**Name:** Dr. SNEHA SULTANA

**Department:** EE

**Contact Nos.:** 8900169170

**Qualifications:** B. TECH, M.TECH, Ph. D

**Designation:** ASSISTANT PROFESSOR

**VIDWAN ID:** 187564

**Experience (Teaching ):** 9 years

**Date of Joining at the Present Institution:** 15/01/2014

**Examinations Cleared:** NA

**Qualifications Summary (Reverse chronological order):**

| Degree | Institute | From – To | Subjects |
|---|---|---|---|
| Ph.D | MAKAUT | 29/07/2013 – 27/08/2019 | Application of Evolutionary Algorithms for Optimal Location and Sizing of Distributed Generator and Capacitor in Radial Distribution Network |
| M-Tech | Dr. B. C. Roy engineering College | 2010-2012 | Electrical Engineering |
| B-Tech | Academy of Technology | 2006-2010 | Electrical Engineering |
| Higher Secondary | Boinchee B.L. Mukherjee,s free institution | 2004-2006 | Science |
| Madhyamik | Boinchee Binapani Balika vidyalaya | 2003-2004 | General |

**Experience Summary** (In chronological order):

| Designation | Organization | Date From – Date To |
|---|---|---|
| Assistant Professor | Bengal College of Engineering & Technology for | 01.09.2012 - 11.01.2014 |

| | | |
|---|---|---|
| | Women, Durgapur | |
| Assistant Professor | Dr. B. C. Roy Engineering College, Durgapur | 15.01.2014 - Till date |

**Specialization/Research Interest:**

- Radial distribution system.
- Renewable distributed generator
- Reconfiguration of radial distribution system.
- Combined heat and power dispatch, and evolutionary algorithms.
- Automatic Generation Control.

**Awards & Recognitions: NIL**

**Courses taught**:

| | **Theory** | **Lab** |
|---|---|---|
| **B.Tech** | Basic Electrical Engineering<br>Circuit Theory<br>Control System I<br>Control System II<br>Power System III<br>Power Generation Economics | Basic Electrical Engineering Lab<br>Control System Lab I<br>Control System Lab II<br>Seminar Lab<br>Project Lab |
| **M.Tech** | Power System Operation and Control<br>Power System Optimization | Project Lab |

**Online Mode of Teaching:** .

- Through Google Meet
- Shared class notes to students.
- https://www.youtube.com/watch?v=4_F0yXk7bWc
- https://www.youtube.com/watch?v=1NEVPSk-NkE
- https://www.youtube.com/watch?v=21zHN0HB96c

**Publications**:

**Journal:**

1. **S. Sultana**, P.K. Roy "Optimal capacitor placement in radial distribution systems using teaching learning based optimization", International Journal of Electrical Power and energy System, Elsevier (SCI Journal with Impact Factor-4.418), Vol. 54, 2014, pp. 387-398, ISSN: 0142-0615, UGC care list(Gr. A), Link: https://doi.org/10.1016/j.ijepes.2013.07.011,

2. **S. Sultana**, P.K. Roy "Multi-objective quasi-oppositional teaching learning based optimization for optimal location of distributed generator in radial distribution systems", International Journal of Electrical Power and energy System, Elsevier (SCI Journal with Impact Factor-4.418), Vol. 63, 2014, pp. 534-545, ISSN: 0142-0615, UGC care list(Gr. A),
   Link: https://doi.org/10.1016/j.ijepes.2014.06.031

3. Provas kumar Roy, Chandan Paul, **S. Sultana,** "Oppositional Teaching Learning Based Optimization Approach for Combined Heat and Power dispatch", International Journal of Electrical Power and energy System, Elsevier (SCI *with Impact Factor-4.418*), Vol. 57, pp. 392-403, 2014, ISSN: 0142-0615, UGC care list(Gr. A), Link: https://doi.org/10.1016/j.ijepes.2013.12.006.

4. Sanchari Laik, Shatabdi Dey, Puja Das, **Sneha Sultana**, Sourav Paul, Provas Kumar Roy**,** "Automatic generation control of interconnected power system using cuckoo optimization algorithm," International Journal of Energy Optimization and Engineering, IGI Global Publication, Emerging Sources Citation Index (ESCI) Journal (Web of Science, Thomson Reuters)**,** ISSN: 2160-9500, Vol 4, No. 2, pp. 22-35, 2015, UGC approved, Link: http://services.igi-global.com/resolvedoi/resolve.aspx?doi=10.4018/IJEOE.2015040102

5. **S. Sultana**, P.K. Roy "Oppositional Krill Herd Algorithm for Optimal Location of Distributed Generator in Radial Distribution System", International Journal of Electrical Power and energy System, Elsevier (SCI Journal with Impact Factor-4.418), Vol. 73, 2015, pp. 182-191, ISSN: 0142-0615, UGC care list (Gr. A), Link: https://doi.org/10.1016/j.ijepes.2015.04.021

6. **S. Sultana**, P.K. Roy "Oppositional gravitational search algorithm for optimal location of distributed generator", International Journal of Power and Energy Conversion, Inderscience (Scopus indexed journal) Vol. 6, 2015, DOI: 10.1504/IJPEC.2015.073612, pp. 281-325, DOI: DOI: 10.1504/IJPEC.2015.073612, UGC care list (Gr. A), Link: https://doi.org/10.1504/IJPEC.2015.073612 .

7. **S. Sultana**, P.K. Roy "Krill Herd Algorithm for Optimal Location of Distributed Generator in Radial Distribution System", Applied Soft Computing, Elsevier (SCI Journal with Impact Factor-4.873), Vol. 40, 2016, pp. 391-404, UGC care list (Gr. A), Link: https://doi.org/10.1016/j.ijepes.2015.04.021.

8. **S. Sultana**, P.K. Roy "Oppositional krill herd algorithm for optimal location of capacitor with reconfiguration in radial distribution system", International Journal of Electrical Power and energy System, Elsevier (SCI Journal with Impact Factor-4.418), Vol. 74, 2016, pp. 78-90, ISSN: 0142-0615, UGC care list (Gr. A), Link: https://doi.org/10.1016/j.ijepes.2015.07.008.

9. **S. Sultana**, P.K. Roy, "Capacitor placement in radial distribution system using oppositional cuckoo optimization algorithm", International Journal of Swarm Intelligence Research, IGI Global Publication, Emerging Sources Citation Index (ESCI) Journal (Web of Science, Thomson Reuters), Vol. 9, 2018, pp. 64-95, DOI: 10.4018/IJSIR.2018070103, UGC care list (Gr. A), Link: https://doi.org/10.4018/IJSIR.2018070103.

10. P.K. Roy , **S. Sultana** , "Optimal reconfiguration of capacitor based radial distribution system using chaotic quasi oppositional chemical reaction optimization", Microsystem Technologies, Springer (SCI Journal with Impact Factor-1.513**)** pp. 1-13, DOI: 10.1007/s00542-020-04885-8, UGC care list(Gr. A), Link: http://link.springer.com/article/10.1007/s00542-020-04885-8 .

**Conference:**

1. **S. Sultana**, P.K. Roy, "Optimal allocation of capacitor in radial distribution systems using oppositional krill herd algorithm," Proc. of Michael Faraday IET International Summit 2015, IET Conference, Kolkata, 12-13 September, 2015, Electronic ISBN: 978-1-78561-186-5, DOI: 10.1049/cp.2015.1681,

2. **S. Sultana**, P.K. Roy, "Optimal allocation of distributed generator using chemical reaction optimization," Proc. of FICTA-2015, Springer, 16-18 November 2015, National Institute of Technology, Durgapur. ISBN 978-81-322-2695-6 (eBook), DOI: 10.1007/978-81-322-2695-6_23.

3. S. Roy, **S. Sultana** and P.K. Roy, "Oppositional cuckoo optimization algorithm to solve DG allocation problem of radial distribution system", Proc. of RDCAPE-2015, IEEE Conference, 12-13 March 2015, Noida, India, Electronic ISBN: 978-1-4799-7247-0, DOI: 10.1109/RDCAPE.2015.7281367.

4. **S. Sultana**, S. Roy and P.K. Roy "Optimal location of capacitor in radial distribution network using chemical reaction optimization algorithm," Proc. of C2E2-2016, Taylor & Francis, 15-16 January, 2016, Supreme Knowledge Foundation Group of Institutions, Hooghly, India, ISBN: 978-1-138-02877-7, DOI:10.1201/b20012-27.

5. **S. Sultana**, S. Singh, R. K. Ranjan, S. K. Sharma and P.K. Roy "Chemical reaction optimization to solve reconfiguration problem along with capacitor of radial distribution system," Proc. of CICBA 2018, Springer, 27-28 July, 2018, Kalyani Government Engineering College, Kalyani, India, Online ISBN: 978-981-13-8578-0, DOI: https://doi.org/10.1007/978-981-13-8578-0.

**Book:** NIL

**Book Chapter:** NIL

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

**For Ph.D : NIL**

**Projects:**
**M.Tech:**

| Name of the student | University roll number | Name of the supervisor | Title of the Project | Year |
|---|---|---|---|---|
| Santanu Roy | 12013413013 | Dr. Sneha Sultana | Oppositional Cuckoo Optimization Algorithm (OCOA) to solve DG Allocation Problem in Radial Distribution System | 2015 |
| Sujit Kumbhakar | 12013418003 | Dr. Sneha Sultana and Dr. Sourav | Oppositional Krill Herd Algorithm for solving Multi-objective optimum DG | 2020 |

| | | | | |
|---|---|---|---|---|
| | | Paul | Emplacement problem in Radial Distribution Network | |

**B.Tech:**

| Name of the student | University roll number | Name of the supervisor | Title of the Project | Year |
|---|---|---|---|---|
| Sherya Shree Das<br>Anindita Bhattacharjee<br>Tanushree Chandra<br>Sunil Kumar Sharma<br>Rahul Vishwakarma | 12001612135<br>12001612127<br>12001612137<br>12001612136<br>12001612131 | Dr. Sneha Sultana | Solar and Battery Mobile Charger | 2015 |
| Dipanjan Mondal<br>Siladitya Ghosh<br>Shubhankar Pal<br>Sanjib Das<br>Snehasish Mondal<br>Chittabrata Kundu<br>Subrata Mandal | 12001613132<br>12001612098<br>12001612096<br>12001612080<br>12001612099<br>12001613129<br>12001612107 | Dr. Sneha Sultana | Temperature Based Speed Control of an AC Induction Motor | 2016 |
| Neyaz Ahmad<br>Nishant Singh<br>Nitish Kumar<br>Prabhanjan Kumar<br>Roshan Kumar Singh<br>Rounak Srivastava | 12001613061<br>12001613065<br>12001613066<br>12001613070<br>12001613086<br>12001613087 | Dr. Sneha Sultana | Next Generation Wireless Car charging System Model | 2017 |
| Aslam Parvej<br>Faisal Quddus<br>Gaurav Kumar Singh<br>Manoj Kumar Dan<br>Arpan Roy<br>Gourab Sarkar | 12001614025<br>12001614038<br>12001614039<br>12001614053<br>12001615125<br>12001615129 | Dr. Sneha Sultana | Project on Electric Traction with Anti Collision Control and Line Cutter | 2018 |
| Shivam Kumar Singh<br>Ravi Kant Ranjan<br>Shubham Kumar Sharma<br>Rajnish Kumar Jha<br>Sourav Mondal<br>Swati Priya<br>Susmita Gupta | 12001615083<br>12001615070<br>12001615086<br>12001615067<br>12001615100<br>12001615117<br>12001615115 | Dr. Sneha Sultana | Home Automation using Arduino | 2019 |
| Richa Singh<br>Kumari Tanushree<br>Indu Kumari<br>Arpita Biswas | 12001616066<br>12001616099<br>12001616108<br>12001616122 | Dr. Sneha Sultana | Arduino Based Alcohol Detector | 2020 |

| | | | | |
|---|---|---|---|---|
| Anupam Kumari<br>Aditi Kumari | 12001616125<br>12001616137 | | | |
| Vishal Kumar<br>Tirthanku Sau<br>Vikash Chauhan<br>Naveen Kumar Mishra<br>Tuntun Sah | 12001617015<br>12001617020<br>12001617016<br>12001617050<br>12001618019<br>12001617019 | Dr. Sneha Sultana | Speed Control of DC Motor using Pulse width Modulation | 2021 |

**Invited Lectures: NIL**

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

**Workshop:**

| Name of the event | duration | Year | Organized by |
|---|---|---|---|
| Advanced Algorithm & Optimization (AAO-2014) | 15th -19th Sept. | 2014 | National Institute of Technology Durgapur |

**Seminar:**

| Name of the event | duration | Year | Organized by |
|---|---|---|---|
| Seminar on " Advances in Welding Technology" | 7th February | 2015 | Dr. B. C. Roy Engineering College, Durgapur |
| Seminar on " Advances in Nano-Satellite Technology" | 4th November | 2015 | Dr. B. C. Roy Engineering College, Durgapur |

**Participation in faculty development programmes:**

| Name of the faculty development programmes | Online | From Date – To Date | Duration | Year | Organized by |
|---|---|---|---|---|---|
| Modern Trends in Electrical Engineering | Online | 23/06/2020-27/06/2020 | Five days | 2020 | Dr. B. C. Roy Polytechnic |
| TCS digital workshop | Online | 26/06/2020 | One day | 2020 | Dr. B. C. Roy Engineering College - Placement Cell |
| Emerging Trends in | Online | 8-12th July, 2020 | Five days | 2020 | Organized by Electrical Engineering |

| | | | | | |
|---|---|---|---|---|---|
| Sensors, security, and small Automation Systems (ETSSSAS 2020) | | | | | B. P. Poddar Institute of Management & Technology. |
| Advances in Technologies, evolving new dimensions in e-society. | Online | 2-6th September, 2020. | Five days | 2020 | Organized by department of CSE, JIS college of Engineering. |

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

| Name of the event | Date | Year |
|---|---|---|
| Industry ready orientation program | 04/05/2019 | 2019 |

**Participation in administrative committees (selected)** :

- Working as a departmental co-ordinator of T & P cell.

**Project Ideas Submitted to Govt. Agencies/ On-going Projects / Research Ideas under preparation & execution:** NIL
**Membership of professional bodies: IEEE, IETE, IEI, CSI, MGMI etc:** NIL