Research outputs

Phase-based Quantification of Sports Performance Metrics Using a Smart IoT Sensor

AI-Enabled Micro Motion Sensors for Revealing the Random Daily Activities of Caged Mice

Development of the high angular resolution 360° LiDAR based on scanning MEMS mirror

Mapping of Spatiotemporal Auricular Electrophysiological Signals Reveals Human Biometric Clusters

Wide-Bandwidth Nanocomposite-Sensor Integrated Smart Mask for Tracking Multiphase Respiratory Activities

Wireless AI-Powered IoT Sensors for Laboratory Mice Behavior Recognition

Sphygmopalpation using Tactile Robotic Fingers Reveals Fundamental Arterial Pulse Patterns

Wearable Three-dimensional Auricular Multi-point Acquisition, Health Status Monitoring, And Bio-stimulation Device
CHAN, H. Y., HUANG, Q. & LI, W. J., 28 Oct 2021, (Accepted/In press/Filed) Priority No. 17/512,672

Artificial intelligence meets traditional Chinese medicine: a bridge to opening the magic box of sphygmopalpation for pulse pattern recognition

Rapid nanomolding of nanotopography on flexible substrates to control muscle cell growth with enhanced maturation

Determination of Microsphere-Lens Magnification Using Micro-Robotic Scanning Superlens Nanoscopy

Nanomaterials for Flexible Arterial Pulse Sensors
**Nanotopography-induced Cell Growth with Enhanced Maturation on Polymer Substrates**


**In situ printing of liquid superlenses for subdiffraction-limited color imaging of nanobiostructures in nature**


**Micro-Dispensing of Graphene Oxide based Capacitive Tactile Sensors for Human Pressure-Pulse Detection**


**Robust control of dielectric elastomer diaphragm actuator for human pulse signal tracking**


**A low-cost reusable micro-Newton scale micro-thruster**


**3D Bio-printing of Cell-embedded Gelatin Methacrylate Hydrogel Micro-actuators**


**Atomization of High-Viscosity Fluids for Aromatherapy Using Micro-heaters for Heterogeneous Bubble Nucleation**


**Micro bubble generation using monolayer graphene heating elements**


**Robust control of dielectric elastomer diaphragm actuator for replicating human pulse**


**A pulse-sensing robotic hand for tactile arterial palpation**


**Improving atomic force microscopy imaging by a direct inverse asymmetric PI hysteresis model**


**Towards High Resolution Pico-Projector Applications: Design Improvements on MEMS Scanning Mirror**


**Design and Fabrication of a MEMS Scanning Mirror with and without Comb Offset**

DESIGN OPTIMIZATION OF MEMS 2D SCANNING MIRRORS WITH HIGH RESONANT FREQUENCIES

Based on the optical focusing method, the thermal driving micromanipulator displacement measurement
缪磊, 董再励, 陈浩然, 李文荣 & 王超超, Dec 2005, In: 红外与激光工程/Infrared and Laser Engineering. 34, 6, p. 691-695

Identify the model of micro robotic gripper using the sequence of microscopic images

A biomimetic flying silicon microchip: feasibility study

Modeling the Micro Robotic Gripper Using Microscopic Images Sequence for Manipulation of Biological Cells

Structural and thermal analysis of a thermally actuated polymer micro robotic gripper

Displacement Measurement of A Thermally Actuated Polymer Micro Robotic Gripper Using The Optical Focus Method

Finite element modeling of a thermally actuated polymer micro robotic gripper

Measurement the Displacement of the Micro Robotic Gripper Using Microscopic Images

Polymer MEMS actuators for underwater micromanipulation

Design and fabrication of a micro thermal actuator for cellular grasping

Micromachined polymer actuators as tactors for tactile display

A thermally actuated polymer micro robotic gripper for manipulation of biological cells
A polymer-based micro thermal actuator for micromanipulations in aqueous environment
Scopus citations: 3

Grants

Projects

ITF: A MEMS-based Light Detection and Ranging (LIDAR) System with Super-resolution Microlens for Enhanced Structured-light 3D Imaging and Mapping
LI, W. J., CHAN, H. Y., CHEUNG, N. & Wang, Z.
15/07/19 → 14/07/21

ITF: An Implantable Micro-Sensing System for Tracking Animal Motion Behaviors
LI, W. J., CHAN, H. Y., CHAN, H. M. & CHAN, C. S.
1/11/17 → 30/09/19

ITF: A Pen-sized Biocompatible MEMS Atomizer for Aromatherapy and Wellbeing Applications
LI, W. J., CHAN, H. Y. & CHAU, B. F.
1/11/14 → 31/10/16

HMRF: Artificial Intelligence Recognitions for Traditional Chinese Medicine Pulse Patterns and its Correlation Study with Body Constitution Types in Healthy Human Subjects
LI, W. J., CHAN, H. Y., SHEN, J. & Siu, C. W.
1/07/20 → …

ITF: Audio-Fingerprint Activated Scent Releasing Platform
LI, W. J., CHAN, H. Y. & CHAN, K. M.
15/01/18 → 14/01/19

ITF: Eco-Cosmetic Intelligent Packaging System Based on Industrial IoT
1/05/21 → 30/04/23