

RESUME

Name : Dr. Sidhartha Panda

Date of Birth : 23rd July 1969

Permanent Address: Dr. Sidhartha Panda

C/o: Sri Biswanath Panda

Bijipur, Rath Street, Berhampur

Dist. Ganjam, Orissa, INDIA

Phones: 9438251162 (M)



E-mail ID : spanda_ee@vssut.ac.in, prof.dr.spanda@gmail.com

Academic Qualification:

Degree	University/ Institution	Branch/ Specialization	Year of Passing	% Marks
Ph.D.	I.I.T. Roorkee	Electrical Engineering / Power System Engg.	2008	-
M.E.	U.C.E., Burla	Electrical Engineering / Power System Engg.	2001	75
B.E. (Electrical)	Bangalore University	Electrical Engineering	1991	65
H.S.C	Govt. M.C.H.S., Berhampur, Orissa	—	1984	72

Scholarships: NCERT scholarship during schooling

Area of Interest: MATLAB/SIMULINK, Flexible AC Transmission Systems (FACTS), Modeling of Machines, Power Systems and FACTS, Controller Design, Power System Stabilizer, Power System Stability, Automatic Voltage Regulator, Automatic Generation Control, Genetic Algorithm, Particle Swarm Optimization, Differential Evolution, Gravitational Search Algorithm, Multi-objective Optimization, Economic Operation of Power System, Fuzzy Logic, Adaptive Neuro Fuzzy Inference, Distributed Generation, Wind Energy, and Model Order Reduction.

Professional Membership: Fellow of Institute of Engineers (India)

F.I.E. Membership No.: F-114794-5

Books Published: TWO

1. Power System Operation and Control, SCITECH Publications, ISBN: 978 81 8371 315 3
2. Electrical Power System Analysis, SHINE Publications, ISBN – 9788192103440

Professional Activities:

1. Reviewer of International Journal “**IEEE Transactions on Industrial Electronics**”. (IEEE)
2. Reviewer of International Journal “**IET Transactions on Gen. Trans. Distr.**”(IET)
3. Reviewer of International Journal “**Applied Soft Computing**” (ELSEVIER)
4. Reviewer of **International Journal Electric Power and Energy Systems** (ELSEVIER)
5. Reviewer of **International Journal Simulation Modelling Practice and Theory** (ELSEVIER)
6. Reviewer of **Journal of Franklin Institute** (ELSEVIER)
7. Reviewer of **International Journal of Power Electronics** (INDERSCIENCE)
8. Reviewer of **IEEE International Conference PSACO2008**
9. Reviewer of **IEEE International Conference BICA 2009**
10. Reviewer of **IEEE International Conference PADES 2010**
11. Reviewer of **International Conference SEMCO 2010**

Awards/recognitions:

1. Listed in “**WHO’S WHO IN THE WORLD: 2013** (30th Pearl Anniversary Edition)”, by MARQUIS, USA
2. Listed in “**WHO’S WHO IN THE WORLD: 2012** (29th Edition)”, by MARQUIS, USA
3. Listed in “**2000 OUTSTANDING INTELLECTUALS OF THE 21st CENTURY 2012**”, by INTERNATIONAL BIOGRAPHICAL CENTRE, CAMBRIDGE, ENGLAND
4. Chosen for the “**BEST CITIZEN OF INDIA AWARD**” by BEST CITIZEN PUBLISHING HOUSE, INDIA
5. Selected for “**RASHTRIYA GAURAV AWARD-2011**” by INDIAN INTERNATIONAL FRIENDSHIP SOCIETY, NEW DELHI, INDIA
6. Listed in “**TOP 100 EDUCATORS 2011**”, by INTERNATIONAL BIOGRAPHICAL CENTRE, CAMBRIDGE, ENGLAND
7. Nominated for “**MAN OF THE YEAR 2011**” by AMERICAN BIOGRAPHICAL INSTITUTE, CALIFORNIA, USA
8. Nominated for “**SCIENTIFIC AWARD OF EXCELLENCE FOR 2011**” by AMERICAN BIOGRAPHICAL INSTITUTE, CALIFORNIA, USA
9. Listed in “**WHO’S WHO IN THE WORLD: 2011** (28th Edition)”, by MARQUIS, USA.
10. Listed in “**WHO’S WHO IN SCIENCE AND ENGINEERING: 2011-2012**” (11th Edition)”, by MARQUIS, USA
11. Nominated for “**TOP 100 ENGINEERS 2011**”, by INTERNATIONAL BIOGRAPHICAL CENTRE, CAMBRIDGE, ENGLAND
12. Listed in “**TOP 100 EDUCATORS 2010**”, by INTERNATIONAL BIOGRAPHICAL CENTRE, CAMBRIDGE, ENGLAND
13. Listed in “**TOP 100 ENGINEERS 2010**”, by INTERNATIONAL BIOGRAPHICAL CENTRE, CAMBRIDGE, ENGLAND
14. Listed in “**WHO’S WHO IN THE WORLD: 2010** (27th Edition)”, by MARQUIS, USA

15. Listed in “**2000 OUTSTANDING INTELLECTUALS OF THE 21st CENTURY 2010**”, by INTERNATIONAL BIOGRAPHICAL CENTRE, CAMBRIDGE, ENGLAND
16. Listed in “**2000 OUTSTANDING SCIENTISTS 2010**”, by INTERNATIONAL BIOGRAPHICAL CENTRE, CAMBRIDGE, ENGLAND
17. Selected for “**THE INTERNATIONAL PRESIDENTS AWARD FOR ICONIC ACHIEVEMENT**”, by INTERNATIONAL BIOGRAPHICAL CENTRE, CAMBRIDGE, ENGLAND
18. Selected for “**INTERNATIONAL PLATO AWARD FOR EDUCATIONAL ACHIEVEMENTS**”, by INTERNATIONAL BIOGRAPHICAL CENTRE, CAMBRIDGE, ENGLAND
19. Selected for “**THE DA VINCI DIAMOND FOR INSPIRATIONAL ACCOMPLISHMENTS**”, by INTERNATIONAL BIOGRAPHICAL CENTRE, CAMBRIDGE, ENGLAND
20. Nominated for “**GREAT MINDS OF THE 21ST CENTURY**” by AMERICAN BIOGRAPHICAL INSTITUTE, CALIFORNIA, USA

Courses Taught/Handled:

U.G. (1) Power System Operation and Control

(2) Power System Reliability

(3) Power Systems-I, II and III

(4) Modelling of Power System Components

(5) A.C. and D.C. Machines

(6) Transmission and Distribution

(7) Network Theory

P.G. (8) Power System Dynamics

(9) Computer Aided Power System Analysis

(10) HVDC Transmission

(11) Modeling, Simulation and Evolutionary Techniques

(12) Modeling and Simulation Lab

Work Experience: About 20 years Teaching/Research Experience

Institution	Designation	Worked During
VSS University, Burla, Orissa	Professor, Electrical Engineering Dept.	Sept. 2011 to till date
National Institute of Science and Technology, Berhampur, Orissa	Professor and H.O.D.	July 2008 to Sept 2011
KIIT University, Bhubaneswar, Orissa	Associate Professor	Nov. 2007 to July 2008
Indian Institute of Technology, Roorkee	Research Scholar (M.H.R.D)	July 2004 to Oct. 2007
VITAM College of Engineering, Parvatipuram, Andhra Pradesh	Associate Professor and H.O.D.	Aug. 2002 to July 2004
SMIT, Berhampur, Orissa	Lecturer	June 1992- July 2002

Details of Research Guidance (Ph.D.):

Thesis Title	Institute	Role	Total No. of Co-Supervisor	Students Name	Date	Status
APPLICATION of SOFT COMPUTING TECHNIQUES to AUTOMATIC GENERATION CONTROL PROBLEMS	VSSUT, BURLA	Co-Supervisor	1	Saroj Padhan	01-11-2018	Awarded
APPLICATION of HYBRID OPTIMIZATION TECHNIQUES in POWER SYSTEM FREQUENCY CONTROLLERS	VSSUT, BURLA	Co-Supervisor	1	Dillip Kumar Sahoo	04-10-2021	Awarded
DESIGN and ANALYSIS of SOFT COMPUTING TECHNIQUES BASED CONTROLLERS for POWER SYSTEM FREQUENCY REGULATION	VSSUT, BURLA	Supervisor	0	Bibhuti Prasad Sahoo	08-06-2022	Awarded
APPLICATION of MULTIOBJECTIVE and HYBRID TECHNIQUES in POWER SYSTEM OPERATION and CONTROL	VSSUT, BURLA	Supervisor	0	N.K. Yegireddy	09-02-2016	Awarded
INTELLIGENT CONTROLLERS for STABILITY IMPROVEMENT of POWER SYSTEM WITH DISTRIBUTED GENERATION	VSSUT, BURLA	Supervisor	0	Sasmita Padhy	12-03-2022	Awarded
Design & Analysis of Intelligent Controllers for AVR and AGC in Electrical Power Systems	SOA University	Supervisor	1	Pradeep Kumar Mohanty,	14-03-2016	Awarded
Application of Computational Intelligent Techniques to Power System Problems	KIIT University	Co-Supervisor	1	Sarat Chandra Swain	15-10-2010	Awarded
Bio-Inspired Computing for TCSC and SSSC Based Series FACTS Controllers for Power System Stability Enhancement	KIIT University	Co-Supervisor	1	Srikant Mohapatra,	15-10-2014	Awarded
Optimal Design of Controllers for Automatic Generation Control in Multi-Area Interconnected Power Systems	SOA University	Supervisor	1	Binod Kuar Sahu,	16-03-2015	Awarded
Application of Modern Heuristic Optimization Techniques in FACTS Based Controller Design	SOA University	Co-Supervisor	1	Sangram Keshari Mohapatra	19-08-2014	Awarded
FREQUENCY CONTROL of HYBRID POWER SYSTEMS by OPTIMIZED ADAPTIVE FUZZY CONTROLLERS	VSSUT, BURLA	Supervisor	0	Debidashi Mohanty	21-10-2022	Awarded
APPLICATION of SOFT COMPUTING TECHNIQUES for CONTROL of SWITCHED RELUCTANCE MOTOR (SRM)	VSSUT, BURLA	Supervisor	0	Nutan Saha	24-03-2021	Awarded
APPLICATION of MODERN HEURISTIC OPTIMIZATION TECHNIQUES for LOAD FREQUENCY CONTROL in INTERCONNECTED POWER SYSTEMS	VSSUT, BURLA	Co-Supervisor	1	Umesh Kumar Rout	27-06-2016	Awarded

Details of Research Guidance (P.G./M.Tech.):

Title of Dissertation	Name of Student	Pass out Year
State estimation in power systems	Ashok Kumar Pattanayak.	2011
Optimal location of FACTS controllers using soft computing technique	B. Rajnarayan Prusty	2011
UPFC-based damping controller design	Rajendra Kumar Khadanga	2011
Damping of Sub synchronous resonance using FACTS devices.	Sasmita Padhy	2011
MATLAB/SIMULINK based model of multi-machine power system with FACTS for stability studies.	Bhagabati Prasad Pattnaik	2011
Bio-inspired techniques based tuning of power system stabilizer	Subhranshu Sekhar Tripathy	2011
Transient stability improvement by PSO optimized PSS and AVR system	C Meher	2012
Tuning the PID controller parameters for an AVR system using tuned differential evolution algorithm	A Behera	2013
Improvement of power system stability using TCSC controller	S Bisi	2013
A variable structured TCSC controller for power system stability enhancement using cuckoo search algorithm	R Sethi	2014
Speed control of PMSM motor using trapezoidal back emf using fuzzy controller	R Padhy	2014
Hybrid techniques for performance improvement of power system with renewable energy	R Sahoo	2014
Improving the performance of wind energy embeded distribution system by STATCOM using PSOGSA	P Mohanty	2015
Performance analysis of different PLL structures during grid abnormalities	M Mohanty	2016
Control of voltage and power for grid connected variable speed WECS with PSG	M Moharana	2016
Modified local input signal based FACTS controller design	Avinash Kumar	2017
Design and analysis of moth flame optimization based PID aided fuzzy logic controller of AGC of nonlinear interconnected power system	Umesh Chandra Prusty	2017
Cosine adopted simplified GWO for congestion management of power system: redispatch and application of TCSC	D. K. Padhan	2019
Power system stability improvement using STATCOM	Chandan Kumar Nayak	2019
Stability Analysis of Hybrid Power System Using Snake Optimized FUZZY PID ControllerWith Electrical Vehicle	Janmejaya Das	2022

Details of Research Guidance (U.G.):

Title of Project Report	Pass out Year
Economic Load Dispatch Using Differential Evolution Algorithm	2009
Modeling, simulation and optimal tuning of SVC-based damping controller	2010
Design and analysis of a robust Fuzzy logic controller for TCSC for power system stability improvement	2011
Model order reduction and controller design by particle swarm optimization technique	2012
Multi-objective evolutionary algorithm for coordinated design of multiple stabilizers	2013
Small signal stability improvement with UPFC-based controller employing real-coded genetic algorithm	2014
Design and analysis of IPFC to damp power system oscillations	2015
Operation and control of smart grids with distributed generation	2016
Differential evolution algorithm based automatic generation control for interconnected power systems.	2017
Automatic generation control of power system using Genetic Algorithm	2018
load frequency control of multi-source power system	2019
Stability improvement by SSSC based damping controller	2020
Frequency control of microgrid system	2021
frequency regulation strategy in microgrids including renewable energy and electric vehicles.	2022

Courses Developed: Two

B.Tech: EHVAC and HVDC transmission system.

M.Tech.: Modelling Simulation and Evolutionary techniques:

Invited Talks:

1. Power System Stability Improvement with FACTS Controllers, at NIT Bhopal, 23rd –27th June 2008.
2. Modeling Simulation and Optimal Tuning of FACTS Controller, at NIT Bhopal, 23rd 27th June 2008.
3. Optimal Location and Controller Parameters of Shunt FACTS Controllers, at NIT Bhopal, 23rd – 27th June 2008.
4. Flexible AC Transmission Systems (FACTS): Modelling, Simulation and Optimization, National Institute of Science and Technology (NIST),
5. Flexible AC Transmission Systems (FACTS) Controllers for Power System Stability Improvement, at Andhra University 13-14th March 2009.
6. Modelling and Simulation of Power System with FACTS Controller for Stability Studies, at Andhra University 13-14th March 2009.
7. Soft Computing Techniques, MITS, Rayagada during Vasant Ustav 2009
8. Modeling, Simulation and Application of Soft Computing Techniques, MITS, Rayagada during Vasant Ustav 2009.
9. Renewable Energy: Wind Energy, AICTE Sponsored FDP on Renewable Energy, at RIT, Berhampur, June14-29, 2009.
10. Renewable Energy: Wind Energy, AICTE Sponsored FDP on Renewable Energy, at RIT, Berhampur, June14-29, 2009.
11. On Stability Issues of a Wind Energy Embedded Distribution System, AICTE Sponsored FDP on Renewable Energy, at RIT, Berhampur, June14-29, 2009.
12. Role of FACTS Controllers in Improving Power System Stability, AICTE Sponsored FDP on Modern System Operation and Control, at CVRCE, Bhubaneswar, Aug. 3-15, 2009.
13. Modelling and Simulation of Power System with FACTS Controller for Stability Studies, AICTE Sponsored FDP on Modern System Operation and Control, at CVRCE, Bhubaneswar, Aug. 3-15, 2009.
14. MATLAB/SIMULINK Based Modeling and Simulation and Artificial Intelligence (AI) Techniques, Workshop on “Recent Tools and Methodologies for Information echnology-2009” RCET, Bhillai (C.G.), Nov. 7-8, 2009.
15. Lecturer series on “Recent advances on Power System Engineering and Application of Research Tools” at Narsaraopeta Engineering College, Guntur Dist. A.P. on 19th-21st Feb, 2010.
16. Modern Power Systems: Modeling, Simulation and Soft Computing Applications, at AICTE sponsored Staff Development Program on “Advances in Power System, Power Electronics, Industrial Motor Drive and Control (APPIDC) at IGIT, Sarang, on 3rd July 2010.
17. Application of Power Electronics in Renewable Energy System, at Two-day Workshop on Emerging Trends in Power Electronics and Systems (ETPEDS-2010) December 9th -10th , 2010, AITAM, Tekkali, A.P. India
18. Damping Power System Oscillations by Differential Evolution Optimized TCSC-Based Controller, National Conference on Trends & Future Evaluation in Electrical Engineering, TFEEE – 2011, 5th-6th February, 2011, KIST, Bhubaneswar, Odisha, India
19. Modelling Simulation And Control Of Induction Motor Drives, Workshop On Renewable Energy Sources And Electric Drives, Feb 4, 2011, KIT, Berhampur, Odisha, India
20. Modeling and Simulation of Flexible AC Transmission Systems (FACTS) Controllers in Power System, National Seminar on “Modern Trends In Power System Operation and Management-2012” (MTPSOM-2012) 25th & 26th Feb.-2012, REC, Odisha, India
21. Stability Improvement of Power System using FACTS Controller, AICTE Sponsored Staff Development Programme, July 7, 2012, GIFT, Bhubaneswar, Odisha, India
22. Coordinated design of PSS and TCSC using PSO technique for power system stability enhancement, National Seminar On Power Electronics & Energy Systems (NSPEES-2012), Sept., 29-30, 2012, GIET, Bhubaneswar, Odisha, India
23. A simplified particle swarm optimization technique for tuning of PID controller in an automatic voltage regulator system, National Conference On Advanced Computing Techniques And Applications (NCACTA-2012) Dec., 1-2, 2012, RIT, Odisha, India

Research Publications:

A. Papers published in International Journals:

Level	Category	Detail	Role	Total No. of Co-Authors	Status
International	SCI	Improving power system transient stability with an off-centre location of shunt FACTS devices JOURNAL OF ELECTRICAL ENGINEERING / 2007	First/Corresponding	1	Published
International	SCI	Optimal location of shunt FACTS controllers for transient stability improvement employing genetic algorithm Electric Power Components and Systems / 2007	First/Corresponding	1	Published
International	SCI	Optimal location and controller design of STATCOM for power system stability improvement using PSO Journal of the Franklin Institute / 2008	First/Corresponding	1	Published
International	SCI	Power-system stability improvement by PSO optimized SSSC-based damping controller Electric Power Components and Systems / 2008	First/Corresponding	2	Published
International	SCI	Comparison of particle swarm optimization and genetic algorithm for FACTS based controller design Applied soft computing / 2008	First/Corresponding	1	Published
International	SCI	Application of genetic algorithm for PSS and facts-based controller design International Journal of Computational Methods / 2008	First/Corresponding	1	Published
International	SCI	Multi-objective evolutionary algorithm for SSSC-based controller design Electric Power Systems Research / 2009	First/Corresponding	0	Published
International	SCI	Multi-objective non-dominated sorting genetic algorithm-II for excitation and TCSC-based controller design Journal of Electrical Engineering / 2009	First/Corresponding	0	Published
International	SCI	Differential evolutionary algorithm for TCSC-based controller design Simulation Modelling Practice and Theory / 2009	First/Corresponding	0	Published
International	SCI	Application of non-dominated sorting genetic algorithm-II technique for optimal FACTS-based controller design Journal of the Franklin Institute / 2010	First/Corresponding	0	Published
International	SCI	Design and analysis of SSSC-based supplementary damping controller Simulation Modelling Practice and Theory / 2010	First/Corresponding	3	Published
International	SCI	Robust coordinated design of multiple and multi-type damping controller using differential evolution algorithm International Journal of Electrical Power & Energy Systems / 2011	First/Corresponding	0	Published
International	SCI	Multi objective PID controller tuning for a FACTS based damping stabilizer using non-dominated sorting genetic algorithm-II International Journal of Electrical Power & Energy Systems / 2011	First/Corresponding	0	Published
International	SCI	Differential evolution algorithm for SSSC-based damping controller design considering time delay Journal of the Franklin Institute / 2011	First/Corresponding	0	Published
International	SCI	Design and performance analysis of PID controller for an automatic voltage regulator system using simplified particle swarm optimization Journal of the Franklin Institute / 2012	First/Corresponding	2	Published
International	SCI	Simulation study for automatic generation control of a multi-area power system by ANFIS approach Applied soft computing / 2012	Main Supervisor	1	Published
International	SCI	Hybrid BFOA-PSO algorithm for automatic generation control of linear and nonlinear interconnected power systems Applied soft computing / 2013	First/Corresponding	2	Published
International	SCI	ANFIS approach for SSSC controller design for the improvement of transient stability performance Mathematical and Computer Modelling / 2013	Main Supervisor	1	Published
International	SCI	Design and analysis of differential evolution algorithm based automatic generation control for interconnected power system Ain Shams Engineering Journal / 2013	Co-Author	2	Published
International	SCI	DE optimized parallel 2-DOF PID controller for load frequency control of power system with governor dead-band nonlinearity International Journal of Electrical Power & Energy Systems / 2013	Co-Author	2	Published

International	SCI	Hybrid BFOA-PSO approach for coordinated design of PSS and SSSC-based controller considering time delays Int. J. Electrical Power and Energy Systems / 2013	First/Corresponding	2	Published
International	SCI	Automatic generation control of multi-area power system using multi objective non dominated sorting genetic algorithm II International Journal of Electrical Power & Energy Systems / 2013	First/Corresponding	1	Published
International	SCI	A novel hybrid DEPS optimized fuzzy PI/PID controller for load frequency control of multi-area interconnected power systems Journal of Process Control / 2014	Main Supervisor	2	Published
International	SCI	Differential evolution algorithm based automatic generation control for interconnected power systems with non-linearity Alexandria Engineering Journal / 2014	First/Corresponding	2	Published
International	SCI	Automatic generation control with thyristor controlled series compensator including superconducting magnetic energy storage units Ain Shams Engineering Journal / 2014	Co-Author	2	Published
International	SCI	Optimal gravitational search algorithm for automatic generation control of interconnected power systems Ain shams engineering journal / 2014	Co-Author	2	Published
International	SCI	Tuning and Assessment of Proportional-Integral-Derivative Controller for an Automatic Voltage Regulator System Employing Local Unimodal Sampling Algorithm Electric Power Components and Systems / 2014	First/Corresponding	2	Published
International	SCI	Hybrid differential evolution particle swarm optimisation optimised fuzzy proportional-integral-derivative controller for automatic generation control of interconnected power system IET Generation, Transmission & Distribution / 2014	Main Supervisor	2	Published
International	SCI	Controller parameters tuning of differential evolution algorithm and its application to load frequency control of multi-source power system International journal of electrical power & energy systems / 2014	First/Corresponding	2	Published
International	SCI	Application of Firefly Algorithm for Load Frequency Control of Multi-area Interconnected Power System Electric Power Components and Systems / 2014	Co-Author	2	Published
International	SCI	A PD-type Multi Input Single Output SSSC damping controller design employing hybrid improved differential evolution-pattern search approach Authors Applied Soft Computing / 2015	First/Corresponding	3	Published
International	SCI	Multi-input single output SSSC based damping controller design by a hybrid improved differential evolution-pattern search approach ISA transactions / 2015	First/Corresponding	1	Published
International	SCI	A hybrid DE-PS algorithm for load frequency control under deregulated power system with UPFC and RFB Ain Shams Engineering Journal / 2015	Co-Author	2	Published
International	SCI	AGC of a multi-area power system under deregulated environment using redox flow batteries and interline power flow controller Engineering Science and Technology, an International Journal / 2015	Co-Author	2	Published
International	SCI	A hybrid BFOA-MOL approach for FACTS-based damping controller design using modified local input signal International Journal of Electrical Power & Energy Systems / 2015	First/Corresponding	2	Published
International	SCI	Design and analysis of hybrid firefly algorithm-pattern search based fuzzy PID controller for LFC of multi area power systems International Journal of Electrical Power & Energy Systems / 2015	Co-Author	2	Published

International	SCI	DE optimized fuzzy PID controller with derivative filter for LFC of multi source power system in deregulated environment Ain Shams Engineering Journal / 2015	Co-Author	2	Published
International	SCI	A novel hybrid gravitational search and pattern search algorithm for load frequency control of nonlinear power system Applied Soft Computing / 2015	Co-Author	2	Published
International	SCI	A hybrid firefly algorithm and pattern search technique for automatic generation control of multi area power systems International Journal of Electrical Power & Energy Systems / 2015	Co-Author	2	Published
International	SCI	Teaching& learning based optimization algorithm based fuzzy-PID controller for automatic generation control of multi-area power system Applied Soft Computing / 2015	Main Supervisor	3	Published
International	SCI	A novel hybrid PSO-PS optimized fuzzy PI controller for AGC in multi area interconnected power systems International Journal of Electrical Power & Energy Systems / 2015	Co-Author	2	Published
International	SCI	A hybrid firefly algorithm and pattern search technique for SSSC based power oscillation damping controller design Ain Shams Engineering Journal / 2015	First/Corresponding	2	Published
International	SCI	Design and analysis of fuzzy PID controller with derivative filter for AGC in multi-area interconnected power system IET Generation, Transmission & Distribution / 2016	Main Supervisor	4	Published
International	SCI	A multi-criteria optimization technique for SSSC based power oscillation damping controller design Ain Shams Engineering Journal / 2016	First/Corresponding	2	Published
International	SCI	Teaching learning based optimization algorithm for automatic generation control of power system using 2-DOF PID controller International Journal of Electrical Power & Energy Systems / 2016	Co-Author	3	Published
International	SCI	Firefly algorithm optimized fuzzy PID controller for AGC of multi-area multi-source power systems with UPFC and SMES Engineering Science and Technology, an International Journal / 2016	Co-Author	2	Published
International	SCI	Automatic generation control of multi-area power systems with diverse energy sources using teaching learning based optimization algorithm Engineering Science and Technology, an International Journal / 2016	Co-Author	2	Published
International	SCI	A novel hybrid LUS& TLBO optimized fuzzy-PID controller for load frequency control of multi-source power system International Journal of Electrical Power & Energy Systems / 2016	Main Supervisor	4	Published
International	SCI	Load frequency control of power system under deregulated environment using optimal firefly algorithm International Journal of Electrical Power & Energy Systems / 2016	Co-Author	3	Published
International	SCI	Design and analysis of tilt integral derivative controller with filter for load frequency control of multi-area interconnected power systems ISA transactions / 2016	Co-Author	3	Published
International	SCI	Speed control with torque ripple reduction of switched reluctance motor by hybrid Many Optimizing Liaison Gravitational Search technique Engineering Science and Technology, an International Journal / 2017	Main Supervisor	1	Published
International	SCI	A modified GWO technique based cascade PI-PD controller for AGC of power systems in presence of plug in electric vehicles Engineering Science and Technology, an International Journal / 2017	Main Supervisor	2	Published

International	SCI	Design and analysis of tilt integral derivative controller for frequency control in an islanded microgrid: a novel hybrid dragonfly and pattern search algorithm approach Arabian Journal for Science and Engineering / 2018	Main Supervisor	3	Published
International	SCI	A hybrid modified differential evolution-pattern search approach for SSSC based damping controller design under communication constraints International Journal of System Assurance Engineering and Management / 2018	Co-Author	2	Published
International	SCI	Design and analysis of multi-stage PID controller for frequency control in an islanded micro-grid using a novel hybrid whale optimization-pattern search algorithm International Journal of Numerical Modelling: Electronic Networks, Devices and Fields / 2018	Main Supervisor	3	Published
International	SCI	Modified whale optimization algorithm for fractional-order multi-input SSSC-based controller design Optimal Control Applications and Methods / 2018	Co-Author	2	Published
International	SCI	Improved grey wolf optimization technique for fuzzy aided PID controller design for power system frequency control Sustainable Energy, Grids and Networks / 2018	Main Supervisor	1	Published
International	SCI	Improved-salp swarm optimized type-II fuzzy controller in load frequency control of multi area islanded AC microgrid Sustainable Energy, Grids and Networks / 2018	Co-Author	3	Published
International	SCI	Modified whale optimization algorithm for coordinated design of fuzzy lead-lag structure-based SSSC controller and power system stabilizer International Transactions on Electrical Energy Systems / 2019	Co-Author	2	Published
International	SCI	A novel modified whale optimization algorithm for load frequency controller design of a two-area power system composing of PV grid and thermal generator Neural Comput & Applic / 2019	Co-Author	2	Published
International	SCI	Automatic generation control of diverse energy source-based multiarea power system under deep Q network based fuzzy T2 controller Energy Sources, Part A: Recovery, Utilization, and Environmental Effects / 2020	Co-Author	3	Published
International	SCI	Design and analysis of two degree of freedom tilt integral derivative controller with filter for frequency control and real time validation Journal of Electrical Engineering / 2020	Co-Author	2	Published
International	SCI	Automatic generation control of power system in deregulated environment using hybrid TLBO and pattern search technique Ain Shams Engineering Journal / 2020	Co-Author	3	Published
International	SCI	Chaotic multi verse optimizer based fuzzy logic controller for frequency control of microgrids Evolutionary Intelligence / 2020	Main Supervisor	1	Published
International	SCI	Design and analysis of 2dof-PID controller for frequency regulation of multi-microgrid using hybrid dragonfly and pattern search algorithm Journal of Control, Automation and Electrical Systems / 2020	Co-Author	2	Published
International	SCI	A modified moth swarm algorithm-based hybrid fuzzy PD [*] PI controller for frequency regulation of distributed power generation system with electric vehicle Journal of Control, Automation and Electrical Systems / 2020	Co-Author	2	Published
International	SCI	A novel hybrid many optimizing liaisons gravitational search algorithm approach for ACC of power systems Automatika / 2020	Co-Author	2	Published
International	SCI	Cosine adapted modified whale optimization algorithm for control of switched reluctance motor Computational Intelligence / 2020	Main Supervisor	1	Published

International	SCI	A hybrid shuffled frog-leaping and pattern search algorithm for load frequency controller design of a two-area system composing of PV grid and thermal generator International Journal of Numerical Modelling: Electronic Networks, Devices and Fields / 2020	Co-Author	2	Published
International	SCI	Analysis of hybrid fuzzy logic control based PID through the filter for frequency regulation of electrical power system with real-time simulation Journal of Control, Automation and Electrical Systems / 2021	Co-Author	2	Published
International	SCI	Modified salp swarm algorithm-optimized fractional-order adaptive fuzzy PID controller for frequency regulation of hybrid power system with electric vehicle Journal of Control, Automation and Electrical Systems / 2021	Main Supervisor	1	Published
National	SCI	Frequency control in hybrid distributed power systems via type-2 fuzzy PID controller IET Renewable Power Generation / 2021	Co-Author	2	Published
International	SCI	Analysis of Gaussian fuzzy logic-sliding model control and flexible AC transmission systems controllers for automatic generation control of hybrid power system under chaotic-water cycle algorithm appr International Transactions on Electrical Energy Systems / 2021	Co-Author	4	Published
International	SCI	Grasshopper optimization algorithm optimized multistage controller for automatic generation control of a power system with FACTS devices Protection and Control of Modern Power Systems / 2021	Co-Author	2	Published
International	SCI	Sunflower optimization based fractional order fuzzy PID controller for frequency regulation of solar-wind integrated power system with hydrogen aqua equalizer-fuel cell unit Energy Sources, Part A: Recovery, Utilization, and Environmental Effects / 2021	Co-Author	3	Published
International	SCI	Imperialist competitive algorithm optimized cascade controller for load frequency control of multi-microgrid system Energy Sources, Part A: Recovery, Utilization, and Environmental Effects / 2021	Co-Author	3	Published
International	SCI	Improved-GWO designed FO based type-II fuzzy controller for frequency awareness of an AC microgrid under plug in electric vehicle Journal of Ambient Intelligence and Humanized Computing / 2021	Co-Author	2	Published
International	SCI	Application of Interval Type-2 Fuzzy PID Controller for Frequency Regulation of AC Islanded Microgrid Using Modified Equilibrium Optimization Algorithm Arabian Journal for Science and Engineering / 2021	Co-Author	2	Published
International	SCI	Coordinated Design of FACTS Controller with PSS for Stability Enhancement Using a Novel Hybrid Whale Optimization Algorithm Nelder Mead Approach Electric Power Components and Systems / 2021	Co-Author	5	Published
International	SCI	Performance analysis of modified sine cosine optimized multistage FOPD-PI controller for load frequency control of an islanded microgrid system International Journal of Numerical Modelling: Electronic Networks, Devices and Fields / 2021	Co-Author	2	Published
International	SCI	A novel sine augmented scaled sine cosine algorithm for frequency control issues of a hybrid distributed two-area power system Neural Computing and Applications / 2021	Co-Author	2	Published
International	SCI	Application of a simplified Grey Wolf optimization technique for adaptive fuzzy PID controller design for frequency regulation of a distributed power generation system Protection and Control of Modern Power Systems / 2021	Main Supervisor	1	Published

International	SCI	Novel load frequency control scheme for hybrid power systems employing interline power flow controller and redox flow battery Energy Sources, Part A: Recovery, Utilization, and Environmental Effects / 2021	Co-Author	3	Published
International	SCI	Load frequency control of a diverse energy source integrated hybrid power system with a novel hybridized harmony search-random search algorithm designed Fuzzy-3D controller Energy Sources, Part A: Recovery, Utilization, and Environmental Effects / 2021	Co-Author	4	Published
International	SCI	Hybrid dragonfly algorithm and pattern search optimized adaptive fuzzy PID controller for frequency regulation of multi microgrid system using Henkel matrix based reduced-order model International Journal of Numerical Modelling: Electronic Networks, Devices and Fields 36 / 2022	Co-Author	3	Published
International	SCI	Marine predator algorithm based PD+PI controller for frequency regulation in multi-microgrid system IET Renewable Power Generation / 2022	Co-Author	5	Published
International	SCI	A modified Grey Wolf Optimization with Cuckoo Search Algorithm for load frequency controller design of hybrid power system Applied Soft Computing / 2022	Co-Author	2	Published
International	SCI	A Modified Local Input Signal for SSSC-Based Damping Controller Design Electric Power Components and Systems / 2022	Co-Author	1	Published
International	SCI	An improved moth swarm algorithm based fractional order type-2 fuzzy PID controller for frequency regulation of microgrid system Energy Sources, Part A: Recovery, Utilization, and Environmental Effects / 2022	Main Supervisor	3	Published
International	SCI	Coordinated Design of Type-2 Fuzzy Lead-Lag-Structured SSSCs and PSSs for Power System Stability Improvement Sustainability / 2022	Co-Author	4	Published
International	SCI	An improved parasitism predation algorithm for frequency regulation of a virtual inertia control based AC microgrid Energy Sources, Part A: Recovery, Utilization, and Environmental Effects / 2022	Co-Author	3	Published
International	SCI	A Novel Optimal Robust Design Method for Frequency Regulation of Three-Area Hybrid Power System Utilizing Honey Badger Algorithm International Transactions on Electrical Energy Systems / 2022	Co-Author	5	Published
International	SCI	Adaptive fuzzy approach for load frequency control using hybrid moth flame pattern search optimization with real time validation Evolutionary Intelligence / 2022	Co-Author	2	Published
International	SCI	Power Generation Monitoring of a hybrid Power System with I-GWO designed trapezoidal type-II fuzzy Controller International Journal of Modelling and Simulation / 2022	Co-Author	3	Published
International	SCI	Modified grasshopper optimization algorithm optimized adaptive fuzzy lead-lag controller for coordinated design of FACTS controller with PSS Journal of Intelligent & Fuzzy Systems / 2022	Co-Author	4	Published
International	Scopus	Damping power system oscillations by genetically optimised PSS and TCSC controller International Journal of Energy Technology and Policy / 2007	First/Corresponding	1	Published
International	Scopus	Modelling, simulation and optimal tuning of TCSC controller International Journal of Simulation Modeling / 2007	First/Corresponding	2	Published
International	Scopus	Transient stability improvement by optimally located STATCOMs employing genetic algorithm International journal of energy technology and policy / 2007	First/Corresponding	1	Published

International	Scopus	A multi-objective GA method for generating Pareto solutions for coordinated design of PSS and TCSC International Journal of Intelligent Systems Technologies and Applications / 2009	First/Corresponding	2	Published
International	Scopus	Optimal location of shunt FACTS devices in long transmission lines to improve transient stability International Journal of Electrical Engineering Education / 2009	First/Corresponding	1	Published
International	Scopus	Improving the Stability of a Distribution System Embedded with Wind Turbine Induction Generators Using STATCOM International Energy Journal / 2009	First/Corresponding	1	Published
International	Scopus	A multi-objective genetic algorithm approach for adaptive PSS and TCSC-based controller design International Journal of Adaptive and Innovative Systems / 2010	First/Corresponding	2	Published
International	Scopus	Differential evolution algorithm for simultaneous tuning of excitation and FACTS-based controller International Journal of Bio-Inspired Computation / 2010	First/Corresponding	2	Published
International	Scopus	Application and comparison of intelligent optimisation techniques for SSSC-based controller design International journal of intelligent systems technologies and applications / 2010	First/Corresponding	2	Published
International	Scopus	SSSC-based controller design employing a multi-objective optimisation technique International Journal of Modelling, Identification and Control / 2013	Co-Author	2	Published
International	Scopus	Design and analysis of bacteria foraging optimised TCSC-based controller for power system stability improvement International Journal of Data Analysis Techniques and Strategies / 2014	First/Corresponding	2	Published
International	Scopus	Power system stability improvement by static synchronous series compensator-based damping controller employing gravitational search algorithm Int. J. Computational Science and Engineering / 2015	Co-Author	2	Published
International	Scopus	Modelling, simulation and optimal tuning of FACTS controller in a multi-machine power system Int. J. Applied Systemic Studies / 2015	Co-Author	2	Published
International	Scopus	Stability enhancement with SSSC-based controller design in presence of non-linear voltage-dependent load International Journal of Intelligent Systems Technologies and Applications / 2016	Main Supervisor	1	Published
International	Scopus	A hybrid stochastic fractal search and pattern search technique based cascade PI PD controller for automatic generation control of multi source power systems in presence of plug in electric vehicles CAAI Transactions on Intelligent Technology / 2017	Main Supervisor	1	Published
International	Scopus	Automatic generation control by hybrid invasive weed optimization and pattern search tuned 2-DOF PID controller International Journal of Computers Communications & Control / 2017	Co-Author	3	Published
International	Scopus	Modified SCA algorithm for SSSC damping controller design in power system ECTI Transactions on Electrical Engineering, Electronics, and Communications / 2018	Co-Author	2	Published
International	Scopus	A gray wolf optimized FPD plus (1+ PI) multistage controller for AGC of multisource non-linear power system world journal of engineering / 2019	Co-Author	2	Published
International	Scopus	Approaching hybridized GWO-SCA based type-II fuzzy controller in AGC of diverse energy source multi area power system Journal of King Saud University-Engineering Sciences / 2020	Co-Author	2	Published

International	Scopus	MVO optimized hybrid FOPID LQG controller for load frequency control of an AC micro-grid system World Journal of Engineering / 2020	Co Author	2	Published
International	Scopus	An optimized fractional order cascade controller for frequency regulation of power system with renewable energies and electric vehicles Energy Systems / 2021	Main Supervisor	1	Published
International	Scopus	A modified moth flame optimisation technique tuned adaptive fuzzy logic PID controller for frequency regulation of an autonomous power system International Journal of Sustainable Energy / 2021	Main Supervisor	1	Published
International	Scopus	Hybrid Modified Whale Optimisation Algorithm Simulated Annealing Technique for Control of SRM International Journal of Applied Metaheuristic Computing (IJAMC) / 2021	Main Supervisor	1	Published
International	Scopus	Simplified grey wolf optimisation algorithm tuned adaptive fuzzy PID controller for frequency regulation of interconnected power systems International Journal of Ambient Energy 43 / 2022	Main Supervisor	1	Published
International	Scopus	Design and analysis of the 2DOF-PIDN-FOID controller for frequency regulation of the electric power systems International Journal of Ambient Energy 43 / 2022	Co-Author	3	Published
International	Scopus	A fuzzy adaptive fractional order-PID controller for frequency control of an islanded microgrid under stochastic wind/solar uncertainties International Journal of Ambient Energy 43 / 2022	Co-Author	3	Published
International	Scopus	Frequency regulation of an electric vehicle-operated micro-grid under WOA-tuned fuzzy cascade controller International Journal of Ambient Energy / 2022	Co-Author	2	Published
International	Scopus	Solar PV-Powered SRM Drive and its Speed Control and Torque Ripple Minimization Sustainable Energy and Technological Advancements / 2022	Co-Author	5	Published
International	Scopus	Chaotic Harris hawks optimization based type-2 fractional order fuzzy PID controller for frequency regulation of power systems International Journal of Ambient Energy 43 / 2022	Co-Author	1	Published
International	Scopus	Performance analysis of hydrogen aqua equaliser fuel-cell on AGC of wind-hydro-thermal power systems with sunflower algorithm optimised fuzzy-PDFPI controller International Journal of Ambient Energy 43 / 2022	Co-Author	3	Published
International	Scopus	Optimal design of a robust FO-Multistage controller for the frequency awareness of an islanded AC microgrid under I-SCA algorithm International Journal of Ambient Energy / 2022	Co-Author	2	Published
International	Scopus	Adaptive differential evolution based PDF plus (1+ PI) controller for frequency regulation of the distributed power generation system with electric vehicle International Journal of Ambient Energy / 2022	Co-Author	2	Published
International	Scopus	Grasshopper optimisation algorithm of multistage PDF+ $(1+\lambda)$ PI controller for AGC with GDB and GRC nonlinearity of dispersed type power system International Journal of Ambient Energy / 2022	Co-Author	2	Published
International	Scopus	Simulation and hardware-in-the-loop real-time testing of different controllers for frequency regulation of electrical power systems International Journal of Ambient Energy / 2022	Co-Author	4	Published
International	Scopus	Performance analysis of multistage PID controller for frequency regulation of multi microgrid system using atom search optimisation International Journal of Ambient Energy / 2022	Co-Author	3	Published

International	Scopus	Frequency control of hybrid power system by sine function adapted improved whale optimisation technique International Journal of Ambient Energy / 2022	Main Supervisor	1	Published
International	Scopus	Adaptive differential evolution and pattern search tuned fractional order fuzzy PID for frequency control of power systems International Journal of Modelling and Simulation / 2022	Co-Author	3	Published
International	Scopus	Novel DQN optimised tilt fuzzy cascade controller for frequency stability of a tidal energy-based AC microgrid International Journal of Ambient Energy / 2022	Co-Author	3	Published
International	Scopus	Analysis of Evaporation Rate Based Water Cycle Algorithm Tuned 2 DOF PIDF Controller for Automatic Generation Control of Power System Innovation in Electrical Power Engineering, Communication, and Computing Technology / 2022	Co Author	3	Published

B. Papers published in Conferences:

Level	Category	Detail	Role	Total No. of Co-Authors	Status
International	Non-SCI	Off-centre location of shunt FACTS devices in long transmission lines to improve transient stability International Conference on Computer Applications on Electrical Engineering Recent Advances (CCRA-05), IITR, India / 2005 (From PhD Work)	First/Corresponding	2	Published
International	Non-SCI	ANFIS approach for SSSC controller design for the improvement of transient stability performance AIP Conference Proceedings / 2011 (Outside PhD Work)	Main Supervisor	1	Published
International	Non-SCI	Genetically optimized supplementary controller for sssc to damp subsynchronous oscillations International Conference on Information Systems Design and Intelligent Applications 2012 (INDIA 2012) / 2012 (Outside PhD Work)	Main Supervisor	1	Published
International	Non-SCI	Cuckoo search algorithm based optimal tuning of PID structured TCSC controller Computational Intelligence in Data Mining / 2015 (Outside PhD Work)	Co-Author	2	Published
International	Non-SCI	Application of TID controller in AGC with Thyristor Controlled series capacitor 2015 International Conference on Electrical, Electronics, Signals, Communication and Optimization (EESCO) / 2015 (Outside PhD Work)	Co-Author	2	Published
International	Non-SCI	Selection of control parameters of differential evolution algorithm for economic load dispatch problem Computational Intelligence in Data Mining / 2015 (Outside PhD Work)	Co-Author	2	Published
International	Non-SCI	Application of firefly algorithm for AGC under deregulated power system Computational Intelligence in Data Mining / 2015 (Outside PhD Work)	Co-Author	2	Published
International	Non-SCI	DE optimized PID controller with derivative filter for AGC of interconnected restructured power system Computational Intelligence in Data Mining / 2016 (Outside PhD Work)	Co-Author	2	Published
International	Non-SCI	Salp swarm optimized multistage PDF plus (1+ PI) controller in AGC of multi source based nonlinear power system International Conference on Soft Computing Systems / 2018 (Outside PhD Work)	Co-Author	2	Published

International	Non-SCI	Application of search group algorithm for automatic generation control of interconnected power system Computational intelligence in data mining / 2019 (Outside PhD Work)	Co-Author	2	Published
International	Non-SCI	Stability analysis in RECS-integrated multi-area AGC system with SOS algorithm based fuzzy controller Computational intelligence in data mining / 2019 (Outside PhD Work)	Co-Author	2	Published
International	Non-SCI	Application of Search Group Algorithm for Automatic Generation Control of Multi-area Multi-source Power Systems 1st International Conference on Sustainable Energy and Future Electric Transportation (SeFet 2019) / 2019 (Outside PhD Work)	Co-Author	2	Published
International	Non-SCI	Sine cosine optimization based proportional derivative-proportional integral derivative controller for frequency control of hybrid power system Computational Intelligence in Data Mining / 2020 (Outside PhD Work)	Co-Author	4	Published
International	Scopus	Multi-objective optimization technique for TCSC-based supplementary damping controller design 2009 World Congress on Nature & Biologically Inspired Computing (NaBIC) / 2009 (Outside PhD Work)	Co-Author	2	Published
International	Scopus	Differential Evolution algorithm for model reduction of SISO discrete systems 2009 World Congress on Nature & Biologically Inspired Computing (NaBIC) / 2009 (Outside PhD Work)	Co-Author	2	Published
International	Scopus	Application of Genetic Algorithm based PSS for two-area AGC system in deregulated scenario 2009 World Congress on Nature & Biologically Inspired Computing (NaBIC) / 2009 (Outside PhD Work)	Co-Author	1	Published
International	Scopus	ANFIS approach for TCSC-based controller design for power system stability improvement 2010 International Conference on Communication Control and Computing Technologies / 2010 (Outside PhD Work)	Main Supervisor	1	Published
International	Scopus	A comparative study of PSO-technique and fuzzy based SSSC controller for improvement of transient stability performance 2010 International Conference on Communication Control and Computing Technologies / 2010 (Outside PhD Work)	Main Supervisor	1	Published
International	Scopus	Comparative study of different controllers for automatic generation control of an interconnected hydro-thermal system with generation rate constraints 2010 International Conference on Industrial Electronics, Control and Robotics / 2010 (Outside PhD Work)	Main Supervisor	2	Published
International	Scopus	A novel approach for automatic generation control of a multi-area power system 2011 24th Canadian Conference on Electrical and Computer Engineering (CCECE) / 2011 (Outside PhD Work)	Main Supervisor	1	Published
International	Scopus	Tuning of power system stabilizer employing differential evolution optimization algorithm International Conference on Swarm, Evolutionary, and Memetic Computing / 2011 (Outside PhD Work)	Main Supervisor	1	Published
International	Scopus	Gravitational search algorithm for Unified Power Flow Controller based damping controller design 2011 International Conference on Energy, automation and signal / 2011 (Outside PhD Work)	Main Supervisor	1	Published
International	Scopus	Design and comparative performance analysis of PID controlled automatic voltage regulator tuned by many optimizing liaisons 2012 International Conference on Advances in Power Conversion and Energy Technologies (APCET) / 2012 (From PhD Work)	Main Supervisor	4	Published

International	Scopus	Robust analysis and design of PID controlled AVR system using Pattern Search algorithm 2012 IEEE international conference on power electronics, drives and energy systems (PEDES) / 2012 (From PhD Work)	Co-Author	3	Published
International	Scopus	Performance analysis and design of Proportional Integral Derivative controlled automatic voltage regulator system using local unimodal sampling optimization technique International Conference on Swarm, Evolutionary, and Memetic Computing / 2012 (From PhD Work)	Co-Author	4	Published
International	Scopus	Gravitational search algorithm based automatic generation control for Interconnected power system 2013 International Conference on Circuits, Power and Computing Technologies (ICCPCT) / 2013 (From PhD Work)	Co-Author	2	Published
International	Scopus	Automatic generation control of multi-area power system using gravitational search algorithm International Conference on Swarm, Evolutionary, and Memetic Computing / 2013 (From PhD Work)	Co-Author	2	Published
International	Scopus	Design and performance analysis of PID controller for an AVR system using multi-objective non-dominated shorting genetic algorithm-II 2014 International Conference on Smart Electric Grid (ISEG) / 2014 (From PhD Work)	Main Supervisor	1	Published
International	Scopus	Load frequency control with fuzzy-PID controller under restructured environment 2014 International Conference on Control, Instrumentation, Communication and Computational Technologies (ICCICCT) / 2014 (Outside PhD Work)	Co-Author	2	Published
International	Scopus	Sensitivity Analysis of Load-Frequency Control of Power System Using Gravitational Search Algorithm Proceedings of the International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA) 2013 / 2014 (From PhD Work)	Co-Author	2	Published
International	Scopus	Cascaded PD-PI controller for active power frequency control of two-area multi-units power system 2016 IEEE International Conference on Power and Renewable Energy (ICPRE) / 2016 (Outside PhD Work)	First/Corresponding	2	Published
International	Scopus	ALO optimized NCTF controller in multi area AGC system integrated with WECS based DFIC system 2017 International conference on circuit, power and computing technologies (ICCPCT) / 2017 (Outside PhD Work)	Co-Author	2	Published
International	Scopus	Whale optimization algorithm for fuzzy lead-lag structure SSSC damping controller design 2017 14th IEEE India Council International Conference (INDICON) / 2017 (Outside PhD Work)	Co-Author	2	Published
International	Scopus	MFO algorithm based fuzzy-PID controller in automatic generation control of multi-area system 2017 International Conference on Circuit, Power and Computing Technologies (ICCPCT) / 2017 (Outside PhD Work)	Co-Author	2	Published
International	Scopus	Comparison of grasshopper and whale optimization algorithm for design of FACTS controller with power system stabilizer 2018 fifth international conference on parallel, distributed and grid computing (PDGC) / 2018 (Outside PhD Work)	Co-Author	2	Published
International	Scopus	Performance comparison of four phase SRM using Many optimising Liaison and Gravitational Search Algorithm 2018 International Conference on Applied Electromagnetics, Signal Processing and Communication (AESPC) / 2018 (From PhD Work)	Main Supervisor	2	Published

International	Scopus	A modified GWO technique based fractional order PID controller with derivative filter coefficient for AGC of power systems with plug in electric vehicles 2018 Technologies for Smart-City Energy Security and Power (ICSESP) / 2018 (From PhD Work)	Main Supervisor	2	Published
International	Scopus	Performance analysis of PDF+ (1+ PI) controller for load frequency control of the multi microgrid system using genetic algorithm 2019 International Conference on Information Technology (ICIT) / 2019 (Outside PhD Work)	Co-Author	3	Published
International	Scopus	Fractional order based controller for frequency control of hybrid power system 2019 IEEE International Conference on Sustainable Energy Technologies and Systems (ICSFES) / 2019 (From PhD Work)	Main Supervisor	1	Published
International	Scopus	Impact of Vehicle to Grid mode Electric Vehicles in standalone Microgrid for frequency regulation 2020 IEEE International Symposium on Sustainable Energy, Signal Processing and Cyber Security (ISSSC) / 2020 (From PhD Work)	Main Supervisor	3	Published
International	Scopus	Frequency Regulation of Hybrid Power System by Optimized Adaptive Fuzzy PID Controller 2020 5th International Conference on Smart and Sustainable Technologies (SpliTech) / 2020 (From PhD Work)	Main Supervisor	6	Published
International	Scopus	Load frequency control of solar photovoltaic/wind/biogas/biodiesel generator based Isolated microgrid using Harris Hawks Optimization 2020 First International Conference on Power, Control and Computing Technologies (ICPC2T) / 2020 (From PhD Work)	Main Supervisor	1	Published
International	Scopus	Moth Swarm Algorithm based cascade PI-PD controller for frequency regulation of distributed power generation system with electric vehicle 2020 First International Conference on Power, Control and Computing Technologies (ICPC2T) / 2020 (Outside PhD Work)	Co-Author	2	Published
International	Scopus	Frequency Regulation of a Distributed Power System via Modified Whale Optimization Algorithm 2021 Innovations in Power and Advanced Computing Technologies (i-PACT) / 2021 (Outside PhD Work)	Co-Author	3	Published
International	Scopus	MPA-Tuned Fractional Order PID Controller for Frequency Control of Interconnected Smart Grid Power System 2021 Innovations in Power and Advanced Computing Technologies (i-PACT) / 2021 (Outside PhD Work)	Co-Author	4	Published
International	Scopus	Frequency stability of an integrated power system using TLBO based TIDF controller 2021 International Conference in Advances in Power, Signal, and Information Technology (APSIT) / 2021 (Outside PhD Work)	Co-Author	4	Published
International	Scopus	Modified Whale Optimisation Technique for Combined Objective of Torque Ripple Minimization & Speed Control of SRM Drive 2020 3rd International Conference on Energy, Power and Environment Towards Clean Energy Technologies / 2021 (Outside PhD Work)	Co-Author	3	Published
International	Scopus	Salp swarm optimized PID controller for frequency control of hybrid power system with UC and UPFC Green Technology for Smart City and Society / 2021 (Outside PhD Work)	Main Supervisor	1	Published
International	Scopus	Moth flame optimization based fractional order controller for frequency regulation of hybrid power system with UC and UPFC 2021 1st International Conference on Power Electronics and Energy (ICPEE) / 2021 (Outside PhD Work)	Main Supervisor	1	Published
International	Scopus	Parameter Extraction of PV Module using Proposed Proposed BFSAS Technique 2022 IEEE IAS Global Conference on Emerging Technologies (GlobConET) / 2022 (Outside PhD Work)	Co-Author	4	Published

Administrative Assignments

Organization	Designation	From	To	No. of Semester	Nature of Work	
VSSUT, Burla, Odisha	Dean, School of Electrical Sciences	21-10-2022	13-01-2023	1	Administrative	
VSSUT, Burla, Odisha	Dean PGS & R	11-06-2021	19-10-2022	2	Administrative	
VSSUT, Burla, Odisha	Coordinator, TEQIP	11-04-2016	10-09-2019	6	Yes	Coordinating TEQIP activities
VSSUT, Burla, Odisha	Professor In Charge, House Allotment (Estate Committee)	18-02-2016	30-04-2019	6	Yes	Administrative
VSSUT, Burla, Odisha	HOD, Electrical Engg., & EEEEEE Department	03-02-2012	02-02-2015	6	Yes	Administrative

Vision Statement for Teaching and Research

Teaching :

Teaching inspires and motivates me as intellectual processes that unveils the best talent of students and provides them with a rewarding experience towards their journey from unknown to known world. I get fascinating experience and an opportunity to teach, advise, nurture and exposing students to open challenges. I believe that incubating joy into the teaching & learning gives a great experience for both teachers and students.

Research :

Planning and operational tools are essential to the safe, reliable and resilient operation of modern power systems and microgrids. I conduct fundamental and applied research on efficient grid integration of renewable sources from both technical and operational point of view as well as developing novel frequency control approaches. Integrating renewable and storage units like electric vehicles will enable the power system operators more control options to balance generation and load.

(DR. SIDHARTHA PANDA)