Soft robotic gripper with compliant cell stacks for industrial part handling

Analog Mitigation of Frequency-Modulated Interference for Improved GNSS Reception

Modeling and Mitigating 5G Wireless Downlink Interferences for Low-altitude Aerial vehicles

Positioning Based on Noise-Limited Censored Path Loss Data

Radio-based Sensing and Indoor Mapping with Millimeter-Wave 5G NR Signals

Operation of a PV power plant during overpower events caused by the cloud enhancement phenomenon

Assessing and comparing short term load forecasting performance

Effect of energy recovery on efficiency in electro-hydrostatic closed system for differential actuator

Practical implementation of adaptive SRF-PLL for three-phase inverters based on sensitivity function and real-time grid-impedance measurements

Adjoint-based optimization in the development of low-emission industrial boilers

Censor-Based Cooperative Multi-Antenna Spectrum Sensing with Imperfect Reporting Channels

Charlie and the CryptoFactory
Towards Secure and Trusted Manufacturing Environments

Comparative energy analysis of a load sensing system and a zonal hydraulics for a 9-tonne excavator

Comparing capacity gains of static and UAV-based millimeter-wave relays in clustered deployments

Constrained PSK
Energy-efficient modulation for Sub-THz systems

Introducing Multi-Convexity in Path Constrained Trajectory Optimization for Mobile Manipulators

Multi-sensor next-best-view planning as matroid-constrained submodular maximization

Probabilistic approach to physical object disentangling

Reinforcement learning for improved UAV-based integrated access and backhaul operation

Resilient Cooperative Voltage Control for Distribution Network with High Penetration Distributed Energy Resources

Joint Sparse Recovery of Misaligned Multimodal Images via Adaptive Local and Nonlocal Cross-Modal Regularization

Towards the EU emission targets of 2050
Cost-effective emission reduction in Finnish detached houses

FORMI: A Fast Holonomic Path Planning and Obstacle Representation Method Based on Interval Analysis

Position Estimation for Drones based on Visual SLAM and IMU in GPS-denied Environment

Maximum perturbation step size in MPP-Tracking control for ensuring predicted PV power settling behavior

Visibility-Aware Part Coding for Vehicle Viewing Angle Estimation

Blockchain Technology for Smartphones and Constrained IoT Devices
A Future Perspective and Implementation

Approximate Controllability for Navier–Stokes Equations in 3D Rectangles Under Lions Boundary Conditions

Automatic numerical differentiation by maximum likelihood estimation of a linear Gaussian state space model

Composite nonlinear feedback control of a JIB trolley of a tower cranebehaviors

Fabrication of soft devices with buried fluid channels by using sacrificial 3D printed molds

Direct model predictive power control of a series-connected modular rectifier

Operating point dependent variable switching point predictive current control for PMSM drives

On the complexity of restoring corrupted colorings

Monitoring of production processes and the condition of the production equipment through the internet

Impedance-based interactions in grid-tied three-phase inverters in renewable energy applications

Direct fixed-step maximum power point tracking algorithms with adaptive perturbation frequency

Performance evaluation of bandwidth reservation for mmWave 5G NR systems

A Real-Time Big Data Control-Theoretical Framework for Cyber-Physical-Human Systems

Customized dimensional analysis conceptual modelling framework for design optimization—a case study on the cross-flow micro turbine model

Design and Control of a Flexible Joint as a Hydraulic Series Elastic Actuator for Manipulation Applications

Identification of three-phase grid impedance in the presence of parallel converters

M-Estimator Application in Real-Time Sensor Fusion for Smooth Position Feedback of Heavy-Duty Field Robots

Power electronics in renewable energy systems

Kalman-Type Filters and Smoothers for Pedestrian Dead Reckoning

Constrained Long-Horizon Direct Model Predictive Control for Synchronous Reluctance Motor Drives

Inertial Sensor-Based State Estimation of Flexible Links Subject to Bending and Torsion

Real-time and Robust Collaborative Robot Motion Control with Microsoft Kinect ® v2

Role-based visualization of industrial IoT-based systems

Complete Odometry Estimation of a Vehicle Using Single Automotive Radar and a Gyroscope

Improvement of GPS and BeiDou extended orbit predictions with CNNs

Improved modelling of electric loads for enabling demand response by applying physical and data-driven models
Project Response

An approach for implementing key performance indicators of a discrete manufacturing simulator based on the ISO 22400 standard

Towards the deployment of cloud robotics at factory shop floors
A prototype for smart material handling

Sustainable electric vehicle - Prosumer framework and policy mix

Dual-frequency signal processing architecture for robust and precise positioning applications

Stabilization to trajectories for parabolic equations

Analysis of differentially modulated cooperative communications over asymmetric fading channels

Capacity analysis under generalized composite fading conditions

Maximum achievable throughput and interference mitigation for SUN in coexistence with WLAN

Outage probability of multi-carrier NOMA systems under joint I/Q imbalance

Online learning in neural decoding using incremental linear discriminant analysis

Dynamic modeling and analysis of PCM-controlled DCM-operating buck converters-A reexamination

Mixed-integer linear programming approach for global discrete sizing optimization of frame structures

Locomotion of light-driven soft microrobots through a hydrogel via local melting

Pneumatically actuated elastomeric device for simultaneous mechanobiological studies & live-cell fluorescent microscopy

Secure and connected wearable intelligence for content delivery at a mass event
A case study

Determining maximum MPP-tracking sampling frequency for input-voltage-controlled PV-interfacing converter

A reformulation of the internal model principle using factorization approach

Asymptotics for infinite systems of differential equations

Robust controllers for regular linear systems with infinite-dimensional exosystems

Asymptotic Behaviour of Platoon Systems

Robust Regulation for First-Order Port-Hamiltonian Systems

Robust Regulation for Port-Hamiltonian Systems of Even Order

Computationally efficient optimization algorithms for model predictive control of linear systems with integer inputs

Frequency domain robust regulation of signals generated by an infinite-dimensional exosystem

On Robust Output Regulation for Continuous-Time Periodic Systems

Robust Regulation of SISO Systems: The Fractional Ideal Approach

Towards dependable automation

A hybrid optimization grey model based on segmented gra and multi-strategy contest for short-term power load forecasting

Condition monitoring of storage batteries in telecom power systems-crisp vs. soft computing methodology

Soft computing-based controller design for a telecom rectifier