Profile Page

Name	:	Dr Sheela Tiwari
Designation	:	Associate Professor
Department	:	Instrumentation & Control Engg.
Qualification	:	PhD (Dr B R Ambedkar NIT Jalandhar) M.Tech. Instrumentation and Control Engineering (Punjab Agricultural University, Ludhiana) B.E. Electrical Engineering (Thapar Institute of Engineering and Technology, Patiala)
Address	:	Dept. of Instrumentation and Control Engineering. Dr. B R Ambedkar NIT Jalandhar GT Road By-pass Jalandhar, Punjab - 144011
Email	:	tiwaris@nitj.ac.in
Phone	:	9779090688

Research Interests :

Power System Operation and Control, Renewable energy, Applications of Soft Computing

Other Profile Links :

Personal Web Link :

ORCID ID Click Here

Journal Publications :

Year	Journal	Publication
2021	Arabian Journal for Science and Engineering, 1-17	Vishnoi, V., Tiwari, S., & Singla, R.: Performance Analysis of Enhanced MFO-Based Online-Tuned Split-Range PID Controller
2021	International Journal of Cognitive Informatics and Natural Intelligence 15(4)	Vishnoi, V., Tiwari, S. & Singla, R.: Controller design for temperature control of MISO water tank system: Simulation Studies
2021	Journal of Cognitive Neurodynamics	Rathi, N., Singla, R., Tiwari, S.: A novel approach for designing authentication system using a picture based P300 speller
2020	Biomedical Engineering.Vol. 32, No. 04, 2050025	Nikhil Rathi, Rajesh Singla, Sheela Tiwari: Brain signatures perspective for high-security authentication
2020	MAPAN	Vishnoi, V., Tiwari, S. & Singla, R.: Performance Analysis of Moth Flame Optimization-Based Split-Range PID Controller
2020	Journal of Brain-Computer Interfaces, vol. 7, 3-4	Rathi, N., Singla, R., Tiwari, S.: Authentication framework for security application developed using a pictorial P300 speller

2017	International Journal of Industrial Electronics and Electrical Engineering, Vol. No. 5 (9, 18-21	Kaushal K and Tiwari S.: Speed Control of a Brushless DC Motor using Neural Network based MRAC
2016	International Journal of Advances in Electronics and Computer Science, Vol. No. 35 (9), 1-6	Kartik S Prakash and Sheela Tiwari: Fuzzy Logic Based Approach For Dynamic Spectrum Access In Cognitive Radio Network
2014	International Journal of Advancements in Electronics and Electrical Engineering – IJAEEE 3(3): 77-82, ISSN 2319-7498	Mudita Juneja and Sheela Tiwari: Reduced Order Modeling Of Triple Link Inverted Pendulum Using Particle Swarm Optimization Algorithm
2014	International Journal of Computer Science and Information Technology (IJCSIT) 5(4): 5814-5820, ISSN 0975-9646	Jasdeep Kour and Sheela Tiwari: Performance Comparison of Variants of ant Colony Optimization Technique for online Tuning of a PI Controller for a Three Phase Induction Motor Drive
2013	International Journal of Computer Science and Information Technology (IJCSIT) 5(4): 93-107	Sheela Tiwari, Ram Naresh, R. Jha: Comparative Study of Backpropagation Algorithms in Neural Network based Identification of Power System
2013	International Journal of Electrical, Electronic Science and Engineering. 7(12): 6-11	Sheela Tiwari, Ram Naresh, R. Jha: “Investigations into Effect of Neural Network Predictive Control of UPFC for Improving Transient Stability Performance of Multimachine Power System
2012	International Journal of Advancements in Electronics and Electrical Engineering – IJAEEE. 1(2): 100-104	Sheela Tiwari, Ram Naresh, R. Jha: “Neural Network Predictive Control of UPFC for Enhancing Transient Stability Performance of a Single Machine Infinite Bus System
2011	Appl. Soft Comput. 11(8): 4581-4590	Sheela Tiwari, Ram Naresh, R. Jha: Neural network predictive control of UPFC for improving transient stability performance of power system

Conference Publications :

Year	Conference	Publication
2020	ICCES-2020, Tamil Nadu, India, 10-12 June, 2020	Chirag Parmar, Sheela Tiwari, Fuzzy Logic based Charging of Electric Vehicles for Load Management of Microgrid
2020	ICICT-2020, London, UK, 2020	Yamini Gogna, Rajesh Singla, Sheela Tiwari, Analyzing Attention Deviation during Collaterally Proceeding Cognitive Tasks
2020	International Conference on Artificial Intelligence and Sustainable Engineering (AISE-2020)	Raman Prajapati and Sheela Tiwari. ANFIS-Based Statcom for Reactive Power Compensation of Dynamic Loads Under Micro-Grid Disturbances
2019	IEEE 5th International Conference for Convergence in Technology (I2CT), Bombay, India, 2019, pp. 1-4	Yamini Gogna, Rajesh Singla, Sheela Tiwari, Steady State Detection During A Cognitive Task
2019	ICCES-2019, Coimbatore, India, July 17-19, 2019	Shashank Sinha, S. Tiwari: An Improvement in Performance and Computational Cost of ANN based Wind Speed Prediction System
2019	ICCES-2019, Coimbatore, India, July 17-19, 2019	Varun Kumar Mahawar, S. Tiwari: An Improved Inverter Control for Grid Connected PV System
2018	WRFER International Conference, June 2018, New Delhi 19-24	Ruchi Patidar and Tiwari, S.: Fuzzy-PID based indirect incremental conductance MPPT algorithm for PV System
2018	ICPEICES-2018	Amol Dubal and Tiwari, S.: A Modified Perturb and Observe Algorithm for Maximum Power Point Tracking with Zero Voltage Switching Buck-Boost Converter in PhotoVoltaic System

2017	International Conference on Electrical, Electronics and Communication Engineering (ICEECE), Chandigarh, India, July, 2017	Kaushal K and Tiwari S, Speed Control of a Brushless DC Motor using Neural Network based MRAC
2017	International Conference on Recent Innovations in Electrical, Electronics, Computer and Mechanical Engineering (ICRIEECME), Chennai, India, June 18, 2017	Vipulnath T V and Tiwari S,: Monocular Vision based Depth Estimation and Collision Warning and Avoidance System
2016	29th IRF International Conference, July 24, 2016, Bengaluru, India, ISBN: 978-93-86083-69-2	Kartik S Prakash and Sheela Tiwari: Particle Swarm Optimization of Fuzzy Logic Based Approach For Dynamic Spectrum Access In Cognitive Radio Network
2016	National Conference on Advancement in Electrical Engineering and Energy Sciences (AEEES-2016), May 24-25, 2016, NIT Hamirpur	Vishal Vishnoi and Sheela Tiwari: Soft Computing Techniques and its Applications: A review
2016	National Conference on Advancement in Electrical Engineering and Energy Sciences (AEEES-2016), May 24-25, 2016, NIT Hamirpur	Vipul Raja and Sheela Tiwari: Performance Comparison of Improved Pole Placement Technique and LQR for Stabilizing Triple Link Inverted Pendulum System
2016	National Conference on Advancement in Electrical Engineering and Energy Sciences (AEEES-2016), May 24-25, 2016, NIT Hamirpur	Habby Thomas and Sheela Tiwari: Online tuned Improved Fuzzy PID Controller for Speed Control of DC Motor
2016	National Conference on Advancement in Electrical Engineering and Energy Sciences (AEEES-2016), May 24-25, 2016, NIT Hamirpur	Kartik S Prakash and Sheela Tiwari: Fuzzy Logic Based Approach For Dynamic Spectrum Access In Cognitive Radio Network
2014	Intl. Conf. on Advances In Engineering And Technology - ICAET-2014: 160-165	Mudita Juneja and Sheela Tiwari: Reduced Order Modeling Of Triple Link Inverted Pendulum Using Particle Swarm Optimization Algorithm
2013	ICCSEA-2013, New Delhi, May 24-26, 2013	Sheela Tiwari, Ram Naresh, R. Jha: Neural Network based Identification of Multimachine Power System
2012	International Conference on Advances in Electronics and Electrical Engineering - AEEE 2012, Page(s): 21 – 25	3. Sheela Tiwari, Ram Naresh, R. Jha: “Neural Network Predictive Control of UPFC for Enhancing Transient Stability Performance of a Single Machine Infinite Bus System
2012	International Conference on Power, Control and Embedded Systems ICPCES 2012, MNIT Allahabad, Dec. 17-19, 2012	Sucheta Sehgal and Sheela Tiwari: LQR Control for Stabilizing Triple Link Inverted Pendulum System
2011	Electrical Energy Systems (ICEES), 2011 1st International Conference on , vol., no., pp.6-11, 3-5 Jan. 2011	Singh, G.; Tiwari, S.; Jha, R.:Comparison of different control actions for small signal stability of a UPFC equipped SMIB system
2011	Engineering (NUiCONE), 2011 Nirma University International Conference on , vol., no., pp.1-6, 8-10 Dec. 2011	Koul, S.; Tiwari, S.:Model predictive control for improving small signal stability of a UPFC equipped SMIB system
2010	Communication Control and Computing Technologies (ICCCCT), 2010 IEEE International Conference on , vol., no., pp.300-304, 7-9 Oct. 2010	Barya, K.; Tiwari, S.; Jha, R.: Comparison of LQR and robust controllers for stabilizing inverted pendulum system
2009	TACT-09, National Institute of Technology, Hamirpur, H.P., India, 16-17 March, 2009	Sheela Tiwari, R. Jha, Ram Naresh: Application of Unified Power Flow Controller for Improvement in Transient Stability of a Single Machine Infinite Bus System
2008	APSEM, Chitkara Institute of Engineering and Technology, Punjab, India, 1-2 March, 2008	Sheela Tiwari, Veena Sharma, Ram Naresh, R. Jha: State Variable Modeling of Power Systems

Book/Chapter Publications :

Type	Title	Publisher	Authors	ISBN/ISSN No.	Year
Book Chapter	ANFIS-Based STATCOM for Reactive Power Compensation of Dynamic Loads Under Microgrid Disturbances in Lect. Notes Electrical Eng., Vol. 836	Springer Singapore	Raman Prajapati and Sheela Tiwari	9789811685415	2022
Book Chapter	Stability Issues in Microgrids: A Review in Green Energy: Fundamentals, Concepts, and Applications	Scrivener Publishing	Sonam Khurana and Sheela Tiwari		2021

Professional Affiliations :

Designation	Organization
Life Member	ISTE
Life Member	MSI

PhD Supervised :

Scholar Name	Research Topic	Status	Year	Co-Supervisor
Yamini Gogna	Real-time Mental Workload Detection	Under progress	2017	Dr. Rajesh Singla
Nikhil Rathi	Multi-Level BCI Based Password Authentication	Submitted	2016	Dr. Rajesh Singla
Vishal Vishnoi	Soft Computing Techniques in Process Control	Under progress	2015	Dr. Rajesh Singla

PG Dissertation Guided :

Student Name	Dissertation Title	Status	Year	Co-Supervisor
Disha Sharma		Under progress	2022	NA
Chirag Parmar (18206113)	Smart Charging of Electric Vehicles for Load Management of Microgrid	Completed	2021	NA
Raman Prajapati (18206115)	Reactive Power Compensation of Dynamic Loads under Microgrid Disturbances	Completed	2021	NA
Chandrakant Mishra (19206103)	Improved Hybrid Salp Swarm and Sine-Cosine Optimization based MPPT Control for PV Systems Under Partial Shading Conditions	Completed	2021	NA
Nidhi Pandey (19206113)	MGP based Fault-Ride-Through of Renewable Sources	Completed	2021	NA
Shashank Sinha (17206115)	Wind Speed Prediction Based Maximum Power Point Tracking of Wind Turbine	Completed	2019	NA
Varun Kumar Mahawar (17206119)	A Battery Energy Storage System for PhotoVoltaic System in Grid Application	Completed	2019	NA
Dubal Amol Jalindar (16206109)	A Modified P&O Algorithm for MPPT with ZVS Buck-Boost Converter in PV System	Completed	2018	NA
Ruchi Patidar (16206115)	Performance Comparison of Fuzzy Logic based Controllers for IC-i MPPT for Standalone PV System	Completed	2018	NA

Jacob Sebastian (15214003)	Artificial Neural Network based Virtual Writing	Completed	2017	NA
Vipulnath T V (15214004)	Accident Prediction and Avoidance System using Vision Sensor and Artificial Neural Network	Completed	2017	NA
Kaushal Kishor (15214018)	Speed Control of a Brushless DC Motor using MRAC Controller and LQR Controller	Completed	2017	NA
Vipul Raja	Modeling and Controller Design for Triple Link Inverted Pendulum System	Completed	2016	NA
Habby Thomas	Performance Comparison of Online Tuned PID Controllers and MPC for Speed Control of DC Motor	Completed	2016	NA
Kartik S. Prakash	Optimization of Fuzzy Logic Controller using Particle Swarm Optimization and Ant colony Optimization for Cognitive Radio Network	Completed	2016	NA
Sagar	Heuristic Algorithm-Based PID Controller For Bio-Chemical Reactor System	Completed	2015	NA
Mudita Juneja	Reduced Order Modelling Of Tripple Link Inverted Pendulum Using Particle Swarm Optimization	Completed	2014	NA
Vaghela Chintan	Performance Comparison of Model Predictive Controller and Hybrid Fuzzy Controller for Temperature Control of a Two Tanks System	Completed	2014	NA
Rajiv Kumar	Investigation into the performance of Fuzzy Logic based Controllers for Temperature Control of a Two Tank System	Completed	2014	NA
Jasdeep Kour (11206107)	Performance comparison of variants of Ant Colony Optimization technique for online tuning of a PI controller for a three phase induction motor drive	Completed	2013	NA
Munendra Kumar Das (11206109)	Power flow control with distributed synchronous series compensator (DSSSC)	Completed	2013	NA
Sucheta Sehgal (10206118)	Performance comparison of different control schemes for stabilizing a triple link inverted pendulum system	Completed	2012	NA
Navita (10206107)	Performance comparision of different control schemes for stability enhacement of SMIB system equipped with a FACTS device	Completed	2012	NA
Sunina Koul (09206113)	Investigations into the performance of model predictive controllers in improving small signal stability of a UPFC equipped SMIB system	Completed	2011	NA
Khushboo Barya (08206008)	Comparison of controllers for stabilizing an inverted pendulum system	Completed	2010	NA
Gurpreet Singh (08206006)	Stability enhancement of single machine - infinite bus system using Robust control	Completed	2010	NA
Pawan Kumar Pandey (07206107)	Voltage regulation using static synchronous series compensator	Completed	2009	NA
Pradeep Kumar Singh (07206114)	Voltage regulation using statcom	Completed	2009	NA