NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT
Department of Electrical Engineering

LIST OF PUBLICATIONS - PROGRAMME SPECIFIC FACULTY (INSTRUMENTATION AND CONTROL SYSTEMS)

Faculty Name : Dr. JEEVAMMA JACOB
Journal Publications

Sl No	Authors	Title	Details	National/International	Year	Citation
1	S. Mathew, J. Jacob and M. S. J,	Event-Triggered Dynamic Formation Tracking of Linear Multi-Agent System Under Denial of Service Attacks	IEEE Transactions on Intelligent Vehicles, doi: https://doi.org/10.1109/TIV.2024.3423680	International	2024	
2	Resmi, R., and Jeevamma Jacob.	Distributed model-predictive control using exponentially weighted Laguerre functions and periodic time triggering for dynamic consensus of linear multi-agent systems.	IEEE Transactions on Industrial Informatics https://doi.org/10.1109/TII.2022.3233661	International	2023	1
3	Sanila, P., Pradeep, A., Jacob, J.	Leader–follower target interception control of multi-robotic vehicles with holonomic dynamics based on unscented Kalman filter.	Nonlinear Dynamics 111.12: 11171-11190. https://doi.org/10.1007/s11071-023-08436-4	International	2023	4
4	Resmi, R., S. J. Mija, and Jeevamma Jacob.	Dynamic consensus of linear multi-agent system using self-triggered distributed model predictive control.	ISA transactions 142: 177-187. https://doi.org/10.1016/j.isatra.2023.07.019	International	2023	2
5	Nidya, M. V., S. J. Mija, and Jeevamma Jacob.	Feedback-linearization based robust relatively optimal trajectory tracking controller for 3-DOF helicopter.	Engineering Science and Technology, an International Journal 31 (2022): 101050. https://doi.org/10.1016/j.jestch.2021.08.007	International	2022	12
6	Resmi, R., S. J. Mija, and Jeevamma Jacob.	Discrete Laguerre-based model predictive control for dynamic consensus of a vehicle platoon with time delay.	International Journal of Systems Science 53.12 (2022): 2566-2583. https://doi.org/10.1080/00207721.2022.2067911	International	2022	7
7	Pravika, M., Jeevamma Jacob, and K. Paul Joseph.	Design of linear electromechanical actuator for automatic ambulatory Duodopa pump.	Engineering Science and Technology, an International Journal 31 (2022): 101056. https://doi.org/10.1016/j.jestch.2021.09.002	International	2022	7
8	Resmi, R., S. J. Mija, and Jacob Jeevamma.	Model predictive consensus in networked autonomous systems using discrete Laguerre functions and event triggering approach.	European Journal of Control 64 (2022): 100607. https://doi.org/10.1016/j.ejcon.2021.12.002	International	2022	6

9	Krishnan, K. G., Mohan, A., Vishnu, S., Eapen, S. A., Raj, A., & Jacob, J.	Path planning of mobile robot using reinforcement learning.	Journal of Trends in Computer Science and Smart Technology 4.3 (2022): 153-162. https://doi.org/10.36548/jtcsst.2022.3.004	International	2022	3
10	Nidya, M. V., S. J. Mija, and Jacob Jeevamma.	Robust relatively optimal trajectory tracking control for a class of uncertain nonlinear control affine systems with state and input constraints.	Nonlinear Dynamics 110.4 (2022): 3513-3534. https://doi.org/10.1007/s11071-022-07790-z	International	2022	
11	Pravika, M., and Jeevamma Jacob.	Design of model reference adaptive–PID controller for automated portable duodopa pump in Parkinson's disease patients.	Biomedical Signal Processing and Control 68 (2021): 102590. https://doi.org/10.1016/j.bspc.2021.102590	International	2021	8
12	Parvathy, Prasanna, and Jeevamma Jacob.	Inverse optimal control via diagonal stabilization applied to attitude tracking of a reusable launch vehicle.	Journal of Optimization Theory and Applications (2021): 1-29. https://doi.org/10.1007/s10957-021-01831-0	International	2021	2
13	Prasanna, Parvathy, Jeevamma Jacob, and Mattida P. Nandakumar.	A novel domain of attraction based synthesis of inverse optimal control.	International Journal of Robust and Nonlinear Control 31.18 (2021): 9692-9708. https://doi.org/10.1002/rnc.5797	International	2021	1
14	Vijayan, Nidya M., Mija S. Johnson, and Jeevamma Jacob.	Convex-optimization-based constrained control strategy for 3-DOF tandem helicopter using feedback linearization	Journal of Optimization Theory and Applications 191 (2021): 736-755. https://doi.org/10.1007/s10957-021-01900-4	International	2021	5
15	Paul, P. K., & Jacob, J.	H2 Vs H∞ control of TRMS via output error optimization augmenting sensor and control singularities.	Ain Shams Engineering Journal, 11(1), 77-85. https://doi.org/10.1016/j.asej.2019.07.001	International	2020	5
16	Remya, P., & Jacob, J.	Dynamic Network Access Scheduling and Stabilization of TPCS Networked Control System.	IFAC-PapersOnLine, 53(1), 57-62. https://doi.org/10.1016/j.ifacol.2020.06.010	International	2020	1

Faculty Name : Dr. JEEVAMMA JACOB

Conference Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	Sreenath, B., Jacob, J., Mija, S. J., & Mathew, S.	Formation Acquisition of a Multi-Agent System with Nonholonomic Dynamic Model of Wheeled Mobile Robots Using Model Predictive Control.	IEEE Recent Advances in Intelligent Computational Systems (RAICS) (pp. 1-6). (2024, May). https://doi.org/10.1109/RAICS61201.2024.10690123	International	2024	
2	Mathew, Sera, Jeevamma Jacob, and S. J. Mija.	Event triggered formation control of multi-agent systems using discrete Laguerre function based Model predictive controller.	IEEE Region 10 Symposium (TENSYMP). https://doi.org/10.1109/TENSYMP55890.2023.10223649	International	2023	2
3	Sanila, P., Jeevamma Jacob, and Rijil Ramchand.	On the Design of Unscented Kalman Filter-Based Multi-Agent Target Interception Control.	IEEE Region 10 Symposium (TENSYMP). https://doi.org/10.1109/TENSYMP55890.2023.10223622	International	2023	
4	Krishnan, G. J., AA, A. L., Fabin, F. S., George, A. T., & Jacob, J.	State of Charge Estimation using Extended Kalman Filter with Temperature Compensation.	IEEE IAS Global Conference on Renewable Energy and Hydrogen Technologies (GlobConHT) (pp. 1-7). https://doi.org/10.1109/GlobConHT56829.2023.10087761	International	2023	
5	Sreekanth, P., and Jeevamma Jacob.	On The Design Of Non-linear Disturbance Observer For Formation Acquisition Of Multiple Wheeled Mobile Robots.	3rd International Conference for Emerging Technology (INCET). IEEE, 2022. https://doi.org/10.1109/INCET54531.2022.9824035	International	2022	
6	Manoj, Vignesh K., and Jeevamma Jacob.	On the design of MPC using laguerre functions for formation tracking control of multiple wheeled mobile robots.	3rd International Conference for Emerging Technology (INCET). IEEE, 2022. doi: https://doi.org/10.1109/INCET54531.2022.9824491	International	2022	2
7	Pradeep, A., Sanila, P., Jacob, J., & Ramchand, R.	PSO Based Formation Maneuvering with Orientation Control of Multi Robotic Vehicles.	6th International Conference for Convergence in Technology (I2CT). IEEE, 2021. https://doi.org/10.1109/I2CT51068.2021.9418089	International	2021	
8	Suganthi, S., and Jacob Jeevamma.	Analysis of Topologies for Cooperative Tracking Control of Multi-agent Systems.	Inventive Systems and Control: Proceedings of ICISC 2021. Springer Singapore, 2021. https://doi.org/10.1007/978-981-16-1395-1_50	International	2021	
9	Resmi, R., Mija, S. J., & Jacob, J.	Consensus control of two wheeled mobile robots with time delay.	IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES) (pp. 1-6). IEEE. https://doi.org/10.1109/PEDES49360.2020.9379671	International	2020	2
10	Sanila, P., Jacob, J., & Ramchand, R.	On the design of Kalman Filter-Based Disturbance Observer For Stabilization of Rigid Formations.	The 46th Annual Conference of the IEEE Industrial Electronics Society (pp. 662-667). IEEE. https://doi.org/10.1109/IECON43393.2020.9254317	International	2020	

11	Nidya, M. V., Mija, S. J., & Jacob, J.	Performance enhancement of relatively optimal controller for continuous time systems.	In IECON 2020 The 46th Annual Conference of the IEEE Industrial Electronics Society (pp. 329-334). IEEE. https://doi.org/10.1109/IECON43393.2020.9254586	International	2020	3
12	Sarath, K. R., & Jacob, J.	Hand position consensus in wheeled mobile robots with disturbance observer	International Conference for Emerging Technology (INCET) (pp. 1-5). IEEE. https://doi.org/10.1109/INCET49848.2020.9154135	International	2020	
13	Riyas, U. T., & Jacob, J.	Rigidity Based Robust Formation Maneuvering Control for Nonholonomic Mobile Robots	International Conference for Emerging Technology (INCET) (pp. 1-6). IEEE. https://doi.org/10.1109/INCET49848.2020.9154029	International	2020	
14	Sruthy, A. N., Jacob, J., & Ramchand, R.	Fault Tolerant Controller for Formation Flight of Leader-Follower Quadrotors.	International Conference for Emerging Technology (INCET) (pp. 1-6). IEEE. https://doi.org/10.1109/INCET49848.2020.9153984	International	2020	
15	Mathew, M., Jacob, J., & Ramchand, R.	Formation acquisition of multi robotic vehicles with unscented Kalman filter based noise filtering.	International Conference for Emerging Technology (INCET) (pp. 1-6). IEEE. https://doi.org/10.1109/INCET49848.2020.9154054	International	2020	1
16	Nair, S. S., & Jacob, J.	Disturbance Observer for Periodic Event-Triggered Control of Multi-Agent Systems with Communication Delay.	International Conference for Emerging Technology (INCET) (pp. 1-6). IEEE. https://doi.org/10.1109/INCET49848.2020.9154013	International	2020	
17	Riyas, U. T., & Jacob, J.	Formation maneuvering of mobile inverted pendulum robots with attitude synchronization.	Fourth International Conference on Inventive Systems and Control (ICISC) (pp. 377-381). IEEE. https://doi.org/10.1109/ICISC47916.2020.9171062	International	2020	1
18	Nair, S. S., & Jacob, J.	Event-Triggered Control for Multi-Agent Systems using Consensus Protocol.	Fourth International Conference on Inventive Systems and Control (ICISC) (pp. 407-412). IEEE. https://doi.org/10.1109/ICISC47916.2020.9171119	International	2020	1
19	Mathew, M., Jacob, J., & Ramchand, R.	Robust Dynamic Formation Acquisition Control for Multi Robotic Vehicles.	Fourth International Conference on Inventive Systems and Control (ICISC) (pp. 401-406). IEEE.	International	2020	1
20	Parvathy, P., & Jacob, J.	Global asymptotic stabilization of second-order nonlinear systems by inverse optimal control.	Fourth International Conference on Inventive Systems and Control (ICISC) (pp. 655-660). IEEE. https://doi.org/10.1109/ICISC47916.2020.9171175	International	2020	3
21	Sruthy, A. N., Jacob, J., & Ramchand, R.	PSO based integral backtepping control for leader-follower quadrotors	Fourth International Conference on Inventive Systems and Control (ICISC) (pp. 466-471). IEEE. https://doi.org/10.1109/ICISC47916.2020.9171140	International	2020	3

Sl. No	Authors	Title	Details	National/International	Year	Citation
22	Krishnan, K. G., Dutta, K., Eapen, S. A., Martin, M., & Jacob, J.	Control of two degrees of freedom ball balancer using image processing.	Innovations in Computer Science and Engineering: Proceedings of 7th ICICSE, 497-507. https://doi.org/10.1007/978-981-15-2043-3_54	International	2020	1

Faculty Name : Dr. SUBHA D. P.
Journal Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	Raghavendra, U., Anjan Gudigar, Yashas Chakole, Praneet Kasula, D. P. Subha, Nahrizul Adib Kadri, Edward J. Ciaccio, and U. Rajendra Acharya.	Automated detection and screening of depression using continuous wavelet transform with electroencephalogram signals.	Expert Systems, 40(4), e12803. https://doi.org/10.1111/exsy.12803	International	2023	6
2	Das, S., & Puthankattil, S. D.	Complex network analysis of MCI-AD EEG signals under cognitive and resting state.	Brain research, 1735, 146743. https://doi.org/10.1016/j.brainres.2020.146743	International	2020	49
3	Sheela, Priyalakshmi, and Subha D. Puthankattil.	A hybrid method for artifact removal of visual evoked EEG.	Journal of neuroscience methods, 336, 108638. https://doi.org/10.1016/j.jneumeth.2020.108638	International	2020	28

Faculty Name : Dr. SUBHA D. P.
Conference Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	Roy, Debarghya Sinha, and D. P. Subha.	Performance of Fly-buck DC-DC Converter using PI/PID-Based Controller for Applications in ElectricVehicles.	IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics (DISCOVER) (pp. 117-122). IEEE. https://doi.org/10.1109/DISCOVER58830.2023.10316726	International	2023	
2	Sekhar, A., Raj, A., Arvind, G., & Subha, D. P.	Performance Evaluation of LSTM Models in Detection of Depression from EEG Signals.	IEEE 4th Annual Flagship India Council International Subsections Conference (INDISCON) (pp. 1-7). IEEE. https://doi.org/10.1109/INDISCON58499.2023.10269985	International	2023	1
3	Vynatheya, M., & Subha, D. P.	Emotion Estimation Using EEG with Deep learning Networks.	IEEE 19th India Council International Conference (INDICON) (pp. 1-5). IEEE. https://doi.org/10.1109/INDICON56171.2022.10040132	International	2022	

4	Ali, A., & Subha, D. P.	Total Variation Denoising techniques for artifact removal from EEG signals.	International conference on artificial intelligence and smart systems (ICAIS) (pp. 1594-1598). IEEE. https://doi.org/10.1109/ICAIS50930.2021.9396017	International	2021	1
5	Shinde, A., Das, S., & Subha, D. P.	Analysis Of Brain Metastability in Healthy Elderly Population.	International Conference on Artificial Intelligence and Smart Systems (ICAIS) (pp. 868-872). IEEE. https://doi.org/10.1109/ICAIS50930.2021.9395859	International	2021	
6	Nikhil Chandran, A., Sreekumar, K., & Subha, D. P.	EEG-based automated detection of schizophrenia using long short-term memory (LSTM) network.	Advances in Machine Learning and Computational Intelligence: Proceedings of ICMLCI (pp. 229-236). Springer Singapore. https://doi.org/10.1007/978-981-15-5243-4_19	International	2021	40
7	Yakkundi, S. V., & Subha, D. P.	Convolutional LSTM: A deep learning approach for dynamic MRI reconstruction.	4th International Conference on Trends in Electronics and Informatics (ICOEI)(48184) (pp. 1011-1015). IEEE. https://doi.org/10.1109/ICOEI48184.2020.9142982	International	2020	7

Faculty Name : Dr. MIJA.S.J
Journal Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	S. Mathew, J. Jacob and M. S. J,	Event-Triggered Dynamic Formation Tracking of Linear Multi-Agent System Under Denial of Service Attacks	IEEE Transactions on Intelligent Vehicles, doi: https://doi.org/10.1109/TIV.2024.3423680	International	2024	
2	Kumar, TR Dil, and S. J. Mija.	Boundary Logic-Based Hybrid PID-SMC Scheme for a Class of Underactuated Nonlinear Systems-Design and Real-Time Testing.	IEEE Transactions on Industrial Electronics. https://doi.org/10.1109/TIE.2024.3456003	International	2024	
3	Anju, M., K. V. Shihabudheen, and S. J. Mija.	Enhancing grid stability: a hybrid control strategy for DFIG-based wind turbines to mitigate sub-synchronous oscillations.	Electrical Engineering (2024): 1-32. https://doi.org/10.1007/s00202-024-02387-8	International	2024	
4	Kumar, TR Dil, and S. J. Mija.	Mathematical modelling of ball and plate system with experimental and correlation function-based model validation.	Control Theory and Technology 22.2 (2024): 326-341. https://doi.org/10.1007/s11768-024-00208-8	International	2024	1
5	Mija, S. J.	Multiswitching Surface Based Sliding Mode Controller for a Class of Underactuated Nonlinear Systems: With Application to Ball and Plate System.	IEEE Transactions on Industrial Electronics. https://doi.org/10.1109/TIE.2023.3344836	International	2024	2

6	Resmi, R., S. J. Mija, and Jeevamma Jacob.	Dynamic consensus of linear multi-agent system using self-triggered distributed model predictive control.	ISA transactions 142: 177-187. https://doi.org/10.1016/j.isatra.2023.07.019	International	2023	2
7	Resmi, R., S. J. Mija, and Jeevamma Jacob.	Distributed model-predictive control using exponentially weighted Laguerre functions and periodic time triggering for dynamic consensus of linear multi-agent systems.	IEEE Transactions on Industrial Informatics https://doi.org/10.1109/TII.2022.3233661	International	2023	1
8	Debnath, Biswajit, and S. J. Mija.	Disturbance rejection in MIMO systems with emotional-learning-based controller: Application to variable rotor-speed helicopters.	IEEE Transactions on Systems, Man, and Cybernetics: Systems 53.7 (2023): 4381-4392. https://doi.org/10.1109/TSMC.2023.3247513	International	2023	2
9	Binu Krishnan, U., and S. J. Mija.	SMC Augmented Droop Control Scheme for Improved Small Signal Stability of Inverter Dominated Microgrid.	Renewable Energy Technologies: Advances and Emerging Trends for Sustainability (2022): 569-596. https://doi.org/10.1002/9781119827634.ch17	International	2022	
10	Resmi, R., S. J. Mija, and Jeevamma Jacob.	Discrete Laguerre-based model predictive control for dynamic consensus of a vehicle platoon with time delay.	International Journal of Systems Science 53.12 (2022): 2566-2583. https://doi.org/10.1080/00207721.2022.2067911	International	2022	8
11	Resmi, R., S. J. Mija, and Jacob Jeevamma.	Model predictive consensus in networked autonomous systems using discrete Laguerre functions and event triggering approach.	European Journal of Control 64 (2022): 100607. https://doi.org/10.1016/j.ejcon.2021.12.002	International	2022	6
12	Nidya, M. V., S. J. Mija, and Jeevamma Jacob.	Feedback-linearization based robust relatively optimal trajectory tracking controller for 3-DOF helicopter.	Engineering Science and Technology, an International Journal 31 (2022): 101050. https://doi.org/10.1016/j.jestch.2021.08.007	International	2022	12
13	Nidya, M. V., S. J. Mija, and Jacob Jeevamma.	Robust relatively optimal trajectory tracking control for a class of uncertain nonlinear control affine systems with state and input constraints.	Nonlinear Dynamics 110.4 (2022): 3513-3534. https://doi.org/10.1007/s11071-022-07790-z	International	2022	
14	Krishnan, U. Binu, S. J. Mija, and Elizabeth P. Cheriyan.	Improved small signal stability of microgrid—a droop control scheme with SMC.	Electrical Engineering 104.4 (2022): 2569-2587. https://doi.org/10.1007/s00202-022-01494-8	International	2022	3
15	Binu, Krishnan U., S. J. Mija, and Elizabeth P. Cheriyan.	Nonlinear analysis and estimation of the domain of attraction for a droop controlled microgrid system.	Electric Power Systems Research 204 (2022): 107712. https://doi.org/10.1016/j.epsr.2021.107712	International	2022	11
16	Thomas, F., & Mija, S. J.	Hover autopilot design for an un-crewed helicopter using static output feedback controller.	International Journal of Modelling, Identification and Control, 40(2), 137-150. https://doi.org/10.1504/IJMIC.2022.124728PDF	International	2022	1

17	Mija, S. J.	Design and performance evaluation of LQR and optimized sliding mode controllers for a class of underactuated nonlinear systems.	IFAC-PapersOnLine 55.1 (2022): 579-585. https://doi.org/10.1016/j.ifacol.2022.04.095	International	2022	7
18	Thomas, Femi, and S. J. Mija.	Output feedback based adaptive composite nonlinear flight control design for a small-scale un-crewed helicopter.	ISA transactions 126 (2022): 190-202. https://doi.org/10.1016/j.isatra.2021.08.004	International	2022	5
19	Debnath, Biswajit, and S. J. Mija.	Adaptive emotional-learning-based controller: A practical design approach for helicopters with variable speed rotors.	IEEE Transactions on Industrial Informatics 18.2 (2021): 1132-1141. https://doi.org/10.1109/TII.2021.3078116	International	2022	8
20	Thomas, Femi, Ashitha Varghese Thottungal, and Mija Salomi Johnson.	Composite control of a hovering helicopter based on optimized sliding mode control.	Journal of Optimization Theory and Applications 191 (2021): 756-775. https://doi.org/10.1007/s10957-021-01901-3	International	2021	5
21	Vijayan, Nidya M., Mija S. Johnson, and Jeevamma Jacob.	Convex-optimization-based constrained control strategy for 3-DOF tandem helicopter using feedback linearization	Journal of Optimization Theory and Applications 191 (2021): 736-755. https://doi.org/10.1007/s10957-021-01900-4	International	2021	5
22	Debnath, Biswajit, and S. J. Mija.	Design of a multivariable stimulus for Emotional-Learning based control of a 2-DOF laboratory helicopter.	ISA transactions 118 (2021): 189-206. https://doi.org/10.1016/j.isatra.2021.02.022	International	2021	5
23	Thomas, Femi, and Mija Salomi Johnson.	Composite nonlinear H∞ based output feedback controller for an un-crewed helicopter in its hover flight.	Aircraft Engineering and Aerospace Technology 93.1 (2021): 159-170. https://doi.org/10.1108/AEAT-01-2020-0009	International	2021	4
24	Debnath, Biswajit, and S. J. Mija.	Emotional learning based controller for quadruple tank system—An improved stimuli design for multiple set-point tracking.	IEEE Transactions on Industrial Electronics 68.11 (2020): 11296-11308. DOI: https://doi.org/10.1109/TIE.2020.3038083	International	2021	13
25	Unnikrishnan, B. K., Johnson, M. S., & Cheriyan, E. P.	Small signal stability improvement of a microgrid by the optimised dynamic droop control method.	IET Renewable Power Generation, 14(5), 822-833. https://doi.org/10.1049/iet-rpg.2019.0428	International	2020	32

Faculty Name : Dr. MIJA.S.J

Conference Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	Sreenath, B., Jacob, J., Mija, S. J., & Mathew, S.	Formation Acquisition of a Multi-Agent System with Nonholonomic Dynamic Model of Wheeled Mobile Robots Using Model Predictive Control.	IEEE Recent Advances in Intelligent Computational Systems (RAICS) (pp. 1-6). (2024, May). https://doi.org/10.1109/RAICS61201.2024.10690123	International	2024	
2	Mathew, Sera, Jeevamma Jacob, and S. J. Mija.	Event triggered formation control of multi-agent systems using discrete Laguerre function based Model predictive controller.	IEEE Region 10 Symposium (TENSYMP). https://doi.org/10.1109/TENSYMP55890.2023.10223649	International	2023	2
3	Hareesh, Senapathi, and S. J. Mija.	Terminal sliding mode controller for Magnetic Levitation system using Particle Swarm Optimization.	4th International Conference for Emerging Technology (INCET). IEEE, 2023. https://doi.org/10.1109/INCET57972.2023.10169960	International	2023	
4	Jithendra, Redrouthu, and S. J. Mija.	PSO-Super Twisting SMC for Balancing the TWIP using LEGO EV3 Model.	4th International Conference for Emerging Technology (INCET). IEEE, 2023. https://doi.org/10.1109/INCET57972.2023.10170618	International	2023	
5	Dileep, K., S. J. Mija, and N. K. Arun.	Trajectory Tracking with RBF Network Estimator and Dynamic Adaptive SMC Controller for Robot Manipulator.	International Conference on Robotics, Control, Automation and Artificial Intelligence. Singapore: Springer Nature Singapore, 2022. https://doi.org/10.1007/978-981-99-4634-1_21	International		
6	Anju, M., K. V. Shihabudheen, and S. J. Mija.	LVRT Capability Enhancement of DFIG with FACT Device and Superconducting Technology.	IEEE 19th India Council International Conference (INDICON). IEEE, 2022. https://doi.org/10.1109/INDICON56171.2022.10039938	International	2022	1
7	Jain, Rajat, and S. J. Mija.	Design of robust sliding mode controllers for a class of underactuated robotic systems.	2nd International Conference on Intelligent Technologies (CONIT). IEEE, 2022. https://doi.org/10.1109/CONIT55038.2022.9848022	International	2022	3
8	Rathod, Keyur, and S. J. Mija.	Robust Control of 2-DoF Helicopter System in Presence of Unmatched Disturbances & Actuator Faults.	2nd International Conference on Intelligent Technologies (CONIT). IEEE, 2022. https://doi.org/10.1109/CONIT55038.2022.9848199	International	2022	2
9	Abhinav, Kumar, and S. J. Mija.	Observer based sliding mode control for 3 DOF helicopter system.	International Conference on Intelligent Technologies (CONIT). IEEE, 2021. https://doi.org/10.1109/CONIT51480.2021.9498495	International	2021	3
10	Resmi, R., Mija, S. J., & Jacob, J.	Consensus control of two wheeled mobile robots with time delay.	IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES) (pp. 1-6). IEEE. https://doi.org/10.1109/PEDES49360.2020.9379671	International	2020	2

11	Jose, J., & Mija, S. J.	Particle swarm optimization based fractional order sliding mode controller for magnetic levitation systems.	IEEE 5th International Conference on Computing Communication and Automation (ICCCA) (pp. 73-78). IEEE. https://doi.org/10.1109/ICCCA49541.2020.9250823	International	2020	3
12	Issac, T., Thomas, F., & Mija, S. J.	Adaptive Particle Swarm Optimized Trajectory Tracking of Unmanned Helicopter Under Unmatched Disturbances.	IEEE 5th International Conference on Computing Communication and Automation (ICCCA) (pp. 131-135). IEEE. https://doi.org/10.1109/ICCCA49541.2020.9250860	International	2020	
13	Debnath, B.	Design of a multi-variable adaptive stimuli for an emotional learning based controller for a MIMO process.	In IECON 2020 The 46th Annual Conference of the IEEE Industrial Electronics Society (pp. 142-147). IEEE. https://doi.org/10.1109/IECON43393.2020.9254884	International	2020	
14	Nidya, M. V., Mija, S. J., & Jacob, J.	Performance enhancement of relatively optimal controller for continuous time systems.	In IECON 2020 The 46th Annual Conference of the IEEE Industrial Electronics Society (pp. 329-334). IEEE. https://doi.org/10.1109/IECON43393.2020.9254586	International	2020	3
15	Jose, J., & Mija, S. J.	Design of H∞ Controller for Magnetic Levitation Systems.	First IEEE International Conference on Measurement, Instrumentation, Control and Automation (ICMICA) (pp. 1-6). IEEE. https://doi.org/10.1109/ICMICA48462.2020.9242769	International	2020	
16	Issac, T., Thomas, F., & Mija, S. J.	Trajectory tracking of unmanned helicopter using super twisting control.	In 2020 International Conference for Emerging Technology (INCET) (pp. 1-4). IEEE. https://doi.org/10.1109/INCET49848.2020.9154049	International	2020	3
17	Jose, J., & Mija, S. J.	An output feedback integral optimal sliding mode controller for magnetic levitation systems.	In 2020 Fourth International Conference on Inventive Systems and Control (ICISC) (pp. 197-202). IEEE. https://doi.org/10.1109/ICISC47916.2020.9171097	International	2020	14
18	Issac, T., Thomas, F., & Mija, S. J.	Trajectory tracking of unmanned helicopter using optimized integral lqr controller.	In 2020 Fourth International Conference on Inventive Systems and Control (ICISC) (pp. 324-328). IEEE. https://doi.org/10.1109/ICISC47916.2020.9171086	International	2020	5

Faculty Name : Dr. T. K. SUNIL KUMAR

Journal Publications

Sl No	Authors	Title	Details	National/International	Year	Citation
1	Muthukumari, S., S. Kanagalakshmi, and T. K. Sunil Kumar.	Centralized model matching integer/fractional-order controller design for multivariable processes with real-time validation.	Transactions of the Institute of Measurement and Control 46.9 (2024): 1828-1841. https://doi.org/10.1177/01423312231203281	International	2024	2
2	Muthukumari, S., S. Kanagalakshmi, and Sunil Kumar TK.	Development of a novel model matching decentralized controller design algorithm and its experimental validation through load frequency controller implementation in restructured power system using	ISA transactions 148 (2024): 285-306. https://doi.org/10.1016/j.isatra.2024.03.027	International	2024	1
3	Muthukumari, S., Kanagalakshmi, S., & Sunil Kumar, T. K.	Integer and fractional-order model matching controller design algorithm with generalized reference model formulation for nonlinear time delay servo and regulatory problems: A real-time validation	Transactions of the Institute of Measurement and Control, 01423312241273756. https://doi.org/10.1177/01423312241273756	International	2024	
4	Damodaran, Suraj, T. K. Sunil Kumar, and A. P. Sudheer.	Generalized method for rational approximation of SISO/MIMO fractional-order systems using squared magnitude function.	Transactions of the Institute of Measurement and Control 46.2 (2024): 207-222. https://doi.org/10.1177/01423312231175996	International	2024	1
5	Sabat, N., Raj, S., George, S. N., & TK, S. K.	A computationally efficient moving object detection technique using tensor QR decomposition based TRPCA framework.	Journal of Visual Communication and Image Representation, 92, 103785. https://doi.org/10.1016/j.jvcir.2023.103785	International	2023	2
6	Dey, S., Sunil Kumar, T. K., Ashok, S., & Shome, S. K.	Robust cascade control strategy for trajectory tracking to decouple disturbances using 3-degree-of-freedom inertial stabilized platform and its experimental validation.	Transactions of the Institute of Measurement and Control, 01423312221150290. https://doi.org/10.1177/01423312221150290	International	2023	
7	Damodaran, Suraj, T. K. Sunil Kumar, and A. P. Sudheer.	Design of suboptimal model-matching controllers using squared magnitude function for MIMO linear systems.	Automatika (2021): 210-225. https://doi.org/10.1080/00051144.2021.1922149	International	2021	
8	Shingare, Deodatta Y., and Sunil Kumar TK.	DFIG Control Design for Preventing SSR Mode.	"DFIG Control Design for Preventing SSR Mode." Academia (2021).	International	2021	
9	Vishnu, M., & TK, S. K.	An improved solution for reactive power dispatch problem using diversity-enhanced particle swarm optimization.	Energies, 13(11), 2862. https://doi.org/10.3390/en13112862	International	2020	75

Faculty Name : Dr. T. K. SUNIL KUMAR

Conference Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	Muthukumari, S., S. Kanagalakshmi, and TK Sunil Kumar.	Transmission Line Overload Relieving in Pool Based Electricity Market using TCSC.	IEEE International Conference on Power Electronics, Smart Grid, and Renewable Energy (PESGRE). https://doi.org/10.1109/PESGRE58662.2023.10404422	International	2023	
2	Shekhar, M., Khan, J., Prins, S., & TK, S. K.	Design. Development and Real-Time Implementation of Torque and Speed Controller for PMSM FOC Drive System.	Intelligent Computing and Control for Engineering and Business Systems (ICCEBS) (pp. 1-6). https://doi.org/10.1109/ICCEBS58601.2023.10449151	International	2023	
3	Danu, M., Navaneeth, M. G., Kumar, T. S., & Sudheer, A. P.	PSO Based Design of PID Controller for Speed Control of BLDC Motor for Robotic Applications.	IEEE Silchar Subsection Conference (SILCON) (pp. 1-7). https://doi.org/10.1109/SILCON59133.2023.10404746	International	2023	
4	Muthukumari, S., Kanagalakshmi, S., & Kumar, T. S.	Optimal Selection of LQR Weighting Matrices for Frequency Control in Restructured Power System.	International Conference on Advances in Data-driven Computing and Intelligent Systems (pp. 307-320). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-99-9531-8_25	International	2023	
5	Srikar, A., Nadig, G., Alawani, Y., & TK, S. K.	Test Automation of DCS Controller's Communication Interface.	14th International Conference on Computing Communication and Networking Technologies (ICCCNT) (pp. 1-5). https://doi.org/10.1109/ICCCNT56998.2023.10307114	International	2023	
6	Dey, S., Kumar, T. K. S., Ashok, S., & Shome, S. K.	Design of Adaptive Fuzzy PID Control Framework for 3-Axis Platform Stabilization.	International Conference on Power, Instrumentation, Energy and Control (PIECON) (pp. 1-6). IEEE. https://doi.org/10.1109/PIECON56912.2023.10085775	International	2023	2
7	Dey, S., Kumar, T. K. S., Ashok, S., & Shome, S. K.	Design of Adaptive Network Based Fuzzy Inference PID Control Methodology For 3 Degree of Freedom Gimbal Stabilized Platform.	International Conference on Power, Instrumentation, Energy and Control (PIECON) (pp. 1-6). IEEE. https://doi.org/10.1109/PIECON56912.2023.10085825	International	2023	1
8	Krishnan, A. A., Rajendran, S. K., & Kumar, T. S.	Improved PKI Certificate Lifecycle Management with Centralized Device Management For Industrial IoT.	IEEE International Conference on Public Key Infrastructure and its Applications (PKIA) (pp. 1-5). https://doi.org/10.1109/PKIA56009.2022.9952216	International	2022	2
9	Sabat, N., Raj, M. S., George, S. N., & Kumar, T. S.	A Fast Moving Object Detection Technique using QR Decomposition based TV Regularized RPCA Framework.	IEEE Region 10 Symposium (TENSYMP) (pp. 1-6). https://doi.org/10.1109/TENSYMP54529.2022.9864389	International	2022	1

Sl No	Authors	Title	Details	National/International	Year	Citation
10	Amal, N. N., & Kumar, T. S.	Fractional Order 2-DOF Controller Design by AGTM Matching and Neural Network Optimization.	4th International Conference on Recent Developments in Control, Automation & Power Engineering (RDCAPE) (pp. 184-188). IEEE. https://doi.org/10.1109/RDCAPE52977.2021.9633427	International	2021	1
11	Meena, J., Kumar, T. S., & Amal, T. R.	Design and implementation of a multi-purpose end-effector tool for industrial robot.	International symposium of Asian control association on intelligent robotics and industrial automation (IRIA) (pp. 70-76). IEEE. https://doi.org/10.1109/IRIA53009.2021.9588746	International	2021	3
12	Sajeev, R., Krishnan, M. G., Kumar, T. S., & Ashok, S.	Design and Implementation of a Robot Pose Predicting Recurrent Neural Network for Visual Servoing Application.	2nd International Conference on Advances in Computing, Communication, Embedded and Secure Systems (ACCESS) (pp. 252-256). IEEE https://doi.org/10.1109/ACCESS51619.2021.9563282	International	2021	
13	Damodaran, Suraj, TK Sunil Kumar, and A. P. Sudheer.	Design and Implementation of Desired Interaction Yielding Fractional-Order Controller With Application to Wheeled Mobile Robot.	2nd International Conference on Advances in Computing, Communication, Embedded and Secure Systems (ACCESS). IEEE, 2021. https://doi.org/10.1109/ACCESS51619.2021.9563307	International	2021	
14	Dey, S., Kumar, T. S., & Ashok, S.	Design of decentralized two loop cascade control strategy for 3-axis platform stabilization.	IEEE 7th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON) (pp. 1-6). IEEE. https://doi.org/10.1109/UPCON50219.2020.9376503	International	2020	2
15	Manoj, G. S. R., & Kumar, T. S.	A Differentiation Approach for Robust PID Controller for a Linear BLDC Motor.	Third International Conference on Smart Systems and Inventive Technology (ICSSIT) (pp. 594-600). IEEE.	International	2020	2
16	Sanjeev, M. M., Thomas, M. J., Kumar, T. S., Sudheer, A. P., & Joy, M. L.	Determination of inverse kinematic solutions for a 3 Degree of Freedom Parallel Manipulator using Machine Learning.	IEEE Students Conference on Engineering & Systems (SCES) (pp. 1-6). IEEE. https://doi.org/10.1109/SCES50439.2020.9236725	International	2020	5

Faculty Name : Dr. S. N. DEEPA
Journal Publications

Sl No	Authors	Title	Details	National/International	Year	Citation
1	Deepa, S. N., Karam Ratan Singh, and Arun Joram.	Unveiling social network clans: improving genealogical clan classification with SVM neural classifiers and enhanced kernels.	International Journal of Information Technology (2024): 1-16. https://doi.org/10.1007/s41870-024-02183-4	International	2024	
2	Subha, B., Vijay Jeyakumar, and S. N. Deepa.	Gaussian Aquila optimizer based dual convolutional neural networks for identification and grading of osteoarthritis using knee joint images.	Scientific Reports 14.1 (2024): 7225. https://doi.org/10.1038/s41598-024-57002-4	International	2024	1

3	Bennet, Goldvin Sugirtha Dhas, and Deepa Subramaniam Nachimuthu.	Solar PV system with modified artificial rabbit optimization algorithm for MPPT.	Electrical Engineering (2024): 1-17. https://doi.org/10.1007/s00202-023-02231-5	International	2024	3
4	Bam, G., Guchhait, P. K., Banerjee, A., & Deepa, S. N.	Symbiosis organisms search algorithm for reactive power compensation of STATCOM-PID assisted isolated wind integrated hybrid power system model.	Electric Power Systems Research 227 (2024): 109949. https://doi.org/10.1016/j.epsr.2023.109949	International	2024	2
5	Deepa, S., T. Sripriya, and M. Radhika.	Experimental evaluation of artificial intelligence assisted heart disease prediction using deep learning principle.	The Scientific Temper 14.04 (2023): 1277-1282.	International	2023	2
6	Deepa, Subramaniam Nachimuthu, Narayanan Natarajan, and Mohanadhas Berlin.	Enhanced variational mode decomposition with deep learning SVM kernels for river streamflow forecasting.	Environmental Earth Sciences 82.22 (2023): 544. https://doi.org/10.1007/s12665-023-11222-5	International	2023	1
7	Tamizharasi, S., B. Arunadevi, and S. N. Deepa.	Bio-inspired deep residual neural network learning model for QoS routing enhancement in mobile ad-hoc networks	Wireless Networks 29.8 (2023): 3541-3565. https://doi.org/10.1007/s11276-023-03424-3	International	2023	
8	Narmadha, A. S., S. Maheswari, and S. N. Deepa.	Watchdog malicious node detection and isolation using deep learning for secured communication in MANET.	Automatika (2023): 996-1009. https://doi.org/10.1080/00051144.2023.2241766	International	2023	5
9	Vinothkumar, T., S. N. Deepa, and F. Vijay Amirtha Raj.	Adaptive probabilistic neural network based on hybrid PSO–ALO for predicting wind speed in different regions.	Neural Computing and Applications 35.27 (2023): 19997-20011. https://doi.org/10.1007/s00521-023-08807-3	International	2023	4
10	Srilekha, M. K., Deepa, S. N., Shanker, N. R., & Priya, M.	Human Fatty Liver Volume Measurement Device using Nano Graphene Polyvinyl Sensor.	IEEE Sensors Journal 2023 https://doi.org/10.1109/JSEN.2023.3308769	International	2023	
11	Nithish, A. N., Patel, S. K., Ayyanar, N., Surve, J., Rajaram, S., Deepa, S. N., ... & Al-Zahrani, F. A.	Terahertz women reproductive hormones sensor using photonic crystal fiber with behavior prediction using machine learning.	IEEE Access, 11, 2023, 75424-75433. https://doi.org/10.1109/ACCESS.2023.3277955	International	2023	6
12	Deepa, S. N., and N. Yogambal Jayalakshmi.	Optimized fuzzy-based wavelet neural network controller for a non-linear process control system.	IETE Journal of Research 69.3 (2023): 1363-1372. https://doi.org/10.1080/03772063.2020.1865212	International	2023	9
13	Deepa, S. N., and D. Rasi.	FHGSO: Flower Henry gas solubility optimization integrated deep convolutional neural network for image classification.	Applied Intelligence 53.6 (2023): 7278-7297. https://doi.org/10.1007/s10489-022-03834-4	International	2023	10

14	Baranilingesan, I., and S. N. Deepa.	An Intelligent Neural Network Controller for Non-Linear CSTR Process Control.	Iran. J. Chem. Chem. Eng. Research Article Vol 42.3 (2023).	International	2023	2
15	Suguna, A., V. Ranganayaki, and S. N. Deepa.	Design of Full-Order Neural Observer with Nonlinear Filter Techniques for State Estimation of a Three-Tank Process Control System.	Iranian Journal of Science and Technology, Transactions of Electrical Engineering 46.4 (2022): 1057-1087. https://doi.org/10.1007/s40998-022-00528-y	International	2022	
16	Rasi, D., and S. N. Deepa.	Hybrid optimization enabled deep learning model for colour image segmentation and classification.	Neural Computing and Applications 34.23 (2022): 21335-21352. https://doi.org/10.1007/s00521-022-07614-6	International	2022	3
17	Krishna, S. L., Jeya, I. J. S., & Deepa, S. N.	Fuzzy-twin proximal SVM kernel-based deep learning neural network model for hyperspectral image classification.	Neural Computing and Applications, 34(21), 19343-19376. https://doi.org/10.1007/s00521-022-07517-6	International	2022	19
18	Kannan, K. S., Sunitha, G., Deepa, S. N., Babu, D. V., & Avanija, J.	A multi-objective load balancing and power minimization in cloud using bio-inspired algorithms.	Computers and Electrical Engineering, 102, 108225.	International	2022	10
19	Deepa, S. N., & Banerjee, A.	Intelligent neural learning models for multi-step wind speed forecasting in renewable energy applications.	Journal of Control, Automation and Electrical Systems, 33(3), 881-900. https://doi.org/10.1007/s40313-021-00862-2	International	2022	7
20	Deepa, S. N., & Jayalakshmi, N. Y.	An intelligent neural network algorithm for uncertainty handling in sensor failure scenario of food quality assurance model.	Computer Assisted Methods in Engineering and Science, 29(1–2), 105-123. DOI: http://dx.doi.org/10.24423/cames.409	International	2022	1
21	Balasubramaniyan, S., Jeyakumar, V., & Nachimuthu, D. S.	Panoramic tongue imaging and deep convolutional machine learning model for diabetes diagnosis in humans.	Scientific Reports, 12(1), 186.	International	2022	27
22	Ramakrishnan, Rajesh, and Deepa Subramaniam Nachimuthu.	Design of state feedback lqr based dual mode fractional-order pid controller using inertia weighted pso algorithm: For control of an underactuated system.	Journal of The Institution of Engineers (India): Series C 102.6 (2021): 1403-1417. https://doi.org/10.1007/s40032-021-00756-x	International	2021	12
23	Deepa, S. N., & Banerjee, A.	Intelligent decision support model using tongue image features for healthcare monitoring of diabetes diagnosis and classification.	Network Modeling Analysis in Health Informatics and Bioinformatics, 10(1), 41 https://doi.org/10.1007/s13721-021-00319-1	International	2021	12
24	Rasi, D., & Deepa, S. N.	Energy optimization of internet of things in wireless sensor network models using type-2 fuzzy neural systems.	International Journal of Communication Systems, 34(17), e4967. https://doi.org/10.1002/dac.4967	International	2021	7

Sl	Authors	Title	Details	National/International	Year	Citation
25	Subramaniam Nachimuthu, D., Banerjee, A., & Karuppaiah, J.	Multi-step wind speed and wind power forecasting using variational momentum factor and deep learning based intelligent neural network models.	Concurrency and Computation: Practice and Experience, 34(6), e6772. https://doi.org/10.1002/cpe.6772	International	2021	4
26	Govindaraj, S., & Deepa, S. N.	Network energy optimization of IOTs in wireless sensor networks using capsule neural network learning model.	Wireless Personal Communications, 115(3), 2415-2436. DOI https://doi.org/10.1007/s11277-020-07688-2	International	2020	25
27	Revathi, M., Jeya, I. J. S., & Deepa, S. N.	Deep learning-based soft computing model for image classification application.	Soft Computing, 24(24), 18411-18430. DOI https://doi.org/10.1007/s00500-020-05048-7	International	2020	13
28	Natarajan, Y. J., & Subramaniam Nachimuthu, D	New SVM kernel soft computing models for wind speed prediction in renewable energy applications.	Soft Computing, 24, 11441-11458. DOI https://doi.org/10.1007/s00500-019-04608-w	International	2020	31
29	Rajesh, R., & Deepa, S. N.	Design of direct MRAC augmented with 2 DoF PIDD controller: An application to speed control of a servo plant.	Journal of King Saud University-Engineering Sciences, 32(5), 310-320. https://doi.org/10.1016/j.jksues.2019.02.005	International	2020	30
30	Ranganayaki, V., Deepa, S. N., & Maheswari, C.	Improved Wind Speed Prediction Using Various Neural Network Models.	Improved Wind Speed Prediction Using Various Neural Network Models. SSRN.	International	2020	2

Faculty Name : Dr. S. N. DEEPA
Conference Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	Sachin, G. M., Abhik Banerjee, and S. N. Deepa.	Designing a Control Strategy for PV-Wind-BESS based Microgrid system and Integrating it with a Weak Grid.	5th International Conference on Energy, Power and Environment: Towards Flexible Green Energy Technologies (ICEPE). IEEE, 2023. https://doi.org/10.1109/ICEPE57949.2023.10201497	International	2023	
2	Suguna, A., S. N. Deepa, and N. Rajasingam.	Modeling and Tuning of PID Controller for Continuous Stirred Tank Reactor.	International Conference on Artificial Intelligence for Smart Community: AISC 2020, 17–18 December, Universiti Teknologi Petronas, Malaysia. Singapore: Springer Nature Singapore, 2022. https://doi.org/10.1007/978-981-16-2183-3_77	International	2022	
3	Gajendran, P., S. N. Deepa, and N. Rajasingam.	Design and Implementation of Low Cost Energy Meter Using MIT App Inventor.	International Conference on Artificial Intelligence for Smart Community: AISC 2020, 17–18 December, Universiti Teknologi Petronas, Malaysia. Singapore: Springer Nature Singapore, 2022. https://doi.org/10.1007/978-981-16-2183-3_54	International	2022	

Sl. No	Authors	Title	Details		Year	
4	Ranganayaki, V., & Deepa, S. N.	PSO Based Emotional BPN and RBF Neural Network Models for Wind Speed Prediction.	PSO Based Emotional BPN and RBF Neural Network Models for Wind Speed Prediction.	International	2020	
5	Deepa, S. N., & Rajasingam, N.	Regulated Jordan—Elman Neural Network-Based Controller Model for Grid-Connected Wind Energy Conversion Systems.	Advances in Smart Grid Technology: Select Proceedings of PECCON 2019—Volume I (pp. 63-75). Springer Singapore.	International	2020	

Faculty Name : Dr. SUBHASH K M
Journal Publications

Sl. No	Authors	Title	Details	nal/Internat	Year	Citation
1	Subhash, K. M., and K. Paul Joseph.	Multifractal Analysis of EMG for Classification and progressive assessment of Biceps Brachii muscle strength.	Journal of Mechanics in Medicine and Biology 23.07 (2023): 2350074. https://doi.org/10.1142/S0219519423500744	International	2023	

Faculty Name : Dr. SUBHASH K M
Conference Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	Subhash, K. M., Joseph K. Paul, and P. N. Pournami..	Bi-directional LSTM for Monitoring Biceps Brachii Muscle Activity of Healthy Subjects Using sEMG Signals.	Intelligent Systems Conference. Cham: Springer Nature Switzerland, 2023. https://doi.org/10.1007/978-3-031-47718-8_32	International	2023	1
2	Subhash, K. M., & Paul Joseph, K.	Chaotic aspects of EMG signals in normal and aggressive human upper arm actions.	Modelling, Simulation and Intelligent Computing: Proceedings of MoSICom 2020 (pp. 546-554). Springer Singapore. https://doi.org/10.1007/978-981-15-4775-1_59	International	2020	2

Faculty Name : Dr. KANAGALAKSHMI S

Journal Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	Muthukumari, S., S. Kanagalakshmi, and T. K. Sunil Kumar.	Centralized model matching integer/fractional-order controller design for multivariable processes with real-time validation.	Transactions of the Institute of Measurement and Control 46.9 (2024): 1828-1841. https://doi.org/10.1177/01423312231203281	International	2024	2
2	Muthukumari, S., S. Kanagalakshmi, and Sunil Kumar TK.	Development of a novel model matching decentralized controller design algorithm and its experimental validation through load frequency controller implementation in restructured power system using TMS320F28379D controlCARD.	ISA transactions 148 (2024): 285-306. https://doi.org/10.1016/j.isatra.2024.03.027	International	2024	1
3	Muthukumari, S., Kanagalakshmi, S., & Sunil Kumar, T. K.	Integer and fractional-order model matching controller design algorithm with generalized reference model formulation for nonlinear time delay servo and regulatory problems: A real-time validation.	Transactions of the Institute of Measurement and Control, 01423312241273756. https://doi.org/10.1177/01423312241273756	International	2024	

Faculty Name : Dr. KANAGALAKSHMI S

Conference Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	Muthukumari, S., S. Kanagalakshmi, and TK Sunil Kumar.	Transmission Line Overload Relieving in Pool Based Electricity Market using TCSC.	IEEE International Conference on Power Electronics, Smart Grid, and Renewable Energy (PESGRE). https://doi.org/10.1109/PESGRE58662.2023.10404422	International	2023	
2	Muthukumari, S., Kanagalakshmi, S., & Kumar, T. S.	Optimal Selection of LQR Weighting Matrices for Frequency Control in Restructured Power System.	International Conference on Advances in Data-driven Computing and Intelligent Systems (pp. 307-320). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-99-9531-8_25	International	2023	
3	Harikrishna, B., & Kanagalakshmi, S.	Machine Learning based Fault Detection for Non-Linear Systems.	9th International Conference on Smart Computing and Communications (ICSCC) (pp. 647-652). IEEE. https://doi.org/10.1109/ICSCC59169.2023.10335072	International	2023	

4	Ashima, C. R., & Kanagalakshmi, S.	Digital State Feedback Controller and State Observer for Trajectory Tracking of Unmanned Aerial Systems.	IEEE International Conference on Power Electronics, Smart Grid, and Renewable Energy (PESGRE) (pp. 1-6). DOI: https://doi.org/10.1109/PESGRE58662.2023.10404222	International	2023	
5	Ashima, C. R., & Kanagalakshmi, S.	Minimal Parameter Estimation Based Non-Linear Control of Hexarotors With Uncertainty in Mass.	14th International Conference on Computing Communication and Networking Technologies (ICCCNT) (pp. 1-8). https://doi.org/10.1109/ICCCNT56998.2023.10306868	International	2023	
6	Jitendra, S. M., Kanagalakshmi, S., Khan, J., & Prins, S.	MRAS Speed estimator based Sensorless Direct Torque Control of Induction Motor.	IEEE Silchar Subsection Conference (SILCON) (pp. 1-6). IEEE. https://doi.org/10.1109/SILCON59133.2023.10404406	International	2023	
7	Harikrishna, B., & Kanagalakshmi, S.	Reinforcement Learning Tuned PI Controller for Two Tank Interacting Hybrid System.	IEEE Silchar Subsection Conference (SILCON) (pp. 1-7). IEEE https://doi.org/10.1109/SILCON59133.2023.10404691	International	2023	
8	Jones, D. M., & Kanagalakshmi, S.	Data Driven Control of Interacting Two Tank Hybrid System using Deep Reinforcement Learning.	IEEE 6th International Conference on Computing, Communication and Automation (ICCCA) (pp. 297-303). https://doi.org/10.1109/ICCCA52192.2021.9666405	International	2021	
9	Vijay, M. A., Kanagalakshmi, S., Raj, M. S., & George, S. N.	Hand gesture recognition system using modified SVM and hybrid ensemble classifier.	International Conference on Intelligent Technologies (CONIT) (pp. 1-6). IEEE. https://doi.org/10.1109/CONIT51480.2021.9498381	International	2021	
10	Kumaresan, R., & Kanagalaksmi, S.	Multi-model PID Control of Interacting Two Tank Hybrid System.	In Interdisciplinary Research in Technology and Management (pp. 97-105). CRC Press.	International	2021	
11	George, S., Kanagalakshmi, S., & Sudheer, A. P.	Development of a Low-Cost Autonomous, Multi-Terrain Robot with 3 DOF Arm for Outdoor Surveillance Applications.	4th International Conference on Recent Developments in Control, Automation & Power Engineering (RDCAPE) (pp. 230-234). IEEE. https://doi.org/10.1109/RDCAPE52977.2021.9633506	International	2021	
12	Kalyani, K., & Kanagalakshmi, S.	Control of Trms using Adaptive Neuro Fuzzy Inference System (ANFIS).	International Conference on System, Computation, Automation and Networking (ICSCAN) (pp. 1-5). IEEE. https://doi.org/10.1109/ICSCAN49426.2020.9262417	International	2020	6
13	Naik, R. B., & Kanagalakshmi, S.	Mathematical modelling and controller design for interacting hybrid two tank system (IHTTS)	Fourth International Conference on Inventive Systems and Control (ICISC) (pp. 297-303). IEEE. https://doi.org/10.1109/ICISC47916.2020.9171218	International	2020	8

Faculty Name : Dr. M SANJAY

Journal Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	Thrikkannoor Kolathod MJ, Sanjay M.	Use of covariance matrix images for electroencephalography signal classification for multiclass motor imagery-based brain computer interface.	Int J Imaging Syst Technol. 2024; 34(1):e22935. https://doi.org/10.1002/ima.22935	International	2024	

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Conference Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	A. Shambu, V. Dalal, B. Naik and S. M,	Automation of FSM Verification Using Formal Tools	International Conference on Communication, Circuits, and Systems (IC3S), BHUBANESWAR, India, 2023, pp. 1-5, https://doi.org/10.1109/IC3S57698.2023.10169571.	International	2023	
2	K. R. Reddy, P. Nirupam Harsha Vardhan, S. Pary, S. Sharma and M. Sanjay	A CNN-LSTM Model for Sleep Stage Scoring Using EEG Signals	International Conference on Communication, Circuits, and Systems (IC3S), BHUBANESWAR, India, 2023, pp. 1-6, https://doi.org/10.1109/IC3S57698.2023.10169177.	International	2023	
3	A. Nazar and M. Sanjay,	Automatic Localization of Epileptogenic Zone Using Nonlinear Envelope Differential Instantaneous Energy Detector and High-Frequency Oscillation Analysis	International Conference on Communication, Circuits, and Systems (IC3S), BHUBANESWAR, India, 2023, pp. 1-5, https://doi.org/10.1109/IC3S57698.2023.10169783.	International	2023	
4	M. J. T K and M. Sanjay,	Topography Based Classification for Motor Imagery BCI Using Transfer Learning	International Conference on Communication, Control and Information Sciences (ICCISc), 2021, pp. 1-5, https://doi.org/10.1109/ICCISc52257.2021.9484938.	International	2021	
5	Muhamed Jishad T K and M Sanjay	Brain Machine Interfaces: The Basics, State of the Art and Future.	GR Sinha and Varun Bajaj (Eds) Analysis of Medical Modalities for Improved Diagnosis in Modern Healthcare, CRC Press	International	2021	

Faculty Name : Dr. SHIHABUDHEEN K V
Journal Publications

Sl No	Authors	Title	Details	National/International	Year	Citation
1	Anu, A. G., C. R. Arunkumar, Hari Kumar, B. V. Annie, K. V. Shihabudheen, G. Dileep, Deepa Shaji Kumar, and S. Ushakumari.	Adaptive particle swarm optimization based controller design for stability enhancement of standalone DC microgrid.	Journal of Energy Storage 98 (2024): 113012. https://doi.org/10.1016/j.est.2024.113012	International	2024	
2	Deepak, V. D., Arun, N. K., & Shihabudheen, K. V.	An investigation into the stability of helicopter control system under the influence of time delay using an improved LKF.	Journal of the Franklin Institute, 361(10), 106913. https://doi.org/10.1016/j.jfranklin.2024.106913	International	2024	
3	Shihabudheen, K. V., Dileep, G., & Sulthan, S. M.	Adaptive Particle Swarm Optimization Based Improved Modeling of Solar Photovoltaic Module for Parameter Determination.	e-Prime-Advances in Electrical Engineering, Electronics and Energy, 100621. https://doi.org/10.1016/j.prime.2024.100621	International	2024	2
4	Anju, M., Shihabudheen, K. V., & Mija, S. J.	Enhancing grid stability: a hybrid control strategy for DFIG-based wind turbines to mitigate sub-synchronous oscillations.	Electrical Engineering, 1-32. https://doi.org/10.1007/s00202-024-02387-8	International	2024	
5	Sebastian, J., & Shihabudheen, K. V.	Adaptive control of a nonaffine nonlinear system using self-organising kernel extreme learning machine.	ISA transactions, 146, 567-581. https://doi.org/10.1016/j.isatra.2023.12.025	International	2024	1
6	Deepak, V. D., Arun, N. K., Shihabudheen, K. V., & Nandi, A.	Observer-based stabilization of discrete time-delay systems.	IFAC-PapersOnLine, 57, 43-48. https://doi.org/10.1016/j.ifacol.2024.05.008	International	2024	
7	Deepak, V. D., Arun, N. K., & Shihabudheen, K. V.	Observer based stabilization of linear time delay systems using new augmented LKF.	IFAC Journal of Systems and Control, 26, 100231. https://doi.org/10.1016/j.ifacsc.2023.100231	International	2023	2
8	Shihabudheen, K. V., & Gupta, S.	Detection of high impedance faults in power lines using empirical mode decomposition with intelligent classification techniques.	Computers and Electrical Engineering, 109, 108770. https://doi.org/10.1016/j.compeleceng.2023.108770	International	2023	4
9	Thomas, J. B., & Shihabudheen, K. V.	Neural architecture search algorithm to optimize deep transformer model for fault detection in electrical power distribution systems.	Engineering Applications of Artificial Intelligence, 120, 105890. https://doi.org/10.1016/j.engappai.2023.105890	International	2023	18

Sl No	Authors	Title	Details	National/International	Year	Citation
10	Thomas, J. B., KV, S., Sulthan, S. M., & Al-Jumaily, A.	Deep Feature Meta-Learners Ensemble Models for COVID-19 CT Scan Classification.	Electronics, 12(3), 684. https://doi.org/10.3390/electronics12030684	International	2023	3
11	Thomas, J. B., Chaudhari, S. G., Shihabudheen, K. V., & Verma, N. K.	CNN-based transformer model for fault detection in power system networks.	IEEE Transactions on Instrumentation and Measurement, 72, 1-10. https://doi.org/10.1109/TIM.2023.3238059	International	2023	56
12	Shihabudheen, K. V., & Sheik Mohammed, S.	Review and Analysis of Machine Learning Based Techniques for Load Forecasting in Smart Grid System.	Hybrid Intelligent Approaches for Smart Energy: Practical Applications, 1-26. https://doi.org/10.1002/9781119821878.ch1	International	2022	1
13	Sulaiman, S. M., Jeyanthy, P. A., Devaraj, D., & Shihabudheen, K. V.	A novel hybrid short-term electricity forecasting technique for residential loads using Empirical Mode Decomposition and Extreme Learning Machines.	Computers & Electrical Engineering, 98, 107663. https://doi.org/10.1016/j.compeleceng.2021.107663	International	2022	45
14	Deepak, V. D., Arun, N. K., & Shihabudheen, K. V.	Time-delay systems: Recent trends and advancements.	IFAC-PapersOnLine, 55(1), 290-297. https://doi.org/10.1016/j.ifacol.2022.04.048	International	2022	1
15	Mohammed, S. S., & Shihabudheen, K. V.	Performance analysis of a DC stand-alone microgrid with an efficient energy management system.	In Residential Microgrids and Rural Electrifications (pp. 233-253). Academic Press. https://doi.org/10.1016/B978-0-323-90177-2.00006-2	International	2022	
16	Peethambaran, B., Anbalagan, R., Kanungo, D. P., Goswami, A., & Shihabudheen, K. V.	A comparative evaluation of supervised machine learning algorithms for township level landslide susceptibility zonation in parts of Indian Himalayas.	Catena, 195, 104751. https://doi.org/10.1016/j.catena.2020.104751	International	2020	
17	Kumar, A. S., & Shihabudheen, K. V.	Detection of High Impedance Fault Using Discrete Wavelet Transform.	Solid State Technology, 5895-5906.	International	2020	

Faculty Name : Dr. SHIHABUDHEEN K V
Conference Publications

Sl No	Authors	Title	Details	National/International	Year	Citation
1	Jose, A., & Shihabudheen, K. V.	An Intelligent Consensus Control of Multiagent System based on Adaptive Active Disturbance Rejection Control.	IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT) (pp. 1-6). IEEE. https://doi.org/10.1109/CONECCT62155.2024.10677228	International	2024	

2	Sebastian, J., & Shihabudheen, K. V.	Direct Adaptive Control of Nonaffine Magnetic Levitation System Using Radial Basis Function Neural Network.	International Conference on Emerging Techniques in Computational Intelligence (ICETCI) (pp. 303-308). IEEE. https://doi.org/10.1109/ICETCI58599.2023.10331257	International	2023	1
3	Joy, A., & Shihabhudheen, K. V.	Adaptive Neural Dynamic Surface Control for Course Tracking of Ships With Full state Constraints.	International Conference on Emerging Techniques in Computational Intelligence (ICETCI) (pp. 309-313). IEEE. https://doi.org/10.1109/ICETCI58599.2023.10331052	International	2023	
4	Yadav, B., & Shihabudheen, K. V.	Model Predictive Control of Non-Minimum Phase DC-DC Boost Converter.	5th International Conference on Energy, Power and Environment: Towards Flexible Green Energy Technologies (ICEPE) (pp. 1-6). IEEE. https://doi.org/10.1109/ICEPE57949.2023.10201649	International	2023	
5	Bishen, H. K., Shihabudheen, K. V., & Shanir, P. M.	Adaptive Cruise Control Using Twin Delayed Deep Deterministic Policy Gradient.	5th International Conference on Energy, Power and Environment: Towards Flexible Green Energy Technologies (ICEPE) (pp. 1-6). IEEE. https://doi.org/10.1109/ICEPE57949.2023.10201488	International	2023	
6	Bhangale, N. S., Arun, N. K., & Shihabudheen, K. V.	Impact of Multiple Time Varying Delay on the Stability of Load Frequency Control System with EV Aggregator.	5th International Conference on Energy, Power and Environment: Towards Flexible Green Energy Technologies (ICEPE) (pp. 1-6). IEEE. https://doi.org/10.1109/ICEPE57949.2023.10201522	International	2023	1
7	Anju, M., Shihabudheen, K. V., & Mija, S. J.	LVRT Capability Enhancement of DFIG with FACT Device and Superconducting Technology.	IEEE 19th India Council International Conference (INDICON) (pp. 1-7). IEEE. https://doi.org/10.1109/INDICON56171.2022.10039938	International	2022	1
8	Roy, D. M., Shihabudheen, K. V., Singh, S., & Navada, A.	Deep Learning Based 3D Object Detection with Time-of-Flight.	International Conference on Emerging Techniques in Computational Intelligence (ICETCI) (pp. 13-20). IEEE. DOI: 10.1109/ICETCI55171.2022.9921375	International	2022	
9	Moon, P. U., & Shihabudheen, K. V.	Laguerre Function based Model Predictive Control Strategy for Feedback Linearizable Doubly Fed Induction Generator System.	IEEE IAS Global Conference on Emerging Technologies (GlobConET) (pp. 680-686). IEEE. DOI: 10.1109/GlobConET53749.2022.9872174	International	2022	
10	Shihabudheen, K. V.	Detection of high impedance fault using advanced ELM-based neuro-fuzzy inference system.	In Control and Measurement Applications for Smart Grid: Select Proceedings of SGESC 2021 (pp. 397-408). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-16-7664-2_32	International	2022	2
11	Manjunath, V., & Shihabudheen, K. V.	Comparative Study of Abalone Age Prediction Using Classical Machine Learning Algorithms and Extreme Learning Machine.	In Advanced Computational Paradigms and Hybrid Intelligent Computing: Proceedings of ICACCP 2021 (pp. 211-220). Springer Singapore. https://doi.org/10.1007/978-981-16-4369-9_22	International	2022	
12	Thamminaidu, V., & Shihabudheen, K. V.	Model Predictive Control (MPC) of System Identified Continuous Stirred Tank Reactor (CSTR) with Constraints.	IEEE 6th International Conference on Computing, Communication and Automation (ICCCA) (pp. 195-201). IEEE. DOI: 10.1109/ICCCA52192.2021.9666313	International	2021	4

13	Gupta, S., Shihabudheen, K. V., Anju, M., & Kunju, B.	Intelligent detection of high impedance fault using extreme learning machine.	In 2021 13th IEEE PES Asia Pacific Power & Energy Engineering Conference (APPEEC) (pp. 1-6). IEEE. DOI: 10.1109/APPEEC50844.2021.9687705	International	2021	3
14	Thomas, J. B., Devvarma, M., & Shihabudheen, K. V.	Deep Ensemble Approaches for Classification of COVID-19 in Chest X-Ray Images.	International Conference on Innovation and Intelligence for Informatics, Computing, and Technologies (3ICT) (pp. 463-468). IEEE. DOI: 10.1109/3ICT53449.2021.9581389	International	2021	1
15	Gopakumar, K., & Shihabudheen, K. V.	Leader follower distributed consensus control of heterogeneous multi-agent system with model predictive control.	International Symposium of Asian Control Association on Intelligent Robotics and Industrial Automation (IRIA) (pp. 25-30). IEEE. DOI: 10.1109/IRIA53009.2021.9588671	International	2021	3
16	Shihabudheen, K. V.	Gradient based Optimal State Feedback Control design for Feedback Linearizable Nonlinear Nonaffine system.	3rd International Conference on Energy, Power and Environment: Towards Clean Energy Technologies (pp. 1-6). IEEE. DOI: 10.1109/ICEPE50861.2021.9404412	International	2021	
17	Sobin, C. C., Shihabudheen, K. V., & Ali, J.	An Investigation on IoT-based Applications and Experimental Analysis of Biomedical Data.	International Conference on Futuristic Technologies in Control Systems & Renewable Energy (ICFCR) (pp. 1-6). IEEE. DOI: 10.1109/ICFCR50903.2020.9249962	International	2020	
18	Roshin, R., & Shihabudheen, K. V.	Tip point control of a flexible beam using robust Mu synthesis controller.	International Conference on Futuristic Technologies in Control Systems & Renewable Energy (ICFCR) (pp. 1-6). IEEE.	International	2020	2

Faculty Name : Dr. K. M. ARUN NEELIMEGHAM
Journal Publications

Sl No	Authors	Title	Details	National/International	Year	Citation
1	Deepak, V. D., Arun, N. K., & Shihabudheen, K. V.	An investigation into the stability of helicopter control system under the influence of time delay using an improved LKF.	Journal of the Franklin Institute, 361(10), 106913. https://doi.org/10.1016/j.jfranklin.2024.106913	International	2024	
2	Deepak, V. D., Arun, N. K., Shihabudheen, K. V., & Nandi, A.	Observer-based stabilization of discrete time-delay systems.	IFAC-PapersOnLine, 57, 43-48. https://doi.org/10.1016/j.ifacol.2024.05.008	International	2024	
3	Deepak, V. D., Arun, N. K., & Shihabudheen, K. V.	Observer based stabilization of linear time delay systems using new augmented LKF.	IFAC Journal of Systems and Control, 26, 100231. https://doi.org/10.1016/j.ifacsc.2023.100231	International	2023	2

Sl. No	Authors	Title	Details	National/International	Year	Citation
4	Deepak, V. D., Arun, N. K., & Shihabudheen, K. V.	Time-delay systems: Recent trends and advancements.	IFAC-PapersOnLine, 55(1), 290-297. https://doi.org/10.1016/j.ifacol.2022.04.048	International	2022	1

Faculty Name : Dr. K. M. ARUN NEELIMEGHAM
Conference Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	Bhangale, N. S., Arun, N. K., & Shihabudheen, K. V.	Impact of Multiple Time Varying Delay on the Stability of Load Frequency Control System with EV Aggregator.	5th International Conference on Energy, Power and Environment: Towards Flexible Green Energy Technologies (ICEPE) (pp. 1-6). IEEE. DOI: 10.1109/ICEPE57949.2023.10201522	International	2023	1
2	Bhangale, N. S., Arun, N. K., & Deepak, V. D.	Stability Analysis of EV Aggregated Load Frequency Control System using LKF Approach.	4th International Conference for Emerging Technology (INCET) (pp. 1-6). IEEE. DOI: 10.1109/INCET57972.2023.10169923	International	2023	
3	SaiSangeeth, U., & Arun, N. K.	Fuzzy Logic Control of DC-DC Buck Converter in DC Distribution System with Constant Power Load.	In International Conference on Artificial Intelligence Techniques for Electrical Engineering Systems (AITEES 2022) (pp. 180-191). Atlantis Press. DOI: 10.2991/978-94-6463-074-9_16	International	2022	
4	Dileep, K., Mija, S. J., & Arun, N. K.	Trajectory Tracking with RBF Network Estimator and Dynamic Adaptive SMC Controller for Robot Manipulator.	In International Conference on Robotics, Control, Automation and Artificial Intelligence (pp. 263-276). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-99-4634-1_21	International	2022	
5	Arun, N. K.	Gain Scheduled Adaptive Model Predictive Controller Design for Quadruple Conical Tank System.	3rd International Conference for Emerging Technology (INCET) (pp. 1-6). IEEE. DOI: 10.1109/INCET54531.2022.9824024	International	2022	
6	Nandi, A., & Arun, N. K.	Improved State Feedback Controller Design Using Lyapunov-Krasovskii Functional for Linear Discrete Systems with time-delay.	3rd International Conference for Emerging Technology (INCET) (pp. 1-6). IEEE. DOI: 10.1109/INCET54531.2022.9825247	International	2022	
7	Balakrishnaa, A. V., & Arun, N. K.	Liquid level control of interacting coupled spherical tank system using PI and Fuzzy Pi Controller.	3rd International Conference for Emerging Technology (INCET) (pp. 1-5). IEEE. DOI: 10.1109/INCET54531.2022.9824570	International	2022	9
8	Rajendra Prasad, K. C., Arun, N. K., & Venkatesh, M.	An improved stabilization criteria for linear systems with time-varying delay using a new Lyapunov–Krasovskii functional.	In Control and Measurement Applications for Smart Grid: Select Proceedings of SGESC 2021 (pp. 335-346). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-16-7664-2_27	International	2022	4

Sl No	Authors	Title	Details	National/International	Year	Citation
9	Aarti, D. S., & Arun, N. K.	Liquid level control of quadruple conical tank system using linear PI and fuzzy PI controllers.	2nd International Conference for Emerging Technology (INCET) (pp. 1-5). IEEE. DOI: 10.1109/INCET51464.2021.9456375	International	2021	4
10	Arun, N. K.	Nonlinear PI or PD Controller using Fuzzy Logic-Analytical Modelling, and Computational and Performance Analysis.	IEEE Applied Signal Processing Conference (ASPCON) (pp. 364-368). IEEE. DOI: 10.1109/ASPCON49795.2020.9276683	International	2020	

Faculty Name : Dr. MITHUN M. S.
Conference Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	Sakthivel, M., & Tarafdar, U.	Performance Analysis of a New Non-contact, Potentiometric Angle Sensor.	IEEE International IOT, Electronics and Mechatronics Conference (IEMTRONICS) (pp. 1-7). IEEE. DOI: 10.1109/IEMTRONICS55184.2022.9795728	International	2022	
2	Sakthivel, M., Tarafdar, U., & Anoop, C. S.	A simple linear circuit for angle measurements using a non-contact potentiometer.	IEEE Delhi Section Conference (DELCON) (pp. 1-7). IEEE. DOI: 10.1109/DELCON54057.2022.9753126	International	2022	2

Faculty Name : Dr. RAKESH R WARIER
Journal Publications

Sl No	Authors	Title	Details	National/International	Year	Citation
1	Gopika, R., Jagtap, P., Resmi, V., Warier, R. R., & Dhongdi, S. C.	Prescribed Performance Control for Multi-Cluster Consensus using Matrix-Weighted Interactions.	IFAC-PapersOnLine, 57, 321-326. https://doi.org/10.1016/j.ifacol.2024.05.055	International	2024	
2	Gopika, R., Sharma, A., & Warier, R. R.	Bipartite consensus in the presence of denial of service adversary.	IFAC-PapersOnLine, 55(1), 771-776. https://doi.org/10.1016/j.ifacol.2022.04.126	International	2022	1
3	Sumathy, V., Warier, R., & Ghose, D.	Design, reachability analysis, and constrained motion planning for a quadcopter manipulator system.	In AIAA Scitech 2022 Forum (p. 0269). https://doi.org/10.2514/6.2022-0269	International	2022	3

Sl. No	Authors	Title	Details	National/International	Year	Citation
4	Hamrah, R., Warier, R. R., & Sanyal, A. K.	Finite-time stable estimator for attitude motion in the presence of bias in angular velocity measurements.	Automatica, 132, 109815. https://doi.org/10.1016/j.automatica.2021.109815	International	2021	12
	Li, X., Sanyal, A. K., Warier, R. R., & Qiao, D.	Landing of hopping rovers on Irregularly-shaped small bodies using attitude control.	Advances in Space Research, 65(11), 2674-2691. https://doi.org/10.1016/j.asr.2020.02.029	International	2020	14

Faculty Name : Dr. RAKESH R WARIER
Conference Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation	
1	Sumathy, V., Warier, R. R., & Ghose, D.	Effect of constraints and vertical wall interaction on workspace of a quadcopter manipulator system.	Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 237(15), 3392-3412. https://doi.org/10.1177/09544100231193133	International	2023	1	
2	Gopika, R., Resmi, V., & Warier, R. R.	Cluster consensus of multi-agent systems with second order dynamics over matrix-weighted graphs.	In 2022 Eighth Indian Control Conference (ICC) (pp. 1-6). IEEE. DOI: 10.1109/ICC56513.2022.10093252	International	2022	1	
3	Ghosh, G., & Warier, R. R.	Finite Time Control on Unit Sphere with an Application to Trajectory Tracking Control of UAVs.	Eighth Indian Control Conference (ICC) (pp. 308-313). IEEE. DOI: 10.1109/ICC56513.2022.10093301	International	2022		
4	Gopika, R., Resmi, V., & Warier, R. R.	Cluster consensus in multi-partitioned matrix weighted graphs.	13th Asian Control Conference (ASCC) (pp. 1184-1189). IEEE. DOI: 10.23919/ASCC56756.2022.9828008	International	2022	2	

Faculty Name : Dr. SATHIYA S
Journal Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	Kumari, N., & Sathiya, S.	Performance enhanced nonlinearity compensation of thermocouple using convolutional neural network.	Journal of The Institution of Engineers (India): Series B, 1-10. https://doi.org/10.1007/s40031-023-00854-7	International	2023	3

Faculty Name : Dr. SATHIYA S

Conference Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	Antony, C., Selvaraj, T., Mohanakrishnan, D., Ghodke, P. K., Sivaprakasam, S., & Sharma, A. K.	Microbial Application in Food Industry	Sustainable Production Innovations: Bioremediation and Other Biotechnologies, 273-306. https://doi.org/10.1002/9781119792888.ch9	International	2024	
2	Antony, C., Ghodke, P. K., Thiyagarajan, S., Selvaraj, T., Sivaprakasam, S., & Sharma, A. K.	Microbial Degradation of Plastics.	Sustainable Production Innovations: Bioremediation and Other Biotechnologies, 57-102.https://doi.org/10.1002/9781119792888.ch2	International	2024	
3	Sathiya, S., Antony, C., & Ghodke, P. K.	Smart Agriculture: Emerging and Future Farming Technologies.	Recent Trends and Best Practices in Industry 4.0, 135-181.	International	2023	1
4	Sathiya, S., & Kumar, S.	Investigation on the Performance of Modified Piezoelectric Cantilever Energy Harvester and Storage for Wireless Sensor Node.	In Recent Advances in Mechanical Engineering: Select Proceedings of CAMSE 2021 (pp. 963-974). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-19-2188-9_87	International	2022	1
5	Shukla, P. K., & Sathiya, S.	Early detection of potato leaf diseases using convolutional neural network with web application.	IEEE World Conference on Applied Intelligence and Computing (AIC) (pp. 277-282). IEEE. DOI: 10.1109/AIC55036.2022.9848975	International	2022	10
6	Sathiya, S., Antony, C., & Ghodke, P. K.	Plant disease identification using IoT and deep learning algorithms.	Artificial Intelligence on Signal Processing and Wireless Communication, 11(11).https://doi.org/10.1515/9783110734652	International	2022	1
7	Kumari, N., & Sathiya, S.	An Intelligent Temperature Sensor with Non-linearity Compensation Using Convolutional Neural Network.	International Conference on Industrial Instrumentation and Control: ICI2C 2021 (pp. 319-327). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-16-7011-4_32	International	2022	2
8	Santhi, T. M., & Sathiya, S.	Online Liquid Level Estimation in Dynamic Environments Using Artificial Neural Network.	Artificial Intelligence (AI) (pp. 93-110). CRC Press.	International	2021	
9	Kumari, K., & Sathiya, S.	Structural Optimization of 2-DOF Cantilever Based Energy Harvester Using Krill-Herd Algorithm to Obtain Maximum Efficiency.	First IEEE International Conference on Measurement, Instrumentation, Control and Automation (ICMICA) (pp. 1-4). IEEE. DOI: 10.1109/ICMICA48462.2020.9242705	International	2020	
10	Sathiya, S., & Sikander, A.	Online Estimation of Liquid Viscosity and Density Based on Artificial Neural Network Approach.	Soft Computing: Theories and Applications: Proceedings of SoCTA 2018 (pp. 1403-1412). Springer Singapore. DOI https://doi.org/10.1007/978-981-15-0751-9_128	International	2020	

Sl. No	Authors	Title	Details	National/International	Year	Citation
11	Sikander, A., Singh, S. S., Verma, O. P., Sathiya, S., Sharma, V., & Dutt, S.	A New System Approximation Approach for Modelling of DC–DC Converter.	Soft Computing: Theories and Applications: Proceedings of SoCTA 2018 (pp. 1363-1372). Springer Singapore. DOI https://doi.org/10.1007/978-981-15-0751-9_124	International	2020	

Faculty Name : Dr. RANJITH RAVINDRANATHAN NAIR
Journal Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	Nandanwar, A., Nair, R. R., & Behera, L.	Fuzzy inferencing-based path planning with a cyber-physical framework and adaptive second-order Smc for routing and mobility control in a robotic network.	IET Cyber-Systems and Robotics, 2(3), 149-160. https://doi.org/10.1049/iet-csr.2020.0020		2020	8

Faculty Name : Dr. RANJITH RAVINDRANATHAN NAIR
Conference Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	Kamath, A. K., Dam, T., Maurya, H. L., Singh, P., Nair, R. R., & Nahavandi, S.	Modelling and Sliding Mode Control of a Stereo Vision Augmented 6 DoF Quadrotor System.	21st International Conference on Advanced Robotics (ICAR) (pp. 425-430). IEEE. DOI: 10.1109/ICAR58858.2023.10407005	International	2023	1
2	Vaish, D., & Nair, R. R	Robust Battery Management System for Electric Vehicles.	International Conference on Computer, Electronics & Electrical Engineering & their Applications (IC2E3) (pp. 1-6). IEEE. DOI: 10.1109/IC2E357697.2023.10262779	International	2023	
3	Sajna, S., & Nair, R. R.	Learning-Based Smart Parking System.	International Conference on Computational Intelligence: ICCI 2021 (pp. 147-158). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-19-2126-1_11	International	2023	1
4	Kamath, A. K., Yogi, S. C., Behera, L., Nair, R. R., & Nahavandi, S.	Back-stepping Nonlinear Integral Sliding Mode Control of a Vision Augmented 3 DoF Quadrotor in the presence of System Uncertainties and Bounded Disturbances.	IEEE 17th International Conference on Control & Automation (ICCA) (pp. 541-546). IEEE. DOI: 10.1109/ICCA54724.2022.9831815	International	2022	1
5	Behera, L., Kumar, S., Patchaikani, P. K., Nair, R. R., & Dutta, S.	Intelligent control of robotic systems.	Intelligent control of robotic systems. CRC Press. https://doi.org/10.1201/9780429486784	International	2020	10

Faculty Name : Dr. RAHUL RADHAKRISHNAN
Journal Publications

Sl No	Authors	Title	Details	National/International	Year	Citation
1	Urooj, A., & Radhakrishnan, R.	Maximum correntropy-based pseudolinear Kalman filter for passive bearings-only target tracking.	Control Theory and Technology, 1-13. https://doi.org/10.1007/s11768-024-00212-y	International	2024	
2	Chaulya, S., Urooj, A., & Radhakrishnan, R.	Mixture Maximum Correntropy Unscented Kalman Filter for Angles-Only Target Tracking Problem.	IFAC-PapersOnLine, 57, 367-372. https://doi.org/10.1016/j.ifacol.2024.05.063	International	2024	
3	Sagar, A., Radhakrishnan, R., & Raja, G. L.	Cascade plus Feedforward Control Strategy for Enhanced Regulation in Maglev System.	IFAC-PapersOnLine, 57, 355-360. https://doi.org/10.1016/j.ifacol.2024.05.061	International	2024	1
4	Urooj, A., Radhakrishnan, R., & Sharma, S. N.	Speed and Range Parameterised State Estimators for 3D underwater angles-only target tracking problem.	IFAC-PapersOnLine, 56(2), 8054-8059. https://doi.org/10.1016/j.ifacol.2023.10.932	International	2023	
5	Urooj, A., Chaulya, S., & Radhakrishnan, R.	Numerically Stable Centered Error Entropy and Mixture Minimum Error Entropy Estimators for Bearings-Only Target Tracking Problem.	IEEE Sensors Letters, 7(12), 1-4. DOI: 10.1109/LSENS.2023.3335122	International	2023	1
6	Urooj, A., & Radhakrishnan, R.	New robust state-estimation frameworks for angles-only underwater target tracking problems.	International Journal of Adaptive Control and Signal Processing. https://doi.org/10.1002/acs.3716	International	2023	
7	Sagar, A., Radhakrishnan, R., & Raja, G. L.	Experimentally validated frequency shifted internal model cascade control strategy for magnetic levitation system.	IFAC Journal of Systems and Control, 26, 100234. https://doi.org/10.1016/j.ifacsc.2023.100234	International	2023	6
8	Dak, A., & Radhakrishnan, R.	Non-iterative Cauchy kernel-based maximum correntropy cubature Kalman filter for non-Gaussian systems.	Control Theory and Technology, 20(4), 465-474. https://doi.org/10.1007/s11768-022-00116-9	International	2022	6
9	Urooj, A., & Radhakrishnan, R.	Range parameterised maximum correntropy unscented Kalman filter for two dimensional angles-only target tracking problems.	IFAC-PapersOnLine, 55(22), 218-223. https://doi.org/10.1016/j.ifacol.2023.03.037	International	2022	

10	Urooj, A., Dak, A., Ristic, B., & Radhakrishnan, R.	2D and 3D angles-only target tracking based on maximum correntropy Kalman filters.	Sensors, 22(15), 5625. https://doi.org/10.3390/s22155625	International	2022	11
11	Khandelwal, R., Urooj, A., & Radhakrishnan, R.	Parameterised state estimation approach for 2-dimensional underwater bearings only target tracking.	IFAC-PapersOnLine, 55(1), 801-806. https://doi.org/10.1016/j.ifacol.2022.04.131	International	2022	3
12	Radhakrishnan, R., Asfia, U., & Sharma, S.	Gaussian sum state estimators for three dimensional angles-only underwater target tracking problems.	IFAC-PapersOnLine, 55(1), 333-338. https://doi.org/10.1016/j.ifacol.2022.04.055	International	2022	3
13	Dak, A., & Radhakrishnan, R.	Tracking and interception of a spiralling ballistic target on reentry.	IFAC-PapersOnLine, 55(1), 339-344. https://doi.org/10.1016/j.ifacol.2022.04.056	International	2022	4
14	Asfia, U., Radhakrishnan, R., & Sharma, S. N.	Three-dimensional bearings-only target tracking: Comparison of few sigma point Kalman filters.	Communication and Control for Robotic Systems, 273-289. https://doi.org/10.1007/978-981-16-1777-5_17	International	2022	11
15	Radhakrishnan, R., Saha, M., Bhaumik, S., & Tomar, N. K.	Tracking and interception of a ballistic target on reentry using adaptive gaussian sum quadrature filters.	Communication and Control for Robotic Systems, 255-272. https://doi.org/10.1007/978-981-16-1777-5_16	International	2022	2
16	Singh, A. K., Kumar, S., Kumar, N., & Radhakrishnan, R.	Bayesian approximation filtering with false data attack on network.	IEEE Transactions on Aerospace and Electronic Systems, 58(2), 976-988. DOI: 10.1109/TAES.2021.3117664	International	2021	10
17	Asfia, U., Radhakrishnan, R., & Sharma, S. N.	Three-dimensional bearings-only target tracking: Comparison of few sigma point Kalman filters.	Communication and Control for Robotic Systems, 273-289 https://doi.org/10.1007/978-981-16-1777-5_17	International	2021	
18	Radhakrishnan, R., Saha, M., Bhaumik, S., & Tomar, N. K.	Tracking and interception of a ballistic target on reentry using adaptive gaussian sum quadrature filters.	Communication and Control for Robotic Systems, 255-272. DOI https://doi.org/10.1007/978-981-16-1777-5_16	International	2021	

Faculty Name : Dr. RAHUL RADHAKRISHNAN
Conference Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	Mohapatra, M. R., Radhakrishnan, R., & Shukla, R. M.	A Hybrid Approach using ARIMA, Kalman Filter and LSTM for Accurate Wind Speed Forecasting.	IEEE International Symposium on Smart Electronic Systems (iSES) (pp. 425-428). IEEE. DOI: 10.1109/iSES58672.2023.00095	International	2023	1
2	Dak, A., Urooj, A., & Radhakrishnan, R.	Estimation and interception of a spiralling target on reentry in the presence of non-Gaussian measurement noise.	International Conference on Connected Systems & Intelligence (CSI) (pp. 1-8). IEEE. DOI: 10.1109/CSI54720.2022.9924065	International	2022	1
3	Das, S., Kumar, K., Radhakrishnan, R., & Bhaumik, S.	Bearing-only tracking using range-parameterized shifted Rayleigh filter.	OCEANS 2022-Chennai (pp. 1-5). IEEE.DOI: 10.1109/OCEANSChennai45887.2022.9775468	International	2022	

Faculty Name : Dr. HASEENA B. A
Journal Publications

Sl. No	Authors	Title	Details	National/International	Year	Citation
1	Haseena, B. A., & Srinivasan, K.	Scalable multiple linear model RTDA controller formulation for constrained nonlinear processes.	Optimal Control Applications and Methods, 43(2), 435-458. https://doi.org/10.1002/oca.2822	International	2022	
2	Haseena, B. A., & Srinivasan, K.	Design and Development of Constrained Next-Generation Controller with and without Event Triggered Mechanism for Single Link Robot Arm.	Automatic Control and Computer Sciences, 55, 407-418. DOI https://doi.org/10.3103/S0146411621050035	International	2021	1
3	Shuprajhaa, T., Haseena, B. A., & Srinivasan, K.	Design and development of modified RTD-A controller for unstable bioreactor.	IFAC-PapersOnLine, 53(1), 240-245. https://doi.org/10.1016/j.ifacol.2020.06.041	International	2020	2