

Research outputs

Wireless AI-Powered IoT Sensors for Laboratory Mice Behavior Recognition

Chen, M., Liu, Y., Tam, J. C., Chan, H., Li, X., Chan, C. & Li, W. J., 18 Jun 2021, (Online published) In: IEEE Internet of Things Journal. 13 p.

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

LEUNG, Y. A., GUAN, B., CHEN, S., CHAN, H., KONG, K., LI, W. & SHEN, J., Mar 2021, In: Digital Chinese Medicine. 4, 1, p. 1-8

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

JIA, B., LI, P., WANG, F., CHAN, H. Y., ZHANG, G. & LI, W. J., 2020, In: IEEE Open Journal of Nanotechnology. 1, p. 65-76 3013431.

Nanotopography-induced Cell Growth with Enhanced Maturation on Polymer Substrates

WU, C., JIA, B., CHAN, H. & LI, W. J., Jul 2019.

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

Jia, B., Wang, F., Chan, H., Zhang, G. & Li, W. J., 2019, In: Microsystems and Nanoengineering. 5, 1. Scopus citations: 5

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

KONG, K. W., LAW, J., CHEN, M., SUO, Z., JIA, B., Roy, V. A. L., CHAN, H. & 1 others, LI, W. J., Jul 2018, *Proceedings of MARSS 2018: International Conference on Manipulation, Automation and Robotics at Small Scales*. HALIYO, S., SILL, A., ARAI, F. & FATIKOW, S. (eds.). IEEE, 8481149. (International Conference on Manipulation, Automation and Robotics at Small Scales (MARSS)).

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

Ye, Z., Chen, Z., Asmatulu, R. & Chan, H., Aug 2017, In: Smart Materials and Structures. 26, 8, 085043. Scopus citations: 7

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

Law, J., Sun, W., Wu, Z., Chan, H., Zhou, Y. & Li, W. J., 21 Jun 2017, *TRANSDUCERS 2017 - The 19th International Conference on Solid-State Sensors, Actuators and Microsystems*. IEEE, p. 2055-2058 7994477 Scopus citations: 1

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

WU, C., YU, H., Liu, N., CHAN, H. Y. & LI, W. J., Apr 2017.

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

Law, J., Kong, K. W., Chan, H., Sun, W., Li, W. J., Chau, E. B. F. & Chan, G. K. M., 2017, In: Scientific Reports. 7, 40289. Scopus citations: 3

Micro bubble generation using monolayer graphene heating elements

Wu, Z., Chan, H., Zhou, Y. & Li, W. J., Aug 2016, *Proceedings of the 16th International Conference on Nanotechnology*. IEEE, p. 728-730 7751462 Scopus citations: 2

Robust control of dielectric elastomer diaphragm actuator for replicating human pulse

Ye, Z., Chen, Z., Kong, K. W. & Chan, H., Aug 2016, *2016 IEEE International Conference on Automation Science and Engineering (CASE)*. IEEE, p. 188-193 7743379 Scopus citations: 7

A pulse-sensing robotic hand for tactile arterial palpation

Kong, K. W., Lau, W., Wong, K. S., Chan, H., Lee, F. C. S., Shen, J., Wong, V. T. C. W. & 1 others, Li, W. J., Jun 2016, *2016 IEEE International Conference on Cyber Technology in Automation, Control, and Intelligent Systems (CYBER)*. IEEE, p. 141-145 7574811. (IEEE Annual International Conference on Cyber Technology in Automation Control and Intelligent Systems). Scopus citations: 4

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

Wang, D., Yu, P., Wang, F., Chan, H., Zhou, L., Dong, Z., Liu, L. & 1 others, Li, W. J., Feb 2015, In: *Sensors (Switzerland)*. 15, 2, p. 3409-3425 Scopus citations: 18

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

Ma, W., Chan, H., Wong, C. C., Yiu, C., Chan, Y. C. & Lee, F. C. S., Feb 2011, *Proceedings of the 2011 6th IEEE International Conference on Nano/Micro Engineered and Molecular Systems*. IEEE, p. 831-834 6017482. (IEEE International Conference on Nano/Micro Engineered and Molecular Systems (NEMS)). Scopus citations: 2

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

Chan, Y. C., Wong, C. C., Wang, C., Ma, W., Chan, H., Chen, S., Cheung, H. L. & 2 others, Lee, F. C. S. & Tsai, C., Jan 2010, *2010 IEEE 5th International Conference on Nano/Micro Engineered and Molecular Systems (NEMS 2010)*. IEEE, p. 186-190 5592180. (IEEE International Conference on Nano/Micro Engineered and Molecular Systems (NEMS)). Scopus citations: 4

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

Ma, W., Chan, H., Wong, C. C., Chan, Y. C., Tsai, C. & Lee, F. C. S., Jan 2010, *The 23rd IEEE International Conference on Micro Electro Mechanical Systems MEMS 2010: TECHNICAL DIGEST*. IEEE, p. 823-826 5442279. (IEEE International Conference on Micro Electro Mechanical Systems (MEMS)). Scopus citations: 6

基于光学聚焦方法的热驱动微执行器位移测量

廖磊, 董再励, 陈浩然, 李文荣 & 王越超, Dec 2005, In: *Hongwai yu Jiguang Gongcheng/Infrared and Laser Engineering*. 34, 6, p. 691-695

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

Miao, L., Dong, Z., Chan, H., Li, W. J. & Wang, Y., Mar 2005, In: *WSEAS Transactions on Systems*. 4, 3, p. 191-196

A biomimetic flying silicon microchip: feasibility study

Chan, H., Lam, J. H. M. & Li, W. J., Aug 2004, *Proceedings of the 2004 IEEE International Conference on Robotics and Biomimetics*. IEEE, p. 447-451 Scopus citations: 12

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

Miao, L., Dong, Z. & Chan, H., Aug 2004, *Proceedings - 2004 International Conference on Intelligent Mechatronics and Automation*. IEEE, p. 239-243 (Proceedings - International Conference on Intelligent Mechatronics and Automation).

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

Liu, Z., Wei, Y., Chan, H., Li, W. J., Dong, Z. & Wang, Y., Aug 2004, *Proceedings of the 2004 IEEE International Conference on Robotics and Biomimetics*. IEEE, p. 470-473 Scopus citations: 3

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

Miao, L., Dong, Z. & Chan, H., Jun 2004, *WCICA 2004 - Fifth World Congress on Intelligent Control and Automation, Conference Proceedings*. Vol. 5. p. 3800-3804 (Proceedings of the World Congress on Intelligent Control and Automation (WCICA)). Scopus citations: 5

Finite element modeling of a thermally actuated polymer micro robotic gripper

Liu, Z., Chan, H., Li, W. J., Dong, Z. & Wang, Y., Jun 2004, *Proceedings of the 2004 International Conference on Information Acquisition*. IEEE, p. 88-91 Scopus citations: 1

Measurement the Displacement of the Micro Robotic Gripper Using Microscopic Images

Miao, L., Dong, Z. & Chan, H., Jun 2004, *Proceedings of the 2004 International Conference on Information Acquisition*. Mei, T., Tam, T. J. & Meng, M. (eds.). IEEE, p. 292-295 (Proceedings of the International Conference on Information Acquisition, ICIA). Scopus citations: 1

Polymer MEMS actuators for underwater micromanipulation

Zhou, J. W. L., Chan, H., To, T. K. H., Lai, K. W. C. & Li, W. J., Jun 2004, In: IEEE/ASME Transactions on Mechatronics. 9, 2, p. 334-342 Scopus citations: 107

Design and fabrication of a micro thermal actuator for cellular grasping

Chan (陈浩然), H. & Li (李文荣), W. J., Apr 2004, In: Acta Mechanica Sinica. 20, 2, p. 132-139 Scopus citations: 7

Micromachined polymer actuators as factors for tactile display

To, T. K. H., Zhou, J. W. L., Chan, H., Li, W. J. & Liu, Y., Oct 2003, *Proceedings of the 2003 IEEE International Conference on Robotics, Intelligent Systems and Signal Processing*. IEEE, p. 704-709 1285670 Scopus citations: 2

A thermally actuated polymer micro robotic gripper for manipulation of biological cells

Chan, H. & Li, W. J., Sep 2003, *Proceedings of the 2003 IEEE International Conference on Robotics & Automation*. IEEE, p. 288-293 (Proceedings - IEEE International Conference on Robotics and Automation). Scopus citations: 72

A polymer-based micro thermal actuator for micromanipulations in aqueous environment

Chan, H. & Li, W. J., Dec 2002, In: International Journal of Nonlinear Sciences and Numerical Simulation. 3, 3-4, p. 775-778 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

HMRP: 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

LI, W. J., CHAN, H. Y., JEN, A., MAH, J. S. & ZHANG, G.
1/05/21 → ...