



Conference Program (18/Nov/2017)					
17:30 Welcome Reception					
Time Conference Program Day 1 (19/Nov/2017)					
08:30 Opening Ceremony by Prof. Guilin YANG					
09:00 Keynote Speech 1 Recent Advances and Open Challenges in Robot Assembly and Inspection by Prof. Frank Chongwoo PARK Seoul National University Editor-in-Chief, IEEE Transactions on Robotics					
10:00 Tea Break					
10:20 Keynote Speech 2 Generative and Discriminative Learnings: A Fuzzy Restricted Boltzmann Machine and a Novel Broad Learning System by Prof. C. L. Philip CHEN The University of Macau, Macau, China Editor-in-Chief, IEEE Transactions on Systems, Man, and Cybernetics: Systems					
11:20 Keynote Speech 3 Design and Control of 6-Legged Parallel-Parallel Robots for Moving and Manufacturing Integration by Prof. Feng GAO Shanghai Jiao Tong University, China					
12:20 Lunch					
Pacific hall 4A	Paper Name	Pacific hall 4B	Paper Name	Pacific hall 5	Paper Name
SuAT1: Kinematics & Dynamics of Manipulators	The Kinematic Analysis and Stiffness Optimization for an 8-DOF Cable-driven Manipulator	SuAT2: Vehicles and Navigation I	Semantic Mapping and Semantics-boosted Navigation with Path Creation on a Mobile Robot	SuAT3: Industrial Robotics I	Instrumentation of a grinding tool for capturing dynamic interactions with the workpiece
	Rotational axes and inverse kinematics analysis of a novel 5-DOF hybrid manipulator		Range-Only Navigation Algorithm for Positioning of Deep-Diving AUV		Automatic Finishing System Research for Industrial Robot
	A research on inverse kinematics solution of 6-DOF robot with offset-wrist based on Adaboost Neural Network		Trajectory tracking control of a Miniature Autonomous Helicopter with Input and Output Constraints		Development of an Industrial Robot Controller with Open Architecture
	Dynamics Modelling of a Mobile Manipulator with Powered Castor Wheels		Simulation Research of Heave Compensation Winch Based on Virtual Prototype		Modular Design and Actuation System Comparison for Underactuated Tendon-Driven Soft Anthropomorphic Robotic Finger
	Dynamic Control with Tension Compensation of a 3-DOF Cable-driven Parallel Manipulator		Feature Extraction Method Based on 2.5-Dimensions Lidar Platform for Indoor Mobile Robots		Pose Interpolation for industrial manipulators under manual guidance
	Fuzzy-Neural-Network Based Position/Force Hybrid Control for Multiple Robot Manipulators		Vision-based Lane Detection and Tracking for Driver Assistance Systems: a Survey		Development of a Virtual Teaching Pendant System for Serial Robots based on ROS-I
Tracking and Vibration Control for a Space Robotic System with Rigid and Flexible Manipulators	QUADO: an Autonomous Recharge System for Quadcopter	The Task-level Evaluation Model for a Flexible Assembly Task with an Industrial Dual-arm Robot			
15:25 Tea Break					
Pacific hall 4A	Paper Name	Pacific hall 4B	Paper Name	Pacific hall 5	Paper Name
SuBT1: Aerospace Control Systems and Applications I	Dynamics Analysis of a Missile Vehicle Considering the Pavement Roughness	SuBT2: Vehicles and Navigation II	A robust global fast terminal sliding mode controller for quadrotor helicopters	SuBT3: Power, Communications and Networks	Research on WLAN Planning Problem Based on Optimization Models and Multi-Agent Algorithm
	Quadrotor attitude control based on nonlinear active disturbance rejection control		Propulsion efficiency of flapping flight robots		Energy Finite Element Analysis of Vibrating Thin Plates at High Frequency
	Design and Robust Control of Space Debris Laser Removing Satellite		Task-Oriented Robot Teleoperation using Wearable IMUs		Power Management of Analogous Equipment Based on STM32
	Rapid Development of Air Bearing Three-axis Stabilized Satellite		A new proposal for localization of omni-directional mobile robot by DM tag in indoor environment		The Signal Integrity design and simulation of Triple Modular Redundant (TMR) Computer
	Switching Logic Design for Divert and Attitude Control System of Exoatmospheric Kill Vehicle		Localization of Indoor Robot based on Particle Filter with EKF Proposal Distribution		A culling switching parallel scheme for an SEIADR epidemic model
	A New Method of Multi-Target Threat Assessment for Air Combat		Design and Development of Micro-Aerial Vehicle for Tree Inspections		Control of Battery-powered NCSs with Channel Assignment and Power Allocation
Time Conference Program Day 2 (20/Nov/2017)					
Pacific hall 4A	Paper Name	Pacific hall 4B	Paper Name	Pacific hall 5	Paper Name
MoAT1: Biomechanics I	Joint stiffness and mechanical impedance estimation during a tooling task	MoAT2: Devices - Electromagnetic I	Design, analysis and experiments of novel short-stroke linear loading system based on axial-magnetized voice-coil motor for linear oscillating actuator	MoAT3: Identification and Control I	Lyapunov-based Feedback Control of Two-level Stochastic Open Quantum Systems
	The sEMG characteristics of human upper limb during circle drawing on BC-EUJRR system		Ventilation System Design and Rotor Air Friction Loss of High-Speed Permanent Magnet Machines		Optimal Coordinated Planning Strategy for Space Robots Grasping Targets
	Extracting Error-related Potentials from Motion Imagination EEG in Noninvasive Brain-Computer Interface		Parametric Analysis of the Magnet Location Based on Straight-shape Internal Permanent Magnet Synchronous Motor		A Direct-Drive SCARA Robot for Wafer&Ceramic-Substrate Handling Based on Visual Servoing
	Enhancing perioperative transfer of special needs children with THE I-MOVE		Analytical Calculation of Air-Gap Magnetic Field of Surface-Mounted Permanent Magnet Motor with Bread-loaf Magnets		A Strategy of Network Bandwidth Scheduling based on Time Window Partition for Spacecraft Platform
	Finite Element Analysis of Femoral Mechanical Properties in MATLAB Environment		Parameter Analysis of a Novel Planar Motor with Dual-layer Magnetic Array		LQR Lateral-Directional Control Law Design for Distributed Propulsion Layout Flying Wing
	Walking trajectory generation for a 3D printing biped robot based on human natural gait and ZMP criteria		Cogging Torque Reduction in External-rotor Permanent Magnet Torque Motor Based on Different Shape of Magnet		Linear Motor Tracking Control Based on Adaptive Robust Control and Extended State Observer
10:00 Tea Break					
Pacific hall 4A	Paper Name	Pacific hall 4B	Paper Name	Pacific hall 5	Paper Name
MoBT1: Medical Robotics	Mechanism Design of the Minimally Invasive Vascular Interventional Surgery Robot System	MoBT2: Devices - Thermo and Hydraulic	A High accuracy hydraulic pressing actuation system for superplasticity forming equipment	MoBT3: Identification and Control II	A New Interpretation of Adjoint Method in Linear Time-Varying System Analysis
	Design and Control of a 4-DOF Cable-Driven Arm Rehabilitation Robot (CARR-4)		Investigation of the Load Matching of Direct Pressure Valve Controlled Variable Mechanism of Axial Variable Piston Pump		A fault detection scheme for airship using dynamic principle components analysis with noise canceling based on Kalman filter
	EEG-Based Brain-controlled Lower Extremity Exoskeleton Rehabilitation Robot		A Multi-fault Diagnosis Strategy of Electro-Hydraulic Servo Actuation System based on Extended Kalman Filter		Aircraft cabin thermal control strategy based on adaptive temperature and thermal sensation
	Creation of Statistical Atlas of Nasal Cavity from Computed Tomography Scans		Adaptive Backlash Inverse Augmented Virtual Decomposition Control of a Hydraulic Manipulator		Nonlinear full-model-based controller for unactuated joints in vertical plane
	An AR System to Motivate the Trainer during the Robot-Assisted Rehabilitation		Simulation about contamination influence of hot-film flow sensor on measurement accuracy		Bilateral Control of Teleoperation Manipulator Based on Virtual Force Aware Guidance
	Design of Node Controller for Wireless Monitoring System of Central Air Conditioner		Temperature Uniformity Control Based on Thermal Resistance Network Model		Positive Velocity Feedback Control of Flexure-based Actuator for Vibration Suppression
11:50 Lunch					
Pacific hall 4A	Paper Name	Pacific hall 4B	Paper Name	Pacific hall 5	Paper Name
MoCT1: Measurements and Estimation	Maneuvering Target Estimation for the Optimal Guidance Law of Intercepting Missiles	MoCT2: Mechanisms & Mechanisms	Simulation and Control of Heave Compensation Winch for Ultra-depth Floating Drilling	MoCT3: Soft Robotics and Industrial Robotics II	Parameter Identification of Flexible Robotic Joint Based on Multi-sensor Information
	Noise Covariance Identification Using Autocovariance Least-Squares Technique for State Estimation of Quadrotor		Research on Polishing Parameters Analysis for Wheel Hub		Common Workspace Analysis for a Dual-Arm Robot Based on Reachability
	Preventive Maintenance Planning in a Unreliable Production Line with a Branch Buffer		Analysis on Oil Film Force of Hydrostatic Bearing I or Multi-Degree-of-Freedom PM Motor		Modeling of a 6-DOF parallel manipulator driven by pneumatic muscles
	Real-time Distance Query and Collision Avoidance for Point Clouds with Heavy-duty Redundant Manipulator		Development of rotary shear equipment for preparing short metal fibers		Research on a novel robotic arm with non-backlash driving for industrial applications
	roller warning algorithm for vehicles based on dangerous speeds considering the suspension and dynamic characteristics		Research on Modeling and Machining Algorithm of Multi-shear and Multi-punch CNC Transverse Shear Line		Grasping Model and Experiment of a Soft Robot Gripper with Variable Stiffness
	Monocular Semantic SLAM in Dynamic Street Scene Based on Multiple Object Tracking		Dynamic transient analysis of friction noise in the trimmer blade system		Influence of maximum assistive force of a soft wearable robotic suit on metabolic cost reduction
A Multi-feature Fusion Moving Target Recognition Method Based On Believability Regression Reasoning	modeling of compliance and hysteresis with erasure property in harmonic drive by active loading	Joint angle estimation for floating base robots utilizing MEMS IMUs			
15:25 Tea Break					
Pacific hall 4A	Paper Name	Pacific hall 4B	Paper Name	Pacific hall 5	Paper Name
MoDT1: Aerospace Control Systems and Applications II	Design and Experiment for A High Precision Reflector	MoDT2: Devices - Electromagnetic II	Magnetic circuit design and performance analysis of a rotary magnetorheological damper with new structure	MoDT3: Identification and Control III	Decoupled Dynamics Control of a Spherical Rolling Robot for Waypoint Navigation
	Nonlinear Dynamic Analysis of Deployment of Lamiated Planetary Rover Mast		Modeling and analysis of servo valve torque motor based on FEM		Study of control mode and control strategy for direct drive volume control actuating unit of heave compensation winch
	Pointing Behavior of Perimeter Truss Deployable Antenna with a Laminated Reflector		Torque Modelling and Current Optimization of Spherical Actuators Built as Electro-magnets Driven Spherical Parallel Manipulators		The Impact of Initial Alignment on Compensation for Deflection of Vertical Inertial Navigation
	Design, Modeling and Shape Control of Bending Moment Actuator		Modeling and Synchronous Control for Target Motion Simulators Driven by Dual Linear Motors		Study of a 6DOF robot assisted ultrasound scanning system and its simulated control handle
	Fast Steering Mirror and Michelson Interferometer Based Laser Beam Pointing and Steering		Design and Control of Eddy Current Damper for Vibration Suppression of Direct Drive Feed System		A Novel Stable Control Strategy of Single Cylinder Free-piston Linear Generator
	Dynamic Analysis of Actuated Joint Considering Multiple Clearances Coupling Flexible Manipulator		Study on mechanical properties of radial permanent magnet bearing		A Low-Cost Cloud-Extended Sensor Network for Supervisory Control
18:00 Conference Banquet					
Time Conference Program Day 3 (21/Nov/2017)					
Pacific hall 4A	Paper Name	Pacific hall 4B	Paper Name	Pacific hall 5	Paper Name
TuAT1: Devices - Vibrations	Study on Creep Hysteresis Characteristics of Piezoelectric Ceramics in the Nano-positioning Stage	TuAT2: Machine Learning	Object Detection and Recognition of Intelligent Service Robot Based on Deep Learning	TuAT3: Vision and Inertial Sensing	Sparse Autoencoder Based Feature Learning for Unmanned Aerial Vehicle Landforms Image Classification
	Design of a Two-Stage Force Amplification Frame for Piezoelectric Energy Harvesting		Modeling CGFs Behavior by an Extended Option Based Learning Behavior Trees		Inertial Sensor-Based State Estimation of Long-Reach Flexible-Link Manipulators
	An impedance control scheme with lead-lag controller for flexible joint vibration suppression		Novel to improve (MIMO-STBC) system Based on Artificial Neural Network		Research on Recognition Method of Learning Concentration Based on Face Feature
	Analysis and Experimental Study of Hollow Ring Ultrasonic Motor		A Neurally Inspired Pattern Recognition Approach with Latency-Phase Encoding and Precise-Spike-Driven Rule in Spiking Neural Network		A Framework of Multi-channel Touch Sensing with Multiple Trackpoints
	Design and Development of a Novel Piezoelectric Wind Energy Harvester Feathered Tail and Pygostyle for the Flying Control of a Bio-Mimicking Eagle Bird Robot		An SOM-Based Algorithm with Locking Mechanism for Task Assignment		A Cascade Framework for Masked Face Detection
			Load Dispatch Optimization of AGC System Based on Improved Genetic Algorithm		Improving accuracy of feature matching in visual SLAM using spatial consistency of point features
10:00 Tea Break					
Pacific hall 4A	Paper Name	Pacific hall 4B	Paper Name	Pacific hall 5	Paper Name
TuBT1: Parallel Mechanisms & Actuation/Environment	Design and Analysis of an Under-constrained Reconfigurable Cable-Driven Parallel Robot	TuBT2: Biomechanics II	Structure Modelling of the Human Body Using FGMM	TuBT3: Aerospace Control Systems and Applications III	Study on Orbit Control Error Propagation Characteristics by Covariance technique
	Computer-Aided Analysis for Topological Structure of Parallel Mechanisms		Structural Design of Customized Femoral Prosthesis		Composite Axis Control System Development of Airborne Electro-Optical Platform
	Efficiency Based Integrated Design of the V3 Parallel Manipulator for Pick-and-Place Applications		The Finite Element Analysis of the Shape of the Femoral Head Prosthesis on the Influence of the Hip Joint		The Study of Spin Control of Flexible Electric Sail Using the Absolute Nodal Coordinate Formulation
	New Cable-Driven Continuum Robot with Only One Actuator		The Analysis of Human Walking Stability Using ZMP in Sagittal Plane		A Multi-aircraft Conflict Resolution Method Based on Cooperative Game
	Fatigue life prediction of high-speed railway bearing based on contact stress		A speed-independent feedback index for walking pattern recognition for a walking assistive robotic suit		On-orbit identification of spacecraft time-varying moment of inertia using an improved recursive subspace method
	Research on Risk Fuzzy Comprehensive Evaluation for Construction Engineering Projects based on AHM				
12:20 Lunch					
13:30 Technical and Cultural Tour					
17:30 Farewell Reception					