

ICCAS 2021 Paper List
(Session No.)

Session No.	PaperTitle	Paper No.
TuP1-1	A study on Pneumatic Actuator Control for Industrial Robot	P00292
TuP1-2	Image-Based Visual Servoing with Backstepping for the Drone	P00533
TuP1-3	Goal-Oriented Navigation with Avoiding Obstacle based on Deep Reinforcement Learning in Continuous Action Space	P00435
TuP1-4	Learning based-State Estimation for Autonomous Holonomic Mobile Robots only using Intrinsic Sensors	P00337
TuP1-5	Environment Exploration for Mapless Navigation based on Deep Reinforcement Learning	P00305
TuP1-6	Semantics Aware Loop Closure Detection in Visual SLAM	P00432
TuP1-7	Vibration Reduction Control of Omnidirectional Mobile Robot with Lift Mechanism	P00385
TuP1-8	Low-level Force Control of a Hydraulic Actuator via Learning-based Inverse Model Control	P00286
TuP1-9	Energy Efficient Flow Control of Hydraulic Pump for Bipedal Robots	P00215
TuP1-10	Partial Discharge Diagnose based on Deep Learning using an Ultrasonic Camera	P00358
TuP1-11	A Time-delayed Compensation Technique for Hybrid Force Control of Robot Manipulators	P00060
TuP1-12	The EnEMA System-Ennead Electromagnetic Actuation System-Towards locomotion control for targeted drug delivery	P00068
TuP1-13	Development of an Attachable Biopsy Module for Magnetically Manipulated Capsule Endoscope	P00064
TuP1-14	Active Multiple-Sampling Capsule for Gut Microbiome	P00035
TuP1-15	Nanoparticles Steering of Field Free Point based on Movable Electromagnet Actuation System for Targeted Drug Delivery	P00062
TuP1-16	Design of CMOS LNA based on Inverter structure for broadband application	P00160
TuP1-17	AI Approach for Bio-signal Detection of a Driver	P00352
TuP2-1	Study on Direct Teaching of End Effector for Surgical Assistant Robot Based on Current Feedback	P00587
TuP2-2	Autonomous Guidewire Navigation with Deep Reinforcement Learning in Simulation for Cardiovascular Intervention	P00441
TuP2-3	Animal Feasibility Study of Robotic System for Transurethral Resection of Bladder Tumors	P00186
TuP2-4	In vivo and Clinical Evaluation of a Novel Vascular Intervention Assist Robot	P00581
TuP2-5	Design of acceleration feedback of UGV using a Stewart platform	P00453

ICCAS 2021 Paper List
(Session No.)

TuP2-6	Ensuring Reliable OpenFlow Channel for SDN Based Cyber-Physical System	P00434
TuP2-7	Wireless SDN Self-Recovery for Unmanned Swarm Cyber-Physical Systems	P00382
TuP2-8	MIR-VIO: Mutual Information Residual-based Visual Inertial Odometry with UWB Fusion for Robust Localization	P00273
TuP2-9	Actuator fault detection for unmanned ground vehicles using unknown input observers	P00157
TuP2-10	Generating Multi-agent Patrol Areas by Reinforcement Learning	P00080
TuP2-11	Data-driven fault detection and isolation of system with only state measurements and control inputs using neural networks	P00071
TuP2-12	Distributed model predictive formation control for unmanned ground vehicles via real-time optimization	P00237
TuP2-13	Robust Voltage Control Method for DC Microgrids with a System Uncertainty	P00376
TuP2-14	Yet Another Small-gain Approach to Robust Stability Analysis of Disturbance Observer in Frequency Domain: A Preliminary Study	P00310
TuP2-15	Distributed Matching of Cyber and Physical Systems	P00169
TuP2-16	Robust Bus Voltage Control in DC Microgrid	P00503
TuP3-1	Automatic robotized system for wire harness manipulation based on vision guideline with convolutional neural network	P00556
TuP3-2	A Study on Trajectory Generation for Picking and Transporting a Single Flexible Cable using Two Robot Arms	P00543
TuP3-3	Strategic Algorithm for Cable Wiring using Dual Arm with Compliance Control	P00404
TuP3-4	A Study on Recognition of Flexible Cable on Cable Rack using Point Cloud Data	P00301
TuP3-5	Roller-based soft gripper for gripping and transferring the flexible wire bundle	P00204
TuP3-6	Development of greenhouse crop harvesting system using multiple robots	P00149
TuP3-7	Mechanoelectrical conversion in 3D printed polymer electrolyte composites	P00283
TuP3-8	TSA-based Assistant Suit Exoskeleton Design For Agricultural Work	P00120
TuP3-9	Additive application of pressure sensitive material for smart insole manufacturing	P00568
TuP3-10	Additive Fabrication of 3-Dimensional Tactile Sensor	P00584
TuP3-11	Aerial-Satellite Image Matching Framework for UAV Absolute Visual Localization using Contrastive Learning	P00442
TuP3-12	6-DOF Robot Arm Visual Servoing with Canny Edge-Based Object Detection	P00411

ICCAS 2021 Paper List
(Session No.)

TuP3-13	Study on Numerical Motion Planning Algorithm for Collision Avoidance and Optimal Welding Posture	P00396
TuP3-14	Deep Learning-based Shoe Upper Defect Detection Algorithm Design	P00249
TuP3-15	A Study on Robust Fault-tolerant Control for a Low-cost Target Tracking System	P00166
TuP3-16	Vision-based Gripper System Using Lidar and Tactile Sensor	P00379
TuP4-1	Relative Precise Positioning based on Moving Baseline and the Effect of Uncommon Satellite Combination	P00488
TuP4-2	Formation Tracking Control Algorithm for Multi-agent Combined with Fast Terminal Sliding Mode Control And Disturbance Observer	P00112
TuP4-3	Target State Estimation for UAV's Target Tracking and Precision Landing Control: Algorithm and Verification System	P00063
TuP4-4	A Study on 3D Virtual Simulator System for Imitation Learning of Mobile Robot	P00603
TuP4-5	Design of robust L_∞ observer with application to maneuvering target tracking	P00578
TuP4-6	A study on autonomous navigation in smart greenhouse	P00577
TuP4-7	Depth-Sensor-Based Row-Following Method for Autonomous Driving of Agricultural Vehicles	P00574
TuP4-8	A Remote Driving Interface for Robot Speed Sprayer in Orchard Environment	P00571
TuP4-9	Experimental Studies on Autonomous Backward Driving Control of a Vehicle Using Neural Network	P00552
TuP4-10	A Person-Following Robot Using Siamese Network-Based RGBD Tracking	P00572
TuP4-11	Human Action Recognition System on ROSFor Real-World Monitoring	P00616
TuP4-12	Towards Tendon-based Integrated Tracking and Constraining System for a Soft Teleoperation Glove with Haptic-Feedback Capability	P00610
TuP4-13	Data-Driven Inverse Kinematics for Human Hand	P00609
TuP4-14	Empirical Modeling of Locomotor Behavior in Soft Robots	P00608
TuP4-15	Tomato Harvesting Robot System using 6D Pose Estimation and DRL model	P00607
TuP4-16	A Compact Mechanical Safety Mechanism for Tendon Transmission based on Magnets and Capstan Brake	P00606
TuP4-17	Indoor localization using infrared sensorsbased on heteroscedastic Gaussian process regression	P00604
TuP4-18	Heuristic Dynamic Object Detection for Robust Scan Matching in Dynamic Environments	P00601
WA1-1	Multi-agent Reinforcement Learning in a Large Scale Environment via Supervisory Network and Curriculum Learning	P00333

ICCAS 2021 Paper List
(Session No.)

WA1-2	Neuro-evolutionary based controller design for linear and non-linear systems	P00350
WA1-3	Intra-Batch Features Separation for Indoor and Outdoor Pedestrian-View Intersection Classification	P00446
WA1-4	Weight Change Prediction for Automated Depression Diagnosis	P00490
WA1-5	Physical Violence Detection in Video Streaming Using Partitioned Skeleton Analysis	P00551
WA1-6	Framework for Deep Learning-enabled Building High-Definition Maps and Planning Routes for Autonomous Vehicles	P00579
WA2-1	UWB based Relative Navigation and Leader-Follower Formation for UAVs using Maneuvering of a Follower	P00387
WA2-2	Wind Tunnel Studies on Autonomous VTOL UAV with Morphing Technologies	P00499
WA2-3	ROLAND: Robust Landing of UAV on Moving Platform using Object Detection and UWB based Extended Kalman Filter	P00517
WA2-4	ROSSi - A Graphical Programming Interface for ROS 2	P00553
WA2-5	Vision-based Autonomous Disinfection of High Touch Surfaces in Indoor Environments	P00555
WA2-6	Hovering control of a quadrotor system by a reduced-order observer-based output feedback controller	P00081
WA2-7	Integrated Emergency Self-Landing Method for Autonomous UAS in Urban Aerial Mobility	P00125
WA3-1	Robust Output Voltage Tracking Control for Uncertain AC/DC Converter	P00077
WA3-2	Predicting Temperature Fluctuation of Five Axis Controlled Compact Machine Tool Equipped with a Wave Motion Gear Device Based on a Thermal Network Model	P00105
WA3-3	Investigation on Optimal Pulse Current Charging of Lithium-ion Batteries using Electro-Chemical Model	P00142
WA3-4	Meta-Cognitive Fuzzy Neural Network Control for Active Power Filter	P00189
WA3-5	The Effect of Core Parking for Energy-efficient Matrix-Matrix Multiplication by using AVX and OpenMP	P00535
WA4-1	Calibration and 3D Reconstruction of Images Obtained Using Spherical Panoramic Camera	P00133
WA4-2	Image-Goal Navigation via Metric Mapping and Keypoint based Reinforcement Learning	P00246
WA4-3	An integrated system design interface for operating 8-DoF robotic arm	P00280
WA4-4	High-speed embedded optical flow measurement system for real-time use	P00319
WA4-5	Effect of the covariance matrix of the Kalman filter used for optical flow estimation	P00326
WA4-6	GBNet: Gradient Boosting Network for Monocular Depth Estimation	P00492

ICCAS 2021 Paper List
(Session No.)

WA5-1	Improving manufacturing technology methods based on the data mining of a microdrill catalog database	P00052
WA5-2	Chatbots and Conversational Agents in Mental Health: A Literature Review	P00281
WA5-3	Differentiative Feature-based Fall Detection System	P00541
WA5-4	Evaluation metrics for automatically constructed concept maps	P00544
WA5-5	Distracted Driver Recognizer with Simple and Efficient Convolutional Neural Network for Real-time System	P00588
WA6-1	Application of Digital Twin to Monitor and Optimize Utility Process	P00612
WA6-2	Digital application of bioreactor monitoring	P00602
WA6-3	Applying Digital Application Platform to Optimize Steam Methane Reforming Process	P00599
WA6-4	Development and evaluation of various FINEX off-gas utilization processes for sustainable steelmaking industry	P00585
WA6-5	Optimal Design and Operation of Multi-Microgrid Considering the Renewable Energy Sources	P00583
WA7-1	Design and Grasping Control of Rib-Reinforced Bending Soft Actuators by Vacuum Driven	P00168
WA7-2	Dynamic Obstacle Avoidance of Multi-rotor UAV using Chance Constrained MPC	P00079
WA7-3	Vision-Based 3D Reconstruction Using a Compound Eye Camera	P00191
WA7-4	Robust Control of the Aerial Manipulator with a Fixed End-effector Position	P00360
WA7-5	Collision-free transport of 2D deformable objects	P00545
WA7-6	Semantic Segmentation of Outcrop Images using Deep Learning Networks Toward Realization of Carbon Capture and Storage	P00135
WA8-1	Sunlight Compensation for Vision Based Drone Detection	P00119
WA9-1	Pixel-wise distortion model and its calibration method for AMCW LiDAR	P00482
WA9-2	Nonimaging Optical Irradiance Optimization for Enhanced ROI of Mobile Robot LiDAR	P00423
WA9-3	IMU-integrated Optical Navigation System for Tracking Multi-agent	P00354
WA9-4	Capacity estimation of lithium-ion batteries under various temperatures using two aging indicators	P00083
WA9-5	Cell Inconsistency Classification for Lithium-Ion Battery Packs Considering Internal Short Circuit Fault	P00082
WA9-6	An Uncertainty and Disturbance Estimator based on Model-free Time-delay Control to Robot manipulators	P00059

ICCAS 2021 Paper List
(Session No.)

WA10-1	Radar Velocity Measurements Aided Navigation System for UAVs	P00439
WA10-2	Effect of Adaptive Fading Scheme on Invariant EKF for Initial Alignment Under Large Attitude Error and Wave Disturbance Condition	P00436
WA10-3	An Adaptive Approach based on Multi-State Constraint Kalman Filter for UAVs	P00405
WA10-4	Attitude determination of high spinning motion under uniaxial saturation condition	P00109
WB1-1	AI-based Regression Analysis for Optimizing the Performance of Robot Manipulator Trajectory Tracking	P00123
WB1-2	Tidy-Up Tasks Using Trajectory-based Imitation Learning	P00181
WB1-3	A Strategy of Subsea Pipeline Identification with Sidescan Sonar based on YOLOV5 Model	P00226
WB1-4	Model Diet: A Simple yet Effective Model Compression for Vision Tasks	P00242
WB1-5	A Model-free Deep Reinforcement Learning Approach for Robotic Manipulators Path Planning	P00254
WB1-6	Local Tetra Pattern and Its Benefits to Improve the Performance of Car and Pedestrian Detection Under Hostile Conditions	P00272
WB2-1	An Infinity-Norm Based Approach to Design of Collision Avoidance Control System for UAVs	P00178
WB2-2	Indoor Path Planning for an Unmanned Aerial Vehicle via Curriculum Learning	P00197
WB2-3	Collision Avoidance based on CPA algorithm using Relative Distance and Azimuth of Radar for Unmanned Aerial Vehicles	P00309
WB2-4	Quadcopter control using the viscoelastic control law	P00345
WB2-5	Viewpoint Selection for DermDrone using Deep Reinforcement Learning	P00156
WB2-6	A Novel Fixed Twin-Rotor Unmanned Aerial Vehicle with Variable Angle Louver Rudder	P00165
WB3-1	Modified Recurrent Fuzzy Neural Network Sliding Mode Control for Nonlinear Systems	P00241
WB3-2	Position Estimation of Stepper Motor Using Adaptive Gain Super Twisting Algorithm Sliding Mode Observer	P00306
WB3-3	Driver Torque Control for Electric Power Steering Systems with Parameter Estimation Algorithm	P00335
WB3-4	Gain Optimization for SMCSP0 with Gradient Descent	P00394
WB3-5	Improved Adaptive Sliding Mode Control with Disturbance Observer for Velocity Control of PMSM System	P00489
WB3-6	Design Framework for Context-Adaptive Control Methods Applied to Vehicle Power Management	P00520
WB4-1	The Diagnosis of COVID-19 by Means of Transfer Learning through X-ray Images	P00164

ICCAS 2021 Paper List
(Session No.)

WB4-2	The Diagnosis of Diabetic Retinopathy: A Transfer Learning Approach	P00163
WB4-3	Automated Gastrointestinal Tract Classification Via Deep Learning and The Ensemble Method	P00162
WB5-1	Position Calibration Method for Large size Industrial Robots Based on Random Forest	P00172
WB5-2	Camouflaged adversarial attack on object detector	P00173
WB5-3	LSTM-Based Real-Time SOC Estimation of Lithium-Ion Batteries Using a Vehicle Driving Simulator	P00177
WB5-4	Autonomous System Identification and Control Using Deep Neural Network	P00194
WB5-5	Feature recognition for graph-based assembly product representation using machine learning	P00217
WB5-6	Development of Chatbot Psychologist Applying Natural Language Understanding Techniques	P00278
WB6-1	Comparative Study on Battery State of Health Prediction Models with Manually Selected vs CNN-extracted features	P00582
WB6-2	Modeling and scale-up of multi-tube membrane reactor for hydrogen production using computational fluid dynamics	P00580
WB6-3	Design of Hydrogen Isotope Separation System based on Bayesian Optimization	P00511
WB6-4	Model-free design of experiments framework for optimal process design using process simulators	P00425
WB6-5	Development of a Surrogate Model Based on 2D First Principle Equations for Open Rack Vaporizer	P00349
WB8-1	The Development of Research on Interactive Virtual Fixture Generation	P00515
WB8-2	Dynamics and Control Problems of Novel Aerial Manipulation Systems with Rotor Actuation	P00474
WB8-3	Methods for Improving the Perceived Impedance Range of Handheld Haptic Controllers	P00388
WB8-4	A Foldable Robot Arm for Drones: Applications and Challenges	P00291
WB8-5	A Tire System Attached Acceleration Sensor for Road Condition Classification	P00238
WB8-6	Virtual Teleoperation-based Human-assisted Autonomy for Shared Teleoperation	P00508
WB8-7	Gait Event Detection Using the Convolutional Neural Network Based on a single IMU Attached to the Various Parts of the Upper Body	P00355
WB8-8	Local Optimization of Optimal Control Problem on a Wasserstein ball	P00476
WB9-1	Realtime Corridor Detection for Mobile Robot Navigation with Hough Transform Using a Depth Camera	P00039
WB9-2	Image-Goal Navigation Algorithm using Viewpoint Estimation	P00154

ICCAS 2021 Paper List
(Session No.)

WB9-3	Semantic Mapping Based on Image Feature Fusion in Indoor Environments	P00170
WB9-4	Learning Latent Dynamics from Multi-View Observations for Image-Based Control	P00270
WB9-5	Trajectory Prediction & Path Planning for an Object Intercepting UAV with a Mounted Depth Camera	P00276
WB9-6	Geometric Understanding of Reward Function in Multi-Agent Visual Exploration	P00316
WC1-1	Semantic Descriptors into Representation for Robust Indoor Visual Place Recognition	P00056
WC1-2	Exploring Advanced Process Equipment Visualization as a Step Towards Digital Twins Development: A CFD-DNN Approach	P00067
WC1-3	The use of Neural Network for Nonlinear Predictive Control design for and Overhead Crane	P00075
WC1-4	Discrete Task-Space Automatic Curriculum Learning for Robotic Grasping	P00084
WC1-5	Determination of Defects for Dynamic Objects Using Instance Segmentation	P00087
WC1-6	A deep reinforcement learning algorithm based on modified Twin delay DDPG method for robotic applications	P00097
WC2-1	Autonomous Navigation System with Obstacle Avoidance using 2.5D Map Generated by Point Cloud	P00176
WC2-2	Integration of Path Optimization and Obstacle avoidance for Autonomous Precision Immobilization Technique Maneuver	P00341
WC2-3	Fast, Lightweight, and Robust Path Planning for Low-power Embedded Environments	P00373
WC2-4	Heuristic Guided Artificial Potential Field for Avoidance of Small Obstacles	P00428
WC2-5	Encoding A Mathematically Faithful DeepVIO Solution	P00563
WC3-1	Distributed Optimization Algorithms on Structurally Balanced Signed Networks	P00029
WC3-2	Improved Combined Step-size Normalized Sign Algorithm with Novel Variable Mixing Factors	P00044
WC3-3	A Simple Finite-time Position Tracking Controller for Servo Motor Systems	P00110
WC3-4	Patching continuous-time signals using high-gain observers and 3rd order splines	P00185
WC3-5	Adaptive Torque-based Vehicle Slip Control using Super-twisting Theorem for Steering Vehicle Control on Cornering Road	P00234
WC3-6	Online Estimation of Mass and Moment of Inertia of Cargo Bike Payload using an Unscented Kalman Filter	P00285
WC4-1	Decentralized Supervision for the Cooperation of Heterogeneous Field Robots in an Orchard	P00421
WC4-2	Genetic Algorithm-based Approach for Harvesting Robot Path Planning	P00311

ICCAS 2021 Paper List
(Session No.)

WC4-3	A Preliminary Result on Motion Planning for an Autonomous Tomato Harvesting Robot in 3D Reconstructed Environments	P00300
WC4-4	Robot Motion Profile to Suppress Multi-mode Residual Vibration	P00247
WC4-5	Backstepping Control of Hydraulic System to Maintain the Korean Cabbage Harvester Cutting Position	P00219
WC4-6	Development of the Power Assist Mechanism for the Agricultural Exosuit	P00356
WC5-1	The Development and Applying of Image Classification for Diamond Quality and Characteristic Analysis	P00031
WC5-2	Reinforcement Learning-based Sim-to-Real Impedance Parameter Tuning for Robotic Assembly	P00209
WC5-3	Design method for biomolecular circuit with plasticity	P00214
WC5-4	Differential dynamic programming approach for the closed-loop operation in parameter-dependent system	P00365
WC5-5	Latent variable space model predictive controller design with model confidence constraints	P00471
WC5-6	Product description Recipe Generation from 3D STEP model for Autonomous Task Planning	P00525
WC6-1	Autonomous Well Logging Robot with Passive Locomotion	P00009
WC6-2	Radar based Obstacle Detection System for Autonomous Unmanned Surface Vehicles	P00351
WC6-3	Object Detection and Tracking System with Improved DBSCAN Clustering using Radar on Unmanned Surface Vehicle	P00437
WC6-4	Numerical Study on Maneuvering Simulation in Waves of USV Using Two-Time-Scale Method	P00560
WC8-1	ArUcoE: Enhanced ArUco Marker	P00094
WC8-2	Self evaluation for gait based on optical flow calculation	P00325
WC8-3	Visualization of torque generated in the human body based on optical flow measurement	P00448
WC8-4	Performance Evaluation of YOLOv3 and YOLOv4 Detectors on Elevator ButtonDataset for Mobile Robot	P00516
WC9-1	Design of Mechanical Compensation System for Hand Tremor of The Old People	P00550
WC9-2	Pose Estimation of 5-DOF Manipulator using On-Body Markers	P00546
WC9-3	Ring Reinforced Silicone based Steering Head for Endoscopy like Applications FEM simulation, development and force characterization	P00371
WC9-4	A Novel Lidar Technology of Autonomous Mobile Robots for Automating Intralogistics	P00078
WC9-5	Mechanical Joint Design for Gravity Compensation of a Robot Manipulator	P00069

ICCAS 2021 Paper List
(Session No.)

WC9-6	Variable Stiffness Magnetically Steerable Manipulator using Graphene Polylactic Acid	P00034
WC10-1	A Target Assignment and Path Planning Framework for Multi-USV Defensive Pursuit	P00518
WC10-2	End-to-End control of USV swarm using graph centric Multi-agent Reinforcement Learning	P00480
WC10-3	Development of a robust path following controller for an unmanned surface vessel	P00232
WC10-4	Hierarchical Task Planning Considering Communication Status for Multi-Robot System	P00440
WC10-5	Curriculum-Based MADDPG for Defensive Task Assignments	P00340
TA1-1	Development of safety diagnostic robots with artificial intelligence for industrial plants	P00348
TA1-2	Disturbance Observer-based Robust Path Tracking Control for Tracked Vehicle	P00377
TA1-3	QR-SCAN: Traversable region Scan for Quadruped Robot Exploration using Lightweight Precomputed Trajectory	P00454
TA1-4	Deep Reinforcement Learning based Planing for Urban Self-driving with Demonstration and Depth Completion	P00458
TA1-5	Adaptive Sliding Mode Control for Trajectory Tracking of the Tracked Vehicle System	P00461
TA1-6	Learning Control Applications for Autonomous Driving in Extreme Maneuver Scenarios	P00547
TA2-1	Development of a conversing and body temperature scanning autonomously navigating robot to help screen for COVID-19	P00122
TA2-2	A Fast Real-time Facial Expression Classifier Deep Learning-based for Human-robot Interaction	P00141
TA2-3	Performance Comparison of Position Controlled Robotic Stage When Force- and Position-Based Disturbance Observers are Implemented	P00171
TA2-4	Robust Person Following Under Severe Indoor Illumination Changes for Mobile Robots: Online Color-Based Identification Update	P00240
TA2-5	A Novel Affinity Enhancing Method for Human Robot Interaction - Preliminary Study with Proactive Docent Avatar	P00318
TA2-6	Recognition Of Fingertip Movement Using Optical Flow For Human Machine Interface	P00327
TA3-1	A filtered-x scheduled step-size active noise cancellation algorithm considering implementation	P00038
TA3-2	Joint Position Tracking Control of a Two-Link Planar Robot Arm Using Fuzzy Fractional Order Sliding-Mode Strategy	P00235
TA3-3	Gliding Trajectory Programming of Guided Projectile Based on Improved L1 Penalty Successive Convex Programming Algorithm	P00262
TA3-4	The Design of PI with Delayed-Time Integral Mode Controller for Wireless Networked Control System	P00393
TA3-5	A sliding-mode control approach towards design of driving assistance system for lane-change maneuver in connected vehicles	P00527

ICCAS 2021 Paper List
(Session No.)

TA3-6	On a Proxy-Based Control as Multiple Controllers with Feedback Interconnections	P00562
TA4-1	Two-degree-of-Freedom Robust PID Controller Design for Unstable System	P00559
TA4-2	Design of Supervisory Model Predictive Control for Building HVAC System with Time-Varying Coefficient of Performance	P00466
TA4-3	Controller design for a level control system with valve stiction: A data-driven approach	P00422
TA4-4	A New Approach to Sliding Mode Control of a Robot System with Its Computed Torque Treatment	P00389
TA4-5	A Software Frameworks for Long-Distance Experiments of Multi-Agent Systems	P00174
TA4-6	An Optimal Market Clearing Algorithm for Peer-to-Peer Energy Trading in Smart Grid	P00095
TA4-7	Application of free matrix based integral inequality:sampled-data multi-agent system	P00072
TA4-8	Constrained Optimization-based Smoothing Algorithm for Walking Step Length Estimation using Waist-mounted Inertial Sensors	P00199
TA5-1	Evaluation of Multi-Constellation GNSS Positioning Using Double Differenced Observations	P00016
TA5-2	Effective Ground Mapping for Autonomous Excavation	P00043
TA5-3	A Data Fusion Algorithm of GNSS/INS/ Odometer Integrated System In Consideration of Total Odometer Errors	P00195
TA5-4	GPS Multipath Detection Based on Carrier-to-Noise-Density Ratio Measurements from a Dual-Polarized Antenna	P00233
TA5-5	Development of an R-Mode Simulator Using MF DGNSS Signals	P00263
TA6-1	Autonomous Robot Control using Navio2 and Lidar Based SLAM	P00554
TA6-2	A Fusion Framework for Multi-Spectral Pedestrian Detection using EfficientDet	P00462
TA6-3	Enhanced Dual Adversarial Network for Real Image Noise Removal and Generation using Edge Loss Function	P00307
TA6-4	YOLO-based robotic grasping	P00293
TA6-5	Analysis of the influence of 3D-CNN on spatial random information in hyperspectral image classification	P00175
TA7-1	Towards an Omni-directional Orientation Manipulation of Spherical Piezoelectric Motor: A Torque Vector Composition Method	P00014
TA7-2	Real-Time Multi-Person Action Recognition with a Neural Compute Stick	P00384
TA7-3	Globally Optimal and Scalable Video Image Stitching for Robotic Visual Inspection of Electric Generators	P00089
TA7-4	Learning-Driven Exploration for Reinforcement Learning	P00456

ICCAS 2021 Paper List
(Session No.)

TA7-5	Model-Based Reinforcement Learning with LSTM Networks for Non-Prehensile Manipulation Planning	P00099
TA7-6	Partitioned Gaussian Process Regression for Online Trajectory Planning for Autonomous Vehicles	P00548
TA8-1	A Novel Room Categorization Approach to Semantic Localization for Domestic Service Robots	P00010
TA8-2	Fast Drone Detection using SSD and YoloV3	P00030
TA8-3	Shallow Depth SIFT Based Approach for Mapping underwater surfaces using AUV's	P00036
TA8-4	Detection Of Defective Videosurveillance Camera In Train Stations	P00184
TA9-1	G-K curve-based knee point prediction method for Li-ion batteries	P00313
TA9-2	Invariance Domain for the L1 Performance of Nonlinear Systems	P00231
TA9-3	Automatic Data Augmentation by Upper Confidence Bound for Deep Reinforcement Learning	P00150
TA9-4	Event-triggered Actor Critic through Entropy Regularization for Highly Sparse Robot Controller	P00116
TA9-5	Stability analysis of time-varying delay neural network system utilizing free-matrix-based double integral inequality	P00070
TA9-6	Energy Consumption Analysis of a Downward Tethered quadrotor	P00033
TA10-1	AX-Deminer Knee: Exoskeleton for Soldier's Knee Joint Assistance	P00427
TA10-2	High-Precision Motion Control of a Lower-Limb Wearable Robot for People with Walking Disability by Hybrid Filtered Disturbance Observer	P00265
TA10-3	Transparent Torque Sensor-less Impedance Rendering for Low-cost Direct Drive Motor	P00264
TA10-4	Stewart Platform and Remote Center of Motion Mechanism based Robotic System for Non-Invasive Brain Stimulation	P00239
TA10-5	Control of tendon-driven(Twisted-string Actuator) robotic joint with adaptivevariable-radius pulley	P00447
TA10-6	Position Tracking Control of Rope-Driven Building Cleaning Robot	P00500
TC1-1	Autonomous Driving based on Modified SAC Algorithm through Imitation Learning Pretraining	P00152
TC1-2	Natural Speed Planning and Control of the Autonomous Vehicle within Social Norm	P00203
TC1-3	Vehicle Localization Using Radar Calibration with Disconnected GPS	P00222
TC1-4	Robust Model Predictive Control with Control Barrier Function for Nonholonomic Robots with Obstacle Avoidance	P00228
TC1-5	Considerations for Cyber Security Implementation in Autonomous Vehicle Systems	P00308

ICCAS 2021 Paper List
(Session No.)

TC1-6	A pallet recognition and rotation algorithm for autonomous logistics vehicle system of a distribution center	P00336
TC2-1	Exoskeleton Robotics Intervention as an Adjunctive Treatment in Enhancing Post-Stroke Upper Limb Neurorecovery	P00114
TC2-2	Finger Extensor Facilitation Training Device "iPARKO": Analysis of increased muscle activity in a hemiplegic person	P00236
TC2-3	Skin injury occurrence estimation model for the wearable robot use and its experimental validation	P00282
TC2-4	Gait Clustering Analysis in Patients after a Stroke using Gait Kinematics Data	P00353
TC2-5	Effects of using TENS as Electro-tactile Feedback for Postural Balance under Muscle Fatigue Condition	P00429
TC2-6	Development of a Six Bar Mechanism Based Active Knee Orthosis for Post-Stroke Gait Rehabilitation	P00537
TC3-1	Parameter Tuning of Active Disturbance Rejection Controller for Altitude Based on Particle Swarm Optimization	P00051
TC3-2	Direct tuning of PID controller and reference model with input constraint	P00101
TC3-3	Development of an automatic picking system for assistive robots using MR	P00129
TC3-4	A Model-Free and Chattering-Suppression Approach with Time-Delay Estimation and Fuzzy Logic for Robot Manipulators	P00192
TC3-5	Lateral Driving Envelope Protection Using Cascade Control	P00230
TC4-1	Comparison and Analysis of Convex Optimization Methods for Potential Field-based Path Planning	P00566
TC4-2	Fault Detection and Diagnosis of Sensors and Actuators for Unmanned Surface Vehicles	P00472
TC4-3	Three-Dimensional Mapping of Indoor and Outdoor Environment using LIO-SAM	P00464
TC4-4	Calculation of Mahjong Score using AI	P00221
TC4-5	Posture Recognition System using Depth Sensor	P00220
TC4-6	Multi Functional Brain Computer Interface	P00216
TC4-7	Meta Reinforcement Learning Based Underwater Manipulator Control	P00296
TC5-1	Energy-Optimal Waypoint-Following Guidance for Gliding-Guided Projectiles	P00055
TC5-2	Integrated Inertial and Radio Based State and Parameter Estimation for Mars Entry Phase Spacecraft Navigation	P00182
TC5-3	An Instantaneous Impact Point Guidance for Rocket with Aerodynamics Control	P00196
TC5-4	The influence of trajectory design parameters on miss distance and survivability of anti-ship missiles	P00252

ICCAS 2021 Paper List
(Session No.)

TC5-5	Nonlinear Three-Loop Autopilot Design for Spaceplanes	P00334
TC6-1	HybridNet: Indoor segmentation with range and voxel fusion	P00287
TC6-2	Visual surveillance transformer	P00407
TC6-3	Segmentation applying TAG type label data and Transformer	P00467
TC6-4	Scene Text Recognition with Multi-decoders	P00297
TC6-5	Hyperspectral Imaging labelling tool using preprocessing and edge detection	P00523
TC9-1	Elevator button tracking and localization for multi-storey navigation	P00468
TC9-2	Multi-modal 3D Sensor Data based Obstacle Avoidance Method for Autonomous Driving	P00463
TC9-3	Human recognition in a cluttered indoor environment by sensor fusion	P00444
TC9-4	A Semantic Navigation Framework for Multi-Floor Building Environment	P00374
TC9-5	Object Pose Estimation via Viewpoint Matching using 3D Models	P00058
TC10-1	Study on Combination of Multiple Localizer to Improve Localization Accuracy of Outdoor Security Robots	P00504
TC10-2	Detecting Change to Quantify Anomalies for Robust Outdoor Surveillance	P00398
TC10-3	Fighting Against Data Deficiency Problems for Surveillance	P00397
TC10-4	Anomaly detection based on user feedback learning using multi-layered surveillance map	P00294
TC10-5	Multi-modal Object Detection, Tracking, and Action Classification for Unmanned Outdoor Surveillance Robots	P00269
TC10-6	Development of Cloud-based Multi-Robot Surveillance System	P00524
TC10-7	A Multi-robot Balanced Coverage Path Planning Strategy for Patrol Missions	P00531
TP1-1	A Mission Allocation Algorithm Using Multi-Agent Reinforcement Learning	P00600
TP1-2	Depth Image Thresholding for Tomato Detection in the Greenhouse	P00598
TP1-3	Real-time Simulation Model for an Under-water Construction Robot using the Recursive Subsystem Synthesis Method	P00596
TP1-4	Development of Steerable Needle Segmentation from Ultrasound Images using Deep Learning Algorithm	P00594
TP1-5	Channel Fusion Method for Object Detection of Multi-Spectral Image	P00593

ICCAS 2021 Paper List
(Session No.)

TP1-6	A Spectral Image Analysis on the Detecting Wasp Nest using by Drone	P00592
TP1-7	Development of Remote Underwater Monitoring System for Image Acquisition and Fish Detection using Neural Network	P00589
TP1-8	Comparison of Packaging and Distribution Tools for Deep Learning-based Point Cloud Classification Model	P00536
TP1-9	Dynamic Gait Analysis for Soft Snake Robot	P00493
TP1-10	Robustness of Out-of-Distribution Detectors Against Input Transformations	P00486
TP1-11	Design of Rehabilitation Patient Gait Recognition Measurement Using 2D Lidar Sensor for Medical Service Robot	P00469
TP1-12	Serialize Geometry Data method for High-Definition Map Data Transmission	P00457
TP1-13	Environment and Graph Change-Aware Path Planning Based on SoRB Algorithm	P00443
TP1-14	Real-Time Analysis of a Decommissioning Hydraulic Manipulator System	P00430
TP1-15	Finite Memory Multi-Agent Tracking for Multiple Unmanned Aerial Vehicles	P00424
TP2-1	A prediction to the position of MLC with machine learning algorithms	P00408
TP2-2	3D Real World Representation with Octomap and Euclidean Distance Field	P00403
TP2-3	Measurement of the Catheter Motion for Catheter Simulation	P00391
TP2-4	FMCW Lidar design using biaxial polarization optics and Improvement of interference frequency SNR	P00383
TP2-5	DQN-based Automotive Cabin Temperature Control System	P00381
TP2-6	Initial Investigation on the Friction Estimation of a Bowden-cable Measuring Electrical Resistance	P00380
TP2-7	Flow Analysis of Underwater Nozzle for Fish Farm Cleaning	P00363
TP2-8	Design of distributed computer system for implementing a consensus algorithm	P00347
TP2-9	Implementation of Ad-hoc Network for ROS application on Multi-drone system	P00339
TP2-10	MPC based Vehicle Collision Avoidance Control Algorithm using Steering angle	P00338
TP2-11	3D Medical Model Reconstruction Experiment using CBCT-based FDK Algorithm	P00330
TP2-12	Control Model for Refrigeration Cycle of EV's Thermal Management System	P00328
TP2-13	Enhancing the Z-width of Haptic Rendering with a Compensator	P00324

ICCAS 2021 Paper List
(Session No.)

TP2-14	Extraction of Visible Map Points with Semantic Observation	P00317
TP2-15	Simulation and optimization of biomimetic robot swarms inspired by collective behavior of living organisms	P00315
TP3-1	Image Stitching Approach based on an Orientation of Electromagnetically Actuated Capsule Endoscopy	P00314
TP3-2	Post Impact Stabilization Control using Collision Force Estimator	P00312
TP3-3	Temperature Control of Extrusion Process of Micro Guidewire	P00304
TP3-4	V2V Communication Data-based Vehicle Trajectory Prediction Method	P00303
TP3-5	Detachable capacitance type touch sensor for smart glove	P00302
TP3-6	Design of Gravity Compensation Mechanism for a Supplementary Foldable-Robotic Arm for Construction Workers	P00290
TP3-7	Zero Offset Calibration for Robot Manipulator using Cylindrical Coded Marker and Stereo Vision	P00289
TP3-8	Advanced radius outlier removal for denoising of LiDAR signals	P00288
TP3-9	Interactive Sensory Behaviors for Mental Care Assistant Robot based on ROS	P00275
TP3-10	Improving Nighttime Object Detection by Generating Synthetic Nighttime Dataset from Daytime Dataset	P00274
TP3-11	DP based Control Strategy Design for Fuel Cell Vehicle Energy Management	P00261
TP3-12	Shared Autonomy based Active Front Steering Control	P00258
TP3-13	Iterative Driving with LMPC for Lap Time Minimization	P00251
TP3-14	A systematic method for generating 4-DOF robot arm kinematic chains based on graph theory	P00245
TP3-15	Flexible Tactile Display for Wearable Computing Devices	P00223
TP4-1	Development of Myoelectric Hand Prosthesis Cover with Grip Force Recognition Function	P00218
TP4-2	Performance Comparison of Reinforcement Learning Algorithms for Autonomous Navigation of Outdoor Mobile Robots	P00211
TP4-3	A study on the comparison of transfer rate depending on the number of concurrent clients in a multi-robot system	P00205
TP4-4	Multiple LiDARs fusion for human gait tracking	P00200
TP4-5	QDD-TC: A Quasi-Direct-Drive Two-DOF Parallel-Elastic Mechanism with Tunable Compliance	P00198
TP4-6	Discovering Low-Dimensional Data Structures Using Normalizing Flows with a Parametric Latent Distribution	P00183

ICCAS 2021 Paper List
(Session No.)

TP4-7	Development of Fitness Personal Trainer with 3D Human Pose Estimation from 2D Images	P00167
TP4-8	Feasibility Study for Manipulation of da Vinci® Surgical System with Speech Recognition Technology	P00118
TP4-9	Vision-aided Inertial Navigation System for Indoor Environment	P00117
TP4-10	Digital twin platform development using smart factory-based CPPS	P00111
TP4-11	Development of a Drone for Indoor Proximity Flight Using a Directional 3D Lidar and a VIO Sensor	P00106
TP4-12	Robust Altitude Control of Multi-rotor UAV using Super Twisting Sliding Mode Control	P00100
TP4-13	Design Motion Intention Observer to Prevent Effect of Disturbance Acting on Master Device in Teleoperation System	P00098
TP4-14	Control System for Mobile Cable Tensioning Platform for Rehabilitation of Crouch Gait	P00085
TP4-15	A Kalman Filter for Inverse Dynamics Calculation of IMMU-based Real-time Joint Moment Estimation	P00054
FA1-1	An Optimization and Validation Method to Detect the Collision Scenarios and Identifying the Safety Specification of Highly Automated Driving Vehicle	P00007
FA1-2	Frequency modulation about electrical noise effect in Radar application for Autonomous Vehicle Systems	P00045
FA1-3	Lane Change Intention Inference of Surrounding Vehicle: Comparative Study on Relevance Vector Machine (RVM) and Support Vector Machine (SVM)	P00073
FA1-4	Energy-Optimal Speed Planning for Connected and Autonomous Electric Vehicles	P00086
FA1-5	Barrier Lyapunov Function-Based Safe Reinforcement Learning Algorithm for Autonomous Vehicles with System Uncertainty	P00096
FA2-1	Fusing RGB and Depth with Self-attention for Unknown Object Segmentation in Robotic Bin-picking	P00615
FA2-2	Automatic Detection of Injection and Press Mold Parts on 2D Drawing Using Deep Neural Network	P00613
FA2-3	Leveraging 3D Object Segmentation for Robust Visual Localization in Dynamic Environments	P00519
FA2-4	Low-cost Selective Steering Structure Design for Counter-steering and In-place Rotation of Smart Farm Robots	P00514
FA2-5	A study of paprika disease detection with YOLOv4 model using a customized pre-training method	P00491
FA3-1	Formation path learning for cooperative transportation of multiple robots using MADDPG	P00132
FA3-2	A RGB-D Vision based Indoor SLAM using 2.5D Map by Multiple UAVs	P00248
FA3-3	Goal Assignment in Leader-Following Formation Control of Second-Order Multi-Agent Systems	P00298
FA3-4	Behavior tree driven multi-mobile robots via data distribution service (DDS)	P00342

ICCAS 2021 Paper List
(Session No.)

FA4-1	A study on test method for evaluation of mobile robot trajectory estimation	P00542
FA4-2	A Performance Evaluation of the Collaborative Robot System	P00477
FA4-3	Structural Analysis on Cover-Frame of USV Robot	P00438
FA4-4	Development of Autonomous Navigation Performance Criteria and Related Test Methods for Autonomous Mobile Robot in the Outdoor Environment	P00400
FA4-5	Flow Analysis of Thrust for The Cleaning USV	P00359
FA4-6	A Performance Evaluation Method of Industrial Machine Tending Robot Systems for Non-Aligned Work Pieces	P00042
FA4-7	Development of a Certification System for the Performance of Industrial Robot System based on Artificial Intelligence	P00041
FA5-1	Applying Deep Learning for Mask Detection to Prevent Airborne Disease Spreading	P00032
FA5-2	TypicalVietnameseFoodNet: A Vietnamese Food Image Dataset For Vietnamese Food Classification	P00046
FA5-3	Prediction of pedestrian trajectory based on long short-term memory of data	P00090
FA5-4	Domain Adaptation for Agricultural Image Recognition and Segmentation Using Category Maps	P00134
FA5-5	Hypergraph based Multi-Agents Representation Learning for Similarity Analysis	P00145
FA6-1	Dynamic analysis of the 3CRS parallel robot using carbon/natural fibers hybrid composite links	P00012
FA6-2	Realization of Musical Saw Bowing by Industrial Humanoid Robot	P00102
FA6-3	Design and Development of a Co-axial Passive Flexion Mechanism-based Gripper for Irregular Objects	P00115
FA6-4	Dynamics Analysis and Control of 5 DOF Robot Manipulator	P00213
FA6-5	Rocker bogie Based Mobile Robot Control for Driving, Climbing and Standing Upright	P00433
FA6-6	User-Interfaced Guidance Scheme for Steering Swarm of magnetic nanoparticles	P00510
FA7-1	Preview Control of Automotive Active Suspension Systems to Improve Ride Comfort Using V2V Communication	P00513
FA7-2	Hybrid Control of Service Robot Vehicle using CNN based Behavior Cloning Algorithm for Enhanced Cornering Performance	P00465
FA7-3	Sliding Mode Approach for Partitioned Cost Function-based Fault-Tolerant Control of Automated Driving	P00460
FA7-4	Development of a Human-Like Learning Frame for Data-Driven Adaptive Control Algorithm of Automated Driving	P00452
FA7-5	Path Tracking Control for Four-Wheel-Steering Autonomous Vehicles based on Adaptive Sliding Mode Control with Control Allocation	P00180

ICCAS 2021 Paper List
(Session No.)

FA8-1	Sensorless Force Control Algorithm based on Momentum Observer Technique	P00136
FA8-2	An Experimental Setup to Study the Performance of Flexure Mechanism	P00143
FA8-3	Decomposed Q-learning for Non-prehensile Rearrangement Problem	P00267
FA8-4	Trajectory Optimization with Geometry-Aware Singularity Avoidance for Robot Motion Planning	P00485
FA9-1	Control of ankle joint motion change induced by vibration stimulation on the Gastrocnemius muscle during continuous joint motion	P00557
FA9-2	Baseball Robots Based on Sensory-Motor Integration	P00190
FA9-3	A Design Method for Non-Diagonal Stiffness Matrix in Admittance Control	P00161
FA9-4	Measurement of propulsive forces in swimming by using a swimming humanoid robot	P00148
FA9-5	Markerless Behavior Monitoring System for Diagnosis Support of Developmental Disorder Symptoms in Children	P00126
FA10-1	Automatic Segmentation of Finger Bone Regions from CR Images Using Improved DeepLabv3+	P00028
FA10-2	Extraction of Cervical Lymph Nodes Based on Three-Dimensional Image Registration	P00027
FA10-3	A Method for Evaluating of Asymmetry on Cleft Lip Using Symmetry Plane	P00024
FA10-4	Detection of the root resorption from panoramic X-ray images using deep metric learning	P00021
FA10-5	Classification of Respiratory Sounds by Generated Image and Improved CRNN	P00018
FB1-1	Error Analysis of CORDIC Processor with FPGA Implementation	P00057
FB1-2	A Bifurcation Study of Droop-Controlled Inverter-Based Microgrids with Dynamic Loads	P00259
FB1-3	Reinforcement Learning Based Electricity Price Controller in Smart Grids	P00409
FB1-4	Distributed Coordination Algorithm for Economic Dispatch Problem in Microgrid Network with Battery	P00459
FB1-5	Sine-Sweep Input Generation With Minimum Energy Restriction for Obtaining a Precise Frequency Response Function in Industrial Servo Systems	P00506
FB2-1	A Deep Learning Based Approach for Strawberry Yield Prediction via Semantic Graphics	P00481
FB2-2	Composite Momentum-based Observers for the Estimation of External Force on Robot Manipulators	P00475
FB2-3	HM-Prom: CNN based Prediction of TATA Promoters from Human and Mouse Sequences	P00390
FB2-4	A Neural Network Based Computational Model for Post-transcriptional Modification Site Identification	P00386

ICCAS 2021 Paper List
(Session No.)

FB2-5	Solar Radiation Prediction for Solar-Powered UAV using Deep Learning Algorithm	P00299
FB3-1	Design and modeling of self-sustainable bathroom floor cleaning robot system	P00005
FB3-2	Remote control experiment of multiple robots using RSNP unit	P00093
FB3-3	A practically implementable anti slip control with slip indicator for two-wheeled balancing robots(2021 ICCAS)	P00361
FB3-4	Household Raw Garbage Processing Robot using Biomass	P00406
FB3-5	Design and Installation of Waterproof Wireless Communication Device to Support Firefighting Activities	P00470
FB4-1	A Mobile Robotic Application of Naive Multi-directional Stitching with SIFT	P00224
FB4-2	Development of Wireless Pneumatic Myography Sensor for Real-time Muscle Contraction Measurement	P00256
FB4-3	A reliability detection method for position information of a battery-less multi-turn absolute magnetic encoder	P00279
FB4-4	Design of the Auto Gain Control amplifier based on a resistance modeling of the MOSFET for a distance accuracy of the ToF LiDAR	P00323
FB4-5	Performance Comparison between EKF and UKF in GPS/INS Low Observability Conditions	P00399
FB4-6	Simultaneous and Proportional Wrist Force Intent Estimation Method using Constrained Autoencoder	P00483
FB4-7	Continuous-Time Low-pass Sigma Delta with Voltage-Controlled Oscillator and Noise Divider of Spread Spectrum Clock Generator for Bio-system Applications	P00047
FB5-1	Vibration control of membrane structures using multiple dielectric elastomer actuators	P00074
FB5-2	A Rapid Design Approach for Transverse Flux Machines in Underwater Applications	P00076
FB5-3	Design and implementation of novel 4-arm Rotary Slide Stainer	P00540
FB6-1	Active Sampling for Maximum seeking and environment field reconstruction using cooperative mobile sensors	P00370
FB6-2	Frequency-domain Analysis of Precision Altitude Controller for a Fixed-wing UAV using Virtual Target Algorithm	P00329
FB6-3	Design of a Drone-Hawk Gripper for Nest Removal from Electric Tower	P00225
FB6-4	Altitude Tracking of UAV with Pitch-Hold Constraint Based on Model Predictive Control for Mine Detection	P00210
FB6-5	Effectiveness Analysis on Low-Pass Filter for Inner-loop Attitude Control of Cylindrical Coaxial UAV	P00494
FB7-1	Costmap Generation Based on Dynamic Obstacle Detection and Velocity Obstacle Layer for Autonomous Mobile Robot	P00538
FB7-2	Real Time Fault Detection for Mecanum Wheel Omnidirectional Robot Platform	P00455

ICCAS 2021 Paper List
(Session No.)

FB7-3	Wood Polish Classification for Automated Quality Inspection based on AI Vision	P00416
FB7-4	Interactive Motion Planning for Autonomous Robotic Photo Taking	P00366
FB7-5	Task-Oriented Navigation System for Dynamical Multiple Social Tasks of a Service Robot	P00284
FB8-1	A Novel Heuristic Algorithm for Online 3D Bin Packing	P00037
FB8-2	Development of a simple discarding robot for the media changing process	P00061
FB8-3	Skillful Operation of Working Plate Under Non-Uniform Loads with an Industrial Dual-Arm Robot Considering Power Consumption of Joints Motors	P00103
FB8-4	Using affordances for assembly: Towards a complete Craft Assembly System	P00104
FB8-5	Working plate operation for graspless handling technology with an industrial dual-arm SCARA robot	P00107
FB9-1	Comparisons of Auditory, Audiovisual, and Visual Modalities in Feature Domain for Auditory Brain-Computer Interfaces	P00431
FB9-2	Wearable fNIRS device based on frequency division multiplexing	P00369
FB9-3	Simultaneous Photoacoustic and Ultrasound Imaging System for Preclinical Small Animal Studies	P00201
FB9-4	Assessment of Functional Near-Infrared Spectroscopy by Comparing Prefrontal Cortex Activity: A Cognitive Impairment Screening Tool	P00158
FB9-5	Application of Deep Learning Techniques to Diagnose Mild Cognitive Impairment: Functional Near-Infrared Spectroscopy Study	P00617
FB10-1	Environment Recognition from A Spherical Camera Image Based on DeepLab v3+	P00026
FB10-2	A Classification Method for Magnetic Particle Testing Image Using U-Net	P00022
FB10-3	Automatic Identification of CTC in Fluorescence Microscope Images Using Segmentation Algorithm of Cell Nucleus	P00019
FB10-4	Determination of Abnormality of IGBT Images Using VGG16	P00017
FB10-5	Incorporating Ghost Module into RCAN for Super-Resolution of Satellite Images	P00015
FP1-1	Effects of STA-related Joint Angles in Variation of Segment-to-Joint Vector on Relative Position Estimation Accuracy between Body Segments	P00053
FP1-2	Experimental Study on a Mobility Platform of a Underwater Pole-Climbing Robot for Offshore Wind Turbine Substructures	P00025
FP1-3	Suggestion on the Practical Human Robot Interaction Design for the Autonomous Driving Disinfection Robot	P00364
FP1-4	Estimation of optimal moving target of mobile robots by using a topological map update	P00530
FP1-5	Development of 3Dimensional Precision Cutting Robot System using Plasma Cutter for Adjustment Pipe obtained Shape in the Shipyard	P00529

ICCAS 2021 Paper List
(Session No.)

FP1-6	Implementation of a Mobile Multi-Target Search System with 3D SLAM and Object Localization in Indoor Environments	P00528
FP1-7	Guidance Scheme of Magnetic Nanoparticles with Artificial Potential Field	P00526
FP1-8	Predictive Control for Waypoint Path Settling Maneuver with Robustness to Initial Vehicle Pose	P00522
FP1-9	Performance Evaluation of Head Pose Estimation Methods for Digital Signage Systems	P00512
FP1-10	Reset Control for Disturbance Compensator to Improve Transient Performance in Industrial Servo Systems	P00509
FP1-11	EKF-Based Localization for Biomimetic Robots Using IMU and RF Transceiver	P00502
FP1-12	SMA-based rotating actuator	P00501
FP1-13	Tracking Feasibility of UWB Positioning System for Lighter-than-Air Indoor Robot Navigation	P00487
FP1-14	Design of a Cooperative Chemical Agent (CA) Detection Algorithm with the Hyperspectral Imaging System	P00450
FP1-15	Methodology of closed area micro-traffic accident detection system using deep learning	P00426
FP1-16	Flapping Wing Micro Air Vehicle Development and Performance Analysis of Longitudinal Attitude Control	P00565
FP2-1	Finite Memory Loosely Coupled Integration on GPS/INS Integrated Navigation System	P00419
FP2-2	24/7 Elderly Guard Robot: Emergency Detecting, Reacting and Reporting	P00417
FP2-3	Finite Memory based Secure Estimation of an Unmanned Ground Vehicle for Reliable Cyber-Attack Estimation	P00413
FP2-4	Deep reinforcement learning control of spider robot using Proximal Policy Optimization algorithm	P00412
FP2-5	A Development and Verification of Steam Turbine Speed Controller in a 1,000MW Rated Coal Fired Thermal Power Plant	P00410
FP2-6	Deep Reinforcement Learning of 2-DOFs Legged Hexapod Robot SearchTopic();	P00401
FP2-7	Power Plant Pump Process Model Error Minimization Technique for Improving Simulator Fidelity	P00395
FP2-8	Average Blurring-based Anomaly Detection for Vision-based Mask Inspection Systems	P00378
FP2-9	Anomaly Detection in CCM Surface using Modified Vector Quantization Autoencoder	P00375
FP2-10	Knee-Type Robot Prosthetic Leg Control Using Two-Way Hydraulic Cylinder	P00372
FP2-11	Design of the Bundle Adjustment FPGA-SoC Architecture for Real Time Vision Based SLAM in AR Glasses	P00368
FP2-12	Actualization of Deep Ego-motion Classification on Miniaturized Octagonal Compound Eye Camera	P00357

ICCAS 2021 Paper List
(Session No.)

FP2-13	Class-Mean Loss for Visible to Thermal Face Recognition on Limited Computational Devices	P00346
FP2-14	Design of MRI compatible biopsy needle capable of force measurement	P00322
FP2-15	Curriculum Learning-based Object Transportation using Region Partitioning	P00295
FP2-16	Performance Evaluation of Protocol Conversion Algorithm for Autonomous Driving Network Systems	P00590
FP2-17	Development of Health and Safety Monitoring System for HAENYEO (Korean Traditional Women Fishery Diver)	P00591
FP3-1	Deep Reinforcement Learning based Autonomous Air-to-Air Combat using Target Trajectory Prediction	P00277
FP3-2	Performance Analysis of Momentum-based Optimizers for Face Recognition using Deep Learning	P00260
FP3-3	THE DEVELOPMENT PROCESS OF THE ORTHODONTIC WIRE PROCESSING ROBOT.	P00257
FP3-4	Central Pattern generator Optimization using Gradient Descent Method	P00229
FP3-5	Modeling of Adaptation Mechanism for Customized Lower Limb Rehabilitation Platform	P00227
FP3-6	GTOE : Anomaly Detection Geometric Transformation Network with Outlier Exposure for Real Industry Data	P00212
FP3-7	Improving the Performance of Anomaly Detector based on Geometric Transform-based Deep Neural Networks	P00208
FP3-8	A new License Plate Detection and Recognition Model Based on Attention Method	P00206
FP3-9	Human Pose Estimation and Action Recognition under Low Illumination Conditions	P00202
FP3-10	Multi-Robot Traffic Management using MIP Path Negotiation Scheduler	P00193
FP3-11	Optimized Trajectory Design of an End-Effector-Typed Gait Rehabilitation Robot for Children with Developmental Disabilities	P00179
FP3-12	Shadow Removal using GTA Road Dataset	P00153
FP3-13	Syllable-level Korean Fingerspelling Recognition from a Video	P00151
FP3-14	Kalman filter Design for Estimating Cartesian Acceleration of a Time-delayed Controller for a Robot Manipulator	P00147
FP3-15	Electronic sticker patch for detecting skin fluctuation and deformation	P00250
FP3-16	Comparison of biomechanical limits at pain onset thresholds and pain bearable thresholds in the two types of contact situations	P00605
FP3-17	3D Hole Information Recognition Solution Using Robot Vision	P00611
FP4-1	Build a Real-Time Flight Control Algorithm for the Lighter than Air Indoor Robot Using PX4 Autopilots Support from UAV Toolbox	P00146

ICCAS 2021 Paper List
(Session No.)

FP4-2	Experimental Studies on Reducing Tracking Errors of Autonomous Backward Driving Control of a Vehicle	P00144
FP4-3	Research on an effective jamming technique for infrared guided missiles	P00131
FP4-4	Mathematical Modeling and Simulation of a Two-stage Reciprocating Air Compressor Considering Heat Transfer Effect	P00127
FP4-5	Comparison Studies of Two Major Force Control Algorithms for a Single Axis Force Control of a Robot Manipulator	P00121
FP4-6	Describing Environmental Information in Videos Using Machine Learning	P00108
FP4-7	Method to Improve the Performance of Attitude and Position in Ball Robot Driving Control	P00088
FP4-8	A Three-Cable Driven Planar Parallel Robot: Closet Set Searching Kinematics and Model Reference Adaptive Control	P00066
FP4-9	Learning-based Localization of AUV with Outlier Sensor Data	P00050
FP4-10	Object manipulation by integrated control of Independent Anthropomorphic Hand and Arm Systems	P00048
FP4-11	Research on the Construction of Tea Marketing Information Service Platform under the Background of "Internet +"	P00008
FP4-12	Active vibration reduction for the drum – type washing machine	P00573
FP4-13	Near-infrared Spectral Image Preprocessing for Plastic Waste Inspection	P00414
FP4-14	Acquisition of Indexes to Evaluate Gait Ability Using a Lower-limb Rehabilitation Wearable Robot	P00091
FP4-15	A Mobile Application for Gait Analysis of Wearable Robot for Incomplete Lower Extremity Paralysis	P00092
FP4-16	Avoiding Degeneracy for Line-based Visual SLAM using Vanishing Point Re-projection	P00479
FP4-17	A Study on a Real Time Control and Monitoring of Gripper with Two Jaw for Smart	P00139
FP4-18	A Study on Track Record and Monitoring of Cooperative Robot System for Smart	P00138
FP4-19	A Study on Real Time Control and Active State Monitoring of Manufacturing Robo	P00137