MATTA MANI SANKAR

Assistant Professor, Electrical Engineering Department
BIT Sindri
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I. Educational Qualification

1. **P.hD. (pursuing (part-time))** – Indian Institute of Technology (ISM) Dhanbad
   Supervisor: Prof. Kalyan Chatterjee, Electrical Engineering Dept.
   Research Area: Optimal Allocation of Renewable DGs in Distribution Network under the presence of PHEVs

2. **M. Tech. (Power System),** 2014 – National Institute of Technology Jamshedpur, CGPA – **8.79**

3. **B. Tech (EEE),** 2011 – Kakinada Institute of Engg. & Technology (Affiliated to J.N.T.U.K), Kakinada, Percentage of Marks – **68.73** (First Class)

4. **Diploma (EEE),** 2008 – AANM & VVRSR Polytechnic, Gudlavalleru, Percentage of Marks – **83.24** (First class with distinction)

5. **SSC**, 2005 – Assisi School, Pamarru, Percentage of Marks – **85.33** (First class with distinction)

II. Academic Experience (9.7 Years)

1. **Assistant Professor (Contract) –** BIT Sindri **(04/Jan/2018 – Till Date : 6.4 years)**
   (*Recruited by National Project Implementation Unit (NPIU), Govt. of India under the prestigious Technical Education Quality Improvement Project III (TEQIP III) project funded by World Bank and Ministry of Human Resource Development, (MHRD), India*.)

2. **Assistant Professor** – Aditya Institute of Technology and Management (Autonomous), Tekkali, Srikakulam **(01/Sept/2014 – 30/Dec/2017: 3.3 years)**

III. Research Interests

Power distribution networks, Distributed generation, Multi-objective optimization, Multi-criteria decision making, Optimization algorithms applications to power system problems.

IV. Courses Taught

Microprocessor and Microcontroller, Power System Protection, Green Energy Technology, Power System Analysis, Basic Electrical Engineering, Digital Electronics, Linear & Digital ICs, Utilization & Traction.

IV. Patents

1. Artificial Intelligence-Based Hybrid Electric Vehicle Energy Management System Using Cloud Technology (Application No.202321016524 A) – Published: 31/03/2023

V. Research Publications (5 Journals + 8 Conferences)

1. Matta Mani Sankar, Kalyan Chatterjee, *A posteriori multiobjective approach for techno-economic allocation of PV and BES units in a distribution system hosting PHEVs*, Applied Energy, Volume 351, 1 December 2023, 121851, https://doi.org/10.1016/j.apenergy.2023.121851, **(*ELSEVIER - SCI(Q1), Impact Factor: 11)***

2. A Pandey, N Soren, MM Sankar**,** *Optimal Allocation of Renewable Distributed Energy Resources in Distribution System using Cheetah Optimization Algorithm*, IEEE International Conference on Recent Advances in Electrical, Electronics & Digital Healthcare Technologies, 2023 (REEDCON 2023), Jamia Millia Islamia, New Delhi.

3. Mani Prasad Rajak, Nirmala Soren, Matta Mani Sankar**,** *TOPSIS Aided Multiobjective Artificial Vulture Optimization Algorithm to Solve Combined Power and Economic Emission Dispatch*, IEEE International Conference on Evolutionary Algorithms and Soft Computing Techniques (EASCT 2023), RV institute of technology and management, Bengaluru.

4. Matta Mani Sankar, Kalyan Chatterjee, *Optimal Accommodation of Renewable DGs in Distribution System Considering Plug-in Electric Vehicles Using Gorilla Troops Optimizer*, IEEE International Conference on Evolutionary Algorithms and Soft Computing Techniques (EASCT 2023), RV institute of technology and management, Bengaluru.

5. Matta Mani Sankar, Kalyan Chatterjee, *A posteriori multiobjective techno-economic accommodation of DGs in distribution network using Pareto optimality and TOPSIS approach*, Journal of Ambient Intelligence and Humanized Computing, Volume 14, pages 4099–4114, 2023, https://doi.org/10.1007/s12652-022-04473-w, ***(SPRINGER - Scopus)***

6. Deepak Rajwar, Matta Mani Sankar, *Optimal siting and sizing of distributed generation in radial distribution system using artificial hummingbird algorithm*, 2022 IEEE 2nd International Symposium on Sustainable Energy, Signal Processing and Cyber Security (iSSSC), 2022, Odisha, India, 10.1109/iSSSC56467.2022.10051301

7. Srikanth B., Matta Mani Sankar (2021) *Implementation of Anti-windup Techniques for the Improvement of PID Performance.* In: Sekhar G.C., Behera H.S., Nayak J., Naik B., Pelusi D. (eds) Intelligent Computing in Control and Communication. Lecture Notes in Electrical Engineering, vol 702. Springer, Singapore. https://doi.org/10.1007/978-981-15-8439-8_48

8. Nartu Tejeswara Rao, Matta Mani Sankar, Surapu Prasada Rao, Boddepalli Srinivasa Rao, *Comparative study of Pareto optimal multi objective cuckoo search algorithm and*

multi objective particle swarm optimization for power loss minimization incorporating UPFC. Journal of Ambient Intelligence and Humanized Computing (2020). https://doi.org/10.1007/s12652-020-02142-4., ***(SPRINGER - SCI)***

9. Kumar R., Gupta R.P., Matta Mani Sankar, Nath V. (2020) *Performance Evaluation of PV Module with Battery Storage in a Microgrid.* In: Nath V., Mandal J. (eds) Nanoelectronics, Circuits and Communication Systems. NCCS 2018. Lecture Notes in Electrical Engineering, vol 642. Springer, Singapore. https://doi.org/10.1007/978-981-15-2854-5_19

10. Tejeswararao Nartu, Matta Mani Sankar, Sravani Koratana, Ravi Kumar Bodd**a**, *A fuzzified Pareto multiobjective cuckoo search algorithm for power losses minimization incorporating SVC*, Soft Computing, Vol. 23, pp.10811-10820, 2019. ***(SPRINGER - SCI)***

11. Matta Mani Sankar**,** S.B.L. Sekxena, *A cost effective voltage sag compensator for distribution system*, International Journal of System Assurance Engineering and Management", Vol- 8(1),pp.56-64, 2017. ***(SPRINGER - Scopus)***

VI. Papers accepted

1. Nartu Tejeswara Rao, Guruvulu Naidu Ponnada, Matta Mani Sankar, *A Novel Approach for Out of Step Detection Using Extended Transient Stability Analysis Incorporating Effects of Exciter, Turbine and Speed Governor*, IEEE conference ICCIGST-2024, July 18-19, 2024 at Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada

2. Pinki Kumari, M. Rahman, Matta Mani Sankar, *Parameter estimation of solar PV module employing electric eel foraging optimization algorithm*, IOP Physics - International Conference on Smart and Sustainable Energy Systems (ICSSES 2024), 16-17 FEBRUARY, 2024 at Vishnu Institute of Technology, Bhimavaram

VIII. Peer Reviewer

1. Electrical Engineering, Springer
2. Scientific Reports, Springer
3. Journal of Ambient Intelligence and Humanized Computing, Springer
4. International Journal of System Assurance Engineering and Management, Springer
5. IOP Physics - International Conference on Smart and Sustainable Energy Systems (ICSSES 2024), 16-17 FEBRUARY, 2024 at Vishnu Institute of Technology, Bhimavaram

IX. Awards and Honours

1. **Best paper award,** "Optimal Accommodation of Renewable DGs in Distribution System Considering Plug-In Electric Vehicles Using Gorilla Troops Optimizer", presented at *IEEE International Conference on Recent Advances in Electrical,*

Electronics & Digital Healthcare Technologies, 2023 (REEDCON 2023) during 01st – 03rd May, 2023 at Jamia Millia Islamia, New Delhi.

2. **Best paper award,** "TOPSIS Aided Multiobjective Artificial Vulture Optimization Algorithm to Solve Combined Power and Economic Emission Dispatch", at *IEEE International Conference on Evolutionary Algorithms and Soft Computing Techniques (EASCT 2023)* during 20th – 21st Oct, 2023 at RV institute of technology and management, Bengaluru.
3. **Best paper award,** "Optimal Allocation of Renewable Distributed Energy Resources in Distribution System using Cheetah Optimization Algorithm", presented at *IEEE International Conference on Evolutionary Algorithms and Soft Computing Techniques (EASCT 2023)* during 20th – 21st Oct, 2023 at RV institute of technology and management, Bengaluru.
4. **TEQIP-III World Bank Project faculty,** recruited by National Project Implementation Unit (NPIU), Govt. of India under the prestigious Technical Education Quality Improvement Project III (TEQIP III) project funded by World Bank and Ministry of Human Resource Development, (MHRD), India.
5. **Appreciation letter** for spreading awareness and holding IIT Bombay-Spoken Tutorial Software Training at BIT Sindri, Dhanbad, Jharkhand.
6. **GATE-2012** (Graduate Aptitude Test in Engineering) *Fellowship from MHRD, India* to pursue M. Tech. (Electrical Engineering)

X. Positions and Responsibilities

Institute Level

1. Prof-In charge NMEICT, BIT Sindri
2. Assistant Hostel Warden, Hostel No. 7, BIT Sindri
3. Institute Core Team member for Accreditation (NBA/NAAC) and NIRF Ranking

Department Level

1. Served as NBA co-ordinator, Electrical Engg. Department, BIT Sindri.
2. Served as NAAC co-coordinator, Electrical Engg. Department, BIT Sindri.
3. Served as Prof. In charge Electrical Engg. Society, Electrical Engg. Department, BIT Sindri.
4. Served as Spoken Tutorial in charge, Electrical Engg. Department, BIT Sindri.
5. Initiated the publication of Department Magazine, "POTENTIA", and acted as Asst. Prof. In charge for the Magazine.
6. Asst. Prof In charge: Microprocessor & Microcontroller Lab

XI. Professional Membership

1. Member – IEEE (99871927)

XII. Workshops organized

1. **Coordinator,** One week workshop on Active Distribution Networks : Challenges And Solutions from 11th to 15th July 2022, organized by Department of Electrical Engineering, BIT Sindri

2. **Coordinator**, Two Weeks Online FDP (self-paced) on Open Source Tool: Python, 5th Oct. 2020 to 16th Oct. 2020, jointly organized by BIT Sindri and Spoken Tutorial – IIT Bombay.
3. **Coordinator**, One day FDP on Free Open Source Tools for Education and Research, 07th July, 2020, jointly organized by BIT Sindri and FOSSEE – IIT Bombay.

XIII. Personal Details

1. Nationality : Indian
2. Date of Birth : 4/08/1990
3. Marital Status : Married
4. Linguistic Proficiency : Telugu, Hindi, English
5. Permanent Address : 21-46-2, Gandhi Nagar, Pamarru, Krishna Dist., Andhra Pradesh - 521157