Dr Provas Kumar Roy

Professor, Kalyani Government Engineering College, Kalyani, West Bengal, India
roy_provas@yahoo.com • 9474521395, 6297577892

PERSONAL PROFILE

- Date of Birth : 14th October 1973
- Father's Name : Tulusi Das Roy
- Sex : Male
- Marital Status : Married
- Nationality : Indian

EDUCATION

Ph.D in Engineering at NIT Durgapur

- Ph.D. in Electrical Engineering — Feb 2008 – Sep 2011
  - Thesis: Application of Evolutionary Optimization For Economic Load Dispatch And Optimal Power Flow Problems
  - Guides: Prof. S. P. Ghoshal and S. S. Thakur
  - Year of passing: 2011

M. Tech. at Jadavpur University

- M. Tech.in Electrical Machine — Jul 1999 – Jun 2001
  - Dissertation title: Assessment of duties and overloading for introducing higher class of insulation in 3-phase induction motor
  - Guide: Prof. N. K. Deb

B.E. at R. E. College Durgapur

- B. E. in Electrical Engineering — Jul 1993 – Jun 1997
  - Year of passing: 1997

EXPERIENCE

Experience Details:

Name of the Post	Institute/Office where employed	Date of joining	Date of leaving	Duration	
				Years	Months
Professor	Kalyani Government Engineering college	05.12.16	Continuing	8	7
Associate Professor	Jalpaiguri Government Engineering college	17.12.2014	0.3.12.16	1	11
Professor	Dr. B.C.Roy Engineering College, Durgapur	01.07.12	16.12.2014	2	5
Associate Professor	Dr. B.C.Roy Engineering College, Durgapur	01.07.10	30.06.12	2	0
Assistant Professor	Dr. B.C.Roy Engineering College, Durgapur	01.02.06	30.06.10	4	5
Sr. Lecturer	Dr. B.C.Roy Engineering College, Durgapur	01.01.05	31.01.06	1	1
Lecturer	Dr. B.C.Roy Engineering College, Durgapur	01.07.02	31.12.04	2	6
Lecturer	JIS college of Engineering, Kalyani, Nadia	01.08.01	30.06.02	0	11
Total Experience	24 Years				
Post Ph.D Experience	14 Years				

ADMINISTRATIVE WORK

Experience Details:

Sl. No.	Designation	From	To	Responsibilities
1	Head of The Department (Kalyani Government Engineering College, Kalyani)	29th September, 2022	till date	Academic and Administrative responsibilities of Electrical Engineering Department
2	Officer-in-Charge (Cooch Behar Govt Engg College)	29th July, 2015	3rd November, 2016	All administrative responsibilities including procurement and prepare AICTE approval documents for AICTE approval of the college
3	Reporting Centre in Charge of Cooch Behar Govt Engg College (West Bengal Joint Entrance Examination)	June, 2016	Sept, 2016	Conduct admission process of WBJEE-2016 as in charge of the nodal centre
4	Member of Institute Development and Quality Assurance Committee (Kalyani Govt Engg College)	11^{th} Jul-2017	Till date	Give views and opinions regarding infrastructure development of the Institution
5	Member of Core Committee of Training & Placement, KGEC	$28th$ August, 2017	Till date	Conduct reasoning, Aptitude and technical test as well as mock interview to prepare the students for placement
6	Head of The Department (Dr. B.C.Roy Engineering College)	5th March, 2011	2nd December, 2014	Academic and Administrative responsibilities of Electrical Engineering Department
7	Convener of Seminar and Workshop Cell (Dr. B.C.Roy Engineering College)	27th August, 2011	16th December, 2014	Conduct Seminar and Workshop

PH.D SUPERVISION Scholar Details:

A. Awarded

Sl. No.	Name of the Candidate	Title	Institute	Date of Award
1	Barun Mandal	Evolutionary algorithms applied to economic load dispatch, optimal power flow and Automatic generation control	ISM Dhanbad	Awarded on 16th October, 2015
2	Susanta Dutta	Optimal Power Flow Incorporating Different FACTS Devices using Evolutionary Algorithms	NIT Durgapur	Awarded on 10th December, 2015
3	Dipayan Guha	Load frequency control of nonlinear controller based multi area power system network using various Evolutionary algorithms	NIT Durgapur	Awarded on 5th July, 2017
4	Sneha Sultana	Application of Evolutionary algorithms for Optimal Location and Sizing of Distributed Generator and Capacitor in Radial Distribution Network	Maulana Abul Kalam Azad University of Technology	Awarded on 27th August, 2019
5	Sourav Paul	Selected Power System Optimization Problems Using Different Soft Computing Techniques	Maulana Abul Kalam Azad University of Technology	Awarded on 27th August, 2019
6	Moumita Pradhan	Optimization of Economic Load Dispatch and Short Term Hydro Thermal Scheduling Using Grey Wolf Optimization and Krill Herd Algorithm	NIT Durgapur	Awarded on 4th April, 2019
7	Falguni Chakraborty	Novel Evolutionary Algorithms For multilevel Image Thresholding	NIT Durgapur	Awarded on 2nd August, 2021
8	Sunanda Hazra	Efficient evolutionary techniques to solve wind based power dispatch and hydro-thermal scheduling problem	Maulana Abul Kalam Azad University of Technology	Awarded on 20th August, 2021
9	Chandan Paul	Soft Computing Techniques Applied to Renewable Energy Based Combined Heat Power Dispatch and Hydro-thermal Scheduling Problems	ISM Dhanbad	Awarded on 28th June, 2022.
10	Soumen Biswas (21st July, 2016)	Impact of FACTs Deevices on Load Frequency Control for Diverse Sources of Integrated Power systems in Deregulated Power Environment	ISM Dhanbad	Awarded on 17th October, 2022.
11	Kostav Dasgupta	Application of Modern Soft Computing tools to Various Types of Load Dispatch and Hydrothermal Scheduling Problems of Large Scale Power System	ISM Dhanbad	Awarded on 1st November, 2022.
12	Kingsuk Majumdar	Enhancement of Available Transfer Capability Incorporating FACTS Devices for Large Scale Power Systems by using Meta-Heuristic Algorithms	NIT Durgapur	Awarded on 25th April, 2023.

B. Submitted/Pre-submission Conducted

Sl. No.	Name of the Candidate	Title	Institute	Date of Submission
1	Dhiman Banerjee	Optimal Location Of Different Facts Devices Using Various Evolutionary Algorithms	Maulana Abul Kalam Azad University of Technology	11th December, 2025
2	Sriparna Bhattacharya	Soft Computing Techniques Applied To Optimal Power Flow Problems	Maulana Abul Kalam Azad University of Technology	11th December, 2025
3	Suvabrata Mukherjee	Evolutionary algorithms applied to State Estimation and Load Flow of Illed Condition power System	Maulana Abul Kalam Azad University of Technology	Registered on 10th January, 2018
4	Sushma Verma	Detection and Removal of Faults in Hybrid Power System	Maulana Abul Kalam Azad University of Technology	Registered on 28th September, 2018

C. Ongoing

Sl. No.	Name of the Candidate	Title	Institute	Date of Registration/ Enrolment
1	joy bandopadhyay	Development and Application of Soft Computing Techniques for Solving Multi-Objective based Hybrid Micro-Grid Systems	Maulana Abul Kalam Azad University of Technology	Enrolled on 5^{th} October, 2020
2	Souvik Dey	Adaptive IIR Model Identification Using Novel Meta-Heuristic Optimization Algorithms	Maulana Abul Kalam Azad University of Technology	Enrolled on 26th September, 2022
3	Indrajit Dey	Development and Application of Soft Computing Techniques for Optimal placement of Distributed Generation and Capacitor in Reconfiguration based Radial Distribution Systems	Maulana Abul Kalam Azad University of Technology	Enrolled on 25th July, 2024

SCHOLARSHIP **GATE-1999**,

- Score: 91.01

AWARDS **Award** ,

- **Government Award**
  - Shiksha Ratna award from Government of West Bengal on 5th September, 2023
- **Outstanding Reviewer**

- Top Peer Reviewer 2019 by publons
- Outstanding Reviewer award from International Journal of Electrical Power and Energy Systems (Elsevier) in 2017
- Outstanding Reviewer award from Renewable Energy Focus (Elsevier) in 2018
- Outstanding Reviewer award from Engineering Application of Artificial Intelligence (Elsevier) in 2017
- Outstanding Reviewer award from Ain Shams Engineering Journal (Elsevier) in 2017

■ **Publication Award**
- Most-cited papers in International Journal of Numerical Modelling: Electronic Networks, Devices and Fields in 2024. Certificate
- In International Journal of Numerical Modelling: Electronic Networks, Devices and Fields in 2024. Certificate
- Best Paper award in 2nd IEEE Sponsored International Conference on Electrical and Electronics for Sustainable Innovations (ICEESI-2026)
- Best Paper award in World Conference on 2^{nd} IEEE International Conference on "Intelligent and Innovative Technologies in Computing, Electrical and Electronics", Bengaluru, Karnataka, India, 24th-25th January, 2024
- Best Paper award in World Conference on Artificial Intelligence: Advances and Applications (WCAIAA 2023), Udaipur, India, 18^{th}-19^{th} March, 2023
- Best Paper award in 4^{th} Electric Power and Renewable Energy Conference (EPREC-2023), NIT Jamshedpur, 25^{th}-27^{th} May, 2023
- Best Paper award in International Conference on Paradigrms of Communication, Computing and Data Analytics (PCCDA-2023), Delhi, 22^{nd}-23^{rd} April, 2023.
- Best Paper award from International Journal of Modelling and Simulation, Taylor & Francis in 2020
- Best Paper award in 5th International Conference on Opto-Electronics and Applied Optics (OPTRONIX-2019), 18th – 20th March, 2019
- Best Paper award in 8^{th} international Conference on Soft Computing: Theories and Applications (SOCTA-2023), 24th – 26th December, 2023

■ **Top 2% Scientist Award (Single Year):** **Certificate (Single year-2024)**,
- Featured in the list of "World Ranking of top 2 % Scientists" from the Indian subcontinent all India rank of **—-** and world rank of **1054** in the field of Energy by Stanford University/Elsevier with world overall rank of **40489** for the year of **2025**. (Single year Ranking)
- Featured in the list of "World Ranking of top 2 % Scientists" from the Indian subcontinent all India rank of **28** and world rank of **711** in the field of Energy by Stanford University/Elsevier with world overall rank of **34043** for the year of **2024**. (Single year Ranking)
- Featured in the list of "World Ranking of top 2 % Scientists" from the Indian subcontinent all India rank of **18** and world rank of **496** in the field of Energy by Stanford University/Elsevier with world overall rank of **22243** for the year of **2023**. (Single year Ranking)
- Featured in the list of "World Ranking of top 2 % Scientists" from the Indian subcontinent all India rank of **15** and world rank of **523** in the field of Energy by Stanford University/Elsevier with world overall rank of **25286** for the year of **2022**. (Single year Ranking)
- Featured in the list of "World Ranking of top 2 % Scientists" from the Indian subcontinent all India rank of **13** and world rank of **399** in the field of Energy by Stanford University/Elsevier with world overall rank of **20040** for the year of **2021**. (Single year Ranking)
- Featured in the list of "World Ranking of top 2 % Scientists" from the Indian subcontinent with all India rank of **11** and world rank of **449** in the field of Energy by Stanford University/Elsevier with world overall rank of **22232** for the year of **2020**. (Single Year Ranking)
- Featured in the list of "World Ranking of top 2 % Scientists" from the Indian subcontinent with all India rank of **6** and world rank of **510** in the field of Energy by Stanford University/Elsevier for the year of **2019**. (Single Year Ranking)

■ **Top 2% Scientist Award (Career):** **Certificate (Career-2024)**
- Featured in the list of "World Ranking of top 2 % Scientists" from the Indian subcontinent all India rank of **21** and world rank of **919** in the field of Energy by Stanford University/Elsevier with world overall rank of **66961** for the year of **2025** (Career Ranking)
- Featured in the list of "World Ranking of top 2 % Scientists" from the Indian subcontinent all India rank of **21** and world rank of **895** in the field of Energy by Stanford University/Elsevier with world overall rank of **70416** for the year of **2024** (Career Ranking)
- Featured in the list of "World Ranking of top 2 % Scientists" from the Indian subcontinent all India rank of **20** and world rank of **944** in the field of Energy by Stanford University/Elsevier with world overall rank of **75834** for the year of **2023**. (Career Ranking)
- Featured in the list of "World Ranking of top 2 % Scientists" from the Indian subcontinent all India rank of **22** and world rank of **1067** in the field of Energy by Stanford University/Elsevier with world overall rank of **86963** for the year of **2022**. (Career Ranking)
- Featured in the list of "World Ranking of top 2 % Scientists" from the Indian subcontinent with all India rank of **23** and world rank of **1000** in the field of Energy by Stanford University/Elsevier with world overall rank of **87248** for the year of **2021**. (Career Ranking)
- Featured in the list of "World Ranking of top 2 % Scientists" from the Indian subcontinent with all India rank of **23** and world rank of **1224** in the field of Energy by Stanford University/Elsevier with world overall rank of **111452** for the year of **2020**. (Career Ranking).

■ **Best Scientist Award:**
- Featured in the top scientist list with all India rank of **61** and world rank of **3974** in the field of Engineering and Technology (for the year of 2021) in the first edition of the top scientists ranking published by Research.com, one of the major knowledge centres for research.
- Featured in the top scientist list with all India rank of **68** and world rank of **3965** in the field of Engineering and Technology (for the year of 2022) published by Research.com, one of the major knowledge centres for research.
- Featured in the top scientist list with all India rank of **68** and world rank of **3962** in the field of Engineering and Technology (for the year of 2023) published by Research.com, one of the major knowledge centres for research.

- Featured in the top scientist list with all India rank of **63** and world rank of **3922** in the field of Engineering and Technology (for the year of 2024) published by Research.com, one of the major knowledge centres for research.
- Featured in the top scientist list with all India rank of **65** and world rank of **3895** in the field of Engineering and Technology (for the year of 2025) published by Research.com, one of the major knowledge centres for research.

- **Top 0.05% Scientist Award: (Certificates 1. Career 2. Single year**
  - Featured in the list of "World Ranking of top 0.05 % Scientists" from the Indian subcontinent with all India rank of **3** and world rank of **9** in the field of Energy system by ScholarGPS for the year of 2025.
  - Featured in the list of "World Ranking of top 0.05 % Scientists" from the Indian subcontinent with all India rank of **3** and world rank of **11** in the field of Energy system by ScholarGPS for the year of 2024.
  - Featured in the list of "World Ranking of top 0.05 % Scientists" from the Indian subcontinent with all India rank of **3** and world rank of **11** in the field of Energy system by ScholarGPS for the year of 2023.
  - Featured in the list of "World Ranking of top 0.05 % Scientists" from the Indian subcontinent with all India rank of **4** and world rank of **10** in the field of Energy system by ScholarGPS for the year of 2022.
  - Highly ranked Scholar-Lifetime in the field of Energy system, Mathematical Optimization and Energy in the year of 2024.
- **AD Scientific Index ranking:**
  - Featured in the list of "World top Scientists Ranking" from the Indian subcontinent with all India rank of **2** and world rank of **916** in the field of Economics for the year of 2025.
  - Featured in the list of "World top Scientists Ranking" from the Indian subcontinent with all India rank of **6** and world rank of **1203** in the field of Economics and Econometrics for the year of 2025.

International Scientist Award 2020 on Engineering, Science and Medicine, 2020 by VD GOOD

- **Certificate of Appreciation from All India Human Rights on Teacher's Day**

PATENT

Design Patent ,

- Dinesh Prodhan, **Provas Kumar Roy**, Moumita Pradhan, "Smart Menstrual Waste Disposal System", Design No: 401388-001, Date: 05.12.2023, Patent Office, Government of India

RESEARCH AREA

- Economic Load Dispatch
- Combined Heat and Power Dispatch
- Optimal Power Flow
- Hydrothermal Scheduling
- Automatic Generation Control
- Unit Commitment
- State Estimation; FACTS
- Radial Distribution System
- Power System Stabilizer
- Image processing
- Soft computing techniques

M.TECH SCHOLAR

Scholar Details:

A. Completed

Sl. No.	Name of the Candidate	Title	Year/ Remarks
1	Aritra Das	Formulation and Analysis of Single Objective Optimal Power Flow Problems on Wind-Solar-PEV Based Hybrid Power System Using Chaotic Arctic Puffin Optimization Algorithm	2025
2	Ayan Das Sarkar	Optimizing economic load dispatch through integration of wind, solar, vehicle system using a chaotic-based prairie dog optimization algorithm	2025
3	Pritam Mandal	Solution of single and multi-objective economic emissiondispatch problem by using African vultures optimizationalgorithm with modifications	2024
4	Oshman Gani Mollah	Optimal allocation of solar and wind in radial distribution system using Arithmetic optimization algorithm	2024
5	Souvik Shome	ECONOMIC & EMISSION DISPATCH OF THERMAL POWER PLANT BY USING CHEETAH OPTIMIZER	2024
6	SATABDI CHAKRABOR	ECONOMIC LOAD DISPATCH USING PARTICLE SWARM OPTIMIZATION(PSO) ALGORITHM	2024
7	Abanti Maity	LOAD FLOW ANALYSIS OF LARGE, MEDIUM AND SMALL SCALE TRANSMISSION NETWORK	2024
8	Arka Manna	Artificial Hummingbird Algorithm (AHA) to solve Economic Load Dispatch (ELD) problems	2022
9	Indrajit Dey	Optimal Installation of DG in Radial Distribution Network Using Arithmetic Optimization Algorithm	2021
10	Rajkumar Sah	Atomic Search Optimization Algorithm for Solving Economic Load Dispatch Incorporating Wind Energy	2021
11	Amit Chauhan	Development of Smart Energy Meter for Monitoring Energy Flow & Load Forecasting in Smart grids	2021
12	Saikat Nandi	Electrostatic discharge algorithm for solving economic Load Dispatch incorporating renewable energy	2020 •One IEEE conference
13	Amit Mistri	Chaotic biogeography-based optimization (CBBO) algorithm applied to economic load dispatch problem	2020 •One IEEE conference
14	Koushik Garai	ECONOMIC LOAD DISPATCH USING PARTICLE SWARM OPTIMIZATION	2020
15	Bikram Saha	Economic load dispatch incorporating wind power using biogeography based optimization-salp swarm algorithm	2019 •One International Scopus indexed Journal in IJAMC (IGI Global)
16	Subham Kundu	Renewable energy based economic load dispatch using hybridized biogeography based optimization and butterfly optimization algorithm	2019 •One International Scopus indexed Journal in IJSIR (IGI Global)
17	Kalyan Sarkar	Binary Dragon fly algorithm (BDA) for solving Economic load dispatch problem	2019
18	Tapas Pal	Renewable Energy Based Economic Emission Load Dispatch Using Grasshopper Optimization algorithm	2018 •One International Scopus indexed Journal in IJSIR (IGI Global)
19	Dipanjan Bose	Optimal Power Flow Using Differential Search Algorithm	2018
20	HimadriSekhar Bhattacharyya	Optimal Power Flow Using Biogeography Based Optimization	2017
21	Subhankar Sinha	Economic Load Dispatch Using Particle Swarm Optimization	2017
22	Aparajita Mukherjee	Transient stability constrained optimal power flow using evolutionary algorithm	2014 •One International Journal in IJEOE (IGI Global) •One IEEE Conference •One International Journal in IJEPES (Elsevier)

Sl. No.	Name of the Candidate	Title	Year/ Remarks
23	Sk. Mahamad Ali Bulbul	Soft computing technique applied to economic load dispatch	2014 •One International Journal in IJSIR (IGI Global) •One IEEE Conference •One International Journal in ASEJ (Elsevier)
24	Sunanda Hazra	Wind based economic dispatch using artificial intelligence	2014 •One Book Chapter in Springer
25	Adhit Roy	Evolutionary algorithms applied to load frequency control in Two area power system	2014 •One International Journal in IJEOE (IGI Global) •One IEEE Conference
26	Pranabesh Mukhapadhyay	Optimal location of TCSC using oppositional teaching learning based optimization	2014 •One International Journal in IJEPES (Elsevier) •One International Journal in IJEOE (IGI Global)
27	Sudipta Bhui	Evolutionary algorithms applied to multi-objective Load Dispatch	2013 •Three journals One in IJEPES (Elsevier, IF:2.587); One in ASOC (Elsevier, IF:2.857); One in ITEES (Wiley, IF:1.692)
28	Abhishek Das	Short-term hydro thermal scheduling using soft computing technique	2013
29	Sourav Paul	Biogeography Based Optimization for Automatic Generation Control of a Multi area hydro-thermal System	2012 •One IEEE Conference
30	Dipika MaZumDar	Economic load dispatch with valve point effect by Different types of PSO	2012
31	Santanu Pramanick	Economic load dispatch using Particle Swarm optimization	2012
32	Sajal Debdas	Evolution of the transient response of a dc motor using Matlab/simulink	2011

REVIEW ACTIVITIES

Journal Review,

- Elsevier
  - International Journal of Electrical Power and energy systems.
  - Energy.
  - Applied Soft Computing.
  - Energy conversion and management.
  - Renewable & Sustainable Energy Reviews
  - Engineering Application of Artificial Intelligence.
  - Computers and Electrical Engineering
  - ISA Transactions
  - Karbala International Journal of Modern Science
  - Swarm and Evolutionary Computation
  - Ain Shams Engineering Journal
  - Renewable Energy Focus
  - Engineering Science and Technology, an International Journal
  - Engineering
  - Computers and Industrial Engineering
  - Applied Computing and Informatics
  - Alexandria Engineering Journal
  - Journal of Computational and Applied Mathematics
  - MethodX
  - Journal of Ocean Engineering and Science
  - European Journal of Control
  - Sustainable Energy, Grids and Networks
  - Control Engineering Practice
- IET/IEEE
  - IEEE Transactions on Evolutionary Computation
  - IEEE Transactions on Power System
  - IEEE transactions on Cybernetics
  - IET Generation Transmission and Distribution
  - IET Communication
  - CSEE Journal of Power and Energy Systems
  - IEEE Transactions on Sustainable Computing
  - IEEE Transactions on Industrial Informatics
  - IEEE Access
- Taylor and Francis
  - Electric Power Components and Systems
  - Engineering Optimization

- IETE Journal of Research
- IETE Techncal Review
- Journal of Experimental and Theoretical Artificial Intelligence
- Internaional Journal of Ambient Energy

- Wiley
  - International Transactions on Electrical Energy Systems
  - International Journal of Energy Research
  - Expert Systems
- Springer
  - Energy Systems
  - Engineering with Computers
  - Journal of The Institution of Engineering (India)
  - Soft Computing
  - Iran Journal of Computer Science
  - SN Applied Sciences (SNAS)
  - Journal of Ambient Intelligence and Humanized Computing
- Inderscience
  - International Journal of Swarm Intelligence
  - International Journal of Environment and Sustainable Development
- Handawi Publishing Corporation
  - International Journal of Rotating Machinery
  - Applied Computational Intelligence and Soft Computing
  - Computational Intelligence and neuroscience
  - Mathematical Problems in Engineering
- Scientia Iranica
  - International Journal of Science and Technology
- Others
  - Journal of Experimental and Theoretical Artificial Intelligence
  - International Journal of Applied metaheuristic computing
  - International Journal of Swarm Intelligence Research
  - International Journal of Emerging Electric Power System

PH.D THESIS EVALUATION

TITLE OF THE THESIS

- Small Signal Stability Analysis of Power System with the Penetration of Wind Turbine Generators
  - Charotor University of Science and Technology
- Identification of Operating Conditions and Steady State Performance Enhancement of Microgrid Systems
  - Jadavpur University

VIVA VOCE FOR PH.D THESIS

TITLE OF THE THESIS

- Identification of Operating Conditions and Steady State Performance Enhancement of Microgrid Systems
  - Jadavpur University

EDITOR

JOURNAL

- Reason-A Technical Journal
  - ISSN Number: 2277-1654

MEMBER OF EDITORIAL BOARD

JOURNAL

- International Journal of Energy Optimization and Engineering
  - Indexed In: Web of Science (Clarivate Analytics) Emerging Sources Citation Index (ESCI), ISBN Number: 2160-9500

ORGANIZER

CONFERENCE

- Fifth International Conference on Computational Intelligence, Communications, and Business Analytics (CICBA-2023),
  - Program Chair

SESSION CHAIR

CONFERENCE

- ”Panel Discussion/ Industry Talk ” on 28th July, 2018, in the Second International Conference on Computational Intelligence, Communications, and Business Analytics (CICBA-2018),
- ”Session Chair of Technical Session: EE 3.1 (Power System Operation)” on 27th – 29th November 2020 in 7th IEEE Uttar Pradesh Section International Conference on Electrical, Electronics, and Computer Engineering (UPCON 2020)
- ”Session Chair of Technical Session ” on 27th January, 2023, in the Fifth International Conference on Computational Intelligence, Communications, and Business Analytics (CICBA-2023).
- ”Session Chair of Track -17 (Controller Design and Real time Control Systems)” on 27th January, 2023, in the ”6th International Conference “2025 Devices for Integrated Circuit (DevIC)” (Devis-2025)

RECRUITMENT

GOVERNMENT REPRESENTATIVE

- Recruitment for the post of Assistant Professor of Electrical Engineering Department for Government Engineering & Technology Colleges in the WBGS under the Higher Education Department, Government of West Bengal

SPEAKER IN FDP PROGRAMME

TITLE: RENEWABLE ENERGY TECHNOLOGIES FOR SUSTAINABLE DEVELOPMENT
- Organization: B C Roy Polytechnique, Durgapur
- Duration: 15th June-19th June, 2021.

TITLE: RECENT ADVANCEMENT IN SMART GRID AND RENEWABLE ENERGY.
- Organization: B C Roy Engineering College, Durgapur
- Duration: 19th December to 23rd December, 2022.

TITLE: SMART AND SUSTAINABLE SYSTEMS WITH FUTURISTIC APPROACHES (SSSFA)2025
- Organization: Sanaka Educational Trust's Group of Institutions, Durgapur
- Duration: 8th September to 12th September, 2025.

SPEAKER IN SHORT TERM TRAINING PROGRAM (STTP)

TITLE: APPLICATION OF AI & ML IN ELECTRICAL AND ELECTRONICS ENGINEERING
- Organization: Budge Budge Institute of Technology, in association with The Institution of Engineers (India)
- Organised by Department of Electrical Engineering.
- Duration: 01-03 & April 08-09, 2024

SHORT TERM COURSE ATTENDED

TITLE: FACULTY ORIENTATION PROGRAM ON INSTITUTIONAL IMPROVEMENT
- Organization: National Technical Teachers' Training Institute, Eastern Region
  - Period: 01.04.2015 To 10.04.2015
  - Duration: 2 Weeks

TITLE: OPERATION, CONTROL, STABILITY AND POWER QUALITY ISSUES IN MODERN POWER SYSTEMS
- Organization: Electrical Engineering Department, National Institute of Technology, Durgapur
  - Period: 26.03.2009 To 27.03.2009
  - Duration: 2 Days

TITLE: INTEGRATED OPERATION OF LARGE SCALE MODERN POWER SYSTEMS
- Organization: Electrical Engineering Department, National Institute of Technology, Durgapur
  - Period: 12.01.2009 To 24.01.2009
  - Duration: 2 Weeks

TITLE:MICROPROCESSOR AND INTERFACE
- Organization: National Technical Teachers' Training Institute, Eastern Region
  - Period: 12.01.20021.06.2004 To 24.01.200925.06.2004
  - Duration: 1 Week

MEMBER OF PROFESSIONAL BODY

INDIAN SOCIETY OF TECHNICAL EDUCATION (ISTE)
- Grade of the Body: Life Member
- Membership Number: LM52776

INSTITUTE OF ENGINEERS
- Grade of the Body: Fellow
- Membership Number: F-120340-8

PUBLICATION METRICES
- Scopus citation:7374
- Web of Science Citation:5682
- Google Scholar Citation:9609
- H-index by Scopus: 48
- H-index by Web of Science:44
- H-index by Google Scholar:52

RESEARCH IDS
- ResearcherID:B-9054-2019
- ORCID ID: 0000-0002-3433-5808
- Scopus ID: 35753641300
- Vidwan id: 403394

PUBLICATION SUMMARY

JOURNAL: 203
- International SCI Journal: 113
- International Scopus Cited Journal excluding SCI: 58
- National Scopus Cited Journal excluding SCI: 2
- International Subscribed Journal : 24
- International Open Access Journal: 5

CONFERENCE:93
- International Conference: 87
- National Conference: 6

INTERNATIONAL BOOK: 6

BOOK CHAPTER: 23

JOURNAL PUBLICATION SUMMARY

INTERNATIONAL SCI JOURNALS (113)

- ***Elsevier: 46 Numbers***
  - International Journal of Electrical Power and Energy Systems, Impact Factor: 5.659 (Q1 Journal): 16 Numbers
  - Applied Soft Computing, Impact Factor: 8.263 (Q1 Journal): 6 Numbers
  - International Journal of Hydrozen Energy,:1 Number
  - Swarm and Evolutionary Computation, Impact Factor: 10.267 (Q1 Journal): 2 Numbers
  - Journal of Energy Storage, Impact Factor: 8.9 (Q1 Journal): 3 Numbers
  - Measurement, Impact Factor: 5.2 (Q1 Journal): 1 Number
  - Expert Systems with Application, Impact Factor: 8.665 (Q1 Journal): 1 Number
  - Engineering Application with Artificial Intelligence, Impact Factor: 7.802 (Q1 Journal): 1 Number
  - Ain Shams Engineering Journal, Impact Factor: 4.79 (Q2 Journal): 4 Numbers
  - Electric Power System Research, Impact Factor: 3.818 (Q2 Journal): 2 Numbers
  - Computers and Electrical Engineering, Impact Factor: 4.152 (Q2 Journal) : 1 Number
  - ISA Transactions, Impact Factor: 5.911 (Q1 Journal): 2 Numbers
  - Energy Strategy Reviews, Impact Factor: 10.01 (Q1 Journal): 1 Number
  - Thermal Science and Engineering Progress, Impact Factor-4.8: 1 Number
  - Scientia Iranica, Impact Factor1.416: 1 Number
  - Scientific Reports:Impact Factor-3.8: 3 Numbers
- ***IEEE: 2 Number***
  - IEEE Transactions on Industry Application, Impact Factor: 4.4 (Q2 Journal)
  - IEEE Access, Impact Factor: 3.476 (Q2 Journal)
- ***IET: 4 Numbers***
  - IET Generation, Transmission and Distribution, Impact Factor: 2.503 (Q2 Journal) : 4 Numbers
- ***Taylor & Francis: 17 Numbers***
  - Engineering Optimization, Impact Factor: 2.5 (Q2 Journal): 1 Number
  - IETE Journal of Research, Impact Factor: 1.877 (Q3 Journal): 6 Numbers
  - Electric Power Components and Systems Impact Factor: 1.276 (Q4 Journal): 9 Numbers
  - International Journal of Green Energy Impact Factor: 3.206 (Q2 Journal):1
- ***Springer: 18 Numbers***
  - Soft Computing, Impact Factor: 3.732 (Q2 Journal) : 4 Numbers
  - Iranian Journal of Science & Technology, Transactions of Electrical Engineering, Impact Factor: 1.890 (Q3 Journal) : 3 Numbers
  - Electrical Engineering,Impact Factor: 1.630 (Q3 Journal): 6 Numbers
  - Microsystem Technologies, Impact Factor: 2.012 (Q3 Journal): 1 Number
  - Circuits, Systems, and Signal Processing, Impact Factor: 2.311 (Q3 Journal): 2 Numbers
  - The Journal of Supercomputing Impact Factor: 2.7 (Q2 Journal): 2 Numbers
- ***Wiley: 22 Numbers***
  - International Transactions on Electrical Energy Systems, Impact Factor: 2.639 (Q2 Journal): 8 Numbers
  - Optimal Control Application and method, Impact Factor: 1.955 (Q3 Journal): 9 Numbers
  - International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, Impact Factor: 1.436 (Q3 Journal):5 numbers
- ***MDPI Publication: 1 Number***
  - Fractal and Fractional, Impact Factor: 3.577
- ***AIP Publication: 1 Number***
  - Journal of Renewable and Sustainable Energy, Impact Factor: 2.847 (Q4 Journal)
- ***Frontiers Publication: 1 Number***
  - Frontiers in Energy Research, Impact Factor: 2.62 (Q2 Journal)
- ***Sage Publication: 1 Number***

INTERNATIONAL SCOPUS CITED JOURNALS EXCLUDING SCI(58)

- ***IEEE Xplore: 1 Number***
  - Chinese Journal of Electrical Engineering: 1 Number
- ***Elsevier: 10 Numbers***
  - Energy Conversion and Management-X
  - Engineering Science and Technology, an International Journal: 2 Numbers
  - Results in control and optimization:2 Numbers
  - Ains Shams Engineering Journal: 1 Number
  - Renewable Energy Focus: 3 Numbers
- ***Springer: 12 Numbers***
  - Energy System: 2 Numbers
  - Evolutionary Intelligence: 5 Numbers
  - Process Integration and Optimization for Sustainability: 2 numbers
  - Journal of Engineering and Applied Science: 1 number
  - Energy, Ecology and Environment : 1 number
  - SN Computer Science : 1 number
  - Innovations in Systems and Software Engineering : 1 number

- Neural Computing and Applications: 1 number
- Progress in Artificial Intelligence : 1 number

- ***Wiley: 1 Number***
  - Advanced Control for Applications: 1 Number
- ***Taylor & Francis: 4 Numbers***
  - International Journal of Modelling and Simulation:2 number
  - Smart science: 2 numbers
- ***Actapress: 2 Numbers***
  - International Journal of Power and Energy Systems: 2 Numbers
- ***Frontiers: 1 Number***
  - Frontiers in Mechanical Engineering: 1 Number
- ***Inderscience: 11 Numbers***
  - International Journal of Innovative Computing and Applications: 1 Number
  - International Journal of Power and Energy Conversion: 9 Numbers
  - Int. J. of Environment and Waste Management:1 number
- ***IGI Global: 15 Numbers***
  - International Journal of Applied Metaheuristic Computing (IJAMC): 8 Numbers
  - International Journal of Swarm Intelligence Research: 7 Numbers
- ***Suranaree University of Technology: 1 Number***
  - Suranaree Journal of Science and Technology

NATIONAL SCOPUS CITED JOURNALS EXCLUDING SCI (2)

- Indian journal of Environmental Protection: 2 Numbers

INTERNATIONAL SUBSCRIBED JOURNAL (21)

- International Journal of Swarm Intelligence Research: 1 Number Journal of Energy Optimization and Engineering: 18 Numbers
- International Journal of Applied Evolutionary Computation : 2 Numbers

OPEN ACCESS INTERNATIONAL JOURNAL (5)

- Journal of Electrical System and Information Technology: 1 Number
- Journal of Engineering: 1 Number
- International Journal of Advanced Engineering Applications: 1 Number
- International Journal of Recent Trend in Engineering: 1 Number
- International Journal on Electrical and Power Engineering: 1 Number

CONFERENCE PUBLICATION SUMMARY

INTERNATIONAL CONFERENCE (85)

NATIONAL CONFERENCE (6)

BOOK AND BOOK CHAPTER (29)

BOOK (6)

BOOK CHAPTER (23)

YEAR WISE PUBLICATION LIST OF PUBLICATIONS DETAILS

INTERNATIONAL JOURNALS

Journal Excel Link

Journal credit point Excel Link

Year2026 (SCI:7; Scopus index excluding SCI: 0):

1: Souvik Dey; Provas Kumar Roy; Angsuman Sarkar, ”Accurate Design of Digital Fractional-Order Butterworth Filters Using a Novel Chaotic Quasi-Oppositional Bald Eagle Search Algorithm”, Circuits, Systems, and Signal Processing, **Science Citation Indexed (SCI) Journal, Springer, ISSN 1531-5878; Impact Factor-2.311, Published on 6th May, 2026.**

2: Indrajit Dey, **Provas Kumar Roy**, ”Dynamic arithmetic optimization algorithm under load uncertainty for wind-solar-energy storage based hybrid radial network”, Chaotic quasi-oppositional crayfish optimization algorithm for wind-solar-energy storage based hybrid radial network under load uncertainty, **International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, Science Citation Indexed (SCI) Journal, Wiley, ISSN 1099-1204; Impact Factor-1.436**, Vol. 39, No. 3, e70161, 2026.

3: Sriparna Banerjee, **Provas Kumar Roy**, Pradip Kumar Saha, ”Modified differential search algorithm withgradient-based repair method for the optimization of hybrid power system, The Journal of Supercomputing, **Science Citation Indexed (SCI) Journal, ISSN: 1573-0484; Impact Factor-2.6**, Vol. 82, No. 272, 2026, 2026.

4: Sourav Paul, Sneha Sultana, Susanta Dutta, **Provas Kumar Roy**, Sunanda Hazra, Ghanshyam G. Tejani and Seyed Jalaleddin Mousavirad, Optimal design of wind, solar and hydel units for solving probabilistic optimal power flow using artificial hummingbird algorithm”, Energy Exploration & Exploitation, **Scopus Indexed (SCI) Journal, ISSN: 0144-5987; Impact Factor-1.6, Published Online February 11, 2026**

Year	SCI Journal	Non-SCI Scopus Journal	Other Journal	Total Journal (Year Wise)	Conference (Year Wise)	Book Chapter (Year Wise)	Book (Year Wise)
2026	7	0	0	7	2	0	0
2025	12	11	1	24	15	0	1
2024	7	11	0	18	3	1	2
2023	20	1	1	22	16	7	1
2022	8	4	1	13	3	1	1
2021	9	6	1	16	1	0	0
2020	6	10	1	17	5	5	0
2019	3	4	1	8	5	1	0
2018	5	4	1	10	4	1	1
2017	3	1	3	7	3	0	0
2016	7	4	6	17	6	4	0
2015	4	3	5	12	11	1	0
2014	8	1	2	11	9	1	0
2013	5	0	1	6	0	0	0
2012	3	0	1	4	5	1	0
2011	2	0	0	2	1	0	0
2010	3	1	4	8	0	0	0
2009	1	0	0	1	4	0	0
Total	113	61	29	203	93	23	6
Total Publication					325		

5: Souvik Dey, **Provas Kumar Roy**, Angsuman Sarkar, ”Optimal Identification of IIR type Fractional Order Digital Integrator and Differentiator Using a Meta-Heuristic Optimization Algorithm”, The Journal of Supercomputing, **Science Citation Indexed (SCI) Journal, ISSN: 1573-0484; Impact Factor-2.6**, Vol. 82, No. 38, 2026.

6: Amit Mukherjee, Susanta Dutta, Soham Dey, Provas Kumar Roy, Anagha Bhattacharya ”Solving unit commitment problem incorporating integrated renewable energy, plug in electric vehicles and hydrogen energy storage using Marine Predators Algorithm,” International Journal of Hydrogen Energy, **Science Citation Indexed (SCI) Journal, ISSN: 0360-3199; Impact Factor-8.3**, Volume 198, Article no. 152732, 2026

7: Susanta Dutta, Priyanka Dutta, Sunanda Hazra, Tushnik Sarkar, Chandan Paul and **Provas Kumar Roy**, ”Dynamic analysis for optimal power flow of wind and BESS based short term hydro-thermal scheduling for multi-objective operation using chaotic-opposition-based sine cosine algorithm,” Journal of Energy Storage, **Science Citation Indexed (SCI) Journal, ISSN: 2352-1538; Impact Factor-8.9**, Vol. 141, No. 1, pp. 119069, 2026

Year2025 (SCI:12; Scopus index excluding SCI: 11):

8: Barun Mandal, **Provas Kumar Roy**, Chandan Paul, ”Dynamic economic dispatch problem in hybrid renewable energy sources based power systems using Chaotic hippopotamus optimization algorithm,” Iranian Journal of Science and Technology, Transactions of Electrical Engineering, Springer, **Science Citation Indexed (SCI) Journal, ISSN: 2364-1827, Impact Factor 1.890**, Published on 29 August 2025.

9: Susanta Dutta, Sourav Paul, Sneha Sultana, **Provas Kumar Roy**, Sunanda Hazra, ”Contribution of FACTS devices in probabilistic optimal power flow of conventional, renewable energy sources and electric vehicle using quasi-oppositional artificial hummingbird algorithm”, Optimal Control Application and Methods, **Science Citation Indexed (SCI) Journal, ISSN: 1099-1514; Impact Factor-2**, Published on 18th August 2025.

10: Susanta Dutta, Siddhartha Ghosh, Tushnik Sarkar, **Provas Kumar Roy**, Chandan Paul, Ruba Abu Khurma and Saurav Mallik, ”Uncertainty management in multiobjective electric vehicle integrated optimal power flow based hydrothermal scheduling of renewable power system for environmental sustainability, Scientific Reports, Springer, **Science Citation Indexed (SCI) Journal, ISSN: 2045-2322 ; Impact Factor-3.8**, Vol. 15, Article number: 29025, 2025.

11: Adhit Roy, Susanta Dutta, Soumen Biswas, Anagha Bhattacharya, Sajjan Kumar, Soham Dutta, **Provas Kumar Roy**, ”Delay margin analysis of FOTID controller for RES based EV system using MMGPE optimization”, Energy Conversion and Management-X, **Scopus Indexed (SCI) Journal, ISSN: 2590-1745; Impact Factor-7.6**, Volume 27, Article No. 101151, 2025.

12: Sourav Paul, Sneha Sultana, Susanta Dutta, **Provas Kumar Roy**, Sunanda Hazra, Ghanshyam G. Tejani and Seyed Jalaleddin Mousavirad, ”Optimal placement of PMU in wide area monitoring system of transmission network using quasi-oppositional-based artificial rabbit optimization”, Energy Conversion and Management-X, **Scopus Indexed (SCI) Journal, ISSN: 2590-1745; Impact Factor-7.6**, Volume 28, 2025.

13: Adhit Roy, Susanta Dutta, Soumen Biswas, Anagha Bhattacharya, **Provas Kumar Roy**, ”Solution of frequency deviation and multi objective probabilistic optimal power flow of transmis-sion network incorporating UPFC controller using driving training-based optimization”, Evolutionary Intelligence, Springer,**(Scopus Index)**, ISSN: 1864-5917, Volume 18, article number 115, 2025.

14: Joy Bandhapadhyay, **Provas Kumar Roy**, ”Implementation of a novel Enhanced Hybrid Multi-Objective Osprey Optimization Algorithm for off-grid hybrid system sizing”, Evolutionary Intelligence, Springer,**(Scopus Index)**, ISSN: 1864-5917, Volume 18, No. 103, 2025.

15: Sabyasachi Gupta, Susanta Dutta, Tushnik Sarkar, Anagha Bhattacharya, Chandan Paul, **Provas Kumar Roy**, ”Solving multi-objective probabilistic optimal power flow with renewable energy sources and Battery energy storage in transmission networks using Quasi Oppositional Sine Cosine algorithm,” Journal of Energy Storage, **Science Citation Indexed (SCI) Journal, ISSN: 2352-1538; Impact Factor-8.9**, Volume 122, 30 June 2025, 116411.

16: Indrajit Dey, **Provas Kumar Roy**, ”Dynamic arithmetic optimization algorithm under load uncertainty for wind-solar-energy storage based hybrid radial network, Optimal Control Application and Methods, **Science Citation Indexed (SCI) Journal, ISSN: 1099-1514; Impact Factor-2**, Published: 27 April 2025.

17: Indrajit Dey, **Provas Kumar Roy**, ”Renewable DG allocation in radial distribution networks for techno-economic analysis using Chaotic Quasi Oppositional Arithmetic Optimization Algorithm, Measurement, **Science Citation Indexed (SCI) Journal, ISSN: 1873-412X; Impact Factor-5.2**, Vol. 249, May, 2025.

18: Adhit Roy, Susanta Dutta, Anagha Bhattachrya, Soumen Biswas, **Provas Kumar Roy**, ”LFC based optimal power flow with renewable energy, BESS & FOPID controller using quasi opposition driving training based optimization,” Journal of Energy Storage, **Science Citation Indexed (SCI) Journal, ISSN: 2352-1538; Impact Factor-8.9**, Vol. 115, April 2025.

19: Dhiman Banerjee, **Provas Kumar Roy**, Goutam Kumar Panda ”A Novel Variant of Moth Swarm Algorithm for Flexible AC Transmission System-Based Optimal Power Flow Problem” Soft Computing, **Science Citation Indexed (SCI) Journal, Springer, ISSN 1433-7479; Impact Factor-3.732**, Vol. 29, pp. 3943–3983, 2025.

20: Sunanda Hazra, Dipanjan Datta, Chandan Paul, **Provas Kumar Roy**, Sneha Sultana, Sajjan Kumar, Soham Dutta, ”Electric Vehicle integrated Tidal-Solar-Wind-Hydro-Thermal Systems for Strengthing the Micro- grid and Environment Sustainability”, Scientific Reports, Springer, **Science Citation Indexed (SCI) Journal, ISSN: 2045-2322 ; Impact Factor-3.8**, Vol. 15 Article number: 14888, 2025.

21: Tushnik Sarkar, Sabyasachi Gupta, Chandan Paul, Susanta Dutta, **Provas Kumar Roy**, Anagha Bhattacharya, Ghanshyam G. Tejani and Seyed Jalaleddin Mousavira, ”Optimal allocation of STATCOM for multi objective ORPD problem on thermal wind solar hydro scheduling using driving training based optimization”, Scientific Reports, Springer, **Science Citation Indexed (SCI) Journal, ISSN: 2045-2322 ; Impact Factor-3.8**, Vol. 15, Article number: 19594, 2025

22: Tushnik Sarkar, Chandan Paul, Susanta Dutta, **Provas Kumar Roy**, Ghanshyam G. Tejani, Seyed Jalaleddin Mousavirad, ”Application of Quasi-oppositional driving training-based optimization for feasible Optimal power flow solution of renewable power system with unified power flow controller”, Frontiers in Energy Research, Frontiers, **Science Citation Indexed (SCI) Journal, ISSN: 2296-598X; Impact Factor-2.6**, Vol. 13, pp. 1-41, 2025.

23: Sneha Sultana, Sourav Paul, **Provas Kumar Roy,** ”Study of Phasor Measurement Unit placement in wide area monitoring system of radial distribution network using oppositional-based artificial rabbit optimization,” Electrical Engineering, Springer, **Science Citation Indexed (SCI) Journal, ISSN: 1432-0487; Impact Factor-1.630**, Vol. 107, pp. 9189–9221, 2025.

24: Souvik Dey, **Provas Kumar Roy**, Angsuman Sarkar, ”Infinite impulse response based reliable fractional order digital differentiator identification using an evolutionary optimization approach,” Neural Computing and Applications, **Scopus Indexed Journal, Springer, ISSN 1433-3058; Impact Factor-3.732**, Vol. 37, pp. 9129–9167, 2025.

25: Chandan Paul, Tushnik Sarkar, Susanta Dutta, Sunanda Hazra, **Provas Kumar Roy**, ”Optimal power flow of wind-solar-EV based combined heat and power for economic power generation and environment sustainability” Smart Science , **Scopus Indexed Journal, Taylor and Francis, ISSN 2308-0477), Impact Factor: 2.3**, Vol. 13, No. 2, pp. 503-531 2025.

26: Vidyasagar Bhattarjee, **Provas Kumar Roy**, Ghanshyam G. Tejani, Seyed Jalaleddin Mousavirad, ”Oppositional chaotic artificial hummingbird algorithm on engineering design optimization”, Frontiers in Mechanical Engineering, **Scopus Indexed Journal, Frontiers, ISSN 2297-3079, Impact Factor: 2.0**, Vol. 11, pp. 1-50, 2025.

27: Sukriti Patty, Rajeev Das, Dharmadas Mandal, **Provas Kumar Roy,** ”Adaptive Multi-Population Quadratic Approximation Guided Jaya Optimization Applied to Economic Load Dispatch Problems With or Without Valve-point Effects”, Results in Control and Optimization, **Scopus Indexed Journal, Elsevier, ISSN: 2666-7207; Impact Factor3.732,** Vol. 19, pp. 100543, 2025.

28: Susanta Dutta, Tushnik Sarkar, Chandan Paul, Sabbir Reza Tarafdar, **Provas Kumar Roy**, Ghanshyam G. Tejani and Seyed Jalaleddin Mousavira, ”Addressing ORPD problem in a standard IEEE power network accompanied with RESs and FACTs appliances by COMMKE under volatile load scenarios,”Results in Control and Optimization, **Scopus Indexed Journal, Elsevier, ISSN: 2666-7207; Impact Factor3.732**, Volume 19, Article No. 100572, 2025.

29: Ayan Das Sarkar, **Provas Kumar Roy**, Barun Mandal, Ghanshyam G. Tejani and Seyed Jalaleddin Mousavira, ”Enhancing renewable energy utilization through solar, wind and electric vehicle of grid using Chaotic-based prairie dog optimization algorithm,”Results in Control and Optimization, **Scopus Indexed Journal, Elsevier, ISSN: 2666-7207; Impact Factor 3.732**, Volume 22, Article No. 100646, 2026.

30: Sushma Verma, **Provas Kumar Roy**, Barun Mandal and Indranil Mukherjee,” Fault Location Optimisation Using Gold Rush Optimiser In Geothermal Hybrid Power Plant”, **Scopus Indexed Journal**, Suranaree University of Technology, ISSN: 2587-0009; Suranaree Journal of Science and Technology, Vol. 32, No. 5, pp. 1-12, 2025

31: Sushma Verma, **Provas Kumar Roy**, Barun Mandal, Indranil Mukherjee, "A Comparative Study on Fault location Optimisation Techniques in Hybrid Power System," Transactions of the Indian National Academy of Engineering, Springer, ISSN 2662-5423;Vol. 10, pp. 359-380, 2025.

Year2024 (SCI:7; Scopus index excluding SCI: 11):

32: Sabyasachi Gupta, Tushnik sarkar, Chandan Paul, Susanta Dutta and **Provas Kumar Roy**, "Applicability of MMKE alongside statistical assessment in RESs and SVC-based power networks to solve the ORPD problem in load-varying scenarios," Electrical Engineering, Springer, **Science Citation Indexed (SCI) Journal, ISSN: 1432-0487; Impact Factor-1.630**, Volume 107, pages 5071–5105, 2025.

33: Anamika Gorai, Barun Kumar Mandal, **Provas Kumar Roy**, Chandan Paul, "Oppositional based Artificial Rabbits Optimization Applied for Optimal Allocation of Nonlinear DG in Distribution Networks Considering Total Harmonic Distortion Limit", Electric Power System Research, **Science Citation Indexed (SCI) Journal, ISSN 0378-7796; Impact Factor-4.152**, Vol. 231, June 2024.

34: Chandan Paul, Tushnik Sarkar, Susanta Dutta, **Provas Kumar Roy**, Multi-objective combined heat and power with wind-solar-EV of optimal power flow using hybrid evolutionary approach," Electrical Engineering, Springer, **Science Citation Indexed (SCI) Journal, ISSN: 1432-0487; Impact Factor-1.630**, Volume 106, pages 1619–1653, 2024.

35: Chandan Paul, **Provas Kumar Roy**, V. Mukherjee, "Chaotic-quasi-opposition based whale optimization technique applied to multi-objective complementary scheduling of grid connected hydro-thermal-wind-solar-electric vehicle system, Optimal Control, Applications and Methods", Optimal Control Application and method, **Science Citation Indexed (SCI) Journal, Wiley, ISSN 1099-1514; Impact Factor-1.955**, Vol.45, No. 4, pp. 1603-1638, 2024.

36: Indrajit Dey, **Provas Kumar Roy**, "Oppositional arithmetic optimization algorithm for network reconfiguration and simultaneous placement of DG and capacitor in radial distribution networks," **International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, Science Citation Indexed (SCI) Journal, Wiley, ISSN 1099-1204; Impact Factor-1.436**, Vol. 37, No. 5, 2024.

37: Koustav Dasgupta, **Provas Kumar Roy**, Vivekananda Mukherjee, "Dynamic wind integrated hydrothermal scheduling using a novel oppositional learning based chaotic whale algorithm", Electrical Engineering, Springer, **Science Citation Indexed (SCI) Journal, ISSN: 1432-0487; Impact Factor-1.630**, Vol. 107, pp. 7063-7084 2025.

38: Sunanda Hazra, **Provas Kumar Roy**, Chandan Paul, "State of the art for Moth Flame Optimization applied Electric Vehicles-Solar-Wind-Hydro-Thermal Power system," Electrical Engineering, Springer, **Science Citation Indexed (SCI) Journal, ISSN: 1432-0487; Impact Factor-1.630**, Volume 107, pages 8909–8935, 2025.

39: Joy Bandhapadhyay, **Provas Kumar Roy**, "Design and application of a novel Improved Fire Hawk Optimization technique-tuned ANFIS for optimal regulation of energy of a composite microgrid system," Innovations in Systems and Software Engineering, Springer **(Scopus Index), Impact Factor 1.1,** ISSN: 1614-5054, Volume 21, pages 1067–1089, 2025.

40: Chandan Paul, Tusnik Sarkar, Susanta Dutta, **Provas Kumar Roy**, " Integration of optimal power flow with combined heat and power dispatch of renewable wind energy based power system using chaotic driving training based optimization", Renewable Energy Focus, Elsevier **(Scopus Index), Impact Factor-4.2** ISSN: 1755-0084, Vol. 49, 2024

41: Sriparna Banerjee, **Provas Kumar Roy**, Pradip Kumar Saha, "A novel enhanced performance-based differential search algorithm for the optimization of multiple renewable energy sources-based hybrid power system", Energy, Ecology and Environment, Springer, **Scopus Indexed Journal, ISSN: 2363-8338; Impact Factor-3.90,** Vol. 9, pp. 656-679, 2024.

42: Sushma Verma, Indranil Mukherjee, **Provas Kumar Roy**, Barun Mandal "Comparative study of Decrease in Direct (CO_2) and Indirect Green House Gases (CO, NOx, SO_2) Emissions from the Coal fired Thermal power Plants Using Energy from Municipal Solid Waste," Int. J. of Environment and Waste Management, Inderscience, **(Scopus Index), Impact Factor 0.5**, ISSN-1478-9868, Vol. 33, No. 3,pp. 265-291, 2024.

43: Basudeb Mondal, Susanta Dutta, Soumen Biswas, Anagha Bhattacharya, **Provas Kr Roy**, "Multi-objective Optimal Power Flow with wind–solar–tidal systems including UPFC using Adaptive Improved Flower Pollination Algorithm (AIFPA)" Smart Science, Taylor & , Francis **(Scopus Index), Impact Factor-2.4**, ISSN-2308-0477, Vol. 12, pp. 495-512, 2024.

44: Chandan Paul, Tushnik Sarkar, Susanta Dutta, Sunanda Hazra, **Provas Kumar Roy**, "Optimal power flow of multi-objective combined heat and power with Wind-Solar-Electric Vehicle-Tidal using hybrid evolutionary approach," Process Integration and Optimization for Sustainability, Springer, **(Scopus Index), Impact Factor-2.1**, ISSN-2509-4246, Vol. 8, pp. 1337–1367, 2024.

45: Indrajit Dey, **Provas Kumar Roy**, Optimal installation of DG in radial distribution network using arithmetic optimization algorithm," Advanced Control for Applications, Wiley, **(Scopus Index)**, ISSN-2578-0727, Vol. 6, No. 3, 2024.

46: Vidyasagar Bhattacharjee, **Provas Kumar Roy**, Chandan Chattoraj, "Chaotic artificial hummingbird algorithm applied to Elementary Machine Design Problems," Springer,**(Scopus Index), Impact Factor 2.0**, ISSN: 2192-6352, Progress in Artificial Intelligence, Vol. 13, pp. 307-333, 2024.

47: Vidyasagar Bhattacharjee, **Provas Kumar Roy**, Chandan Chattoraj, "Opposition-Based Artificial Hummingbird Algorithm Applied to Elementary Machine Design Problems," Springer,**(Scopus Index)**, ISSN: 2661-8907, SN Computer Science, Vol. 5, No. 1, 2024.

48: Falguni Chakrabrty, **Provas Kumar Roy**, ”An efficient multilevel thresholding image segmentation through improved elephant herding optimization,” Evolutionary Intelligence, Springer,**(Scopus Index)**, ISSN: 1864-5917, Volume 18, article number 17, 2025.

49: Sushma Verma; **Provas Kumar Roy**; Barun Mandal; Indranil Mukherjee, ”Artificial Hummingbird Algorithm Based Fault Location Optimisation For Transmission Line,” Journal of Engineering and Applied Science, Springer,**(Scopus Index)**, ISSN: 2536-9512, Vol. 71, No. 149 (2024).

Year2023 (SCI:20; Scopus index excluding SCI: 1):

50: Dipayan Guha, **Provas Kumar Roy**, Subrata Banerjee, ”Improved Fractional-order Sliding Mode Controller for Frequency Regulation of a Hybrid Power System with Nonlinear Disturbance Observer” IEEE Transactions on Industry Applications, **Science Citation Indexed (SCI) Journal, IEEE, ISSN 1939-9367; Impact Factor-4.079**, Vol. 59, No. 4, pp. 4964-4979, 2023.

51: Chandan Paul, **Provas Kumar Roy**, Vivekananda Mukherjee, ”Optimal solution for hydro-thermal-wind-solar scheduling using opposition-based whale optimization algorithm,” Soft Computing, **Science Citation Indexed (SCI) Journal, Springer, ISSN 1433-7479; Impact Factor-3.732**, Volume 28, pages 6003–6037, 2024.

52: Vidyasagar Bhattacharjee, **Provas Kumar Roy**, Chandan Chattoraj, ”Optimal design of forced-draft counter-flow evaporative-cooling towers through single and multi-objective optimizations using oppositional chaotic artificial hummingbird algorithm,” **Thermal Science and Engineering Progress, Science Citation Indexed (SCI) Journal, Elsevier, ISSN: 2451-9049; Impact Factor-4.8**, Vol. 46, pp. 1-22, 2023.

53: Barun Mandal, **Provas Kumar Roy**, ”Multi-objective optimal power flow using grasshopper optimization algorithm,” Optimal Control Application and method, **Science Citation Indexed (SCI) Journal, Wiley, ISSN 1099-1514; Impact Factor-1.955**, Vol. 45, No. 2, Pages: 623-645, 2024.

54: Dhiman Banerjee, **Provas Kumar Roy**, Goutam Kumar Panda, ”A Novel Ameliorated Moth Swarm Algorithm for Optimization of Hybrid Power System Incorporating FACTS Controllers” IETE Journal of Research, **Science Citation Indexed (SCI) Journal, Taylor & Francis, ISSN 0377-2063; Impact Factor-1.877**, Vol. 70, No. 5, pp. 4640–4673, 2024.

55: Barun Mandal, **Provas Kumar Roy**, ”Dynamic Economic Dispatch Problem in Hybrid Wind Based Power Systems Using Quasi Oppositional Based Chaotic Honey Badger Algorithm,” Electric Power components and System, Taylor and Francis, **Science Citation Indexed (SCI) Journal, ISSN: 1532-5016; Impact Factor-1.276**, Vol. 52, No.9, Pages 1543-1568, 2024.

56: Indrajit Dey, **Provas Kumar Roy**, ”Simultaneous network reconfiguration and DG allocation in radial distribution networks using Arithmetic Optimization Algorithm,” **International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, Science Citation Indexed (SCI) Journal, Wiley, ISSN 1099-1204; Impact Factor-1.436**, Vol.36, No. 6, 2023.

57: Soumen Biswas,Basudeb Mandal, **Provas Kumar Roy**, Susanta Dutta, ”Hybrid whale optimization algorithm-scaled cascade fractional order hybrid controller applied to renewable based Electric Vehicle generating systems,” **International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, Science Citation Indexed (SCI) Journal, Wiley, ISSN 1099-1204; Impact Factor-1.436**, Vol. 37, No. 1, 2024.

58: Chandan Paul, **Provas Kumar Roy**, Vivekananda Mukherjee, ”Wind and Solar Based Multi-Objective Hydro-Thermal Scheduling Using Chaotic-Oppositional Whale Optimization Algorithm,” Electric Power components and System, Taylor and Francis, **Science Citation Indexed (SCI) Journal, ISSN: 1532-5016; Impact Factor-1.276**, Vo. 51, No. 6, pp. 568-592, 2023.

59: Soumen Biswas, **Provas Kumar Roy**, Kalyan Chatterjee, “Application of Empirical Bode Analysis for Delay-Margin Evaluation of Fractional-Order PI Controller in a Renewable Distributed Hybrid System,” Fractal and Fractional, **Science Citation Indexed (SCI) Journal, MDPI, ISSN ISSN: 2504-3110; Impact Factor-3.577**, Vol.7, No. 2, pp-1-31, 2023

60: Koustav Dasgupta, **Provas Kumar Roy**, Vivekananda Mukherjee, ”A novel quasi-oppositional learning based chaos-assisted sine cosine algorithm for hybrid energy integrated dynamic economic emission dispatch,” IETE Journal of Research, **Science Citation Indexed (SCI) Journal, Taylor & Francis, ISSN 0377-2063; Impact Factor-1.877**, Vol. 70, No. 3, Pages 2453-2480, 2024.

61: Koustav Dasgupta, **Provas Kumar Roy**, Vivekananda Mukherjee, ”Application of chaos assisted sine cosine algorithm on wind-solar integrated hydrothermal scheduling problem,” Optimal Control Application and method, **Science Citation Indexed (SCI) Journal, Wiley, ISSN 1099-1514; Impact Factor-1.955**, Vol. 44, No. 2, pp. 1026-1051, 2023.

62: Dipayan Guha, **Provas Kumar Roy**, Subrata Banerjee, ”Adaptive fractional-order sliding-mode disturbance observer-based robust theoretical frequency controller applied to hybrid wind-diesel power system,” ISA Transactions, **Science Citation Indexed (SCI) Journal, Elsevier, ISSN 0019-0578; Impact Factor-5.911**, Vol. 133, pp. 160-183, 2023.

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