

Name: Dr. Sumit Banerjee



Department: Electrical Engineering

Contact Nos.: 91-9434475618

Qualifications: BE (Honours), ME, PhD (Engg.)

Designation: Professor

VIDWAN ID: 187506

Experience (Teaching / Research / Industry, in years): Teaching: 22 Years, Research: 13 Years
Industry: 2 Years

Date of Joining at the Present Institution: 03.07.2007

Examinations Cleared: NET-CSIR/GATE NA

Qualifications Summary (Reverse chronological order):

Degree	Institute	From - To	Subjects
Ph.D (Engg)	Bengal Engineering and Science University, Shibpur, Howrah (Presently IEST, Shibpur)	May 21, 2013 (Awarded)	Engg.
Master of Engineering	Birla Institute of Technology, Mesra, Ranchi	2005-2008	Control System
Bachelor of Engineering	Regional Engineering College Durgapur (Presently National Institute of Technology, Durgapur)	1989-1993	Electrical Engineering

Experience Summary (In chronological order):

Name of the Organization	Designation	Date From – Date To
Dr. B.C.Roy Engineering College Durgapur	Professor	01.09.2016 to till date
Dr. B.C.Roy Engineering College Durgapur	Associate Professor	01.07.2013 to 31.08.2016
Dr. B.C.Roy Engineering College Durgapur	Assistant Professor	01.07.2009 to 30.06.2013
Dr. B.C.Roy Engineering College Durgapur	Sr. Lecturer	01.10.2007 to 30.06.2009
Dr. B.C.Roy Engineering College Durgapur	Lecturer	03.07.2007 to 30.09.2007
I.C.V Polytechnic Jhargram	Lecturer	19.02.2001 to 30.06.2007
Indure Limited, New Delhi	Engineer	February 2000 to Jan '01
LCC Durgapur	Sr. Faculty	November '97 to Jan 2000
Indo Engineering Works Ranchi	Engineer	July '96 to August '97
R.E.College Durgapur	Visiting Lecturer	July '94 to June '96

Specialization/Research Interest: Power System, Renewable Energy, Smart Grid.

Awards & Recognitions:

- a) **TataRao Prize** for Best Paper in Journal of The Institution of Engineers (India): Series B (**Springer**) from The Institution of Engineers (India) in the year 2014.
- b) Merit Scholarship in 2nd and 3rd year of BE for securing rank in classes from Regional Engineering College Durgapur
- c) Prize won for securing 1st rank in 3rd semester of B.E. from Regional Engineering College Durgapur

Courses taught:

Sl.No.	Name	Level
1.	Basic Electrical Engineering (ES-EE 101, ES101, ES 201)	UG
2.	Electric Circuit Theory (EE 301)	UG
3.	Power System I (PC-EE 502)	UG
4.	Control System I (EE 503)	UG
5.	Power System II (PC-EE 601)	UG
6.	Power System Lab I (PC-EE 592)	UG
7.	Power System Lab II (PC-EE 691)	UG
8.	Power System Analysis (PSM 101)	PG
9.	Power System Operation & Control	PG
10.	Power System Software Lab (PSM192)	PG

Online Mode of Teaching:

The Faculty member needs to specify the online teaching/ assessment method adopted. (Link to any faculty created resources for Lecture notes / PPT/ Video Lecture etc. in Google Drive / Weblink etc)

Through Google meet. Assessment Method by Class Test, Assignment, Quiz, Viva.

Publications:

Journal:

1. Mehebab Alam, Shubhrajyoti Kundu, Siddhartha Sankar Thakur, **Sumit Banerjee**, "A new cost effective algorithm for online identification of line outage contingency using current phasor of PMU," Sustainable Energy, Grids and Networks (Elsevier), Volume 23, Sep 2020, pp. 100373. (SCI indexed).
2. Mehebab Alam, Shubhrajyoti Kundu, Siddhartha Sankar Thakur, **Sumit Banerjee**, "Maiden application of rank correlation coefficient for line outage detection using current phasor of PMUs," International Transactions of Electrical Energy Systems (Wiley), Volume 30, Issue 10, Oct 2020, pp. e12562 (SCI indexed).
3. Mehebab Alam, Shubhrajyoti Kundu, Siddhartha Sankar Thakur, **Sumit Banerjee**, "PMU based line outage identification using comparison of current phasor measurement technique,"

International Journal of Electrical Power & Energy Systems, 115, 2020, pp. 1-15. (**SCI indexed**). <https://doi.org/10.1016/j.ijepes.2019.105501>

4. Deblina Maity, **Sumit Banerjee**, Chandan Kumar Chanda, "Economic Load Dispatch Solution considering prohibited zone and ramp rate limits assisted by Mine Blast and Modified BBO Algorithm," International Journal of Electrical Engineering, Volume 27, Issue 5, Oct 2020, pp. 197-208. (**Scopus indexed**).
5. Meheebub Alam, Shubhrajyoti Kundu, Siddhartha Sankar Thakur, **Sumit Banerjee**, "Line outage identification using comparison of bus power mismatch considering PMU outage," International Journal of Nanoparticles (Inderscience Publishers), Volume 12, Issue 3, Sep 2020, pp. 238-263. (**Scopus indexed**).
<https://doi.org/10.1504/IJNP.2020.109547>
6. Deblina Maity, **Sumit Banerjee**, Chandan Kumar Chanda, "Solution of Economically Load Scheduling Problem using Teaching Learning and Bio-Geography Based Hybrid Optimization Algorithm", International Journal of Recent Technology and Engineering (IJRTE), Volume-8, Issue-3, Sept. 2019, pp. 4284-4293. (**Scopus indexed**), ISSN: 2277-3878.
7. Deblina Maity, **Sumit Banerjee**, Chandan Kumar Chanda, "Bare Bones Teaching Learning Based Optimization Technique for Economic Emission Load Dispatch Problem Considering Transmission Losses," Iranian Journal of Science and Technology Transactions of Electrical Engineering, 43(1), 2018, pp. 77-90. (**SCI indexed**), [DOI: 10.1007/s40998-018-0158-1](https://doi.org/10.1007/s40998-018-0158-1).
8. **Sumit Banerjee**, Koustav Dasgupta, Chandan Kumar Chanda, "Short term hydro-wind-thermal scheduling based on particle swarm optimization technique" International Journal of Electrical Power & Energy Systems, Volume 81, 2016, pp. 275-288. (**SCI indexed**), <http://dx.doi.org/10.1016/j.ijepes.2016.01.031>, Citation: 27.
9. **Sumit Banerjee**, Deblina Maity, Chandan Kumar Chanda, "Teaching learning based optimization for economic load dispatch problem considering valve point loading effect," International Journal of Electrical Power & Energy Systems, Volume 73, 2015, pp. 456-464. (**SCI indexed**), <http://dx.doi.org/10.1016/j.ijepes.2015.05.036>, Citation: 67.
10. Sanjoy Kumar Saha, **Sumit Banerjee**, Chandan Kumar Chanda "Optimal Allocation of Distribution Generator in a Radial-Distribution System Using Self Adaptive Modified Firefly Algorithm with Voltage, Power and Line capacity limit Constraints" International Journal of Power and Energy Conversion, vol. 6, no. 2, pp. 148-164, 2015. (**Scopus indexed**). **DOI: 10.1504/IJPEC.2015.069435**) Citation: 02
11. Tapan Kumar Chattopadhyay, **Sumit Banerjee**, Chandan Kumar Chanda, "A Simple Approach on Voltage Stability Index of Distribution System for Loads of Different Types," International

Review of Electrical Engineering (IREE), vol. 9, No. 5, pp. 1002-1011, 2014. **(Scopus indexed)** (ISSN: 1827-6660 e-ISSN: 1827-6679). DOI: <http://dx.doi.org/10.15866/iree.v9i5.915>. Citation: 02

12. **Sumit Banerjee**, Debapriya Das, Chandan Kumar Chanda, “Voltage Stability of Radial Distribution Networks for Different Types of Loads,” International Journal of Power and Energy Conversion, vol. 5, no. 1, pp. 70-87, 2014. **(Scopus indexed) (DOI: 10.1504/IJPEC.2014.059984)**
13. **Sumit Banerjee**, Chandan Kumar Chanda, Debapriya Das, “Reconfiguration of Distribution Networks based on Fuzzy Multiobjective Approach by considering Loads of Different Types,” Journal of The Institution of Engineers (India): Series B, vol. 94, no 1, pp. 29-42, 2013 **(Scopus indexed)**. Citation: 01. DOI **10.1007/s40031-013-0043-2**
14. Sanjoy.Kumar. Saha, **Sumit Banerjee**, Chandan Kumar. Chanda, “Optimal Allocation of Distributed Generator in a Radial Distribution Network by Loss Minimization Technique and Improvement of the Voltage Profile with the help of FACTS Devices,” AMSE, Modelling, Measurement and Control, Series A: General Physics and Electrical Applications, vol. 87, no. 1, pp. 25-44, 2014. **(Scopus indexed) (ISSN: 1259-5985)**.
15. **Sumit Banerjee**, Debapriya Das, Chandan Kumar Chanda, “Reconfiguration of Distribution Systems Based on Fuzzy Multiobjective Approach by Considering Distributed Generators,” AMSE, Modelling, Measurement and Control, Series A: General Physics and Electrical Applications, vol. 86, no. 1, pp. 87-105, 2013. **(scopus indexed) (ISSN: 1259-5985)**.
16. Sanjoy Kumar Saha, **Sumit Banerjee**, Chandan Kumar Chanda, “Value-Based System Reliability Planning by Spinning Reserve Technique,” AMSE, Modelling, Measurement and Control, Series A: General Physics and Electrical Applications, vol. 86, no. 1, pp. 52-63, 2013. **(scopus indexed) (ISSN: 1259-5985)**.
17. Sanjoy Kumar Saha, **Sumit Banerjee**, Chandan Kumar Chanda “Determination of Optimal Location and Sizing of Distributed Generator in Radial Distribution Systems for Different Types of Load ” AMSE, Modelling, Measurement and Control, Series A: General Physics and Electrical Applications, vol. 86, no. 1, pp. 1-23, 2015. **(scopus indexed) (ISSN: 1259-5985)**.
18. **Sumit Banerjee**, “Voltage Stability Margin of Radial Distribution Systems Considering Reactive Loading Index,” Automatic Control (Theory and Applications), AMSE Press, vol. 66, no. 2, pp. 42-55, 2011. **(scopus indexed)**

19. **Sumit Banerjee**, Deblina Maity, Chandan Kumar Chanda, "A Comparative Study of Improved Teaching Learning Based Optimization Technique on Economic Load Dispatch Problem with Generator Constraints" International Journal of Energy Optimization and Engineering (IJE OE), vol. 5, no. 2 (4), pp. 1-25, DOI: 10.4018/IJE OE.2016100101. (ISSN: 2160-9500).
20. Tapan Kumar Chattopadhyay, **Sumit Banerjee**, Chandan Kumar Chanda, "Voltage Stability Index of Radial Distribution Networks by considering Distributed Generator for Different Types of Loads" International Journal of Energy Optimization and Engineering (IJE OE), vol. 5, no. 1, art. 1, 2016, pp. 1-22. DOI: 10.4018/IJE OE.2016010101. (ISSN: 2160-9500).
21. Sanjoy Kumar Saha, **Sumit Banerjee**, Santanu Sadhukhan "Optimal Placement of Dispersed Generator in a Radial Distribution Network by Using Path Search Algorithm" International journal of Electrical power and Energy, vol. 1, no. 1, pp-1-10,2014.
22. Debasis Banerjee, Sanjoy Kumar Saha, **Sumit Banerjee**, "Status of all branches of distribution networks in chronological order for composite loads using distributed generation," International Journal of Electrical Engineering & Technology, vol. 5, no. 4, pp. 1-10, 2014. (ISSN: 0976-6553)
23. Priyanka Das, **Sumit Banerjee**, "Placement of capacitor in a radial distribution system using loss sensitivity factor and cuckoo search algorithm," International Journal of Scientific Research and Management, vol. 2, no. 4, pp. 751-757, 2014. (ISSN: 2321-3418) Citation: 15
24. Priyanka Das, **Sumit Banerjee**, "Optimal sizing and placement of capacitor in a radial distribution system using loss sensitivity factor and firefly algorithm," International Journal of Engineering & Computer Science, vol. 3, no. 4, pp. 5346-5352, 2014. (ISSN: 2319-7242) Citation: 15
25. Priyanka Das, **Sumit Banerjee**, "Optimal allocation of capacitor in a radial distribution system using loss sensitivity factor and harmony search algorithm," International Journal of Electrical Engineering & Technology, vol. 5, no. 3, pp. 5-13, 2014. (ISSN: 0976-6553)
26. **Sumit Banerjee**, Arghya Mukherjee, Chandan Kumar Chanda, "Voltage Stability Margin of Radial Distribution Systems for Composite Loads using Distributed Generators," International Journal on Systems Applications and Algorithms, vol. 3, no. ICEEC 13, pp. 130-134, 2013. (ISSN: 2277-2677)
27. **Sumit Banerjee**, Debapriya Das, Chandan Kumar Chanda, "Loss Allocation in Distribution Networks for Loads of Different Types," International Journal on Power System Optimization,

vol. 4, no. 1, pp. 21-30, 2012. (ISSN:0975-458X)

28. Chandan Kumar Chanda, **Sumit Banerjee**, Sukumar Chandra Konar, Sayonsom Chanda, "Study of Reactive Loading Index Range Determination for Radial Distribution Network" The Online Journal on Power and Energy Engineering, vol. 1, no. 3, pp. 106-110, 2010. (ISSN: 2090-1895)
29. **Sumit Banerjee**, Chandan.Kumar. Chanda, Sukumar Chandra Konar , Sayonsom Chanda, "Determination of the Weakest Branch in a Radial Distribution Systems using Reactive Loading Index Range", International Journal on Control System and Instrumentation (ACEEE), vol. 1, no. 1, pp. 31-34, 2010 (DOI: 01.ijcsi.01.01.07) (ISSN:2158-0006)

Conference:

National/International Conferences

IEEE Conferences

1. Subhasri Kar, **Sumit Banerjee** and Chandan Kumar Chanda, "Stepwise modelling and analysis of a PV module in Matlab Simulink", IEEE 2021 International Conference for Intelligent Technologies, Hubballi, Kartakata , (CONIT) India, 25th -27th June,2021.
2. Subhasri Kar, **Sumit Banerjee** and Chandan Kumar Chanda, "Modelling Simulation and Characteristics of a Mono PERC Solar Cell under Environmental Condition", 2021 IEEE Green Technologies Conference (GreenTech), Denver, Colorado, USA, pp. 37-41, 7th – 9th April, 2021. DOI: [10.1109/GreenTech48523.2021.00017](https://doi.org/10.1109/GreenTech48523.2021.00017).
3. Deblina Maity, **Sumit Banerjee** and Chandan Kumar Chanda, "An Analysis of Heat and Power Dispatch Solution in Co-generation Units Assisted By Volleyball Premier League Algorithm," 2020 3rd International Conference on Energy, Power and Environment: Towards Clean Energy Technologies, pp. 1-5, 5th – 7th March, 2021. DOI: [10.1109/ICEPE50861.2021.9404381](https://doi.org/10.1109/ICEPE50861.2021.9404381).
4. Sandeep Kumar Chawrasia, Aakash Das, Chandan Kumar Chanda and **Sumit Banerjee**, "Design Analysis and Comparative Study of Hub Motor for an Electric Bike, " Conference of Michael Faraday IET International Summit 2020 (MFIIS 2020), pp. 242-247, 3rd -4th Oct 2020. (IET Digital Library). DOI: [10.1049/icp.2021.1179](https://doi.org/10.1049/icp.2021.1179)

5. Sandeep Kumar Chawrasia, Chandan Kumar Chanda and **Sumit Banerjee**, "Design and Analysis of In-Wheel Motor for an Electric Vehicle," 2020 IEEE Calcutta Conference (CALCON), pp. 351-355, 28th-29th Feb 2020.
DOI: 10.1109/CALCON49167.2020.9106538

6. Mehebab Alam, Shubhrajyoti Kundu, Siddhartha Sankar Thakur, and **Sumit Banerjee**, "Improved Binary Particle Swarm Optimization Applied to Solve Multiple Line Outage Identification Problem," 2020 7th International Conference on Signal Processing and Integrated Networks (SPIN), pp. 290-294, February 27th-28th, 2020.
DOI: [10.1109/SPIN48934.2020.9071051](https://doi.org/10.1109/SPIN48934.2020.9071051)

7. Mehebab Alam, Shubhrajyoti Kundu, Siddhartha Sankar Thakur, Anil Kumar and **Sumit Banerjee**, "An efficient algorithm for line outage identification in smart power grid," IEEE PESGRE 2020, Kerala, India, January 2nd-4th, 2020.
DOI: [10.1109/PESGRE45664.2020.9070662](https://doi.org/10.1109/PESGRE45664.2020.9070662)

8. Deblina Maity, **Sumit Banerjee** and Chandan Kumar Chanda,"Solution of Economic Load Dispatch Problem Using Flower Pollination Algorithm Considering Generator Constraints", ECTI-CON 2019 International Conference, Pattaya, Thailand, July 10th-13th,2019.

9. Deblina Maity, **Sumit Banerjee** and Chandan Kumar Chanda," DC Optimal Power Flow Calculation for Locational Marginal Pricing for a Deregulated Electricity Market", ECTI-CON 2019 International Conference, Pattaya, Thailand, July 10th-13th,2019.

10. Mehebab Alam, Shubhrajyoti Kundu, Siddhartha Sankar Thakur and **Sumit Banerjee**, "A new algorithm for single line outage estimation", Devic 19 conference, Kalyani Government Engineering College, Kalyani, pp. 113-117, 23rd-24th March, 2019.
DOI: [10.1109/DEVIC.2019.8783954](https://doi.org/10.1109/DEVIC.2019.8783954)

11. Arkadev Ghosh, **Sumit Banerjee**, Deblina Maity, Chandan Kumar Chanda, "Economic Dispatch Solution for Cogeneration Unit Assisted by Bare Bones Teaching Learning Optimization Technique", National Power Engineering Conference 2018: IEEE Podhigai Subsection of Madras Section, 9th-10th March 2018.
DOI:10.1109/NPEC.2018.8476704

12. Deblina Maity, Arkadev Ghosh, **Sumit Banerjee**, Chandan Kumar Chanda, "Microgrid: Planning of optimal placing of distributed energy resources by loss and fuel cost reduction using map reduce optimization algorithm approach", National Power Engineering Conference 2018: IEEE Podhigai Subsection of Madras Section, 9th-10th March 2018.
DOI: 10.1109/NPEC.2018.8476776

13. Tapan Kumar Chattopadhyay, **Sumit Banerjee**, Rabi Sankar Nag, Chandan Kumar Chanda "Application of reliability indices for the analysis of a radial distribution system", National Power Engineering Conference 2018: IEEE Podhigai Subsection of Madras Section, 9th-10th March 2018.
DOI:10.1109/NPEC.2018.8476778

14. Chandan Kumar Chanda, Deblina Maity, **Sumit Banerjee**, "Economic Dispatch Solution for Cogeneration Unit Assisted By Biogeography Based Optimization Algorithm in Competitive Environment," Australasian Universities Power Engineering Conference 2017 (AUPEC 2017), Australia, 19th -22nd Nov 2017. **DOI: 10.1109/AUPEC.2017.82439**

15. Deblina Maity, Arkadev Ghosh, **Sumit Banerjee**, Chandan Kumar Chanda, "Solution of Economic Problem with Co-generation Units Using Mine Blast Algorithm" CALCON 2017: 2017 IEEE Calcutta Conference, Kolkata, 1st -2nd Dec 2017.
DOI: 10.1109/CALCON.2017.8280757.

16. Snehashis Ghoshal, Deblina Maity, **Sumit Banerjee**, Chandan Kumar Chanda, "Solution of Multi-objective Emission & Economic Dispatch using Bare Bones TLBO Algorithm & Biogeography Based Optimization Algorithm," 2017 Second International Conference on Electrical, Computer and Communication Technologies (ICECCT 2017), Coimbatore, Tamilnadu, India, 22-24 February 2017. **DOI: 10.1109/ICECCT.2017.8117855**

17. Deblina Maity, Snehasish Ghosal, **Sumit Banerjee**, Chandan Kumar Chanda "Bare Bones Teaching Learning Based Optimization For Combined Economic Emission Load Dispatch Problem", 3rd IEEE International Conference on Electrical, Electronics, Engineering Trends, Communication, Optimization and Sciences (EEECOS) on 1st -2nd June, 2016. **DOI: 10.1049/cp.2016.1554**

18. Tapan Kumar Chattopadhyay, **Sumit Banerjee**, Deblina Maity, Chandan Kumar Chanda, "Microgrid: Planning Of Active and Reactive Power Loss Reduction In Distribution Network", 3rd IEEE International Conference on Electrical, Electronics, Engineering Trends, Communication, Optimization and Sciences (EEECOS) on 1st -2nd June, 2016. **DOI:10.1049/cp.2016.1557**

19. Deblina Maity, **Sumit Banerjee**, Chandan Kumar Chanda, "Multi-objective Economic Emission Load Dispatch using Modified Biogeography Based Optimization Algorithm," IEEE PIICON 2016 7th Power India International Conference, Govt. Engineering College, Bikaner, Rajasthan.
DOI: 10.1109/POWERI.2016.8077186
20. Ankit Pal, Koustav Dasgupta, **Sumit Banerjee**, Chandan Kumar Chanda, "An Analysis of Economic Load Dispatch with Ramp-Rate Limit constraints using BSA", 2016 IEEE Students' Conference on Electrical, Electronics and Computer Science (SCEECS), pp. 1-6. 2016.
DOI: 10.1109/SCEECS.2016.7509271
21. Abhisek Mondal, Deblina Maity, **Sumit Banerjee**, Chandan Kumar Chanda, "Solving of economic load dispatch problem with generator constraints using ITLBO technique", 2016 IEEE Students' Conference on Electrical, Electronics and Computer Science (SCEECS), Bhopal, India, pp. 1-6. 2016.
DOI: 10.1109/SCEECS.2016.7509270
22. Deblina Maity, **Sumit Banerjee**, Chandan Kumar Chanda, Sabyasachi Samanta, "Implementation of Quassi-Oppositional TLBO Technique on Economic Load Dispatch Problem considering various Generator Constraints", 2016 3rd International Conference on Electrical Energy Systems, ICEES 2016, Chennai, India, pp. 106-111.
DOI: 10.1109/ICEES.2016.7510625.
23. Deblina Maity, **Sumit Banerjee**, Chandan Kumar Chanda, Sabyasachi Samanta, "Implementation of MRPSO Techniques on Economic Load Dispatch Problem Considering Various Generator Constraints," 10th IEEE International Conference on Intelligent System and Control (ISCO), 2016, Tamilnadu.
DOI: 10.1109/ISCO.2016.7727004.
24. Koustav Dasgupta, **Sumit Banerjee**, Chandan Kumar Chanda "Economic Load Dispatch with Prohibited Zone and Ramp-rate Limit Constraints- A Comparative Study", 2016 First international conference on control, measurement and Instrumentation(CMI), pp. 26-30, 8th – 10th January, 2016.
DOI: 10.1109/CMI.2016.7413704
25. Koustav Dasgupta, **Sumit Banerjee**, Chandan Kumar Chanda "An Analysis of Economic Load Dispatch with Prohibited Zone constraint using Different Algorithms", Michael Faraday IET International Summit–2015(MFIIS-2015), pp. 193-197, September 12- 13, 2015. **(IET Digital Library)**
DOI: 10.1049/cp.2015.1629

26. Sanjoy Kumar Saha, **Sumit Banerjee**, Deblina Maity, Chandan Kumar Chanda “Optimal Sizing and Location Determination of Distributed Generation in Distribution Networks” Intl. Conf. on Energy, Power and Environment: Towards Sustainable Growth (ICEPE 2015), NIT, Meghalaya, 12th -13th June 2015. **DOI: 10.1109/EPETSG.2015.7510148.**
27. Koustav Dasgupta, **Sumit Banerjee**, Chandan Kumar Chanda “Short-Term Hydrothermal Scheduling Using Time Varying Acceleration Coefficient Based Particle Swarm Optimization with Constriction Factor and Inertia Weight Approach”, Intl. Conf. on Energy, Power and Environment (ICEPE 2015), NIT, Meghalaya, 12th -13th June 2015. **DOI: 10.1109/EPETSG.2015.7510163**
28. Koustav Dasgupta, **Sumit Banerjee**, Chandan Kumar Chanda “An Analysis of Economic Load Dispatch with Ramp-rate limit constraints using Different Algorithms”, Intl. Conf. on Industrial Instrumentation & Control (IIC 2015), College of Engineering Pune (COEP), Shivajinagar, Pune, Maharashtra, India, pp. 232-236, 28th -30th May, 2015 . **DOI: 10.1109/IIC.2015.7150744**
29. Tapan Kumar Chattopadhyay, **Sumit Banerjee** , Chandan Kumar Chanda, “Voltage Stability Analysis of Distribution Networks Under Critical Loading Conditions”, Intl. Conf. on Power and Energy Systems: Towards Sustainable Energy Systems - PESTSE2014, Amrita school of Engineering, Bangalore – 560035, India, pp. 1-5, 13th -15th March, 2014. **DOI: 10.1109/PESTSE.2014.6805299**
30. Koustav Dasgupta, **Sumit Banerjee**, “An Analysis of Economic Load Dispatch with Prohibited Zone and Ramp-rate limit constraints using Different Algorithms”, Intl. Conf. on Power And Energy Systems: Towards Sustainable Energy Systems – PESTSE 2014, pp. 1-5, Amrita school of Engineering, Bangalore – 560035, India, 13th -15th March, 2014. Citation: 03 **DOI: 10.1109/PESTSE.2014.6805298**
31. Tapan Kumar Chattopadhyay, **Sumit Banerjee**, Chandan Kumar Chanda, “Impact of Shunt Capacitor on Voltage Stability Analysis of Distribution Networks under Critical Loading Conditions”, 1st International Conference on Automation, Control, Energy & Systems (ACES 2014) in AOT, West Bengal, pp. 1-5, 1-2 February 2014. **DOI: 10.1109/ACES.2014.6808022**
32. Koustav Dasgupta, **Sumit Banerjee**, “Short-Term Hydrothermal Scheduling Using Particle Swarm Optimization with Constriction Factor and Inertia Weight Approach”, 1st International Conference on Automation, Control, Energy & Systems (ACES 2014) in AOT, West Bengal, pp. 1-6, 1-2 February 2014. Citation: 04.

DOI: 10.1109/ACES.2014.6808021

33. Sanjoy Kumar Saha, **Sumit Banerjee**, Chandan Kumar Chanda, "Status of all Branches of Distribution Networks in Chronological order using Distributed Generation at Optimal Position", 1st International Conference on Non Conventional Energy (ICONCE 2014) in JIS College of Engineering, West Bengal, pp. 14-18, 16-17 January 2014.
DOI: 10.1109/ICONCE.2014.6808693
34. Tapan Kumar Chattopadhyay, **Sumit Banerjee**, Chandan Kumar Chanda, "Impact of Distributed Generator on Voltage Stability Analysis of Distribution Networks under Critical Loading Conditions", 1st International Conference on Non Conventional Energy (ICONCE 2014) in JIS College of Engineering, West Bengal, pp. 288-291, 16-17 January 2014. Citation: 04
DOI: 10.1109/ICONCE.2014.6808728
35. Koustav Dasgupta, **Sumit Banerjee**, "An Analysis of Economic Load Dispatch using Different Algorithms", 1st International Conference on Non Conventional Energy (ICONCE 2014) in JIS College of Engineering, West Bengal, pp. 216-219, 16-17 January 2014. Citation: 08
DOI: 10.1109/ICONCE.2014.6808722
36. Tapan Kumar Chattopadhyay, **Sumit Banerjee**, Chandan Kumar Chanda, "Impact of Distributed Generator on Voltage Stability Analysis of Distribution Networks under Critical Loading Conditions for Composite Loads", International Conference on Electronics, Communication and Instrumentation (ICECI 2014), Heritage Institute of Technology, Kolkata, West Bengal, 16-17 January 2014, pp. 1-4. **DOI: 10.1109/ICECI.2014.6767367**
37. **Sumit Banerjee**, Tapan Kumar Chattopadhyay, Chandan Kumar Chanda, "Voltage Stability Margin of Distribution Networks for Composite Loads", 2012 Annual IEEE India Conference (INDICON), pp. 582-587, 7-9 December, 2012. **DOI: 10.1109/INDICON.2012.6420685**
38. **Sumit Banerjee**, Chandan Kumar Chanda, Sukumar Chandra Konar, Pijuce Kanti Ghosh, "Study of Loading Status for all Branches in chronological order at different Conditions in a Radial Distribution Systems using Reactive Loading Index Technique" Power Electronics, Drives and Energy Systems (PEDES) & 2010 Power India, 2010 Joint International Conference, December 20-23, 2010, pp. 1-5. Citation: 05.
DOI: 10.1109/PEDES.2010.5712450
39. **Sumit Banerjee**, Chandan Kumar Chanda, Sukumar Chandra Konar, "Determination of the Weakest Branch in a Radial Distribution Network using Local Voltage Stability Indicator at the

Proximity of the Voltage Collapse Point”, International Conference on Power System, ICPS 2009, IIT Kharagpur, 27-29 December 2009, pp. 1-4. Citation: 13.

DOI: 10.1109/ICPWS.2009.5442777

40. **Sumit Banerjee**, Chandan Kumar Chanda, “Proposed Procedure for Estimation of Maximum Permissible Load Bus Voltage of a Power System within Reactive Loading Index Range” TENCN 2009-2009 IEEE Region 10 conference, 23-26 November 2009, Singapore, pp. 1-6. Citation: 03.
DOI: 10.1109/TENCN.2009.5396247

Other International Conferences

41. Snehashis Ghoshal, **Sumit Banerjee**, Chandan Kumar Chanda, “Energy management in smart homes: A review”, Computing, Communication and Sensor Network (CCSN 2017), Kolkata, 30th -31st December, 2017
42. Deblina Maity, Mathura Chatterjee, **Sumit Banerjee**, Chandan Kumar Chanda, “Solution of Multi-objective Combined Economic Emission Load Dispatch using Krill Herd Algorithm with Constraints,” International Conference on Modeling and Simulation (MS 17), Kolkata, organized by Association for the Advancement of Modelling and Simulation Techniques in Enterprises (AMSE), 4th -5th Nov 2017.
43. Mathura Chatterjee, **Sumit Banerjee**, Deblina Maity, Chandan Kumar Chanda, “Solution of Economic Load Dispatch Problem with Generator Constraints using Mine Blast Algorithm,” 2nd International Conference on Inventive Computation Technologies, 24th -25th August 2017.
44. Chandan Kumar Chanda, Deblina Maity, **Sumit Banerjee**, “Solution of Economic Load Dispatch Problem using Biogeography Based Optimization Technique Considering Valve Point Loading Effect,” 2016 9th International Conference on Computer and Electrical Engineering (ICCEE 2016), Barcelona, Spain.
45. Deblina Maity, **Sumit Banerjee**, Chandan Kumar Chanda, and Ajit Kumar, “A Comparative Study of MRPSO and DE on Economic Load Dispatch Problem by considering Transmission Losses”, 2016 IEEE International Conference on Computation of Power, Energy Information and Communication (ICCPEIC), Chennai, India.
46. Deblina Maity, Vivek Kumar, **Sumit Banerjee**, and Chandan Kumar Chanda “Different Teaching Learning Based Algorithm for Economic Load Dispatch Problem considering Generator Constraints”, 2016 IEEE International Conference on Computation of Power, Energy Information and Communication (ICCPEIC), Chennai, India.
47. Tapan Kumar Chattopadhyay, Abhisek Mondal, **Sumit Banerjee**, Deblina Maity, and Chandan Kumar Chanda “Impact of Microgrid as Grid connected mode on Active Power Loss Reduction

of Distribution Network”, 2016 IEEE International Conference on Computation of Power, Energy Information and Communication (ICCPEIC), Chennai, India.

48. Koustav Dasgupta, Sudip Kumar Dey, **Sumit Banerjee**, and Chandan Kumar Chanda “An Analysis of Min-Max and Max-Max Price Penalty Factor Approaches for Combined Economic Emission Load Dispatch with Valve Point Effect using Backtracking Search Algorithm”, 2016 International Conference on Computation of Power, Energy Information and Communication (ICCPEIC).
49. Koustav Dasgupta, **Sumit Banerjee**, Chandan Kumar Chanda, “An Analysis of Short Term Hydrothermal Scheduling using Different Algorithms”, Intl. Conf. on Industrial Engineering Science and Applications-2014 IESA 2014, pp. 91-96, NIT Durgapur, West Bengal, 2nd -4th April, 2014.
50. Deblina Maity, **Sumit Banerjee**, Chandan Kumar Chanda, “Impact of Distributed Generators on Voltage Stability Margin of Distribution Networks”, Second Intl. Conf. on Advances in Electronics, Electrical and Computer Engineering-EEC 2013, by Universal Association of Computer & Electronics Engineers (UACEE) pp. 96-101, Dehradun, India, 22-23 June, 2013. DOI: 10.3850/978-981-07-6935-2_20.
51. Koustav Dasgupta, **Sumit Banerjee**, Chandan Kumar Chanda, “Voltage Stability Analysis of Radial Distribution Networks for Loads of Composite Type using Shunt Capacitor at Optimal Position”, Second Intl. Conf. on Advances in Electronics, Electrical and Computer Engineering-EEC 2013, pp. 184-188, Dehradun, India, 22-23 June, 2013.
52. **Sumit Banerjee**, Sanjoy Kumar Saha, Deblina Maity, Chandan Kumar Chanda, “Impact of Shunt Capacitor on Voltage Stability Margin of Distribution Networks” International Conference on Electrical Electronics and Computer Science (ICEECS-2012), Tirupati, October 14, 2012.
53. **Sumit Banerjee**, Tapan Kumar Chattopadhyay, Koustav Dasgupta, Chandan Kumar Chanda, “Voltage Stability Analysis of Distribution Networks for Loads of Composite Type” International Conference on Electrical Electronics and Computer Science (ICEECS-2012), Tirupati, October 14, 2012.
54. **Sumit Banerjee**, Arghya Mukherjee, Chandan Kumar Chanda, Sukumar Chandra Konar, “Weakest Node Determination of Distribution Networks,” 4th International Conference on Electronics Computer Technology (ICECT 2012), Kanyakumari, April 6-8, 2012.
55. **Sumit Banerjee**, Chandan Kumar Chanda, Sukumar Chandra Konar, Chandra Mohan Khan, “Loading Status of all Branches of Distribution Networks in Chronological order for Loads of Different Types,” 4th International Conference on Electronics Computer Technology (ICECT 2012), Kanyakumari, April 6-8, 2012.

56. **Sumit Banerjee**, Chandan Kumar Chanda, P S. Puhan, Prosit Ghosh, Ruchira De “Proposed Procedure for Determination of Heavily Loaded Branch of a Power Network Using Novel Voltage Stability Indicator on the Verge of Voltage Collapse Point”, International Conference on Control, Communication and Power Engineering 2010, Chennai, 28th July, 2010.

National Conferences

57. **Sumit Banerjee**, Chandan Kumar Chanda, Partha Koyal, “Enhancement of Voltage Stability in Radial Distribution System using Reactive Loading Index Range”, SOFTCOMP 09 ,22-24 July 2009, VIT University, Vellore .
58. **Sumit Banerjee**, Sudipta Ghosh, Chandan Kumar Chanda, Debraj Sarkar, “Model Validation Studies for Calculation of Maximum Permissible Load Bus Voltage within Reactive Loading Index Range in Contingency Situation”; ACTE-2009; Manipal Institute of Technology, Manipal University; 2-4 April 2009.
59. **Sumit Banerjee**, Sudipta Ghosh, Chandan Kumar Chanda, Debraj Sarkar, “Placement of Distributed Generator in Optimal Position on a Network System”; ACTE-2009; Manipal Institute of Technology, Manipal University; 2-4 April 2009.
60. Chandan Kumar Chanda, S. P. Ray, Sukumar Chandra Konar , **Sumit Banerjee**, “Voltage Security Margin Indicator on the Verge of Voltage Collapse Point in Longitudinal Power Distribution Network”, National Conference on Problems Practices and Prospects in Power Distribution System Operation and Control(NCPPPPDS-2009), January 23rd -24th ,2009 at Panjab Engineering College, Chandigarh.
61. Chandan Kumar Chanda, Sukumar Chandra Konar, S. P. Ray, **Sumit Banerjee**, “Determination of Reactive Loading Index at the Proximity of Voltage Collapse Point in Radial Distribution System”, 1st National Conference on Emerging trends and advances in Electrical Engineering and Renewable Energy (NCEEERE 2008), December 22nd -24th ,2008 at Sikkim Manipal Institute of Technology, Sikkim.

Book:

Sl No.	Author Name	Title	Name of Book and Publishing House.	Year of Publication	ISBN
1.	Chandan Kumar Chanda, Sumit Banerjee , A.Chakraborti	GATE for Electrical Engineering	Pentice Hall of India (PHI), New Delhi, 2016	2016	9788120350960, 8120350960

2.	Chandan Kumar Chanda, Sumit Banerjee	Digital Fundamentals and Applications	Laxmi Publication Pvt Ltd, 2011	2011	978-93-80856-57-5
3.	Deblina Maity, Sumit Banerjee , Chandan Kumar Chanda	Impact of Shunt Capacitor and DERs in Distribution Networks	LAP Lambert Academic Publishing	2019	978-613-9-98862-4

Book Chapter:

Sl No.	Author Name	Co-Author (If any)	Title	Name of Book and Publishing House.	ISBN/DOI
1.	Sumit Banerjee	Mehebab Alam, Shubhrajyoti Kundu, Siddhartha Sankar Thakur	Transmission Line Outage Estimation through Bus Current Comparison Utilizing Current Phasor of PMU	Recent Advances in Power Systems, Springer, Singapore, pp. 377-389, 2021.	10.1007/978-981-15-7994-3_35
2.	Sumit Banerjee	Snehashis Ghoshal, Chandan Kumar Chanda	Modelling of Intelligent Cooling of a Building in MATLAB/Simulink Environment	CRC Press, Taylor & Fransis, pp. 131-137, 2021	978-0-429-35599-8 (eBook)
3.	Sumit Banerjee	Snehashis Ghoshal, Chandan Kumar Chanda	Modelling of Solar Cell Considering One Diode Model in MATLAB/Simulink Environment	CRC Press, Taylor & Fransis, pp. 123-129, 2021	978-0-429-35599-8 (eBook)
4.	Sumit Banerjee	Deblina Maity, M Chatterjee, Chandan Kumar Chanda	Solution of Multi-objective Combined Economic Emission Load Dispatch using Krill Herd Algorithm with Constraints	Modeling and Simulation in Science, Technology and Engineering Mathematics, Springer	978-3-319-74808-5_13,@2019

Supervision of Ph.D/M.Tech/ B.Tech Projects:

For Ph.D

Sl. No.	Name of The Scholar	University	Title of The Thesis	Co-Supervisor	Date of Awarding
1.	Tapan Kumar Chattopadhyay	IEST,Shibpur	Development of New Voltage Stability Indicator of Radial Distribution Systems by Considering Distributed Generations	Dr C K Chanda Professor, EE Department IEST Shibpur Howrah	30.05.2019
2.	Sanjoy Kumar Saha	IEST,Shibpur	Optimal Location of Distributed Generators in Radial Distribution Network using Firefly Algorithm	Dr C K Chanda Professor, EE Department IEST Shibpur Howrah	02.03.2020
3.	Deblina Maity	IEST,Shibpur	Minimization of Power Loss by Optimizing Fuel Cost in Micro-Grid	Dr C K Chanda Professor, EE Department IEST Shibpur Howrah	23.02.2021
4.	Snehashis Ghoshal	IEST,Shibpur	Review of Smart Energy Management	Dr C K Chanda Professor, EE Department IEST Shibpur Howrah	Continued
5.	Dipak Kumar Dhak	MAKAUT	Investigation of resiliency for a large power system network	Dr C K Chanda Professor, EE Department	Continued

				IEST Shibpur Howrah and Dr S S Thakur Professor, EE Department NIT Durgapur	
6.	Mehebab Alam	NIT Durgapur	Transmission line outage detection using PMU measurements	Dr S S Thakur Professor, EE Department NIT Durgapur	Continued
7.	Subhasri Kar	MAKAUT	Not yet decided	Dr C K Chanda Professor, EE Department IEST Shibpur Howrah	Continued
8.	Sananda Biswas	MAKAUT	Not yet decided	-	Continued

Projects: M. Tech Thesis

Sl. No.	Name of The Scholar	University and University Roll No.	Title of The Thesis	Co-Supervisor	Year of Passing
1.	Debraj Sarkar	WBUT	Critical investigation on voltage stability from reactive loading index margin using MATLAB	Sole Supervision	2009
2.	Pijush Kanti Ghosh	WBUT	Analysis of steady state voltage stability criteria for application in rural electrification system	Sole Supervision	2010
3.	Santosh Kumar Singh	WBUT/	Electrical power quality analysis with transient study	Sole Supervision	2011

		09120104002	in three phase system		
4.	Tapas Kumar Maji	WBUT/ 12010410018	Analysis of Microgrid operation	Sole Supervision	2012
5.	Sabyasachi Gupta	WBUT/ 12010410012	Energy management schemes of the household and industrial electricity consumption	Sole Supervision	2012
6.	Arghya Mukherjee	WBUT/ 12010410010	Study of distribution system using shunt capacitor and distributed generators	Prof. Tapan Kumar Chattopadhyay	2012
7.	Deblina Maity	WBUT/ 12010411003	Impact of Shunt Capacitor and Distribution Generator on Voltage Stability Margin of Distribution Networks	Sole Supervision	2013
8.	Debasis Banerjee	WBUT	Analysis of distributed generator in distribution networks	Sole Supervision	2014
9.	Priyanka Das	WBUT	Placement and sizing of shunt capacitor in radial distribution system using soft computing technique	Sole Supervision	2014
10.	Nilakshi Sarkar	WBUT	Optimal Placement of Shunt Capacitor in a Radial Distribution System using Voltage Stability Analysis	Prof. S K Saha	2014
11.	Santanu Sadhukhan	WBUT	Optimal Placement of Dispersed Generator in a Radial Distribution Network by Using Path Search Algorithm	Prof. S K Saha	2014
12.	Chiranjib Mondal	WBUT/ 12013413004	Distributed Generation Allocation for Power Loss Minimization and Voltage Improvement of Radial Distribution Systems using Various Techniques	Sole Supervision	2015

13.	Ajit Kumar	MAKAUT/ 12013414003	A Comparative Study of MRPSO and DE on Economic Load Dispatch Problem by considering Transmission Losses	Sole Supervision	2016
14.	Sabyasachi Samanta	MAKAUT/ 12013414008	Impact of Microgrid as Grid Connected Mode on Active Power Loss Reduction of Distribution Network	Prof. Tapan Kumar Chattopadhyay	2016
15.	Abhisek Mondal	MAKAUT/ 12013414002	Solving of Economic Load Dispatch Problem with Generator Constraints using ITLBO Technique	Prof. Mou Das Mahapatra	2016
16.	Vivek Kumar	MAKAUT/ 12013415012	Economic Dispatch of Microgrid Operation	Sole Supervision	2017
17.	Anup Kumar	MAKAUT/ 12013415002	Impact of Shunt Capacitor on Voltage Stability Margin of Radial Distribution Networks for Different Types of Loads	Sole Supervision	2017
18.	Sudip Kumar Dey	MAKAUT	Solution of Economic Emission Load Dispatch Problem using Different Optimization Algorithm	Sole Supervision	2017
19.	Arkadev Ghosh	MAKAUT/ 12013415003	Solution of Combined Heat and Power Economic Dispatch Problem using Different Optimization Technique	Sole Supervision	2018
20.	Chetana Roy	MAKAUT/ 12013416004	Economic Cost and Loss Analysis in Micro-grid using Biogeography Based Algorithm	Sole Supervision	2018
21.	Swaraj Dutta	MAKAUT/ 12013416001	Bare Bones Teaching Learning Based Optimization Technique for Economic Emission Load Dispatch Problem Considering	Sole Supervision	2018

			Transmission Losses		
22.	Anirban Mukherjee	MAKAUT/ 12013417011	Resiliency in Smart Distribution Systems	Sole Supervision.	2019
23.	Sushovan Roy	MAKAUT/ 12013417001	Review of Smart Home Energy Management	Sole Supervision	2019

Invited Lectures:

NA

Participation in seminar/conference/symposium/workshop/discussion meeting

NA

Participation in faculty development programmes

NA

Organization of events (Dr. B. C. Roy Engineering College)

Webinar on Photon to Electricity Sun Human Interaction on 17.06.2021 by Dr C K Chanda, Professor, EE Department , IEST Shibpur.

Participation in administrative committees (selected)

Sl No.	Designation	Institution	Department	Tenure
1.	Head of Department (HOD)	Dr. B.C. Roy Engineering College Durgapur	Electrical Engineering	2 nd Dec, 2014 to 27 th Sept., 2018.
2.	Chairman (Library Committee)	Dr. B.C. Roy Engineering College Durgapur	-	13 th Jan, 2020 to till date

Project Ideas Submitted to Govt. Agencies/ On-going Projects / Research Ideas under preparation & execution

NA

Membership of professional bodies:

- a) Ex. Member of IEEE (USA) Member No.-90526350

- b) Life Member--The Indian Society for Technical Education
LM 31660

- c) Member of The Institute of Engineers (India)
Member No. - M-138010-3

- d) Chartered Engineer (India) -- The Institute of Engineers (India)