

### ICCAS 2018 Paper List (By Session Code)

Paper No.	PaperTitle	Session Code
P00206	Distributed Energy Generation and Flow Optimization: A Simultaneous Approach	WA1-1
P00209	Preliminary result on distributed solution to economic dispatch problem with power losses	WA1-2
P00244	{Robust Current Control of an Interlink Converter for a Hybrid AC/DC Microgrid	WA1-3
P00360	Synchronization of Lur'e-type Nonlinear Systems Over Networks of Linear Dynamical Systems: Lyapunov-based Singular Perturbation Approach	WA1-4
P00371	Zero Dynamics Attack on Multi-agent Systems and its Prevention	WA1-5
P00497	Distributed algorithm for economic dispatch with feasible and infeasible conditions	WA1-6
P00097	Haptic Interface with Hydraulic Actuator for Training Simulation of Radial Artery Puncture	WA2-1
P00135	New Collision Force Suppression Mechanism and Base Control of Human-Friendly Robot	WA2-2
P00197	A Robust Joint GSS And Source Localization Algorithm For Robot Audition In Strong Reverberant Environment	WA2-3
P00208	Kinematic Requirements of a Haptic Interface for Simulation of Endonasal Endoscopic Skull Base Surgery	WA3-1
P00309	AR based Smart guide system for interventional cardiology procedures	WA3-2
P00386	KIMM Robotic Ankle-Foot Prosthesis Based on a Unified Actuator Module and Parallel Springs	WA3-3
P00411	Design of Tele-Robotic System for Transurethral Resection of Bladder Tumor	WA3-4
P00495	A Novel Vascular Intervention Assist Robot	WA3-5
P00517	Spatiotemporal shape modeling method for left atrial cardiac ablation	WA3-6
P00017	Control of a Ball and Beam System under Intermittent Feedback	WA4-1
P00195	Robust dynamic output-feedback control of singular Markovian jump systems	WA4-2

### ICCAS 2018 Paper List (By Session Code)

P00234	Uncertainty and Disturbance Estimator Based Robust Pitch Autopilot	WA4-3
P00376	Design of a Robust Two-Degree-of-Freedom Controller for Two-Axis Gimbaled System	WA4-4
P00507	Validation on safety technical requirements of mobile transportation robots (load less than 120 kg) with ISO 13482	WC3-4
P00046	Automatic Calibration of Bed-Leaving Sensor Signals Based on Genetic Evolutionary Learning	WA5-1
P00053	Automatic Building and Floor Classification using Two Consecutive Multi-layer Perceptron	WA5-2
P00056	Research on stock trading strategy based on deep neural network	WA5-3
P00080	Synchronization for complex networks with interval delay via Finsler's Lemma	WA5-4
P00022	The development of a web application for the automatic analysis of the tonality of texts based on machine learning methods	WA5-5
P00041	Bi-Objective Optimization for Aircraft Conflict Resolution Using Epsilon Constraint Method and TOPSIS	WA6-1
P00141	Circular Formation Control of Car-like Robots with Local Position Measurements	WA6-2
P00150	Formation control of wheeled vehicles on a slope	WA6-3
P00269	Multi-Robot Path Finding Testbed in Wireless Networks against Malicious Attacks	WA6-4
P00096	Flocking control and bearing-based formation control	WA6-5
P00051	Development of an Autonomous Hand Tractor Platform for Philippine Agricultural Operations	WA7-1
P00079	Localization for Automatic Parking System using Interacting Multiple Model Kalman Filter with Rear-View Camera	WA7-2
P00111	Obstacle Avoidance Path Planning Algorithm Based on Model Predictive Control	WA7-3
P00158	Current and Future Research Focus on Inspection of Vertical Structures in Oil and Gas Industry	WA7-4
P00198	Development of the automatic line maker robot by the laser telemeter	WA7-5

### ICCAS 2018 Paper List (By Session Code)

P00310	Joint Person Re-identification and Camera Network Topology Inference in Camera Networks	WB1-1
P00318	High-speed High-performance Visual Tracker via Correlation Filter with Compressed Deep Feature	WB1-2
P00346	3D Point Cloud Classification with Deep Learning and Local Attention	WB1-3
P00015	Realization of the Fast Real-Time Hierarchical Inverse Kinematics for Dexterous Full Body Manipulation	WB2-1
P00063	A Teleoperated Robotic Catheter System with Motion and Force Feedback for Vascular Surgery	WB2-2
P00072	A Partitioning-Based Approach for Robot Path Planning Problems	WB2-3
P00233	Friction Modeling of a Robot Driven by Worm Gear transmission	WB2-4
P00392	A concept verification of human rider behavior reproduction using CMG-based ATD for two-wheeled self-balancing personal mobility	WB3-1
P00435	Feasibility study on the concept of CMG-based ATD that reproduces human rider behavior on one wheel self-balancing personal mobility	WB3-2
P00455	Feasibility study on the self-balancing personal mobility motion simulator	WB3-3
P00447	A Study on the Motion Safety for Mobile Servant Robots on a Slope Based on ISO13482	WB3-4
P00478	The Design of Person Carrier Robot using SLAM and Robust Salient Detection	WB3-5
P00008	Identification of the second order system based on hybrid time and frequency domain response	WB4-1
P00018	Reset Control of Combustion Oscillation in Lean Premixed Combustor	WB4-2
P00024	A global continuous control scheme with desired conservative-force compensation for the finite-time and exponential regulation of bounded-input mechanical systems	WB4-3
P00033	Finite-time Robust Simultaneous Stabilization for Two Nonlinear Descriptor Systems Subject to Disturbances	WB4-4
P00055	Jumping Motion Control of One-legged Jumping Robot with Pneumatic Actuators	WB4-5
P00027	Learning a Self-driving Bicycle Using Deep Deterministic Policy Gradient	WB5-1

### ICCAS 2018 Paper List (By Session Code)

P00178	Heuristic approaches to a sequential variant of the p-supplier problem	WB5-2
P00200	Synthesis of clustering algorithms based on selection of centroids	WB5-3
P00238	Spike-inspired Deep Neural Network Design Using Binary Weight	WB5-4
P00293	Experimental Evaluation for Suppressing Residual Vibration of Manipulator	WB6-1
P00294	A Study of the Reliability Evaluation in Special Purpose Robot	WB6-2
P00308	Design of a 4-Finger End-Effector for paprika harvesting	WB6-3
P00375	Discrete Event Systems based Modeling for Agricultural Multiple UnmannedAerial Vehicles: Automata Theory Approach	WB6-4
P00379	Realtime monitoring of working position for agricultural spraying drone using IoT technology	WB6-5
P00384	Durability test of mobile robot platform for upland farming	WB6-6
P00044	Semantic Indoor Scene Recognition of Time-Series Arial Images from a Micro Air Vehicle Mounted Monocular Camera	WB7-1
P00086	Path tracking control of AUV using nonholonomic error dynamics	WB7-2
P00146	Comparative Study of the Performance of Application of Bio-Inspired Strategies to Pursuit Evasion Game Under Feedback Laws	WB7-3
P00182	A new lane following approach based on deep learning with surround view images for an autonomous vehicle	WB7-4
P00211	An Iterative Learning Approach for Motion Control and Performance Enhancement of Quadcopter UAVs	WB7-5
P00217	Wall-contact sliding control strategy for a 2D caged quadrotor	WB7-6
P00359	First-Person Activity Recognition Based on Three-Stream Deep Features	WC1-1
P00366	Deep Video Super-Resolution Network Using Dynamic Upsampling Filters without Explicit Motion Compensation	WC1-2
P00373	Real-time Vehicle Detection with Learning Non-maximum Suppression	WC1-3

### ICCAS 2018 Paper List (By Session Code)

P00100	Alternating Hydrogen Supply System with Multiple Metal Hydride Hydrogen Tanks for Small Fuel Cell Vehicle	WC2-1
P00122	Small Indoor Hydroponic System with Renewable Energy	WC2-2
P00132	Development of an Autonomous Mobile Assistant: RoboMuse 4.0	WC2-3
P00163	Large Size Painting with Infraless Vision-aided Mobile Robot	WC2-4
P00177	Inspection Robot System using Duct Fan and Deterioration Estimation of Building Wall that Can Be Applied Even in Disaster	WC2-5
P00304	Development of pressure ulcer breakout time estimation model in association with wearable robot use by using FEM analysis.	WC3-1
P00488	An analysis of fall injury reduction method for posterior fall of exoskeleton robot wearer	WC3-2
P00489	A Fall Detection Method for the Exoskeleton User Using Accelerometer	WC3-3
P00433	A case study on risk assessment for personal care robot (Mobile robot)	WC3-5
P00057	Online System Identification of Unmanned Aerial Vehicle in Upset condition	WC4-1
P00064	A Comprehensive Comparison of Chassis Systems Coordination Approaches	WC4-2
P00069	Schmidt-Kalman Filters for Systems with Uncertain Parameters and Asynchronous Sampling	WC4-3
P00070	System Identification Of the Two Tanks System Subjected to WirelessHART Delays	WC4-4
P00137	A Novel Inverse Filtering Method for Systems with Multiple Input Signals	WC4-5
P00160	Hybrid Steering Model Estimated by Particle Swarm Optimization Based on Driver's Eye Tracking Information	WC4-6
P00047	Classification and Visualization of Long-Term Life-monitoring Sensor Signals Using Topological Characteristics of Category Maps	WC5-1
P00061	Document Classification Based on KNN Algorithm by Term Vector Space Reduction	WC5-2
P00103	Suitable Activity Function of Neural Networks for Data Enlargement	WC5-3

### ICCAS 2018 Paper List (By Session Code)

P00125	Residue detection in the large intestine from colonoscopy video using the support vector machine method	WC5-4
P00350	Finding High Accuracy Neural Network for Welding Defects Classification Using Efficient Neural Architecture Search via Parameter Sharing	WC5-5
P00247	Radar-lidar sensor fusion for seamless target tracking with an unmanned surface vehicle	WC6-1
P00241	Efficient Quantification of Terrain Information for Terrain-Referenced Underwater Navigation	WC6-2
P00236	Development of Simulator for Autonomous Underwater Vehicles utilizing Underwater Acoustic and Optical Sensing Emulators	WC6-3
P00223	A Sea Creatures Classification Method using Convolutional Neural Networks	WC6-4
P00165	Underwater Agent Vehicle for Manipulation and Object Recovery Using Winch System	WC6-5
P00503	Design and Implementation of Backstepping Controller for Tilting Thruster Underwater Robot	WC6-6
P00009	Extended State Observer-based Robust Pitch Autopilot Design for Small UAV	WC7-1
P00019	PID with derivative filter and integral sliding-mode controller techniques applied to an indoor micro quadrotor	WC7-2
P00153	Vision Based Tracking for Moving Target in Cluttered Environment with Path Generation for Visibility under Arbitrary Occlusion	WC7-3
P00173	Implementation of the hybrid technology for quadcopter motion control in a complex non-deterministic environment	WC7-4
P00237	Communication Relay Applications of a Solar-powered UAV Following a Collision-free Optimal Flight Path	WC7-5
P00383	Real-Time Vision-Based Localization of Planar Cable-Driven Parallel Robot	TA1-1
P00126	Estimation of traveling direction of car body using optical flow derived from onboard camera	TA1-2
P00123	Loosely-Coupled INS/Vision based Absolute Navigation with Adaptive Kalman Filter	TA1-3
P00045	Semantic Scene Recognition and Zone Labeling for Mobile Robot Benchmark Datasets based on Category Maps	TA1-4
P00166	Generalized Extreme Value Trimmed Filter for Random Impulse Noise Suppression in Color image	TA1-5

### ICCAS 2018 Paper List (By Session Code)

P00298	TSMCSPO Based Position Control for a Hydraulic Manipulator	TA2-1
P00331	Path Planning by Multilayer Neural Network and Rapidly Exploring Random Tree	TA2-2
P00408	Development of a Tiny Impact Device for Hammering Inspactio	TA2-3
P00429	Stable Grasping of Objects Using Air Pressure Sensors on a Robot Hand	TA2-4
P00469	Foreground Segmentation using Convolutional Neural Network	TA2-5
P00505	Automatic Rubber Attachment by a Robot Arm for Cardboard Punching Mold Fabrication	TA2-6
P00040	Unorthodox Approach to Classify EEG Signals for Upper Limb Prosthesis Application	TA3-1
P00131	Real time Human Emotion Monitoring based on Bio-signals	TA3-2
P00169	Remote human motion detecting system based on infrared array sensor	TA3-3
P00170	Development of Drowsiness Detection System based on Respiration Rate and LF-HF Ratio	TA3-4
P00320	Partical simulation on biomolecular reaction system in contaminating reaction field	TA3-5
P00185	Identification of Continuous-Time Low-Order models via Weighted Moments	TA4-1
P00213	Prediction Impulsive Observer for Sampled Data Linear Systems	TA4-2
P00214	Model based Real-Time Flow Rate Estimation in Open Channels with Application to Conventional Drilling	TA4-3
P00245	A filtered-x optimal step-size-NSAF active noise cancellation algorithm robust to impulse noise with step-size scaler	TA4-4
P00062	Realization of Magnetic Suspension by Flux-Path Control Mechanisms Lying Lateral to Magnetic Source	TA5-1
P00081	Position Control of Brushless DC Motor using Adaptive Sliding mode Control	TA5-2
P00104	MOBILE APPLICATION FOR RECOVERING PARALYSIS PATIENT'S MOTION	TA5-3

### ICCAS 2018 Paper List (By Session Code)

P00143	Use of Deep Learning for Position Estimation and Control of Soft Glove	TA5-4
P00148	Development of Compatible Induction coil with Pure AC for Hall Effect Sensor: A Study on Metal Materials Thickness	TA5-5
P00164	Development of Sensor Module for Detecting the Magnetron Power Based on Microwave Oven Frequency	TA5-6
P00171	Comparison of RSSI collecting methods in RSSI-Based Indoor Positioning System with ZigBee	TA6-1
P00172	Compering Remote Monitoring Systems using Multiple Wireless Sensors	TA6-2
P00180	Anomaly detection using Source Port Data with Shannon Entropy and EWMA Control Chart	TA6-3
P00257	AUTOSAR Runnable Scheduling for Optimal Tradeoff between Control Performance and CPU Utilization	TA6-4
P00202	Set membership estimation applied to the localization of small UAS in tight flight formations	TA7-1
P00212	Tracking Control of a Multicopter UAV in a Network Environment with Time-Varying Delay	TA7-2
P00335	A Coordinated Control Method of Thrust Vector and Aerodynamic Surfaces Based on Control Allocation Technology	TA7-3
P00339	An Improved Method of Control Law Design at High Angle of Attack Based on Wind Tunnel Test Data	TA7-4
P00344	Reconfigurable Flight Control System design for Blended Wing Body UAV based on Control Allocation	TA7-5
P00071	PLC-based Mobile Mecanum Robot As Multipurpose Vehicle	TA7-6
P00283	ROI-based Fully Automated Liver Registration in Multi-phase CT Images	TB1-1
P00101	Comparative Study of Character Recognition on Thai License Plate using DCT and FIR System	TB1-2
P00107	Recognition of Single-Land Countries on Outline Images by Using BAS Feature	TB1-3
P00127	Ensemble Grid Formation to Detect Potential Anomalous Regions Using Context Encoders	TB1-4
P00181	LQG Control Design For a Coupled Ballbot Dynamical System	TB2-1



### ICCAS 2018 Paper List (By Session Code)

P00452	I-PD Controller Gain Tuning using a Nonlinear Optimal Control Design Method for Helicopter Attitude Control Model	TB2-2
P00423	Consensus Control of Multi-agent Systems Over Undirected Graphs with Quantized Signal Communication	TB2-3
P00391	Servo/Regulation Optimization Design for Dual-rate Control Systems - Comparison of three suppression methods -	TB2-4
P00290	At-Sea Test of Dynamic Positioning System for a Quad-Maran Unmanned Vessel	TB2-5
P00082	Load Speed Control of Two-inertia System by Load Speed/Torque Estimation and Torsion Torque Compensation	TB2-6
P00074	On Realizing Robust Box-Pushing Tasks for Two Mobile Robots	TB3-1
P00220	Design of a Real-Time State Observer for Joint Acceleration of a Robot Manipulator(KOBOKER)	TB3-2
P00228	Design of triggering mechanism for capsule endoscope	TB3-3
P00287	Improved Anytime Path Planning and Replanning Algorithm for Real-time UAV Operation	TB3-4
P00390	Application of Instantaneous Cantilever Frequency Fluctuation in Atomic Force Microscope Control Loop	TB4-1
P00421	Adaptive Tracking Control for Quadrotor System with Dynamic Uncertainty	TB4-2
P00450	Interactive Reinforcement Learning based Socially Assistive Robot for the Emotional Support of Children	TB4-3
P00472	A numerical study of nonlinear dynamics in electric power systems	TB4-4
P00362	Performance Verification of Highly Stretchable Soft Sensors	TC3-1
P00481	Soft hand rehabilitation glove for patients with neurological disorders	TC3-2
P00485	Thumb CMC(Carpometacarpal) joint for the prosthetic hand with a realistic motion	TC3-3
P00494	Plane Thimble for Adaptive and Sensor Embeddable Design for Exo-Glove Poly	TC3-4
P00499	Teflon Tubes Selection based on Friction Tests for Exo-Glove Poly	TC3-5

### ICCAS 2018 Paper List (By Session Code)

P00501	Modeling of the relationship between wire tension and joint torque for force control of tendon driven hand assist wearable robots	TC3-6
P00477	A Cost-effective Tracking Method for Leader-Follower Mobile Robots Control Using Photovoltaic Sensor	TC4-1
P00482	Visual Servoing and Compliant Motion Control of a Continuum Robot	TC4-2
P00498	Robotic Arm Path Planning Based on Three-Dimensional Artificial Potential Field	TC4-3
P00502	Motion planning with obstacle avoidance of an UR3 robot using charge system search	TC4-4
P00030	Linear-range Extension for Linear Variable Differential Transformer Using Triangular Signal	TC5-1
P00036	Maximum Contrast Imaging Using Chromatic Lighting and Fuzzy Logic: Analyses of Old Handwritings	TC5-2
P00114	An Integrated Approach of Wavelet Techniques and Time Series Analysis in Eliminating MEMS Inertial Gyro Stochastic Error	TC5-3
P00124	Low Cost MEMS-IMU Based DR/GPS Integrated System in Urban Environment	TC5-4
P00162	Yaw Error Measurement Reduction of TMDP	TC5-5
P00054	Ballistic Coefficient Estimation with Guassian Process Particle Filter	TC6-1
P00060	Black-Box Expectation-Maximization Algorithm for Estimating Latent States of High-Speed Vehicles	TC6-2
P00264	Tracking of multiple targets using GM-PHD filter with nonlinear measurement model	TC6-3
P00306	Convexity-based sequential track resource allocation for a phased array radar	TC6-4
P00322	Topology Optimization of Hierarchical Sensor Fusion Network Considering Time Delay	TC6-5
P00342	Simulated Physics for High Speed Aerial Systems	TC6-6
P00246	Parameter Estimation for Cooperative Adaptive Cruise Control Design among Heterogeneous Vehicles	TC7-1
P00369	Cooperative Adaptive Cruise Control Using Turn Signal for Smooth and Safe Cut-In	TC7-2

### ICCAS 2018 Paper List (By Session Code)

P00410	A Plan to Test Automomous Valet Parking Using an Open Source Merkle Tree SW	TC7-3
P00500	On Kinematic Evaluation of Crossing a Junction during Autonomous Valet Parking	TC7-4
P00207	The Multi-agent Rendezvous using Gossip and Consensus Algorithms: Directed Bipartite Connection	FA1-1
P00218	Development of a Drilling Robot that Mimics Mole Digging Pattern	FA1-2
P00219	Yawing Motion Control of a Single-Wheel Robot Actuated by a Control Moment Gyroscope	FA1-3
P00221	Multi-PLC Control System Based on Wireless Bridge/Base Stations for Work-in-Process Movements in Corrugated Box Manufacturer	FA1-4
P00341	Design of Output Feedback Nonlinear Model Predictive Control for Inverted Pendulum on Cart	FA1-5
P00370	A Prototype System to Count Nursery Pacific White Shrimp using Image Processing	FA1-6
P00151	Number Recognition of Parts Book Schematics using Convolutional Recurrent Neural Network	FA2-1
P00356	Contour Segmentation Based on Density Gradient and Region Growing	FA2-2
P00420	Clustering for Electronic Warfare Information	FA2-3
P00508	Reduction of background sound based on non-negative matrix factorization combined with Wiener filter post-processing	FA2-4
P00470	The Effect of assistive force of rehabilitation robot on upper extremity function in stroke patients : a single blinded randomized trial	FA3-1
P00464	A robot for impedance estimation of human upper limb	FA3-2
P00509	Model-based Assessment of Reaching Task for Individualized Robotic Training	FA3-3
P00510	Shoulder Rehabilitation Robot	FA3-4
P00513	Comparison of Reach Exercise in Chronic Stroke Survivors via High/Low Inertia Upper Extremity Rehabilitation Robots	FA3-5
P00174	Model development for prediction of stress-induced lipid accumulation from cell condition	FA4-1

### ICCAS 2018 Paper List (By Session Code)

P00175	Multi-objective Optimal Operation Strategy for Cellulosic Biobutanol Fermentation with Ex Situ Butanol Recovery (ESBR)	FA4-2
P00176	Construction of a shortcut model for amine scrubbing CO <sub>2</sub> capture process	FA4-3
P00279	Multiple Tube Model Predictive Control with Decomposed Disturbance Subsets Approach for Less Conservative Control of Worst-Case Cost	FA4-4
P00297	Computer-Aided Process Design for Membrane Networks Systems	FA4-5
P00299	Process Integration and Optimization for Absorption-Based CO <sub>2</sub> Capture Systems	FA4-6
P00413	Bayesian Parameter Estimation in Nonlinear Differential Equations Using Automatic Differentiation	FA4-7
P00025	Nondestructive Survey of a Historical Wooden Construction Using Thermography and Ambient Vibration Measurements	FA5-1
P00026	Structural Damage Detection in a Steel Column-Beam Joint Using Piezoelectric Sensors	FA5-2
P00043	Robust optimization of the production profile of the steam assisted gravity drainage reservoir using a polynomial chaos expansion-based proxy model	FA5-3
P00089	Evaluating Successive Linearization in NMPC for Controlling Oscillations in Boiling Channel	FA5-4
P00196	Basics of creating platforms for automation of business processes of logistics	FA5-5
P00159	A New Multi-Input Multi-output DC-DC Bidirectional Converter with MPPT Control Applicable for PV	FA6-1
P00035	Development of Predictive Control System Using Just-In-Time Modeling and Enthalpy-Aware Control in Air Conditioners for Large-Scale Data Center	FA6-2
P00066	Maximum Power Point Tracking Control for Photovoltaic Generation Using Quasi-Continuous Sliding Mode Control	FA6-3
P00112	A Design of Automated Inspections of Both Shape and Height Simultaneously Based on Stereo Vision and PLC	FA6-4
P00403	Research on Vibration Characteristics of Spur Gear System with Pitting Fault Considering the Elastohydrodynamic Lubrication Condition	FA6-5
P00255	A Comparison between Stereo and Time-Differential Depth estimation for Vision/GPS/INS	FA7-1
P00278	Noise Covariance Adaptation of Doppler Velocity Log Considering Vehicle's Attitude	FA7-2

### ICCAS 2018 Paper List (By Session Code)

P00281	Pedestrian Dead Reckoning System Using Dual IMU to Consider Heel Strike Impact	FA7-3
P00355	Vehicle Localization Using Road Marking Image Matching	FA7-4
P00292	Chinese character detection using modified Single Shot Multibox Detector	FB1-1
P00282	Automatic Sketch Colorization using DCGAN	FB1-2
P00262	3D Human Pose Estimation Network Using Voxel Data	FB1-3
P00313	Cost-function evaluation for intensity-based 2D-3D registration of broken femur bone	FB1-4
P00519	A License Plate Recognition using Neural Network and Autonomous Mobile Robot in Intelligent Parking Lot Management System	FB1-5
P00295	Enhancement of Bone Metastasis from CT Images Based on Salient Region Feature Registration	FB2-1
P00296	Detection of Abnormal Shadows on Temporal Subtraction Images Based on Multi-phase CNN	FB2-2
P00300	Detection of Phalange Region Based on U-Net	FB2-3
P00301	Swallowing Motion Analyzing from Dental MR Imaging Based on AKAZE and Particle Filter Algorithm	FB2-4
P00284	Extraction of Median Plane from Facial 3D Point Cloud Images Based on ICP Algorithm	FB2-5
P00512	Gait analysis in hemiplegic stroke survivors with one-arm motorized walker	FB3-1
P00511	Power Assistance and Evaluation of an End-effector Typed Walking Rehabilitation Robot	FB3-2
P00515	Data Acquisition and Coaching of Gait Rehabilitation	FB3-3
P00514	Novel Pathway of R&D of care robotic devices in Korea	FB3-4
P00042	Composite Back Stepping Anti-winding Control of Spacecraft with Finite Time Convergence	FB4-1
P00049	Model Predictive Control with Cross-Product Term between State and Input	FB4-2

### ICCAS 2018 Paper List (By Session Code)

P00098	Development of a Benchmark Testbed for Input Shaping Control	FB4-3
P00133	Backstepping control integrated with model predictive control for selective catalytic reduction system of diesel vehicle	FB4-4
P00397	Characterization of rectangular shaped perforated Piezoelectric MEMS Directional Microphone inspired by <i>Ormia ochracea</i>	FB5-1
P00428	Design of 2-Dof Dielectric Elastomer Finger Toward an Intimate-Contact Gripper	FB5-2
P00451	Transparent soft micro-actuator array for programmable large force response	FB5-3
P00504	Application of Thin Film Focus Tunable Lens	FB5-4
P00058	Design and Experimental Validation of an Output Feedback Controller for a Pneumatic System with Distributed Parameters	FB6-1
P00106	A requirement for the number of items in a package produced by multi-head weighers	FB6-2
P00401	Efficiency Analysis of Gear System Based on Gear Surface Micro-topography	FB6-3
P00402	Efficiency Analysis of Planetary Gear Train under Ring Gear Deformation	FB6-4
P00416	Construction and Efficiency Test of Solar Drying Cabinet for Nipa Palm Drying for Community Enterprise.	FB6-5
P00167	Controlling the Position of the Carriage in Real-Time Using the RBF Neural Network Based PID Controller	FB6-6
P00065	Performance Evaluation of the RTK-GNSS Navigating under Different Landscape	FB7-1
P00129	Attitude Dynamics Model-Based Gyroless Attitude Estimation for Agile Spacecraft	FB7-2
P00139	Particle filter with the Novel Resampling Method using Artificial Immune System	FB7-3
P00251	RGB-D and Magnetic Sequence-based Graph SLAM with Kidnap Recovery	FB7-4
P00378	Robust Path Following Controller for Unmanned Aerial Vehicle Based on Carrot Chasing Guidance Law Using Dynamic Inversion	FB7-5
P00337	Automatic sphere detection for extrinsic calibration of multiple RGBD cameras	FC1-1

### ICCAS 2018 Paper List (By Session Code)

P00453	Extrinsic Calibration of RGB-D Sensor and Robot using Color Chessboard	FC1-2
P00458	Extrinsic Calibration of camera and laser range finder using dummy camera without ir cut filter	FC1-3
P00454	Lane Detection using Deep Learning Semantic Segmentation	FC1-4
P00349	Localization of Welding Defects using Weakly Supervised Neural Network	FC1-5
P00285	Registration of Phalange Region from CR Images Based on Genetic Algorithm	FC2-1
P00286	Automatic Extraction of Abnormalities on Temporal CT Subtraction Images Using Sparse Coding and 3D-CNN	FC2-2
P00323	Detection of Grasping Position from Video Images Based on SSD	FC2-3
P00324	Wide Residual Networks for Semantic Segmentation	FC2-4
P00422	Electromagnetically Actuated Soft Hydrogel Microrobots for Biomedical Applications	FC3-1
P00432	Development of 6 DOF Robot High-speed Controller for Pipe coating Automation System	FC3-2
P00460	Subject-specific Assessment for Upper-limb Reaching Movement Performance of Hemiplegia Patient based on the Nonlinear Model for Individualized Training	FC3-3
P00463	Human limb impedance estimation performance of a widely used robot for human limb studies (HapticMASTER)	FC3-4
P00471	Robot based Shoe Manufacturing System	FC3-5
P00483	Robust driving wheel control on soft soil for an off-road vehicle	FC3-6
P00138	Robust control of robot manipulators using difference equations as universal approximator	FC4-1
P00168	Model Predictive Control for Hybrid Electric Vehicles with Linear Parameter-Varying Model	FC4-2
P00250	Disturbance Observer based on Nonlinear Damping velocity control for Permanent Magnet Synchronous Motor (PMSM)	FC4-3
P00387	Maneuverable Aircraft Flight Control Using Nonlinear Dynamic Inversion	FC4-4

### ICCAS 2018 Paper List (By Session Code)

P00157	Comparison of Characteristic Information in Gait Vibration	TP-B-1
P00031	Mean-field Analysis of Bayesian Inference Using Expected A Posterior Estimation of Predicting Comfortable Environments Due to Air Conditioner	TP-B-2
P00105	Performance Evaluation of a Beach Cleaning Robot "Hirottaro 3" in an Actual Working Environment	TP-B-3
P00108	Covariance Matrix of a Probability Distribution for Image Dictionaries in Compressed Sensing	TP-B-4
P00188	Study of Measurement Method in Inter-Vehicle Distance Using Hu Moment Invariants	TP-B-5
P00077	Recognizing Human-Object Interactions via Target Localization	TP-B-6
P00140	Water flow Detection Using Deep Convolutional Encoder-decoder Architecture	TP-B-7
P00348	Human trajectory analysis using LSTM recurrent networks	TP-B-8
P00467	Weakly Supervised Temporal Localization in Video Scene Recognition	TP-B-9
P00363	AI Expert System for the Effective Treadmill Training System of Rehabilitation and Exercise	TP-B-10
P00076	Button Filtering for Converting Image to Coordinates of Swarming Drones	TP-B-11
P00154	Partial Agreement Task Assignment Algorithm for Secure Plan Consensus in Multi-Agent System	TP-B-12
P00095	Convolutional Neural Networks for Analyzing Unmanned Aerial Vehicles Sound	TP-B-13
P00118	Auto-Tuning Altitude Controller with Steepest Gradient Descent Algorithm for Quadrotors	TP-B-14
P00119	Analysis for VTOL and Fixed-wing Flight Software of PX4	TP-B-15
P00183	Autonomous Landing of UAV Using Vision Based Approach and PID Controller Based Outer Loop	TP-B-16
P00120	Intermediate Result of A Hybrid Drone Development and Control	TP-B-17
P00468	Development of Remotely Operated Underwater Vehicle for Autonomous Underwater Intervention	TP-B-18



### ICCAS 2018 Paper List (By Session Code)

P00260	3D Mobile Robot Localization Aided by Point Cloud Keypoint Features and Three-Dimensional Localization (KEFT)	TP-B-19
P00317	The Development of Collection and Evaluation Environment for Human Factors Research in Automated Driving	TP-B-20
P00327	Fuel-Conscious Launching Control for Autonomous Hybrid Electric Vehicle	TP-B-21
P00492	Orienting Head-Truck in the Design of Truck-Trailer Path Following Control	TP-B-22
P00093	Fatigue characteristics of surface electromyography during walking	TP-B-23
P00191	A Study on the Development of a Day-to-Day Mental Stress Monitoring System using Personal Physiological Data	TP-B-24
P00336	Assessment of beta-cell function based on dose response function and potentiation factor based on mathematical modeling	TP-B-25
P00441	Brief review on the principle implementation of P-Controller by DSD circuits	TP-B-26
P00516	A Simulation-based Design of Ankle Assistive Robot for Tripping Prevention of Elderly People	TP-B-27
P00357	Effects of a Powered Hip Exoskeleton on Whole Body during Lifting	TP-B-28
P00368	Human Model Based Exoskeleton Simulation for Walking Motion	TP-B-29
P00352	Leg design use topology optimization with optimal mass-stiffness ratio for high-speed running of legged robots	TP-B-30
P00351	Analysis of vibrations transmitted to the quadruped robot body during trotting with different foot stiffness	TP-B-31
P00358	Retractable cleat mechanism of legged robots' foot on various terrain	TP-B-32
P00329	Muscle Synergy Measurement for Rehabilitation of Stroke Patient	TP-B-33
P00315	Fishing Line Spring Based Tendon for Concealed Ankle Brace	TP-B-34
P00312	Step length adaptable active ankle foot orthosis for drop foot patients	TP-B-35
P00311	Quantitative performance evaluation of EMG control algorithm for grasping tasks	TP-B-36

**ICCAS 2018 Paper List (By Session Code)**

P00328	A Novel Shape Deforming Large-scale Flexible Sensor for Tactile Display	TP-B-37
P00288	Planar Trajectory Following Control with a Curvature-Controllable Steerable Needle: Preliminary Modeling and Simulation	TP-B-38
P00289	A novel friction-based shape locking method for tendon actuated manipulators	TP-B-39
P00388	Flexible Endoscopic Surgery Robot System, K-FLEX	TP-B-40
P00407	A Tendon-Driven Mechanism of the Bending Joints Based on Differential Gears	TP-B-41
P00414	Actuation System of the MR-Compatible Multi-DOF Surgical Robot manipulator	TP-B-42
P00394	Refrigerant charge estimation for an air conditioning system using artificial neural network modelling	TP-B-43
P00396	Improvement of Extended Kalman Filter Using Invariant Extended Kalman Filter	TP-B-44
P00419	Stability Evaluation of Outdoor Unmanned Security Robot in Terrain Information	TP-B-45
P00280	A Following System for a Specific Object Using a UWB System	TP-B-46
P00205	A Study of Test Method of Powered Exoskeleton Robots focused on Physical Fitness Improvement	TP-C-1
P00303	Control Model of Electrostatic Rotary Actuator	TP-C-2
P00010	A Robust Control Methodology based on Active Disturbance Rejection Control and Input Shaping	TP-C-3
P00028	Adaptive slip engagement control of a dry clutch using a clutch torque estimator	TP-C-4
P00109	Uncertainty and Disturbance Estimator-Based Tracking Control for Fuzzy Systems	TP-C-5
P00319	SMCSPO Robust Control Simulation of Heart Rate for Cardiac Rehabilitation in Treadmill Exercise	TP-C-6
P00484	Second order Terminal Sliding Mode Control with Smooth Input for DC Motor Systems	TP-C-7
P00305	Heart Rate Modeling Using Signal compression Method During Treadmill Exercise	TP-C-8

### ICCAS 2018 Paper List (By Session Code)

P00068	Output Error Identification in the Presence of Structural Disturbances	TP-C-9
P00155	Safe Flight Envelope Estimation for Rotorcraft: A Reachability Approach	TP-C-10
P00190	UWSNs-based Distributed Trespasser Tracking System for a Fish Farm	TP-C-11
P00199	Adaptive observer for linear descriptor systems in discrete-time	TP-C-12
P00230	Simulation study for validation of separated torque-based regression method for parameter identification	TP-C-13
P00465	Parameter Estimation and LuGre Friction Model	TP-C-14
P00029	Solvability for a class of nonlinear fractional differential equations with parameters	TP-C-15
P00059	Performance/Robustness Improvement of i-PID with Two-Degree-of-Freedom Controller	TP-C-16
P00078	Stability of switched positive homogeneous nonlinear systems with mode-dependent average dwell time	TP-C-17
P00092	Prediction of commercial building lighting energy consumption based on EPSO	TP-C-18
P00116	Necessary and Sufficient Condition for Reachable Set Estimation of Nonlinear Positive Systems with Time-Varying Delay	TP-C-19
P00192	Short-term subway human flow forecast based on the GM-BP prediction model	TP-C-20
P00194	EPPY based Building Co-Simulation for MPC of HVAC Optimization	TP-C-21
P00325	Time Delay Compensating Reference Generation for Metro Precision Stop Control	TP-C-22
P00345	Observer-based state feedback control of an intelligent crane	TP-C-23
P00354	FEEDBACK CONTROLLER DESIGN OF CABLE-DRIVEN PARALLEL ROBOT FOR 3D PRINTING BUILDING CONSTRUCTION	TP-C-24
P00382	Stability analysis of continuous-time positive switched linear systems	TP-C-25
P00456	Gain Tuning of Two-Loop PID Controller with FRIT for Fluctuation Suppression on Floating Offshore Wind Turbines	TP-C-26

### ICCAS 2018 Paper List (By Session Code)

P00459	I-PD Control with Second-order Differential and Reference Signal Shaping for a Flexible Beam	TP-C-27
P00430	A Categorizing Scheme of the Security Controls based on the Attack Pathway and Asset Type for I&C Systems in Operating NPPs	TP-C-28
P00145	Compensation Method of Gyroscope Bias Hysteresis Error with Temperature and Rate of Temperature using Deep Neural Networks	TP-C-29
P00225	Terrain field SLAM and Uncertainty Mapping using Gaussian Process	TP-C-30
P00277	Zero velocity detection algorithm based on estimated velocity value	TP-C-31
P00438	Camera-LiDAR Fusion-based SLAM with Incremental Vocabulary Tree	TP-C-32
P00405	GPS/GLONASS Positional Performance Improvement by using MSAS and SDCM	TP-C-33
P00048	Low-Cost Software-Defined GPS Simulator with the Capability of Time Synchronization	TP-C-34
P00400	Development of multi-purpose device to teach robot and detect intruder	TP-C-35
P00372	Design of the Gravity Compensation Mechanism for the Variable Payload	TP-C-36
P00267	Analysis of Inertial Effect on Control Performance of a Time-delayed Controller for a Robot Manipulator	TP-C-37
P00374	Preliminary Design of a Novel Robotic Surgical Instrument with 4-DOF Parallel Mechanism	TP-C-38
P00253	Power Signal Classification with Combinational Spectrogram-based CNN for Embedded System Health Management	TP-C-39
P00254	Fuzzy Logic and Deep Steering Control based Recommendation System for Self-Driving Car	TP-C-40
P00314	A Machine Learning Approach on Autonomous Structure Inspection	TP-C-41
P00506	Development of a modular intelligent care capsule robot for the elderly in response to an aging society with a light actuator	TP-C-42
P00226	Development of a Transformable Self-Balancing Mobile Robot	TP-C-43
P00242	Design of a dynamic joint impedance measurement system	TP-C-44

### ICCAS 2018 Paper List (By Session Code)

P00343	Development of a neuron-inspired tactile information processing model	TP-C-45
P00399	Cortical activation during voluntary and passive movement of human index finger	TP-C-46
P00406	Determination of designed hemodynamic response function parameters using Nelder-Mead algorithm: An fNIRS study	TP-C-47
P00417	Classification three categories from prefrontal cortex using LSTM networks: fNIRS study	TP-C-48
P00424	Classification of the Mental Stress during Mental Arithmetic Task using Linear Discriminant Analysis: An fNIRS Study	TP-C-49
P00425	Comparison of Kernels in Online SVM Classification of fNIRS Data	TP-C-50
P00426	Development of a High Density Neuroimaging System Using Functional Near-Infrared Spectroscopy	TP-C-51
P00261	A Compact Finger Motion Measurement System without a Calibration Process	FP-B-1
P00272	Extraction of Clinically Relevant Kinematic Parameters from IMU-based Motion Capture System in Upper Extremity of Stroke Patients	FP-B-2
P00075	Design of a seamless active ankle foot orthosis empowered by a custom portable pneumatic pump	FP-B-3
P00316	Development of Active Suspension System for the Improvement of Driving Quality in Electric powered wheelchairs	FP-B-4
P00493	Control Strategy for Shoulder Rehabilitation Robot	FP-B-5
P00050	Observation of Human Trajectory in Response to Haptic Feedback from Mobile Robot	FP-B-6
P00256	Preliminary Evaluation of Calibrating Haptic Augmented Virtuality Systems	FP-B-7
P00275	Design and Performance Evaluation of Wearable Haptic Interfaces	FP-B-8
P00271	HOG-based Grasping Type Classification for Automatic Control of Robotic Gripper	FP-B-9
P00136	Mapping System with Virtual Reality for Mobile Robot Teleoperation	FP-B-10
P00377	Behavior Analysis of Multi-Agent Game for Human-robot Cooperation	FP-B-11

### ICCAS 2018 Paper List (By Session Code)

P00474	Recognition of an Object Pointed at by a Person by using Robot Head Control and Motion Sensor	FP-B-12
P00338	Optimization of cable robot structure with frequency constraints	FP-B-13
P00032	Iterative algorithm to matrix equation with conjugate and transpose unknown and its application in control	FP-B-14
P00085	A Study on Applicable Control Methods of Electric Power Steering System in Dynamic Redundancy Environments	FP-B-15
P00224	UGV Status Monitoring System Using Interacting Multiple Model Filter	FP-B-16
P00466	Development and verification of oscillation diagnosis algorithm using empirical method for time series data of plant control loop	FP-B-17
P00130	Development of Smart Condition Monitoring and Diagnosis System for Tandem Cold Rolling Mills in Iron and Steel Manufacturing Processes	FP-B-18
P00239	Tuning of Notch Filter Parameters Using Deep Reinforcement Learning for Industrial Servo Systems	FP-B-19
P00240	Resonance Suppression Using Bi-quad Lag Compensator for Industrial Servo System with High Inertia Ratio and Resonance Frequency Variations	FP-B-20
P00152	Study on Wireless Power Transfer for Drilling Tools	FP-B-21
P00353	On the effect of ship navigation on environmental circulation and countermeasures	FP-B-22
P00448	Characteristics of Split of Principal States of Polarization Considering Photocurrent Noises for Polarization Mode Dispersion Compensation in Optical Fiber Network	FP-B-23
P00449	Effect of Polarization Dependent Loss on Degree of Polarization of Polarization Mode Dispersion Compensator for Fiber-Optic Communication	FP-B-24
P00248	Development of the Image to Spike Conversion Algorithm for the Deep Neural Networks	FP-B-25
P00023	Analysis of Scheduling Strategies for Spacecraft On-Board Control Procedure: Lua Coroutine vs. VxWorks Task	FP-B-26
P00034	SpaceWire performance analysis for a next generation processors	FP-B-27
P00039	Exception and Interrupt Handling of Flight Software with VxWorks RTOS for PCI-based LEO On-Board Computer	FP-B-28
P00273	Fast Inter Mode Decision using Early Skip Decision and Simplified Motion Estimation for Lightweight HEVC Encoder	FP-B-29

### ICCAS 2018 Paper List (By Session Code)

P00302	A Study on the Position and Posture Estimation of Objects Using Deep Learning	FP-B-30
P00232	Accuracy Evaluation of Registration of 3D Normal Distributions Transforms Interpolated by Overlapped Regular Cells	FP-B-31
P00252	Improved Iterative Closest Point Algorithm using Truncated Signed Distance Function	FP-B-32
P00439	Moving Object Detection using Motion Segmentation and Geometric Constraints	FP-B-33
P00389	Relationship Sugar Content of Ripe Tomatoes and Intensity on Infrared Image	FP-B-34
P00144	Machine Vision Based Weight Prediction for Flatfish	FP-B-35
P00486	Preliminary Study on Context-aware Winter Sports based on the Deep Neural Networks	FP-B-36
P00203	Video Based License Plate Recognition of Moving Vehicles	FP-B-37
P00052	A Consideration of "Expression in Mechanics Sense": Concept and Case Study for Conceptual Design	FP-B-38
P00091	Comparative Analysis of Face Detection Algorithms: Novice to Novel	FP-B-39
P00266	Application of Machine Learning to Stability Evaluation of Power Grids with Changeable Renewable-Energy Supply	FP-B-40
P00274	Machine Learning-based Prediction of Post-stroke Swallowing Impairment	FP-B-41
P00330	Deep learning model of multiple signal detection for molecular communication based biomimetic robots	FP-B-42
P00361	Vibration Control of Vehicle Active Suspension System Using DDPG Algorithm	FP-B-43
P00431	Driver Acceleration/Deceleration Demand Prediction Based on Extreme Learning Machine	FP-B-44
P00475	Development of an Operational Reliability Test-bed by using CompactDAQ for NSSS Integrity Monitoring System	FP-C-1
P00227	Analytical Approach for Optimal Filter Design of Internal Model Control	FP-C-2
P00496	Comparative Study of Modeling Sesame Oil Extraction Process By Using Hexane	FP-C-3

### ICCAS 2018 Paper List (By Session Code)

P00440	Proposal of Gripper and Gripping Method for Mating Process of Electric Connectors	FP-C-4
P00268	Design and Control of Under-Actuated Tendon-Driven Robotic Finger: Experimental Results	FP-C-5
P00012	Guide-rail and robotic manipulator system for unmanned factories	FP-C-6
P00013	A donut-shape modular robot	FP-C-7
P00084	Extrinsic Calibration of Robotic Laser Scanning System using Spherical Target	FP-C-8
P00117	Optimal Outer-Loop Position Controller for Two-Wheeled Mobile Balancing Robot Based-on Off-Line Optimization Technique	FP-C-9
P00142	Combined Stiffness Identification of 6-DoF Industrial Robot	FP-C-10
P00222	External Wrench Estimation in Grasping Task of Under-actuated Multi-fingered Gripper using Tactile Sensor	FP-C-11
P00307	Design of cable robot for 3D printing for construction	FP-C-12
P00321	Workspace determination model of cable robot for 3D printing building construction using optimal tension distribution analysis	FP-C-13
P00364	PD Control for Swing-up Motion of 2-link Underactuated Robot with Spring	FP-C-14
P00365	EMG Compliance Controller Compensating Steady-State Error from External Forces	FP-C-15
P00094	Long Arm Manipulator Path Interpolation Using 4th Order B-Splines	FP-C-16
P00110	Data-based Assembly Failure State Estimation of mobile IT parts using a 6 DOF manipulator	FP-C-17
P00121	Development of Virtual Reality-Vision System in Robot-Assisted Laparoscopic Surgery	FP-C-18
P00229	Developing a Robotic Spasticity Simulator with a Robust Control Strategy to Mimic Various Joints	FP-C-19
P00291	Development of Vision System's Control by Novel Master Interface in Laparoscopic Robot-Assisted Surgery	FP-C-20
P00490	Development of Split-belt Treadmill for Lower Limb Rehabilitation	FP-C-21



### ICCAS 2018 Paper List (By Session Code)

P00491	Optimal design of a quadruped walking robot's leg	FP-C-22
P00334	Human-machine Interface for Acquiring of Human Balancing Data and Providing of Balance Feedback Using Cable-driven Mechanism	FP-C-23
P00476	Lateral Push Recovery Control by Stepping for Humanoid Robot	FP-C-24
P00102	Personal Mobility Vehicle User's Psychological Reaction to Surrounding People	FP-C-25
P00367	Variable formation control of multiple robots via VRc	FP-C-26
P00473	Image-projection system in a guide robot	FP-C-27
P00067	Current Control of Sawyer Motors with Microstepping Method Using Proximated In-phase Current Estimator	FP-C-28
P00409	Development of Multiple-disk Type MR Fluid Brake with Three Modules for Wearable Robots Driving Part	FP-C-29
P00415	Distance Estimation Methods in Vehicular Application: An Experimental Study	FP-C-30
P00427	Numerical and Experimental Investigation on Injection Molding of Micro-Pillars	FP-C-31
P00189	An Approach for Reducing Computational Time for Real-Time Autonomous Vehicle Tracking	FP-C-32
P00265	Fabrication Method and Characterization of a Wireless Strain Sensor	FP-C-33
P00381	Fabrication of Silicon Nanowire by Top-down method and Transferring it into an Elastomeric Substrate	FP-C-34
P00395	The Novel Detection and Segmentation Image Processing Algorithm for Endoscopic Surgery System	FP-C-35
P00480	Preliminary Study on Camera-Laser Calibration for Underwater Laser Scanning	FP-C-36
P00258	Development of the sensorized hybrid gripper for the proprioceptive grasping	FP-C-37
P00249	Motion Recognition System for Worker Safety in Manufacturing Work Cells	FP-C-38
P00149	Towards Automated 3D reconstruction in SME factories and Digital Twin Model generation	FP-C-39

### ICCAS 2018 Paper List (By Session Code)

P00457	Large Scale Representation of Volumetric Fusion using ICP	FP-C-40
P00083	Development of Foot Devices for Virtual Reality	FP-C-41
P00332	Positioning Accuracy Assessment of SBAS in Korea using MSAS System	FP-C-42
P00090	Problems in Models of Opening Networks Resources and Methods for Calculating System Performance and Reliability	FP-C-43
P00418	A Novel Robust Disturbance Observer for Uninterruptible Power Supplies	FP-C-44
P00446	A Study on Intelligent Control of Humanoid Type Robot with Two-Wheel Driving Based on Continuous Voice Recognition for Smart FA	FP-C-45
P00445	A Study on Iterative Learning Control of Mobile Robot with Two Arms for Handling and Arraying of Objects in High Temperature Environments	FP-C-46
P00444	A Study on Imitation Motion Learning Control of Humanoid Robot for Grasping and Pouring into a Cup with Two Hands	FP-C-47
P00443	A Study on Robust Control of Mobile-Manipulator Robot based on Iterative Learning for Cooperative Working	FP-C-48
P00442	A Study on Design and Control of Flexible Robot Hand for Grasping and Arraying of Objects	FP-C-49