drives and Microgrids”	Chitkara University	30.10.23-03.11.24

Webinars attended:

Sr.No	Topic	Organised by	Date
1.	International symposium on Covid19 and Beyond	JCBoseUST, YMCA	10.06.2020
2.	Machine Learning and Robotics: A paradigm for new generation	JCBoseUST, YMCA	19.06.2020
3.	Building Motivation and Nurturing Opportunities	JCBoseUST, YMCA	20.06.2020
4.	Industry 4.0: Thinking with ThingsworX platform for IIOT 4.0	JCBoseUST, YMCA	22.06.2020
5.	Global HR Conclave	JCBoseUST, YMCA	11.07.2020-12.07.2020

Invited Talks/ Lecture Delivered:

Sr. No	Topic	Venue	Date
1.	Basics of MS Word	JCBoseUST, YMCA, Fbd	10.07.2020
2.			