1. Record Nr. UNINA9910349307503321

Titolo	Intelligent Robotics and Applications : 12th International Conference, ICIRA 2019, Shenyang, China, August 8–11, 2019, Proceedings, Part VI / / edited by Haibin Yu, Jinguo Liu, Lianqing Liu, Zhaojie Ju, Yuwang Liu, Dalin Zhou
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-27529-9
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XVI, 717 p. 520 illus., 369 illus. in color.)
Collana	Lecture Notes in Artificial Intelligence, , 2945-9141 ; ; 11745
Disciplina	629.892
Soggetti	Artificial intelligence Computer engineering Computer networks Computer vision User interfaces (Computer systems) Human-computer interaction Computer simulation Algorithms Artificial Intelligence Computer Engineering and Networks Computer Vision User Interfaces and Human Computer Interaction Computer Modelling
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Research on Optimization of Control Parameters of Coal Sampling Robot Based on Model and Neural Network Algorithm -- A Cooperative Obstacle-avoidance Approach for Two-manipulator Based on A* Algorithm -- Workspace Simulation and Analysis of a Dual-arm Nursing Robot -- A Path Planning Method under Constant Contact Force for Robotic Belt Grinding -- Large Contact Area Trajectory Planning Algorithm for Fuel Tank with Irregular Surfaces -- A General

Kinematics Model for Trajectory Planning of Upper Limb Exoskeleton Robots -- A Modified Cartesian Space DMPs Model for Robot Motion Generation -- Robot Brush-writing System of Chinese Calligraphy Characters -- Robot Workspace Optimization and Deformation Compensation in Grinding -- A methodology for multi-goal trajectory planning in welding -- Kinematics solution and workspace analysis of a seven(DOF) Redundant Manipulator -- A Posture Planning Method in Clustered Synergy Sub-space for HIT/DLR Hand II -- Continuous path planning for free-floating space manipulator based on Genetic algorithm -- Simulation Analysis of Trajectory Planning for Robot-Assisted Stereotactically Biological Printing -- Adaptive Hybrid Impedance Control Algorithm Based on Subsystem Dynamics Model for Robot Polishing -- Design of wall climbing robot with non-magnetic surface -- Kinematic Analysis and Speed Control of 3SPS-1S Parallel Mechanism for End Actuator of Segment Erector -- The Design of 3-D Space Electromagnetic Control System for High-precision and Fast-response Control of Capsule Robot with 5-DOF -- Design of Finger Exoskeleton Rehabilitation Robot using the Flexible Joint and the MYO Armband -- Design and Implementation of Hovering Flapping Wing Micro Air Vehicle -- Design of Embedded Structure Variable Stiffness Pneumatic Actuator -- Bionic Design and Attitude Control Measurement in a Double Flapping-wing Micro Air Vehicle -- Design and simulation of heavy load Wheeled mobile robot driving mechanism -- Dynamics Analysis of the Human-machine System of the Assistive Gait Training Robot -- A Noninvasive Calibration-free and Model-free Surgical Robot for Automatic Fracture Reduction -- Force Modeling of Tool-tissue Interaction Force during Suturing -- Minimally invasive instrument joint design based on variable stiffness of transmission efficiency -- An improved arti cial potential eld method for mobile robots using environmental information -- Towards End-to-End Speech Recognition with Deep Multipath Convolutional Neural Networks -- Robot Intelligent Trajectory Planning based on PCM guided Reinforcement Learning -- Fast Robot Motor Skill Acquisition Based on Bayesian inspired Policy Improvement -- Control of Nameplate Pasting Robot for Sand Mold Based on Deep Reinforcement Learning -- Robot Intelligent Trajectory Planning based on PCM guided Reinforcement Learning -- Way-Point Tracking Control of Underactuated USV Based on GPC Path Planning -- Neural Networks-Based PID Precision Motion Control of a Piezo-Actuated Microinjector -- Force/Motion Hybrid Control of Three Link Constrained Manipulator Using Sliding Mode -- Development of workshop management system for assembly production process -- Dynamic Scheduling of Dual-Resource Constrained Blocking Job Shop -- Study on No-wait Flexible Flow Shop Scheduling with Multi-Objective -- Dynamic Behavior Analysis and Multi-sensor Modal Information Fusion for Robotic Milling System -- Adaptive Impedance Control for Robotic Polishing with an Intelligent Digital Compliant Grinder -- Path Planning of UAV-UGV Heterogeneous Robot System in Road Network -- Automatic programming for dual robots to grinding intersecting curve -- A HoloLens Based Augmented Reality Navigation System for Minimally Invasive Total Knee Arthroplasty -- R-3RPS robot-based mathematical modeling for a military flight simulator -- Innovation Ability Cultivation Quality Evaluation Model of Machinery Postgraduate by Mechatronics Engineering -- DOREP: an educational experiment platform for robot control based on MATLAB and the real-time controller -- Design and Analysis of Motor Control System for Drilling Fluid Continuous Wave Generator Based on Improved Active Disturbance Rejection Control and Hysteresis Current Control -- Trajectory Planning based on Optimal Control and Exact Derivatives --

Co-simulation Based on ADAMS and Simulink for Direct Yaw Moment Control System of 4WD-EV -- LI Zhanfeng,Du Shuang. Simulation Analysis of PID Closed-Loop Control of Current of SBW -- Characteristic Analysis and Disturbance Control of Hydraulic Transmission System for Driving Torque Extraction Electric Power Generation in Coal Sampling Robot -- Appearance-Based Gaze Tracking: A Brief Review -- Language and Robotics: Complex Sentence Understanding -- Dynamic Motion Planning Algorithm in Human-Robot Collision Avoidance -- Dynamics modeling of a 2-DOFs mechanism with rigid joint and flexible joint -- Haptic Joystick Impedance Control with Gravity Compensation -- Landmark-Based Virtual Path Estimation for Assisted UAV FPV Tele-Operation with Augmented Reality -- Concurrent Probabilistic Motion Primitives for Obstacle Avoidance and Human-Robot Collaboration .

Sommario/riassunto

The volume set LNAI 11740 until LNAI 11745 constitutes the proceedings of the 12th International Conference on Intelligent Robotics and Applications, ICIRA 2019, held in Shenyang, China, in August 2019. The total of 378 full and 25 short papers presented in these proceedings was carefully reviewed and selected from 522 submissions. The papers are organized in topical sections as follows: Part I: collective and social robots; human biomechanics and human-centered robotics; robotics for cell manipulation and characterization; field robots; compliant mechanisms; robotic grasping and manipulation with incomplete information and strong disturbance; human-centered robotics; development of high-performance joint drive for robots; modular robots and other mechatronic systems; compliant manipulation learning and control for lightweight robot. Part II: power-assisted system and control; bio-inspired wall climbing robot; underwater acoustic and optical signal processing for environmental cognition; piezoelectric actuators and micro-nano manipulations; robot vision and scene understanding; visual and motional learning in robotics; signal processing and underwater bionic robots; soft locomotion robot; teleoperation robot; autonomous control of unmanned aircraft systems. Part III: marine bio-inspired robotics and soft robotics: materials, mechanisms, modelling, and control; robot intelligence technologies and system integration; continuum mechanisms and robots; unmanned underwater vehicles; intelligent robots for environment detection or fine manipulation; parallel robotics; human-robot collaboration; swarm intelligence and multi-robot cooperation; adaptive and learning control system; wearable and assistive devices and robots for healthcare; nonlinear systems and control. Part IV: swarm intelligence unmanned system; computational intelligence inspired robot navigation and SLAM; fuzzy modelling for automation,control, and robotics; development of ultra-thin-film, flexible sensors, and tactile sensation; robotic technology for deep space exploration; wearable sensing based limb motor function rehabilitation; pattern recognition and machine learning; navigation/localization. Part V: robot legged locomotion; advanced measurement and machine vision system; man-machine interactions; fault detection, testing and diagnosis; estimation and identification; mobile robots and intelligent autonomous systems; robotic vision, recognition and reconstruction; robot mechanism and design. Part VI: robot motion analysis and planning; robot design, development and control; medical robot; robot intelligence, learning and linguistics; motion control; computer integrated manufacturing; robot cooperation; virtual and augmented reality; education in mechatronics engineering; robotic drilling and sampling technology; automotive systems; mechatronics in energy systems; human-robot interaction.