



Prof Zion TsePhD, CEng, FIET, FIMechE, SMIEEE

School of Engineering and Materials Science Queen Mary University of London Mile End Road London E1 4NS

tel: +44 (0)20 7882 8732 email: z.tse@qmul.ac.uk web: www.sems.qmul.ac.uk/z.tse

2025

State of the Art Review of Wearable Devices for Respiratory Monitoring.

Jia Z, Huth H, Teoh WQ, Xu S, Wood B and Tse ZTH. IEEE Access vol. 13, 18178-18190. Institute of Electrical and Electronics Engineers (IEEE).

2024

Surface-Based Ultrasound Scans for the Screening of Prostate Cancer.

Bennett R, Barrett T, Gnanapragasam VJ and Tse Z. IEEE Open Journal of Engineering in Medicine and Biology vol. 6, 212-218.Institute of Electrical and Electronics Engineers (IEEE).

Parallel Driven Robot for MRI-Guided Prostate Therapy.

Liang H, Li H, Kessler D, Barrett T and Tse ZTH. IEEE/Asme Transactions On Mechatronics vol. 30, (2) 1557-1566. Institute of Electrical and Electronics Engineers (IEEE).

The Integration of Robotic Arm and Vision System With Magnetic Tractor Beam Control for Precision Catheter Manipulation in Medical Procedures.

Limpabandhu C and Tse ZTH. Journal of Medical Devices vol. 18, (3). Asme International.

A Narrative Review of InTextile Sensors in Human Health Applications.

Smith AA, Li R, Xu L and Tse ZTH. Advanced Materials Technologies vol. 9, (16). Wiley.

A Pneumatic Driven MRI-Guided Robot System for Prostate Interventions.

Liang H, Zuo W, Kessler D, Barrett T and Tse ZTH. IEEE Transactions On Medical Robotics and Bionics vol. 6, (3) 951-960.Institute of Electrical and Electronics Engineers (IEEE).

Amphibian-Inspired Locomotion Strategy for a Slime-Based Magnetic Soft Robot.

Ning L, Limpabandhu C and Tse ZTH. Robotics Reports vol. 2, (1) 152-165. Mary Ann Liebert.

Design of a Square Rotor Driven Pneumatic Stepper Actuator for MR-Guided Therapy.

Liang H, Zuo W and Tse ZTH. IEEE/Asme Transactions On Mechatronics vol. 29, (5) 3696-3705. Institute of Electrical and Electronics Engineers (IEEE).

Advancing Medical Catheter Navigation: Design, Optimization, and Control of a Magnetic Tractor Beam (MTB) Handheld Device.

Limpabandhu C and Tse ZTH. IEEE Access vol. 12, 188411-188423. Institute of Electrical and Electronics Engineers (IEEE).

Bioimpedance Sensing and Ablation Needles for Image-Guided Therapy.

Hu Y, Limpabandhu C, Barrett T and Tse ZTH. IEEE Access vol. 12, 80859-80871. Institute of Electrical and Electronics Engineers (IEEE).

Exploring Magnetic Tractor Beam Technology for Enhanced Catheter Steering: Insights From Simulation and **Experimentation.**

Limpabandhu C and Tse ZTH. IEEE Access vol. 12, 125871-125880. Institute of Electrical and Electronics Engineers (IEEE).

2023

EgoActive: Integrated Wireless Wearable Sensors for Capturing Infant Egocentric AuditoryVisual Statistics and Autonomic Nervous System Function in the Wild.

Geangu E, Smith WAP, Mason HT, Martinez-Cedillo AP, Hunter D, Knight MI, Liang H, de Soria Bazan MDCG, Tse ZTH, Rowland T, Corpuz D, Hunter J, Singh N, Vuong QC, Abdelgayed MRS, Mullineaux DR, Smith S and Muller BR. Sensors vol. 23, (18). Mdpi.

Engineering Magnetic Soft and Reconfigurable Robots.

Ning L, Limpabandhu C and Tse ZTH. Soft Robotics vol. 11, (1) 2-20. Mary Ann Liebert.

An Opposed Piston Driving Pneumatic Stepper Motor for MR Intervention Robotics.

Liang H and Tse ZTH. *IEEE/Asme Transactions On Mechatronics vol.* 29, (1) 143-153. *Institute of Electrical and Electronics Engineers (IEEE)*.

Actuation technologies for magnetically guided catheters.

Limpabandhu C, Hu Y, Ren H, Song W and Tse ZTH. *Minimally Invasive Therapy & Allied Technologies vol. 32*, (4) 137-152. Taylor & Francis.

Reshaping healthcare with wearable biosensors.

Smith AA, Li R and Tse ZTH. Scientific Reports vol. 13, (1). Springer Nature.

Clinical accuracy of infrared temperature measurement devices: a comparison against non-invasive core-body temperature.

Holder T, Hooper FSW, Yates D, Tse Z, Patil S, Moussa A, Batten L, Radhakrishnan V, Allison M, Hewitt C, Keding A, Forshaw G and Jayagopal V. *Clin Med (Lond) vol. 23, (2) 157-163.*

Magnetically steerable catheters: State of the art review.

Limpabandhu C, Hu Y, Ren H, Song W and Tse ZTH. *Proceedings of The Institution of Mechanical Engineers Part H Journal of Engineering in Medicine vol. 237*, (3) 297-308. Sage Publications.

Orimimetic Folds into Deployable Mechanisms with Potential Functionalities in Biomedical Robotics.

Liu H, Yeow BS, Cai CJ, Tse ZTH and Ren H. Deployable Multimodal Machine Intelligence 13-42. Springer Nature.

Untethered Soft Ferromagnetic Quad-Jaws Cootie Catcher with Selectively Coupled Degrees of Freedom.

Cai X, Cai CJ, Seenivasan L, Tse Z and Ren H. Deployable Multimodal Machine Intelligence 347-376. Springer Nature.

2022

Thermoelastic damping in anisotropic piezoelectric microbeam resonators.

Zuo W, Li P, Du J and Tse ZTH. International Journal of Heat and Mass Transfer vol. 199, Elsevier.

MR conditional prostate intervention systems and actuations review.

Liang H and Tse ZTH. Proceedings of The Institution of Mechanical Engineers Part H Journal of Engineering in Medicine vol. 237, (1) 18-34. Sage Publications.

Engineering functional and anthropomorphic models for surgical training in interventional radiology: A state-of-the-art review.

Zhao Z, Ma Y, Mushtaq A, Radhakrishnan V, Hu Y, Ren H, Song W and Tse ZTH. *Proceedings of The Institution of Mechanical Engineers Part H Journal of Engineering in Medicine vol. 237*, (1) 3-17. Sage Publications.

Cycloidal Stepper Motor: A Systematic Approach for Designing a Nonmagnetic Rotary Actuator.

Liang H and Tse ZTH. *IEEE/Asme Transactions On Mechatronics vol. 28, (1) 71-79.Institute of Electrical and Electronics Engineers (IEEE).*

Regression model for predicting core body temperature in infrared thermal mass screening.

Limpabandhu C, Hooper FSW, Li R and Tse Z. Ipem-Translation vol. 3,. Elsevier.

The application of technology to improve cognition in older adults: A review and suggestions for future directions.

Leung C, Wong KC, So WWY, Tse ZCK, Li D, Cao Y and Shum DHK. Psych Journal vol. 11, (4) 583-599. Wiley.

MEMS sensor for detection and measurement of ultra-fine particles.

Pachkawade V and Tse Z. Engineering Research Express vol. 4, (2). Iop Publishing.

Auto-generating of 2D tessellated crease patterns of 3D biomimetic spring origami structure.

Teo YX, Cai CJ, Yeow BS, Tse ZTH and Ren H. Biomimetic Intelligence and Robotics vol. 2, (2). Elsevier.

Supporting Technologies for COVID-19 Prevention: Systemized Review.

Zhao Z, Li R, Ma Y, Islam I, Rajper AMA, Song W, Ren H and Tse ZTH. Jmirx Med vol. 3, (2). Jmir Publications.

Authors' Responses to Peer Reviews of Supporting Technologies for COVID-19 Prevention: Systemized Review.

Zhao Z, Li R, Ma Y, Islam I, Rajper AMA, Song W, Ren H and Tse ZTH. Jmirx Med vol. 3, (2). Jmir Publications.

Prospective Memory Training in Older Adults: A Systematic Review and Meta-Analysis.

Tse ZCK, Cao Y, Ogilvie JM, Chau BKH, Ng DHC and Shum DHK. *Neuropsychology Review vol. 33*, (2) 347-372. *Springer Nature*.

Monitoring Different Social Media Platforms to Report Unplanned School Closures Due to Wildfires in California, October and December 2017.

Buchanan BM, Evans HI, Chukwudebe NP, Duncan EA, Yin J, Adhikari BB, Zhou X, Tse ZTH, Chowell G, Meltzer MI and Fung IC-H. *Disaster Medicine and Public Health Preparedness vol. 17, Cambridge University Press (Cup).*

Printable Kirigami-inspired Flexible and Soft Anthropomorphic Robotic Hand.

Chan Y, Tse ZT-H and Ren H. Journal of Bionic Engineering vol. 19, (3) 668-677. Springer Nature.

Sideband Vibration Suppression of Interior Permanent Magnet Synchronous Motors for Electric Vehicles Under Multiple Operating Conditions.

Li Q, Liu S, Fang W, Li X and Tse Z. *IEEE Transactions On Transportation Electrification vol. 9, (1) 322-335. Institute of Electrical and Electronics Engineers (IEEE).*

Towards catheter steering using magnetic tractor beam coupling.

Limpabandhu C, Hu Y, Ren H, Song W and Tse Z. *Proceedings of The Institution of Mechanical Engineers Part H Journal of Engineering in Medicine vol. 236*, (4) 583-591. Sage Publications.

2021

Conversing or Diffusing Information? An Examination of Public Health Twitter Chats.

Bayliss L, Zhu Y, Fu K-W, Mullican LA, Ahmed F, Liang H, Tse ZTH, Saroha N, Yin J and Fung IC-H. *The Journal of Public Interest Communications vol.* 5, (2) 27-27. *University of Florida George a Smathers Libraries*.

Effects of cross-flow fan on hydrodynamic and acoustic performance of underwater fan-wing thruster.

Gao T, Lin Y, Qiu L, Tse ZTH and Ren H. Ocean Engineering vol. 241, Elsevier.

Aggregating Twitter Text through Generalized Linear Regression Models for Tweet Popularity Prediction and Automatic Topic Classification.

Mo C, Yin J, Fung IC-H and Tse ZTH. European Journal of Investigation in Health Psychology and Education vol. 11, (4) 1537-1554.Mdpi.

Image-Guided Robotics for Standardized and Automated Biopsy and Ablation.

Christou AS, Amalou A, Lee H, Rivera J, Li R, Kassin MT, Varble N, Tse ZTH, Xu S and Wood BJ. Seminars in Interventional Radiology vol. 38, (05) 565-575. Thieme.

Fully-Printable Soft Actuator with Variable Stiffness by Phase Transition and Hydraulic Regulations.

Liao T, Kalairaj MS, Cai CJ, Tse ZTH and Ren H. Actuators vol. 10, (10). Mdpi.

Augmented reality technology in image-guided therapy: State-of-the-art review.

Zhao Z, Poyhonen J, Cai XC, Hooper FSW, Ma Y, Hu Y, Ren H, Song W and Tse ZTH. *Proceedings of The Institution of Mechanical Engineers Part H Journal of Engineering in Medicine vol. 235*, (12) 1386-1398. Sage Publications.

AI-Assisted CT as a Clinical and Research Tool for COVID-19.

Tse ZTH, Hovet S, Ren H, Barrett T, Xu S, Turkbey B and Wood BJ. Frontiers in Artificial Intelligence vol. 4,. Frontiers.

A bodymounted device for MRIguided spinal therapy.

Squires A, Hovet S, Li R, Oshinski J and Tse ZTH. *International Journal of Medical Robotics and Computer Assisted Surgery vol.* 17, (2). Wiley.

Dynamic Piezoelectric Tactile Sensor for Tissue Hardness Measurement Using Symmetrical Flexure Hinges and Anisotropic Vibration Modes.

Yue W, Ju F, Zhang Y, Yun Y, Li T, Tse ZTH and Ren H. *IEEE Sensors Journal vol. 21*, (16) 17712-17722. *Institute of Electrical and Electronics Engineers (IEEE)*.

Applications of Robotics, Artificial Intelligence, and Digital Technologies During COVID-19: A Review.

Zhao Z, Ma Y, Mushtaq A, Rajper AMA, Shehab M, Heybourne A, Song W, Ren H and Tse ZTH. Disaster Medicine and Public Health Preparedness vol. 16, (4) 1-11. Cambridge University Press (Cup).

A Feasibility Study for a Smartphone-Based Vibratory Bowl System for Peanut Sorting.

Li R, Velaga H, Zhao Z and Tse ZTH. Applied Engineering in Agriculture vol. 37, (2) 279-286. American Society of Agricultural and Biological Engineers (Asabe).

A Bidirectional Buck-Boost Converter-Based Switching Ripple Communication Strategy for Intelligent Street Lighting Systems.

Zhang Y, Hu Y, Tse Z, Liu Y, Deng J, Xu H, Wang Y and Li W. Power Electronics and Drives vol. 6, (1) 260-275.De Gruyter.

Laser Power Transmission and Its Application in Laser-Powered Electrical Motor Drive: A Review.

Liu H, Zhang Y, Hu Y, Tse Z and wu J. Power Electronics and Drives vol. 6, (1) 167-184.De Gruyter.

2020

Hydrodynamic analyses of an underwater fan-wing thruster in self-driving and towing experiments.

Gao T, Lin Y, Ren H and Tse ZTH. Measurement vol. 165, Elsevier.

Shape Tracking of Flexible Morphing Matters From Depth Images.

Seenivasan L, Bai F, Ji M, Gu X, Tse ZTH and Ren H. *IEEE Sensors Journal vol.* 21, (6) 8234-8244. *Institute of Electrical and Electronics Engineers (IEEE)*.

Angular needle tracker and stabilizer for image-guided interventions.

Zhao Z, Li R, Xu LJ, Enzmann DR, Wood BJ and Tse ZTH. *Minimally Invasive Therapy & Allied Technologies vol.* 31, (3) 410-417. Taylor & Francis.

Development of a smartphone-based peanut data logging system.

Li R, Zhao Z, Monfort WS, Johnsen K, Tse ZTH and Leo DJ. *Precision Agriculture vol. 22, (3) 1006-1018.Springer Nature.*

Magnetic Fiducial Seeds for Tumor Localization in Video-Assisted Thoracoscopic Surgery (VATS): A Phantom and Ex Vivo Feasibility Study.

Zhao Z, Varble N, Xu S, Wood B, Sharma A and Tse ZTH. *IEEE Sensors Journal vol.* 21, (1) 678-684. *Institute of Electrical and Electronics Engineers (IEEE)*.

Smart Sleep Monitoring System via Passively Sensing Human Vibration Signals.

Li F, Valero M, Clemente J, Tse Z and Song W. *IEEE Sensors Journal vol. 21*, (13) 14466-14473. *Institute of Electrical and Electronics Engineers (IEEE)*.

Rapid prototyping of custom radiocontrast agent markers for computed tomographyguided procedures.

Li R, Taylor AJ and Tse ZTH. Proceedings of The Institution of Mechanical Engineers Part H Journal of Engineering in Medicine vol. 234, (12) 1363-1369. Sage Publications.

An inertial measurement unit tracking system for body movement in comparison with optical tracking.

Li R, Jumet B, Ren H, Song W and Tse ZTH. Proceedings of The Institution of Mechanical Engineers Part H Journal of Engineering in Medicine vol. 234, (7) 728-737. Sage Publications.

Using Twitter to Track Unplanned School Closures: Georgia Public Schools, 2015-17.

Ahweyevu JO, Chukwudebe NP, Buchanan BM, Yin J, Adhikari BB, Zhou X, Tse ZTH, Chowell G, Meltzer MI and Fung IC-H. *Disaster Medicine and Public Health Preparedness vol. 15*, (5) 568-572. Cambridge University Press (Cup).

Unplanned Closure of Public Schools in Michigan, 20152016: CrossSectional Study on Rurality and Digital Data Harvesting.

Jackson AM, Mullican LA, Tse ZTH, Yin J, Zhou X, Kumar D and Fung IC. *Journal of School Health vol. 90, (7) 511-519.Wiley.*

3:09 PM Abstract No. 118 Cost impact of new technologies in interventional oncology and interventional radiology.

Amalou H, Amalou A, Celik H, Xu S, Tse Z, Turkbey B, Pinto P, Anderson V and Wood B. *Journal of Vascular and Interventional Radiology vol.* 31, (3) s55-s56.Elsevier.

Abstract No. 545 Magnetic markers for tumor localization: feasibility in video assisted thoracic surgery.

Varble N, Zhao Z, Tse Z, Amalou A, Xu S and Wood B. *Journal of Vascular and Interventional Radiology vol. 31*, (3). Elsevier.

Toward Understanding of the Peanut Maturity Classification Process.

Zhao Z, Boland BL and Tse ZTH. *Journal of The Asabe vol.* 63, (5) 1571-1578. American Society of Agricultural and Biological Engineers (Asabe).

Smartphone Application for Assessing Peanut Maturity.

Zhao Z, Boland BL, Mohammadi FG, Monfort WS, Johnsen K, Tse ZTH and Leo DJ. *Journal of The Asabe vol.* 63, (2) 339-344. *American Society of Agricultural and Biological Engineers (Asabe)*.

Chapter 12 Tunable stiffness using negative Poisson's ratio toward load-bearing continuum tubular mechanisms in medical robotics.

Ramachandra K, Cai CJ, Lalithkumar S, Cai X, Tse ZT and Ren H. Control Theory in Biomedical Engineering 317-358. Elsevier.

Chapter 5 Modular origami joint operator to create bendable motions with multiple radii.

Thomson A, Hao CTS, Darius LWH, Yanhui O, Annabelle, Pareatumbee P, Tse ZTH, Lim CM and Ren H. Flexible Robotics in Medicine 101-148. Elsevier.

Chapter 13 Design evolution of a flexible robotic bending end-effector for transluminal explorations.

Cheah U-JJ, Tan PR, Ong ZT, Huan A, Bin Mohd Faisal MA, Tse ZTH, Lim CM and Ren H. *Flexible Robotics in Medicine 289-325. Elsevier*.

Chapter 4 Flexible steerable manipulator utilizing complementary configuration of multiple routing grooves and ball joints for stable omnidirectional bending.

Ying D, Poh D, Ting L, Marius L, Tiew V, Tse ZTH and Ren H. Flexible Robotics in Medicine 77-99. Elsevier.

Chapter 2 Prototyping soft origami quad-bellows robots from single-bellows characterization.

Lee MJT, Yeow BS, Cai CJ, Tse ZTH and Ren H. Flexible Robotics in Medicine 19-37. Elsevier.

Chapter 14 Force sensing in compact concentric tube mechanism with optical fibers.

Yang NJ, Li T, Xiao X, Tse ZTH, Lim CM and Ren H. Flexible Robotics in Medicine 327-347. Elsevier.

2019

The Feasibility of Using a Smartphone Magnetometer for Assisting Needle Placement.

Zhao Z, Xu S, Wood BJ, Ren H and Tse ZTH. Annals of Biomedical Engineering vol. 48, (4) 1147-1156. Springer Nature.

Public Health Implications of Image-Based Social Media: A Systematic Review of Instagram, Pinterest, Tumblr, and Flickr.

Fung IC-H, Blankenship EB, Ahweyevu JO, Cooper LK, Duke CH, Carswell SL, Jackson AM, Jenkins JC, Duncan EA, Liang H, Fu K-W and Tse ZTH. *The Permanente Journal vol. 24, (1).The Permanente Federation.*

Correction: Bhagat, S.; et al. Deep Reinforcement Learning for Soft, Flexible Robots: Brief Review with Impending Challenges. Robotics 2019, 8, 4.

Bhagat S, Banerjee H, Tse ZTH and Ren H. Robotics vol. 8, (4). Mdpi.

Social Media Usage and Influenza Beliefs, Risk Perceptions and Behavioral Intentions Among Students at a University in Southeastern US.

Yin J, Tseng P-L, Zerbo K, Tse Z, Ross L and Fung I. *Journal of The Georgia Public Health Association vol. 7*, (2). *Georgia Southern University*.

Smart Home Monitoring System via Footstep-Induced Vibrations.

Li F, Clemente J, Valero M, Tse Z, Li S and Song W. *IEEE Systems Journal vol.* 14, (3) 3383-3389.Institute of Electrical and Electronics Engineers (IEEE).

Twitter Conversations and English News Media Reports on Poliomyelitis in Five Different Countries, January 2014 to April 2015.

Schaible BJ, Snook KR, Yin J, Jackson AM, Ahweyevu JO, Chong M, Tse ZTH, Liang H, Fu K-W and Fung IC-H. *The Permanente Journal vol. 23, (3).The Permanente Federation.*

Pedagogical Demonstration of Twitter Data Analysis: A Case Study of World AIDS Day, 2014.

Fung IC-H, Yin J, Pressley KD, Duke CH, Mo C, Liang H, Fu K-W, Tse ZTH and Hou S-I. Data vol. 4, (2). Mdpi.

How did Ebola information spread on twitter: broadcasting or viral spreading?.

Liang H, Fung IC-H, Tse ZTH, Yin J, Chan C-H, Pechta LE, Smith BJ, Marquez-Lameda RD, Meltzer MI, Lubell KM and Fu K-W. *Bmc Public Health vol. 19, (1). Springer Nature.*

Heatguard: An ultra-low-cost three-dimensional-printed sensor for skin temperature alert and reporting system.

Li R, Smith A, Tadinada H, Hovet S and Tse ZTH. Proceedings of The Institution of Mechanical Engineers Part H Journal of Engineering in Medicine vol. 233, (5) 525-534. Sage Publications.

Devices for image-guided lung interventions: State-of-the-art review.

Zhao Z, Jordan S and Tse ZTH. Proceedings of The Institution of Mechanical Engineers Part H Journal of Engineering in Medicine vol. 233, (4) 444-463. Sage Publications.

Exploring magnetohydrodynamic voltage distributions in the human body: Preliminary results.

Gregory TS, Murrow JR, Oshinski JN and Tse ZTH. Plos One vol. 14, (3). Public Library of Science (Plos).

Abstract No. 525 Virtual bronchoscopy navigation using a wireless gyroscope.

Xu S, Tse Z, Li R, De Ruiter Q and Wood B. Journal of Vascular and Interventional Radiology vol. 30, (3). Elsevier.

Adopting YouTube to Promote Health: Analysis of State Health Departments.

Duke CH, Yin J, Zhang X, Blankenship EB, Akuse SE, Shah GH, Chan C-H, Fu K-W, Tse ZTH and Fung IC-H. *The Permanente Journal vol. 23, (1).The Permanente Federation.*

Origami Lesion-Targeting Device for CT-Guided Interventions.

Taylor AJ, Xu S, Wood BJ and Tse ZTH. Journal of Imaging vol. 5, (2). Mdpi.

Deep Reinforcement Learning for Soft, Flexible Robots: Brief Review with Impending Challenges.

Bhagat S, Banerjee H, Tse ZTH and Ren H. Robotics vol. 8, (1). Mdpi.

MR-Conditional SMA-Based Origami Joint.

Taylor AJ, Slutzky T, Feuerman L, Ren H, Tokuda J, Nilsson K and Tse ZTH. *IEEE/Asme Transactions On Mechatronics vol.* 24, (2) 883-888. *Institute of Electrical and Electronics Engineers (IEEE)*.

2018

Magnetic Resonance Conditional Microinjector.

Wineland A, Chen Y, Boland B, Chan K and Tse Z. Journal of Imaging vol. 5, (1). Mdpi.

Using Twitter for Public Health Surveillance from Monitoring and Prediction to Public Response.

Jordan SE, Hovet SE, Fung IC-H, Liang H, Fu K-W and Tse ZTH. Data vol. 4, (1). Mdpi.

High Speed Pneumatic Stepper Motor for MRI Applications.

Boland BL, Xu S, Wood B and Tse ZTH. Annals of Biomedical Engineering vol. 47, (3) 826-835. Springer Nature.

MRI Robot for Prostate Focal Laser Ablation: An Ex Vivo Study in Human Prostate.

Seifabadi R, Li M, Xu S, Chen Y, Squires A, Negussie AH, Bakhutashvili I, Choyke P, Turkbey IB, Tse ZTH and Wood BJ. *Journal of Imaging vol. 4*, (12).*Mdpi*.

Template for MR Visualization and Needle Targeting.

Li R, Xu S, Bakhutashvili I, Turkbey IB, Choyke P, Pinto P, Wood B and Tse ZTH. *Annals of Biomedical Engineering vol.* 47, (2) 524-536. Springer Nature.

World Pneumonia Day 20112016: Twitter contents and retweets.

Adnan M, Yin J, Jackson AM, Tse ZTH, Liang H, Fu K-W, Saroha N, Althouse BM and Fung IC-H. *International Health vol.* 11, (4) 297-305. Oxford University Press (Oup).

3D Printing Endobronchial Models for Surgical Training and Simulation.

Zhao Z, Xu S, Wood BJ and Tse ZTH. Journal of Imaging vol. 4, (11). Mdpi.

#CDCGrandRounds and #VitalSigns: A Twitter Analysis.

Jackson AM, Mullican LA, Yin J, Tse ZTH, Liang H, Fu K-W, Ahweyevu JO, Jenkins JJ, Saroha N and Fung IC-H. *Annals of Global Health vol. 84*, (4) 710-716. *Ubiquity Press*.

Facility inspection using UAVs: a case study in the University of Georgia campus.

Moore J, Tadinada H, Kirsche K, Perry J, Remen F and Tse ZTH. *International Journal of Remote Sensing vol. 39*, (21) 7189-7200. *Taylor & Francis*.

Applications of Wireless Power Transfer in Medicine: State-of-the-Art Reviews.

Moore J, Castellanos S, Xu S, Wood B, Ren H and Tse ZTH. *Annals of Biomedical Engineering vol. 47*, (1) 22-38. *Springer Nature*.

Sentiment, Contents, and Retweets: A Study of Two Vaccine-Related Twitter Datasets.

Blankenship EB, Goff ME, Yin J, Tse ZTH, Fu K-W, Liang H, Saroha N and Fung IC-H. *The Permanente Journal vol.* 22, (3) 17-138. The Permanente Federation.

Soft Robotics in Medical Applications.

Tse ZTH, Chen Y, Hovet S, Ren H, Cleary K, Xu S, Wood B and Monfaredi R. *Journal of Medical Robotics Research* vol. 03, (03n04). World Scientific Publishing.

An electromagnetic tracking needle clip: an enabling design for low-cost image-guided therapy.

Zhao Z and Tse ZTH. Minimally Invasive Therapy & Allied Technologies vol. 28, (3) 165-171. Taylor & Francis.

Modular force approximating soft robotic pneumatic actuator.

Taylor AJ, Montayre R, Zhao Z, Kwok KW and Tse ZTH. *International Journal of Computer Assisted Radiology and Surgery vol.* 13, (11) 1819-1827. Springer Nature.

ECG Electrode Placements for Magnetohydrodynamic Voltage Suppression.

Gregory TS, Oshinski JN and Tse ZTH. Journal of Imaging vol. 4, (7). Mdpi.

Introduction of Electric Vehicle Charging Stations to University Campuses: A Case Study for the University of Georgia from 2014 to 2017.

Hovet S, Farley B, Perry J, Kirsche K, Jerue M and Tse ZTH. Batteries vol. 4, (2). Mdpi.

Introduction to the special issue on program debugging.

Xie X, Stumptner M and Tse TH. Journal of Systems and Software vol. 140, 109-110. Elsevier.

Intra-MRI Extraction of Diagnostic Electrocardiograms Using Carotidal Magnetohydrodynamic Voltages.

Gregory TS, Wu KJ, Oshinski JN and Tse ZTH. Journal of Imaging vol. 4, (5). Mdpi.

Magnetic resonance conditional paramagnetic choke for suppression of imaging artifacts during magnetic resonance imaging.

Wu KJ, Gregory TS, Boland BL, Zhao W, Cheng R, Mao L and Tse ZTH. *Proceedings of The Institution of Mechanical Engineers Part H Journal of Engineering in Medicine vol.* 232, (6) 597-604. Sage Publications.

Contents, Followers, and Retweets of the Centers for Disease Control and Preventions Office of Advanced Molecular Detection (@CDC_AMD) Twitter Profile: Cross-Sectional Study.

Fung IC-H, Jackson AM, Mullican LA, Blankenship EB, Goff ME, Guinn AJ, Saroha N and Tse ZTH. *Jmir Public Health and Surveillance vol. 4*, (2). *Jmir Publications*.

Introduction to the special issue on test oracles.

Zhou ZQ, Towey D, Poon P-L and Tse TH. Journal of Systems and Software vol. 136, Elsevier.

Stateoftheart technologies for UAV inspections.

Jordan S, Moore J, Hovet S, Box J, Perry J, Kirsche K, Lewis D and Tse ZTH. *Iet Radar Sonar & Navigation vol. 12*, (2) 151-164. *Institution of Engineering and Technology (Iet)*.

AngleNay: MEMS Tracker to Facilitate CT-Guided Puncture.

Li R, Xu S, Pritchard WF, Karanian JW, Krishnasamy VP, Wood BJ and Tse ZTH. *Annals of Biomedical Engineering* vol. 46, (3) 452-463. Springer Nature.

Metamorphic Testing.

Chen TY, Kuo F-C, Liu H, Poon P-L, Towey D, Tse TH and Zhou ZQ. *Acm Computing Surveys vol.* 51, (1) 1-27. *Association For Computing Machinery* (Acm).

SOFT ROBOTICS WITH COMPLIANCE AND ADAPTATION FOR BIOMEDICAL APPLICATIONS AND FORTHCOMING CHALLENGES.

Banerjee H, Tse ZTH and Ren H. International Journal of Robotics and Automation vol. 33, (1). Acta Press.

2017

SpinoBot: An MRI-Guided Needle Positioning System for Spinal Cellular Therapeutics.

Squires A, Oshinski JN, Boulis NM and Tse ZTH. Annals of Biomedical Engineering vol. 46, (3) 475-487. Springer Nature.

MRI-powered biomedical devices.

Hovet S, Ren H, Xu S, Wood B, Tokuda J and Tse ZTH. *Minimally Invasive Therapy & Allied Technologies vol. 27*, (4) 191-202. Taylor & Francis.

Characterization and Control of a Pneumatic Motor for MR-Conditional Robotic Applications.

Chen Y, Godage IS, Tse ZTH, Webster RJ and Barth EJ. *IEEE/Asme Transactions On Mechatronics vol.* 22, (6) 2780-2789. *Institute of Electrical and Electronics Engineers (IEEE)*.

Smartphone-Guided Needle Angle Selection During CT-Guided Procedures.

Xu S, Krishnasamy V, Levy E, Li M, Tse ZTH and Wood BJ. *American Journal of Roentgenology vol. 210, (1) 207-213. American Roentgen Ray Society.*

MRI-Guided Robotically Assisted Focal Laser Ablation of the Prostate Using Canine Cadavers.

Chen Y, Xu S, Squires A, Seifabadi R, Turkbey IB, Pinto PA, Choyke P, Wood B and Tse ZTH. *IEEE Transactions On Biomedical Engineering vol.* 65, (7) 1434-1442. *Institute of Electrical and Electronics Engineers (IEEE)*.

Twitter and Middle East respiratory syndrome, South Korea, 2015: A multi-lingual study.

Fung IC-H, Zeng J, Chan C-H, Liang H, Yin J, Liu Z, Tse ZTH and Fu K-W. *Infection Disease & Health vol. 23, (1) 10-16. Elsevier.*

Cardiovascular Catheter With an Expandable Origami Structure.

Taylor AJ, Chen Y, Fok M, Berman A, Nilsson K and Tse ZTH. *Journal of Medical Devices vol. 11*, (3). *Asme International*.

Magnetohydrodynamic Voltage Recorder for Comparing Peripheral Blood Flow.

Wu KJ, Gregory TS, Lastinger MC, Murrow JR and Tse ZTH. Annals of Biomedical Engineering vol. 45, (10) 2298-2308. Springer Nature.

3-D Coil Positioning Based on Magnetic Sensing for Wireless EV Charging.

Gao Y, Duan C, Oliveira AA, Ginart A, Farley KB and Tse ZTH. *IEEE Transactions On Transportation Electrification vol. 3, (3) 578-588.Institute of Electrical and Electronics Engineers (IEEE).*

Zika-Virus-Related Photo Sharing on Pinterest and Instagram.

Fung IC-H, Blankenship EB, Goff ME, Mullican LA, Chan KC, Saroha N, Duke CH, Eremeeva ME, Fu K-W and Tse ZTH. *Disaster Medicine and Public Health Preparedness vol.* 11, (6) 656-659. *Cambridge University Press* (Cup).

Fabricating biomedical origami: a state-of-the-art review.

Johnson M, Chen Y, Hovet S, Xu S, Wood B, Ren H, Tokuda J and Tse ZTH. *International Journal of Computer Assisted Radiology and Surgery vol.* 12, (11) 2023-2032. Springer Nature.

Zika Virus on YouTube: An Analysis of English-language Video Content by Source.

Basch CH, Fung IC-H, Hammond RN, Blankenship EB, Tse ZTH, Fu K-W, Ip P and Basch CE. *Journal of Preventive Medicine and Public Health vol.* 50, (2) 133-140. Korean Society For Preventive Medicine.

#Globalhealth Twitter Conversations on #Malaria, #HIV, #TB, #NCDS, and #NTDS: a Cross-Sectional Analysis.

Fung IC-H, Jackson AM, Ahweyevu JO, Grizzle JH, Yin J, Tse ZTH, Liang H, Sekandi JN and Fu K-W. *Annals of Global Health vol.* 83, (3-4) 682-690. *Ubiquity Press*.

Development of an indoor guidance system for unmanned aerial vehicles with power industry applications. Wu KJ, Gregory TS, Moore J, Hooper B, Lewis D and Tse ZTH. *Iet Radar Sonar & Navigation vol. 11, (1) 212-218. Institution of Engineering and Technology (Iet).*

2016

294P Over diagnosis of prostate cancer in Eurasian men by PSA and PHI: example of heterosis.

Xie Y, Iskakova EE, Yang Q, Sakenova N, Chen Y, Tse ZTH and Wu YSH. Annals of Oncology vol. 27, Elsevier.

Robotic System for MRI-Guided Focal Laser Ablation in the Prostate.

Chen Y, Squires A, Seifabadi R, Xu S, Agarwal HK, Bernardo M, Pinto PA, Choyke P, Wood B and Tse ZTH. *IEEE/Asme Transactions On Mechatronics vol.* 22, (1) 107-114. *Institute of Electrical and Electronics Engineers* (*IEEE*).

How people react to Zika virus outbreaks on Twitter? A computational content analysis.

Fu K-W, Liang H, Saroha N, Tse ZTH, Ip P and Fung IC-H. *American Journal of Infection Control vol. 44*, (12) 1700-1702. Elsevier.

Vaccine safety and social media in China.

Fung IC-H, Cheung C-N, Fu K-W, Ip P and Tse ZTH. American Journal of Infection Control vol. 44, (10) 1194-1195. Elsevier.

Results from the centers for disease control and preventions predict the 20132014 Influenza Season Challenge. Biggerstaff M, Alper D, Dredze M, Fox S, Fung IC-H, Hickmann KS, Lewis B, Rosenfeld R, Shaman J, Tsou M-H, Velardi P, Vespignani A, Finelli L and for the Influenza Forecasting Contest Working Group. *Bmc Infectious Diseases vol. 16*, (1). Springer Nature.

Ebola virus disease and social media: A systematic review.

Fung IC-H, Duke CH, Finch KC, Snook KR, Tseng P-L, Hernandez AC, Gambhir M, Fu K-W and Tse ZTH. *American Journal of Infection Control vol.* 44, (12) 1660-1671. *Elsevier*.

Temperature-Insensitive Fiber-Optic Contact Force Sensor for Steerable Catheters.

Xu L, Miller MI, Ge J, Nilsson KR, Tse ZTH and Fok MP. *IEEE Sensors Journal vol.* 16, (12) 4771-4775. *Institute of Electrical and Electronics Engineers (IEEE)*.

Revealing ecological risks of priority endocrine disrupting chemicals in four marine protected areas in Hong Kong through an integrative approach.

Xu EG, Ho PW-L, Tse Z, Ho S-L and Leung KMY. Environmental Pollution vol. 215, 103-112. Elsevier.

Social Media's Initial Reaction to Information and Misinformation on Ebola, August 2014: Facts and Rumors. Fung IC-H, Fu K-W, Chan C-H, Chan BSB, Cheung C-N, Abraham T and Tse ZTH. *Public Health Reports vol. 131, (3) 461-473.Sage Publications.*

Public health implications of social media use during natural disasters, environmental disasters, and other environmental concerns.

Finch KC, Snook KR, Duke CH, Fu K-W, Tse ZTH, Adhikari A and Fung IC-H. *Natural Hazards vol.* 83, (1) 729-760. Springer Nature.

Futuristic First Responders.

Tse ZTH, Hovet S, Cheung C-N and Fung IC-H. Disaster Medicine and Public Health Preparedness vol. 10, (4) 538-539. Cambridge University Press (Cup).

${\bf SpinoTemplate: A\ Platform\ for\ MRI-Guided\ Spinal\ Cord\ Injections.}$

Squires A, Oshinski J, Lamanna J and Tse ZTH. Journal of Medical Robotics Research vol. 01, (01). World Scientific Publishing.

MAPS A Magic Angle Positioning System for Enhanced Imaging in High-Field Small-Bore MRI.

Squires A, Chan KC, Ho LC, Sigal IA, Jan N-J and Tse ZTH. *Journal of Medical Robotics Research vol. 01, (01). World Scientific Publishing.*

The Magnetohydrodynamic Effect and Its Associated Material Designs for Biomedical Applications: A StateoftheArt Review.

Gregory TS, Cheng R, Tang G, Mao L and Tse ZTH. Advanced Functional Materials vol. 26, (22) 3942-3952. Wilev.

Magnetic Alignment Detection Using Existing Charging Facility in Wireless EV Chargers.

Gao Y, Oliveira AA, Farley KB and Tse ZTH. Journal of Sensors vol. 2016, (1) 1-9. Hindawi.

Simple approach to calculate unitygain frequency of seriesseries compensated inductive power transfer.

Gao Y, Ginart A, Duan C, Farley KB and Tse ZTH. *Electronics Letters vol.* 52, (2) 145-146. *Institution of Engineering and Technology (Iet)*.

Intra-MRI extraction of diagnostic electrocardiograms using dynamic feedback from carotidal magnetohydrodynamic voltages.

Gregory TS, Wu KJ, Schmidt EJ, Oshinski J and Tse ZT. *Journal of Cardiovascular Magnetic Resonance vol. 18, (Suppl 1).Elsevier.*

3T cardiac imaging with on-line 12-lead ECG monitoring.

Dabaghyan M, Zhang SH, Ward J, Kwong RY, Stevenson WG, Watkins RD, Tse ZT and Schmidt EJ. *Journal of Cardiovascular Magnetic Resonance vol.* 18, (Suppl 1). Elsevier.

ECG Electrode Placements for Magnetohydrodynamic Voltage Suppression and improving Cardiac Gating in high-field MRI.

Gregory TS, Oshinski J, Schmidt EJ and Tse ZT. Journal of Cardiovascular Magnetic Resonance vol. 18, (Suppl 1). Elsevier.

Automated removal of gradient-induced voltages from 12-lead ECG traces during high-gradient duty-cycle MRI sequences.

Dabaghyan M, Zhang SH, Ward J, Kwong RY, Stevenson WG, Watkins RD, Tse ZT and Schmidt EJ. *Journal of Cardiovascular Magnetic Resonance vol.* 18, (Suppl 1). Elsevier.

2015

Evaluation of an active magnetic resonance tracking system for interstitial brachytherapy.

Wang W, Viswanathan AN, Damato AL, Chen Y, Tse Z, Pan L, Tokuda J, Seethamraju RT, Dumoulin CL, Schmidt EJ and Cormack RA. *Medical Physics vol.* 42, (12) 7114-7121. Wiley.

Why We Should Care About Ebola in West Africa and Middle East Respiratory Syndrome in South Korea: Global Health Ethics and the Moral Insignificance of Proximity.

Chan BSB, Tse ZTH, Fu K-W, Cheung C-N and Fung IC-H. *Journal of Bioethical Inquiry vol.* 12, (4) 541-543. *Springer Nature.*

Continuous Rapid Quantification of Stroke Volume Using Magnetohydrodynamic Voltages in 3T Magnetic Resonance Imaging.

Gregory TS, Oshinski J, Schmidt EJ, Kwong RY, Stevenson WG and Ho Tse ZT. Circulation Cardiovascular Imaging vol. 8, (12). Wolters Kluwer.

Design and Fabrication of MR-Tracked Metallic Stylet for Gynecologic Brachytherapy.

Chen Y, Wang W, Schmidt EJ, Kwok K-W, Viswanathan AN, Cormack R and Tse ZTH. *IEEE/Asme Transactions On Mechatronics vol.* 21, (2) 956-962. *Institute of Electrical and Electronics Engineers (IEEE)*.

Abstract 16689: Smartphone-enabled Device for the Monitoring of Blood Volume Variations Using Magnetohydrodynamic Voltages.

Wu KJ, Gregory TS, Reeder C, Leitmann B, Huffines A, Donovan S, Mosteller L, Murrow JR and Tse ZTH. *Circulation vol. 132*, (*suppl_3*). *Wolters Kluwer*.

Safety and efficiency of the wireless charging of electric vehicles.

Gao Y, Farley KB, Ginart A and Tse ZTH. Proceedings of The Institution of Mechanical Engineers Part D Journal of Automobile Engineering vol. 230, (9) 1196-1207. Sage Publications.

Wearable Virtual White Cane Network for navigating people with visual impairment.

Gao Y, Chandrawanshi R, Nau AC and Tse ZTH. *Proceedings of The Institution of Mechanical Engineers Part H Journal of Engineering in Medicine vol.* 229, (9) 681-688. Sage Publications.

A Uniform Voltage Gain Control for Alignment Robustness in Wireless EV Charging.

Gao Y, Farley KB and Tse ZTH. Energies vol. 8, (8) 8355-8370.Mdpi.

Middle East respiratory syndrome in the Republic of Korea: transparency and communication are key.

Fung IC-H, Tse ZTH, Chan BSB and Fu K-W. Western Pacific Surveillance and Response vol. 6, (3) 1-2. World Health Organization, Western Pacific Regional Office.

Global Handwashing Day 2012: a qualitative content analysis of Chinese social media reaction to a health promotion event.

Fung IC-H, Cai J, Hao Y, Ying Y, Chan BSB, Tse ZTH and Fu K-W. Western Pacific Surveillance and Response vol. 6, (3) 34-42. World Health Organization, Western Pacific Regional Office.

The use of social media in public health surveillance.

Fung IC-H, Tse ZTH and Fu K-W. Western Pacific Surveillance and Response vol. 6, (2) 3-6. World Health Organization, Western Pacific Regional Office.

Gradientinduced voltages on 12lead ECGs during high dutycycle MRI sequences and a method for their removal considering linear and concomitant gradient terms.

Zhang SH, Tse ZTH, Dumoulin CL, Kwong RY, Stevenson WG, Watkins R, Ward J, Wang W and Schmidt EJ. *Magnetic Resonance in Medicine vol.* 75, (5) 2204-2216. Wiley.

Chinese Social Media Reaction to Information about 42 Notifiable Infectious Diseases.

Fung IC-H, Hao Y, Cai J, Ying Y, Schaible BJ, Yu CM, Tse ZTH and Fu K-W. Plos One vol. 10, (5). Public Library of Science (Plos).

Magnetohydrodynamic-Driven Design of Microscopic Endocapsules in MRI.

Gregory TS, Wu KJ, Yu J, Box JB, Cheng R, Mao L, Tang G and Tse ZTH. *IEEE/Asme Transactions On Mechatronics vol.* 20, (6) 2691-2698. *Institute of Electrical and Electronics Engineers (IEEE)*.

Drones: Balancing risk and potential.

Gregory TS, Tse ZTH and Lewis D. Science vol. 347, (6228) 1323-1323. American Association For The Advancement of Science (Aaas).

Cyber-attack risk low for medical devices.

Tse ZTH, Xu S, Fung IC-H and Wood BJ. Science vol. 347, (6228) 1323-1324. American Association For The Advancement of Science (Aaas).

Converting Big Data into public health.

Fung IC-H, Tse ZTH and Fu K-W. Science vol. 347, (6222) 620.2-62620. American Association For The Advancement of Science (Aaas).

Intra-cardiac MR imaging & MR-tracking catheter for improved MR-guided EP.

Chen Y, Tse ZT, Wang W, Kwong RY, Stevenson WG and Schmidt EJ. *Journal of Cardiovascular Magnetic Resonance vol.* 17, (Suppl 1). Elsevier.

Gradient-induced voltages on 12-lead ECGs during high-duty-cycle MRI sequences and a theoretically-based method to remove them.

Zhang SH, Tse ZT, Dumoulin CL, Watkins RD, Wang W, Ward J, Kwong RY, Stevenson WG and Schmidt EJ. *Journal of Cardiovascular Magnetic Resonance vol.* 17, (Suppl 1). Elsevier.

Rapid quantification of stroke volume using magnetohydrodynamic voltages in 3T MRI: a feasibility study. Gregory ST, Schmidt EJ, Zhang SH, Kwong RY, Stevenson WG, Oshinski J and Tse ZT. *Journal of Cardiovascular Magnetic Resonance vol.* 17, (Suppl 1). Elsevier.

2014

Ebola and the social media.

Fung IC-H, Tse ZTH, Cheung C-N, Miu AS and Fu K-W. The Lancet vol. 384, (9961). Elsevier.

Left-Ventricular Mechanical Activation and Aortic-Arch Orientation Recovered from Magneto-Hydrodynamic Voltages Observed in 12-Lead ECGs Obtained Inside MRIs: A Feasibility Study.

Gregory TS, Schmidt EJ, Zhang SH, Kwong RY, Stevenson WG, Murrow JR and Tse ZTH. *Annals of Biomedical Engineering vol.* 42, (12) 2480-2489. *Springer Nature*.

Magic AngleEnhanced MRI of Fibrous Microstructures in Sclera and Cornea With and Without Intraocular Pressure LoadingMRI of Fibrous Microstructures in the Eye.

Ho LC, Sigal IA, Jan N-J, Squires A, Tse Z, Wu EX, Kim S-G, Schuman JS and Chan KC. *Investigative Ophthalmology & Visual Science vol. 55*, (9) 5662-5672. *Association For Research in Vision and Ophthalmology (Arvo).*

Improving the Effectiveness of Testing Pervasive Software via Context Diversity.

Wang H, Chan WK and Tse TH. Acm Transactions On Autonomous and Adaptive Systems vol. 9, (2) 1-28. Association For Computing Machinery (Acm).

An MR-Conditional High-Torque Pneumatic Stepper Motor for MRI-Guided and Robot-Assisted Intervention. Chen Y, Kwok K-W and Tse ZTH. *Annals of Biomedical Engineering vol.* 42, (9) 1823-1833. Springer Nature.

Realtime active MRtracking of metallic stylets in MRguided radiation therapy.

Wang W, Dumoulin CL, Viswanathan AN, Tse ZTH, Mehrtash A, Loew W, Norton I, Tokuda J, Seethamraju RT, Kapur T, Damato AL, Cormack RA and Schmidt EJ. *Magnetic Resonance in Medicine vol.* 73, (5) 1803-1811. Wiley.

A Simple and Inexpensive Stereotactic Guidance Frame for MRIGuided Brain Biopsy in Canines.

Squires AD, Gao Y, Taylor SF, Kent M and Tse ZTH. Journal of Medical Engineering vol. 2014, (1). Hindawi.

Augmented Reality for Improving Catheterization in Magnetic Resonance Imaging-Guided Cardiac Electrophysiology Therapy.

Chen Y, Kwok K-W, Ge J, Hu Y, Fok M, Nilsson KR and Tse ZTH. *Journal of Medical Devices vol.* 8, (2). *Asme International*.

Wearable Virtual White Cane: Assistive Technology for Navigating the Visually Impaired.

Gao Y, Kwok K-W, Chandrawanshi R, Squires A, Nau AC, Tsz Z and Tse H. Journal of Medical Devices vol. 8, (2). Asme International.

Comparison of three artificial models of the magnetohydrodynamic effect on the electrocardiogram.

Oster J, Llinares R, Payne S, Tse ZTH, Schmidt EJ and Clifford GD. Computer Methods in Biomechanics & Biomedical Engineering vol. 18, (13) 1400-1417. Taylor & Francis.

Spiral-structured fiber Bragg grating for contact force sensing through direct power measurement.

Ge J, Feng H, Chen Y, Tse ZTH and Fok MP. Optics Express vol. 22, (9) 10439-10445. Optica Publishing Group.

A 10-mm MR-Conditional Unidirectional Pneumatic Stepper Motor.

Chen Y, Mershon CD and Tse ZTH. *IEEE/Asme Transactions On Mechatronics vol.* 20, (2) 782-788. *Institute of Electrical and Electronics Engineers (IEEE)*.

3DQRS: A method to obtain reliable QRS complex detection within high field MRI using 12lead electrocardiogram traces.

Gregory TS, Schmidt EJ, Zhang SH and Tse ZTH. Magnetic Resonance in Medicine vol. 71, (4) 1374-1380. Wiley.

MRI-conditional catheter sensor for contact force and temperature monitoring during cardiac electrophysiological procedures.

Chen Y, Ge J, Kwok K-W, Nilsson KR, Fok M and Tse ZT. *Journal of Cardiovascular Magnetic Resonance vol. 16*, (Suppl 1). Elsevier.

Computation of the gradient-induced electric field noise in 12-lead ECG traces during rapid MRI sequences. Zhang SH, Tse ZT, Wang W, Kwong RY, Dumoulin CL and Schmidt EJ. *Journal of Cardiovascular Magnetic*

Resonance vol. 16, (Suppl 1).Elsevier.

Electric vehicle wireless charging technology: a state-of-the-art review of magnetic coupling systems.

Fisher TM, Farley KB, Gao Y, Bai H and Tse ZTH. Wireless Power Transfer vol. 1, (2) 87-96.Maximum Academic Press.

Peripheral perfusion index measured using magnetohydrodynamic voltages in 3T MRI.

Gregory TS, Schmidt EJ, Zhang SH, Murrow JR and Tse ZT. *Journal of Cardiovascular Magnetic Resonance vol. 16*, (*PhyMedBio 2009*). *Elsevier*.

Comparing 3DQRS and VCG approaches for ECG QRS detection within 1.5T, 3T and 7T MRI.

Gregory TS, Schmidt EJ, Zhang SH and Tse ZT. *Journal of Cardiovascular Magnetic Resonance vol. 16, (Suppl 1). Elsevier.*

MRI-based visual and haptic catheter feedback: simulating a novel system's contribution to efficient and safe MRI-guided cardiac electrophysiology procedures.

Kwok K-W, Chen Y, Chau TC, Luk W, Nilsson KR, Schmidt EJ and Tse ZT. *Journal of Cardiovascular Magnetic Resonance vol.* 16, (Suppl 1). Elsevier.

MRI-compatible voltage-based electroanatomic mapping system for 3T MR-guided cardiac electrophysiology: swine validations.

Zhang SH, Tse ZT, Dumoulin CL, Bryd I, Schweitzer J, Watkins RG, Butts-Pauly K, Kwong RY, Barbhaiya CR, Stevenson WG, Jolesz F and Schmidt EJ. *Journal of Cardiovascular Magnetic Resonance vol.* 16, (Suppl 1). Elsevier.

FPGA-based acceleration of MRI registration: an enabling technique for improving MRI-guided cardiac therapy.

Kwok K-W, Chow GC, Chau TC, Chen Y, Zhang SH, Luk W, Schmidt EJ and Tse ZT. *Journal of Cardiovascular Magnetic Resonance vol. 16, (Suppl 1).Elsevier.*

2013

Chinese social media reaction to the MERS-CoV and avian influenza A(H7N9) outbreaks.

Fung IC-H, Fu K-W, Ying Y, Schaible B, Hao Y, Chan C-H and Tse ZT-H. *Infectious Diseases of Poverty vol. 2, (1). Springer Nature.*

Abstract 18249: Spatially-Integrated Vectorcardiogram: An Enabling Technique for Arrhythmia Cardiac Gating in High-Field MRI.

Gregory TS and Tse ZT. Circulation vol. 128, (suppl_22). Wolters Kluwer.

Voltagebased device tracking in a 1.5 tesla MRI during imaging: initial validation in swine models.

Schmidt EJ, Tse ZTH, Reichlin TR, Michaud GF, Watkins RD, Butts Pauly K, Kwong RY, Stevenson W, Schweitzer J, Byrd I and Dumoulin CL. *Magnetic Resonance in Medicine vol.* 71, (3) 1197-1209. Wiley.

A 1.5T MRIconditional 12lead electrocardiogram for MRI and intraMR intervention.

Tse ZTH, Dumoulin CL, Clifford GD, Schweitzer J, Qin L, Oster J, Jerosch Herold M, Kwong RY, Michaud G, Stevenson WG and Schmidt EJ. *Magnetic Resonance in Medicine vol.* 71, (3) 1336-1347. Wiley.

ROBOTICS IN NATURAL ORIFICE TRANSLUMINAL ENDOSCOPIC SURGERY.

ZHOU Y, REN H, MENG MQ-H, TSE ZTH and YU H. *Journal of Mechanics in Medicine and Biology vol. 13, (02).* World Scientific Publishing.

Improved cardiac gating at 3T with the 3D-QRS method utilizing MRI-compatible 12-lead ECGs.

Tse Z, Dumoulin C, Watkins R, Pauly KB, Kwong R, Michaud G, Stevenson W, Jolesz F and Schmidt E. *Journal of Cardiovascular Magnetic Resonance vol.* 15, (Suppl 1). Elsevier.

Computer-Assisted Transoral Surgery with Flexible Robotics and Navigation Technologies: A Review of Recent Progress and Research Challenges.

Ren H, Lim CM, Wang J, Liu W, Song S, Li Z, Herbert G, Tse ZTH and Tan Z. *Critical Reviews in Biomedical Engineering vol.* 41, (4-5) 365-391. Begell House.

Human & swine studies of concurrent 12-lead ECG & MRI.

Tse Z, Dumoulin C, Watkins R, Pauly KB, Byrd I, Schweitzer J, Kwong RY, Michaud GF, Stevenson W, Jolesz F and Schmidt EJ. *Journal of Cardiovascular Magnetic Resonance vol. 15*, (Suppl 1). Elsevier.

Voltage-based electroanatomic mapping system for MR-guided cardiac electrophysiology: preliminary swine validations.

Tse Z, Dumoulin C, Byrd I, Schweitzer J, Watkins R, Pauly KB, Kwong RY, Michaud GF, Stevenson W, Jolesz F and Schmidt EJ. *Journal of Cardiovascular Magnetic Resonance vol. 15*, (Suppl 1). Elsevier.

2012

Magnetic resonance imaging-compatible tactile sensing device based on a piezoelectric array.

Hamed A, Masamune K, Tse ZTH, Lamperth M and Dohi T. *Proceedings of The Institution of Mechanical Engineers Part H Journal of Engineering in Medicine vol.* 226, (7) 565-575. Sage Publications.

UCP4 is a target effector of the NF-B c-Rel prosurvival pathway against oxidative stress.

Ho JW-M, Ho PW-L, Liu H-F, So DH-F, Chan K-H, Tse ZH-M, Kung MH-W, Ramsden DB and Ho S-L. *Free Radical Biology and Medicine vol.* 53, (2) 383-394. *Elsevier*.

Prospective motion correction using tracking coils.

Qin L, Schmidt EJ, Tse ZTH, Santos J, Hoge WS, Tempany Afdhal C, Butts Pauly K and Dumoulin CL. *Magnetic Resonance in Medicine vol.* 69, (3) 749-759. Wiley.

Cardiac MRI with concurrent physiological monitoring using MRI-compatible 12-lead ECG.

Tse Z, Dumoulin C, Clifford G, Oster J, Jerosch-Herold M, Kwong R, Stevenson W and Schmidt EJ. *Journal of Cardiovascular Magnetic Resonance vol.* 14, (Suppl 1). Elsevier.

MRI guided electrophysiological intervention with a voltage-based electro-anatomic mapping system.

Tse Z, Dumoulin C, Watkins R, Byrd I, Schweitzer J, Kwong R, Michaud GF and Schmidt EJ. *Journal of Cardiovascular Magnetic Resonance vol.* 14, (Suppl 1). Elsevier.

Investigation of Optimal Deployment Problem in Three-Dimensional Space Coverage for Swarm Robotic System.

Ren H and Tse ZTH. Social Robotics 468-474. Springer Nature.

Advances in Haptics, Tactile Sensing, and Manipulation for RobotAssisted Minimally Invasive Surgery, Noninvasive Surgery, and Diagnosis.

Hamed A, Tang SC, Ren H, Squires A, Payne C, Masamune K, Tang G, Mohammadpour J and Tse ZTH. *Journal of Robotics vol.* 2012, (1) 1-14. Hindawi.

2011

Finite-element analysis for magnetic resonance image artifact evaluation.

Montesinos CA, Tse ZT, Chan YJ, Elhawary H, Rea M, Hamed A, Young I and Lamperth M. *Proceedings of The Institution of Mechanical Engineers Part H Journal of Engineering in Medicine vol.* 226, (1) 49-54. Sage Publications.

Piezoelectric actuator design for MR elastography: implementation and vibration issues.

Tse ZTH, Chan YJ, Janssen H, Hamed A, Young I and Lamperth M. *International Journal of Medical Robotics and Computer Assisted Surgery vol.* 7, (3) 353-360. Wiley.

Testing MR image artifacts generated by engineering materials.

Tse ZTH, Elhawary H, Montesinos CAF, Rea M, Young I and Lamperth M. Concepts in Magnetic Resonance Part B vol. 39B, (2) 109-117. Wiley.

Haptic Needle Unit for MR-guided Biopsy and its Control.

Tse ZTH, Elhawary H, Rea M, Davies B, Young I and Lamperth M. *IEEE/Asme Transactions On Mechatronics vol.* 17, (1) 183-187. Institute of Electrical and Electronics Engineers (IEEE).

Improved R-wave detection for enhanced cardiac Gating using an MRI-compatible 12-lead ECG and multi-channel analysis.

Tse ZTH, Dumoulin CL, Clifford G, Jerosch-Herold M, Kacher D, Kwong R, Stevenson WG and Schmidt EJ. *Journal of Cardiovascular Magnetic Resonance vol.* 13, (Suppl 1). Elsevier.

2010

Devices to facilitate magic angle studies in peripheral MRI.

Rea M, Tse ZTH, Elhawary H, Lamperth M, Paley M, Bydder GM and Young IR. *Concepts in Magnetic Resonance Part B vol. 37B*, (4) 220-225. Wiley.

Magnetic resonance elastography: a general overview of its current and future applications in brain imaging. Di Ieva A, Grizzi F, Rognone E, Tse ZTH, Parittotokkaporn T, Rodriguez y Baena F, Tschabitscher M, Matula C, Trattnig S and Rodriguez y Baena R. *Neurosurgical Review vol. 33*, (2) 137-145. Springer Nature.

Robotic System for Transrectal Biopsy of the Prostate.

Elhawary H, Tse ZT-H, Rea M, Zivanovic A, Davies BL, Besant C, DeSouza NM, Mcrobbie D, Young I and Lampérth MU. *IEEE Pulse vol.* 29, (2) 78-86. *Institute of Electrical and Electronics Engineers (IEEE)*.

12-lead ECG in a 1.5 Tesla MRI: Separation of real ECG and MHD voltages with adaptive filtering for gating and non-invasive cardiac output.

Tse ZTH, Dumoulin CL, Clifford G, Jerosch-Herold M, Kacher D, Kwong R, Stevenson WG and Schmidt EJ. *Journal of Cardiovascular Magnetic Resonance vol.* 12, (Suppl 1). Elsevier.

2009

Magnetic resonance elastography hardware design: A survey.

Tse ZTH, Janssen H, Hamed A, Ristic M, Young I and Lamperth M. *Proceedings of The Institution of Mechanical Engineers Part H Journal of Engineering in Medicine vol. 223, (4) 497-514.Sage Publications.*

2008

A haptic unit designed for magnetic-resonance-guided biopsy.

Tse ZTH, Elhawary H, Rea M, Young I, Davis BL and Lamperth M. *Proceedings of The Institution of Mechanical Engineers Part H Journal of Engineering in Medicine vol.* 223, (2) 159-172. Sage Publications.

Applying tactile sensing with piezoelectric materials for minimally invasive surgery and magnetic-resonance-guided interventions.

Hamed AM, Tse ZTH, Young I, Davies BL and Lampérth M. Proceedings of The Institution of Mechanical Engineers Part H Journal of Engineering in Medicine vol. 223, (1) 99-110. Sage Publications.

Sub-pixel localisation of passive micro-coil fiducial markers in interventional MRI.

Rea M, McRobbie D, Elhawary H, Tse ZTH, Lamperth M and Young I. Magnetic Resonance Materials in Physics, Biology and Medicine vol. 22, (2) 71-76. Springer Nature.

System for 3-D Real-Time Tracking of MRI-Compatible Devices by Image Processing.

Rea M, McRobbie D, Elhawary H, Tse ZTH, Lampérth M and Young I. *IEEE/Asme Transactions On Mechatronics vol. 13, (3) 379-382.Institute of Electrical and Electronics Engineers (IEEE).*

A 3-DOF MR-Compatible Device for Magic Angle Related In Vivo Experiments.

Tse ZTH, Elhawary H, Zivanovic A, Rea M, Paley M, Bydder G, Davies BL, Young I and Lampérth MU. *IEEE/Asme Transactions On Mechatronics vol.* 13, (3) 316-324. *Institute of Electrical and Electronics Engineers (IEEE)*.

The case for MR compatible robotics: a review of the state of the art.

Elhawary H, Tse ZTH, Hamed A, Rea M, Davies BL and Lamperth MU. *International Journal of Medical Robotics and Computer Assisted Surgery vol.* 4, (2) 105-113. Wiley.

A magnetic-resonance-compatible limb-positioning device to facilitate magic angle experiments in vivo.

Elhawary H, Zivanovic A, Tse ZTH, Rea M, Davies BL, Young I, Bydder G, Payley M and Lamperth MU. *Proceedings of The Institution of Mechanical Engineers Part H Journal of Engineering in Medicine vol. 222*, (5) 751-760. Sage Publications.

2007

Mathematical Modeling of Guided Neurite Extension in an Engineered Conduit with Multiple Concentration Gradients of Nerve Growth Factor (NGF).

Tse THZ, Chan BP, Chan CM and Lam J. Annals of Biomedical Engineering vol. 35, (9) 1561-1572. Springer Nature.