

Theme 1-1: Robotics and Intelligent Autonomous Systems - 2023

Title	Authors	Scopus Source title	Source type
A hybrid cable-driven parallel robot as a solution to the limited rotational workspace issue	Ennaïem, F. Chaker, A. Sandoval, J. Mlika, A. Romdhane, L. Bennour, S. Zeghloul, S. Laribi, M.A.	Robotics	Journal
Variational Bayesian-Based Maximum Correntropy Cubature Kalman Filter Method for State-of-Charge Estimation of Li-Ion Battery Cells	Hafez, I. Wadi, A. Abdel-Hafez, M.F. Hussein, A.A.	IEEE Transactions on Vehicular Technology	Journal
Partial Discharge Localization in Power Transformers Using Invariant Extended Kalman Filter	Al-Masri, W. Wadi, A. Abdel-Hafez, M.F. Hashim, H.A. El-Hag, A.H.	IEEE Transactions on Instrumentation and Measurement	Journal
Optimal Design and Experimental Validation of a Cable-Driven Parallel Robot for Movement Training of the Head–Neck Joint	Kozulinski, A. Ennaïem, F. Sandoval, J. Romdhane, L. Laribi, M.A.	Robotics	Journal
An Intelligent Controller for an Assisted Electric Wheelchair based on Interval Type-2 Fuzzy Logic	Al-Bashayreh, Q.A.H. Kiftaro, A. Alsheikh, M. Jaradat, M.A.	2023 Advances in Science and Engineering Technology International Conferences, ASET 2023	Conference Proceeding
An Invariant Method for Electric Vehicle Battery State-of-Charge Estimation Under Dynamic Drive Cycles	Wadi, A. Abdel-Hafez, M. Hashim, H.A. Hussein, A.A.	IEEE Access	Journal
Autonomous Control of a Hybrid Rolling and Flying Caged Drone for Leak Detection in HVAC Ducts	Khalil, A. Jaradat, M.A. Mukhopadhyay, S. Abdel-Hafez, M.F.	IEEE/ASME Transactions on Mechatronics	Journal
Probabilistic Voltage Fault Correction Method for Lithium-ion Batteries Using a Decentralized Cell Voltage Measurement Approach	Wadi, A. Al-Masri, W. Abdel-Hafez, M.F. Hussein, A.A.	IEEE Transactions on Vehicular Technology	Journal
An Enhanced Fusion Algorithm with Empirical Thermoelectric Models for Sensorless Temperature Estimation of Li-ion Battery Cells	Sajid, M. Hussein, A.A. Wadi, A. Abdel-Hafez, M.F.	IEEE/ASME Transactions on Mechatronics	Journal
A Hybrid Rolling and Flying Robot for Pipeline Fault Detection Using Deep Learning	Ghaly, M. Mitra, R. Rayess, A.A. Ahmed, A. Varam, D. Jaradat, M.A. Pasquier, M. Khalil, A.	2023 Advances in Science and Engineering Technology International Conferences, ASET 2023	Conference Proceeding
Intelligent Adaptive RRT Path Planning Algorithm for Mobile Robots	Khattab, O. Yasser, A. Jaradat, M.A. Romdhane, L.	2023 Advances in Science and Engineering Technology International Conferences, ASET 2023	Conference Proceeding
Mathematical Formulations for Robot Modelling: Serial Versus Parallel Structures	Romdhane, L. Jaradat, M. Affi, Z.	Mechanisms and Machine Science	Book Series
Identification of Shaft Stiffness and Inertias in Flexible Drive Systems	Dhaouadi, R. Hafez, I.	Journal of Robotics and Mechatronics	Letter
High Precision Sinusoidal Position Tracking of a Voice-Coil Linear Servomotor Using Resonant Control	Dhaouadi, R. Takroui, M. Hafez, I.	Electronics (Switzerland)	Article
Real-Time Embedded Control of Electrical Drives: A New Approach for Bringing Hands-On Experience into the Classroom	Pulle, D.W.J. Dhaouadi, R.	IEEE Industrial Electronics Magazine	Article
CAD Modeling and Simulation of a Large Quadcopter with a Flexible Frame	Roshan, A. Dhaouadi, R.	Lecture Notes in Networks and Systems	Conference Paper
Employing Robotics and Deep Learning in Underground Leak Detection	Awwad, A. Albasha, L. Mir, H.S. Mortula, M.M.	IEEE Sensors Journal	Article
Characterization of Flexible Drive Systems Using CAD Modeling and Simulation	Roshan, A. Dhaouadi, R.	Lecture Notes in Networks and Systems	Conference Paper