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Kvalifikationer

Control System, Ph.D., ntelligent control of Ball Balancer and Helicopter Systems, Delhi Technological University
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Ansættelse

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Publikationer

Characterizing Manipulator Motion Using an Evolving Type 2 Quantum Fuzzy Neural Network
Singh, R. & Sloth, C., 2024, *2024 IEEE/SICE International Symposium on System Integration (SII).* IEEE, s. 1439-1444 (IEEE/SICE International Symposium on System Integration).

Advanced power converters and learning in diverse robotic innovation: a review
Singh, R., Kurukuru, V. S. B. & Khan, M. A., 19. okt. 2023, I: Energies. 16, 20, 28 s., 7156.

Reinforcement Learning-Based Model-Free Controller for Feedback Stabilization of Robotic Systems
Singh, R. & Bhushan, B., okt. 2023, I: IEEE Transactions on Neural Networks and Learning Systems. 34, 10, s. 7059-7073

Health Monitoring Framework for Electric Vehicle Drive Train in Digital Twin
Kurukuru, V. S. B., Khan, M. A. & Singh, R., sep. 2023, *2023 25th European Conference on Power Electronics and Applications (EPE'23 ECCE Europe).* IEEE, 10 s.

Deterministic Framework based Structured Learning for Quadrotors
Singh, R., Steinbrener, J. & Weiss, S., 2023, *2023 27th International Conference on Methods and Models in Automation and Robotics (MMAR).* IEEE, s. 99-104 (International Conference on Methods and Models in Automation and Robotics).

Electric Vehicle Charging/Discharging Models for Estimation of Load Profile in Grid Environments
Kurukuru, V. S. B., Khan, M. A. & Singh, R., 2023, I: Electric Power Components and Systems. 51, 3, s. 279-295

Online Learning-based Islanding Detection Scheme for Grid-Connected Systems
Khan, M. A., Kurukuru, V. S. B. & Singh, R., 17. okt. 2022, *2022 24th European Conference on Power Electronics and Applications (EPE'22 ECCE Europe).* IEEE, 10 s.

Evolving Intelligent System for Trajectory Tracking of Unmanned Aerial Vehicles
Singh, R. & Bhushan, B., jul. 2022, I: IEEE Transactions on Automation Science and Engineering. 19, 3, s. 1971-1984

Adaptive control using stochastic approach for unknown but bounded disturbances and its application in balancing control
Singh, R. & Bhushan, B., maj 2022, I: Asian Journal of Control. 24, 3, s. 1304-1320

Improved ant colony optimization for achieving self-balancing and position control for balancer systems
Singh, R. & Bhushan, B., 29. aug. 2021, I: Journal of Ambient Intelligence and Humanized Computing. 12, 8, s. 8339–8356

Condition Monitoring Based Control Using Wavelets and Machine Learning for Unmanned Surface Vehicles
Singh, R. & Bhushan, B., aug. 2021, I: IEEE Transactions on Industrial Electronics. 68, 8, s. 7464 - 7473

Randomized algorithms for probabilistic analysis of parametric uncertainties with unmanned helicopters
Singh, R. & Bhushan, B., 1. maj 2021, I: Mechanical Systems and Signal Processing. 152

Randomized probabilistic approach for parametric uncertainties in unmanned helicopters
Singh, R. & Bhushan, B., mar. 2021, I: Optimal Control Applications and Methods. 42, 2, s. 376-394

Application of Stochastic Approximation for Self-tuning of PID in Unmanned Surface Vehicles
Singh, R. & Bhushan, B., 2021, *International Conference on Innovative Computing and Communications: Proceedings of ICICC 2020, Volume 1.* Springer, s. 965–973

Data-driven model for state of health estimation of lithium-ion battery
Singh, R., Kurukuru, V. S. B. & Khan, M. A., 2021, Springer. (Advances in Intelligent Systems and Computing, Bind 1257).

Data-Driven Technique-Based Fault-Tolerant Control for Pitch and Yaw Motion in Unmanned Helicopters
Singh, R. & Bhushan, B., 2021, I: IEEE Transactions on Instrumentation and Measurement. 70, 11 s.

Fault classification using support vectors for unmanned helicopters
Singh, R. & Bhushan, B., 2021, *Computational Methods and Data Engineering: Proceedings of ICMDE 2020, Volume 1.* Springer, s. 369–384

Improving Self-Balancing and Position Tracking Control for Ball Balancer Application with Discrete Wavelet Transform-Based Fuzzy Logic Controller
Singh, R. & Bhushan, B., 2021, I: International Journal of Fuzzy Systems. 23, 1, s. 27–41

Position tracking and balancing control of ball balancer system using intelligent controllers
Varshney, A., Bhushan, B. & Singh, R., 2021, I: International Journal of Modelling, Identification and Control. 37, 1, s. 69-79 11 s.

State of Charge Estimation Using Data-Driven Techniques for Storage Devices in Electric Vehicles
Singh, R., Khan, M. A. & Kurukuru, V. S. B., 2021, Springer. 8 s. (Advances in Intelligent Systems and Computing, Bind 1165).

A novel fault classification-based fault-tolerant control for two degree of freedom helicopter systems
Singh, R. & Bhushan, B., aug. 2020, I: International Journal of Adaptive Control and Signal Processing. 34, 8, s. 1080-1104

Real-time control of ball balancer using neural integrated fuzzy controller
Singh, R. & Bhushan, B., 1. jan. 2020, I: Artificial Intelligence Review. 53, 1, s. 351–368

Control of drum level dynamics in Coal-Fired Boiler-Turbine Units
Singh, R., Khan, M. A. & Kurukuru, V. S. B., nov. 2019, *2019 International Conference on Power Electronics, Control and Automation, ICPECA 2019 - Proceedings.* IEEE

Fault Classification for Unmanned Surface Vehicles using Supervised Learning Methods
Singh, R. & Bhushan, B., nov. 2019, *2019 International Conference on Power Electronics, Control and Automation, ICPECA 2019 - Proceedings.* IEEE, 6 s.

Real-Time Simulation and Control of Helicopter Systems
Singh, R., Bhushan, B. & Varshney, A., nov. 2019, *2019 International Conference on Power Electronics, Control and Automation, ICPECA 2019 - Proceedings.*

Adaptive Neuro-Fuzzy-PID and Fuzzy-PID-Based Controller Design for Helicopter System
Singh, R. & Bhushan, B., 2019, *Applications of Computing, Automation and Wireless Systems in Electrical Engineering.* Springer, s. 281–293 (Lecture Notes in Electrical Engineering, Bind 553).

Performance optimization of UPFC assisted hybrid power system
Kurukuru, V. S. B., Khan, M. A. & Singh, R., 13. jun. 2018, *2018 IEEMA Engineer Infinite Conference, eTechNxT 2018.* Urooj, U. S. & Mukhopadhyay, S. (red.). s. 1-6

A review on Cubli and non linear control strategy
Singh, R., Tayal, V. K. & Singh, H. P., 13. feb. 2017, *1st IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems, ICPEICES 2016.* 7853425

Intelligent pitch angle control for wind-doubly fed induction generator system
Khan, M. A., Kurukuru, V. S. B., Singh, R., Gupta, A. & Dehury, S. S., 2016, *India International Conference on Power Electronics, IICPE.*