Research outputs

Non-contact detection of railhead defects and their classification by using convolutional neural network. / Ghafoor, Imran; Tse, Peter W.; Munir, Nauman; Trappey, Amy J.C.

Development of a novel methodology for remaining useful life prediction of industrial slurry pumps in the absence of run to failure data. / Khan, Muhammad Mohsin; Tse, Peter W.; Trappey, Amy J. C.

Non-Contact Inspection of Railhead via Laser-Generated Rayleigh Waves and an Enhanced Matching Pursuit to Assist Detection of Surface and Subsurface Defects. / Ghafoor, Imran; Tse, Peter W.; Rostami, Javad; Ng, Kim-Ming.

Sparse representation of complex steerable pyramid for machine fault diagnosis by using non-contact video motion to replace conventional accelerometers. / Yang, Jinzhao; Tse, Peter.

The application of a reflected non-axisymmetric torsional guided wave model for imaging crack-like defects in small-diameter pipes. / Fang, Zhou; Tse, Peter W; Xu, Fan.

Development of Lamb and Rayleigh Wave-Based Nonlinearity Parameters for Estimating the Remnant Life of Fatigued Plate Structures. / Masurkar, Faeez; Tse, Peter; Yelve, Nitesh; Rostami, Javad.

Modelling and simulation of nabla fractional dynamic systems with nonzero initial conditions. / Wei, Yiheng; Wang, Jiachang; Tse, Peter W.; Wang, Yong.

The use of ultrasonic guided waves for the inspection of square tube structures: Dispersion analysis and numerical and experimental studies. / Wan, Xiang; Liu, Meirui; Zhang, Xuhui; Fan, Hongwei; Tse, Peter W; Dong, Ming; Wang, Xing; Wei, Huanhuan; Xu, Cuihua; Ma, Hongwei.

An Adaptive Wavelet Library to Detect Surface Defects in Rail Tracks Using a Laser Ultrasonic System. / Rostami, Javad; Masurkar, Faeez; Tse, Peter; Yelve, Nitesh; Hou, Edison Z. Y.

Characteristics of Spiral Lamb Wave Triggered by CL-MPT and Its Application to the Detection of Limited Circumferential Extent Defects and Axial Extent Evaluation within Pipes. / Fang, Zhou; Tse, Peter W.

Extraction of Least-Dispersive Ultrasonic Guided Wave Mode in Rail Track Based on Floquet-Bloch Theory. / Yuan, Maodan; Tse, Peter W.; Xuan, Weiming; Xu, Wenjin.

Characterization of a Partially Covered AM-MPT and Its Application to Damage Scans of Small Diameter Pipes Based on Analysis of the Beam Directivity of the MHz Lamb Wave. / Fang, Zhou; Tse, Peter W.; Xu, Fan.
Theoretical and experimental evaluation of the health status of a 1018 steel I-beam using nonlinear Rayleigh waves: Application to evaluating localized plastic damage due to impact loading. / Masurkar, Faeez; Tse, Peter.

Interrogating the health condition of rails using the narrowband Rayleigh waves emitted by an innovative design of non-contact laser transduction system. / Masurkar, Faeez; Ming Ng, Kim; Tse, Peter W; Yelve, Nitesh P.
In: Structural Health Monitoring, 02.11.2020.

Analytical and numerical representations for discrete Grünwald-Letnikov fractional calculus. / Wei, Yiheng; Chen, YangQuan; Tse, Peter W; Cheng, Songsong.

Methodology for circumferential localisation of defects within small-diameter concrete-covered pipes based on changing of energy distribution of non-axisymmetric guided waves. / Fang, Zhou; Tse, Peter W.

Design of an innovative and self-adaptive-smart algorithm to investigate the structural integrity of a rail track using Rayleigh waves emitted and sensed by a fully non-contact laser transduction system. / Masurkar, Faeez; Rostami, Javad; Tse, Peter.

Experimental Investigation on Choosing a Proper Sensor System for Guided Waves to Check the Integrity of Seven-Wire Steel Strands. / Hou, Edison Z.Y.; Rostami, Javad; Ng, Kim Ming; Tse, Peter W.
In: Sensors (Switzerland), Vol. 20, No. 18, 5025, 09.2020.

Estimation of remaining useful life of fatigued plate specimens using Lamb wave-based nonlinearity parameters. / Tse, Peter; Masurkar, Faeez; Yelve, Nitesh P.

Experimental evaluation of the true intrinsic nonlinearity of rail steel using Rayleigh waves and a new nonlinearity parameter. / Masurkar, Faeez; Tse, Peter.

Design of a remote and integrated Sagnac interferometer that can generate narrowband guided wave through the use of laser and effective optics to detect defects occurred in plates. / Ng, K.; Tse, Peter W.

Detection of broken wires in elevator wire ropes with ultrasonic guided waves and tone-burst wavelet. / Rostami, Javad; Tse, Peter W; Yuan, Maodan.

Theoretical and experimental measurement of intrinsic and fatigue induced material nonlinearities using Lamb wave based nonlinearity parameters. / Masurkar, Faeez; Tse, Peter W.; Yelve, Nitesh P.

A Preliminary Numerical Study on the Interactions Between Nonlinear Ultrasonic Guided Waves and a Single Crack in Bone Materials With Motivation to the Evaluation of Micro Cracks in Long Bones. / XIE, Yujuan; CHEN, Shengjiang; WAN, Xiang; TSE, Peter W.

Discussion on the Leibniz rule and Laplace transform of fractional derivatives using series representation. / Wei, Yiheng; Liu, Da-Yan; Tse, Peter W.; Wang, Yong.
Design of a new optical system to generate narrowband guided waves with an application for evaluating the health status of rail material. / NG, Kim Ming; MASURKAR, Faeez; TSE, Peter W.; YELVE, Nitesh P.

Demagnetization-based axial magnetized magnetostrictive patch transducers for locating defect in small-diameter pipes using the non-axisymmetric guided wave. / Fang, Zhou; Tse, Peter W.

A method combining refined composite multiscale fuzzy entropy with PSO-SVM for roller bearing fault diagnosis. / XU(许凡), Fan; TSE(谢伟达), Peter W.

A fuzzy logic method: Predicting corrosion under insulation of piping systems with modelling of CUI 3D surfaces. / Mohsin, Khan Muhammad; Mokhtar, Ainul Akmar; W Tse, Peter.

A sensitive approach to determine the health status of I-beams by measuring its nonlinearity through the use of Rayleigh waves. / TSE, Peter; Masurkar, Faeez.

Automatic roller bearings fault diagnosis using DSAE in deep learning and CFS algorithm. / Xu, Fan; Tse, Peter W.

Laser generated Lamb wave and Canny edge technique for automatically locating defects occurred in plates. / TSE, Wai Tat Peter; WANG, Gaочao; CHEN, Jingming.

A multi-sensor approach to remaining useful life estimation for a slurry pump. / Tse, Yiu L.; Cholette, Michael E.; Tse, Peter W.

Order spectrogram visualization for rolling bearing fault detection under speed variation conditions. / Wang, Yi; Tse, Peter W.; Tang, Baoping; Qin, Yi; Deng, Lei; Huang, Tao; Xu, Guanghua.
In: Mechanical Systems and Signal Processing, Vol. 122, 01.05.2019, p. 580-596.

Analyzing the features of material nonlinearity evaluation in a rectangular aluminum beam using Rayleigh waves: theoretical and experimental study. / Masurkar, Faeez; Tse, Peter.

Numerical Study on Ultrasonic Guided Waves for the Inspection of Polygonal Drill Pipes. / Wan, Xiang; Zhang, Xuhui; Fan, Hongwei; Tse, Peter W.; Dong, Ming; Ma, Hongwei.
In: Sensors (Basel, Switzerland), Vol. 19, No. 9, 05.2019.

Novel design of a smart and harmonized flexible printed coil sensor to enhance the ability to detect defects in pipes. / Tse, P.; Fang, Z.; Ng, K.

Modeling of a horizontal asymmetric U-shaped vibration-based piezoelectric energy harvester (U-VPEH). / Sun, Shilong; Tse, Peter W.
The Design and Performance of a Novel Vibration-Based Energy Harvester Adopted Various Machine Rotational Frequencies. / Tse, Peter W.; Sun, Shilong.

Asset Intelligence through Integration and Interoperability and Contemporary Vibration Engineering Technologies: Proceedings of the 12th World Congress on Engineering Asset Management and the 13th International Conference on Vibration Engineering and Technology of Machinery. ed. / Joseph Mathew; C. W. Lim; Lin Ma; Don Sands; Michael E. Cholette; Pietro Borghesani. Springer, Cham, 2019. p. 625-632 (Lecture Notes in Mechanical Engineering).

The Design of a Novel Line-Array Type of Laser Source for Non-contact Guided Waves to Inspect the Integrity of Plates. / Tse, Peter W.; Chen, Jingming.


Clustering by defining and merging candidates of cluster centers via independence and affinity. / Wang, Gaochao; Wei, Yiheng; Tse, Peter.

Enhancing the Ability in Detecting Defects Occurred in Covered Pipe by using Matching Pursuit and Smooth Empirical Mode Decomposition. / Tse, Peter W.; Rostami, Javad; Masurkar, Faeez.

Investigating the critical aspects of evaluating the material nonlinearity in metal plates using Lamb waves : Theoretical and numerical approach. / Masurkar, Faeez; Tse, Peter W.; Yelve, Nitesh.

A Novel 3D Laser System that Can Emit and Measure Guided Wave for Monitoring Rail Track Structural Integrity. / TSE, Peter; NG, Kim Ming; MASURKAR, Faeez.

Axial magnetized patch for efficient transduction of longitudinal guided wave and defect identification in concrete-covered pipe risers. / Fang, Zhou; Tse, Peter W.

Kurtogram manifold learning and its application to rolling bearing weak signal detection. / Wang, Yi; Tse, Peter W.; Tang, Baoping; Qin, Yi; Deng, Lei; Huang, Tao.

Novel Fault Diagnosis for Roller Bearing by using Multi Scale Sample Entropy based Clustering. / TSE, Peter W.

Evaluation of inherent and dislocation induced material nonlinearity in metallic plates using Lamb waves. / Masurkar, Faeez; Tse, Peter; Yelve, Nitesh P.

Feasibility of using a 3D laser-based transduction system for monitoring the integrity of I-beams using Rayleigh waves. / Tse, Peter W.; Masurkar, Faeez; Ng, Kim Ming.

Matching pursuit with novel dispersive dictionary for mode separation in guided wave signals obtained from pipes. / Tse, Peter W.; ROSTAMI, Javad.


Numerical study on static component generation from the primary Lamb waves propagating in a plate with nonlinearity. / Wan, Xiang; Tse, Peter W.; Zhang, Xuhui; Xu, Guanghua; Zhang, Qing; Fan, Hongwei; Mao, Qinghua; Dong, Ming; Wang, Chuanwei; Ma, Hongwei. In: Smart Materials and Structures, Vol. 27, No. 4, 045006, 04.2018.


Second harmonic reflection and transmission from primary S0 mode Lamb wave interacting with a localized microscale damage in a plate: A numerical perspective. / Wan, Xiang; Tse, Peter W.; Chen, Jingming; Xu, Guanghua; Zhang, Qing. In: Ultrasonics, Vol. 82, 01.01.2018, p. 57-71.


The use of S0 mode Lamb waves generated at low frequency range for measuring the distribution of micro-cracks occurred in plate-like structures. / Tse, Peter W.; Wan, Xiang; Xu, Guanghua. 2017. 4th Annual Global Congress of Knowledge Economy-2017 (GCKE-2017), Qingdao, China.

The output feedback control synthesis for a class of singular fractional order systems. / Wei, Yiheng; Tse, Peter W.; Yao, Zhao; Wang, Yong.

Design and performance of a multimodal vibration-based energy harvester model for machine rotational frequencies. / Sun, Shilong; Tse, Peter W.

Sub-surface defects detection of by using active thermography and advanced image edge detection. / Tse, Peter W.; Wang, Gaochao.

Sparse and dispersion-based matching pursuit for minimizing the dispersion effect occurring when using guidedwave for pipe inspection. / Rostami, Javad; Tse, Peter W.T.; Fang, Zhou.

Fractional order adaptive backstepping output feedback control: The incommensurate case. / Wei, Yiheng; Tse, Peter W.; Sheng, Dian; Wang, Yong.

Condition Assessment for Pipes: Novel Guided Waves Inspection Technique and Innovative Sensors Pipes. / TSE, Wai Tat Peter.
2017. the 5th International Conference on Utility Management and Safety 2017 (5th ICUMAS 2017), Hong Kong, Hong Kong.

Detection of Hidden Corrosion in Pipes Carrying Gas into Hong Kong Residential Buildings by Ultrasonic Guided Waves and Advanced Signal Processing Technique. / ROSTAMI, Javad; TSE, Wai Tat Peter.
2017. the 5th International Conference on Utility Management and Safety 2017 (5th ICUMAS 2017), Hong Kong, Hong Kong.

Recommended Certification Process for Education Programs and Training Schemes in Physical Asset Management. / TSE, Wai Tat Peter.
2017. the 5th International Conference on Utility Management and Safety 2017 (5th ICUMAS 2017), Hong Kong, Hong Kong.

Study of Piezoelectric Vibration Energy Harvester Design with Magneto Rheological Elastomers. / TSE, Wai Tat Peter; SUN, Shilong.
2017. the 5th International Conference on Utility Management and Safety 2017 (5th ICUMAS 2017), Hong Kong, Hong Kong.

A signal processing approach with a smooth empirical mode decomposition to reveal hidden trace of corrosion in highly contaminated guided wave signals for concrete-covered pipes. / Rostami, Javad; Chen, Jingming; Tse, Peter W.

An intelligent and improved density and distance-based clustering approach for industrial survey data classification. / Zhong, Jingjing; Tse, Peter W.; Wei, Yiheng.

State space formulation of nonlinear vibration responses collected from a dynamic rotor-bearing system: An extension of bearing diagnostics to bearing prognostics. / Tse, Peter W.; Wang, Dong.
Smart Data Mining System for Automatically Assessing the Performance in Engineering Asset Management. / TSE, Wai Tat Peter; ZHONG, Jingjing.

An Enhanced Factor Analysis of Performance Degradation Assessment on Slurry Pump Impellers. / Sun, Shilong; Tse, Peter W.; Tse, Y. L.

Defect detection of helical gears based on time–frequency analysis and using multi-layer fusion network. / Ebrahimi Orimi, H.; Esmaeili, M.; Refahi Oskouei, A.; Mirhadizadeh, S. A.; Tse, P. W.

Novel Techniques to Reveal Defects Hidden in Wall-covered Building Risers. / TSE, Wai Tat Peter; ROSTAMI, Javad; CHEN, Jingming.
2016. 146-155 the 7th Greater Pearl River Delta (GPRD) Conference on Building Operation and Maintenance - Smart Facilities Operation and Maintenance, Hong Kong, Hong Kong.

Novel Bayesian inference on optimal parameters of support vector machines and its application to industrial survey data classification. / Zhong, Jingjing; Tse, Peter W.; Wang, Dong.

Extracting Defective Features from Noisy Guided-waves Signals that are Reflected by the Defects Located Inside the Concrete-covered Section of a Pipe. / TSE, Wai Tat Peter; ROSTAMI, Javad; CHEN, Jingming.

Adaptive backstepping output feedback control for a class of nonlinear fractional order systems. / Wei, Yiheng; Tse, Peter W.; Yao, Zhao; Wang, Yong.

An enhanced empirical mode decomposition method for blind component separation of a single-channel vibration signal mixture. / Wang, Dong; Guo, Wei; Tse, Peter W.

An innovative fixed-pole numerical approximation for fractional order systems. / Wei, Yiheng; Tse, Peter W.; Du, B; Wang, Yong.

Prediction of Hydrodynamic bearing performance based on effective parameters by Neural Network. / Esmaeili, Mohsen; Oskouei, Amir Refahi; Mirhadizadeh, Seyed Ali; TSE, Wai Tat; Hoshyar, N.

Analytical and numerical studies of approximate phase velocity matching based nonlinear S0 mode Lamb waves for the detection of evenly distributed microstructural changes. / Wan, X.; Tse, P. W.; Xu, G. H.; Tao, T. F.; Zhang, Q.
In: Smart Materials and Structures, Vol. 25, No. 4, 45023, 14.03.2016.

A quantitative method for evaluating numerical simulation accuracy of time-transient Lamb wave propagation with its applications to selecting appropriate element size and time step. / Wan, Xiang; Xu, Guanghua; Zhang, Qing; Tse, Peter W.; Tan, Haihui.
In: Ultrasonics, Vol. 64, 01.01.2016, p. 25-42.

A critical study of different dimensionality reduction methods for gear crack degradation assessment under different operating conditions. / Wan, Xiang; Wang, Dong; Tse, Peter W.; Xu, Guanghua; Zhang, Qing.
Criteria for Providing Qualified Asset and Maintenance Management based Training and Education Programs, / TSE, Wai Tat.
2015. 73-78 The 6th Greater Pearl River Delta Conference on Building Operation and Maintenance, China.

The design of a web-based and intelligent system to automatically evaluate the performance of small- and medium-sized enterprises in physical asset management, / TSE, Wai Tat; ZHONG, JingJing; FUNG, Samuel.
2015. 1-1 The 6th Greater Pearl River Delta Conference on Building Operating and Maintenance, China.

Numerical study of Nonlinear S0 mode Lamb waves for the detection of material nonlinearity, / Wan, Xiang; Xu, Guanghua; Zhang, Qing; Tse, Peter-W.
2015. 66 28th International Congress of Condition Monitoring and Diagnostic Engineering (COMADEM 2015) and 10th Regional Conference on Non Destructive and Structural Testing (X CORENDE), Buenos Aires, Argentina.

Advanced Signal Processing Methods Applied to Guided Waves for Wire Rope Defect Detection, / Tse, Peter W.; Rostami, Javad.

Investigation on Empowering One Direction Emission of Guided Waves to Avoid Undesired Reflections from Other Pipe Attachments, / Tse, Peter W.; Fang, Zhou.

Prognostics of slurry pumps based on a moving-average wear degradation index and a general sequential Monte Carlo method, / Wang, Dong; Tse, Peter W.

Remaining useful life estimation for mechanical systems based on similarity of phase space trajectory, / Zhang, Qing; Tse, Peter Wai-Tat; Wan, Xiang; Xu, Guanghua.

Distance-based analysis of dynamical systems reconstructed from vibrations for bearing diagnostics, / Ng, Selina S. Y.; Cabrera, Javier; Tse, Peter W. T.; Chen, Allison H.; Tsui, Kwok L.

Guided-waves Technique for Inspecting the Health of Wall-covered Building Risers, / Tse, Peter W.; Chen, J. M.; Wan, X.

A general sequential Monte Carlo method based optimal wavelet filter : A Bayesian approach for extracting bearing fault features, / Wang, Dong; Sun, Shilong; Tse, Peter W.

A Fusion Approach with Application to Oil Sand Pump Prognostics, / Tse, Peter W.; Hu, Jinfie.

Criteria and Performance Survey in Applying PAS 55 to Hong Kong Buildings and Plants, / Fung, Samuel K.S.; Tse, Peter W.
Effective guided wave technique for performing non-destructive inspection on steel wire ropes that hoist elevators. / Tse, Peter W.; Chen, J. M.


FEM Simulation of Nonlinear Lamb Waves for Detecting a Micro-Crack in a Metallic Plate. / Wan, Xiang; Tse, Peter W.; Xu, Guanghua; Tao, Tangfei; Liu, Fei; Chen, Xiaoguang; Zhang, Qing.

Implementing Engineering Asset Management Standards (PAS-55) in Information Management Evaluation: Case Study in Hong Kong. / Tse, Peter W.; Zhong, Jingjing; Fung, Samuel.

Performance Degradation Assessment of Slurry Pumps. / Tse, Peter W.; Wang, Dong.

Principal Components of Superhigh-Dimensional Statistical Features and Support Vector Machine for Improving Identification Accuracies of Different Gear Crack Levels under Different Working Conditions. / Wang, Dong; Tsui, Kwok-Leung; Tse, Peter W.; Zuo, Ming J.

Remaining useful life estimation of slurry pumps using the health status probability estimation provided by support vector machine. / Tse, Peter W.; Shen, Changqing.
Engineering Asset Management - Systems, Professional Practices and Certification. ed. / Peter W. Tse; Joseph Mathew; King Wong; Rocky Lam; C.N. Ko. Switzerland : Springer International Publishing Switzerland, 2015. p. 87-98 (Lecture Notes in Mechanical Engineering).


Prediction of remaining useful life of slurry pumps using Bayesian inference. / TSE, Wai Tat; Wang, Dong. 2014. 3rd International Congress on Natural Sciences and Engineering (ICNSE’ 2014), Kyoto, Japan.

Numerical simulation of nonlinear lamb waves used in a thin plate for detecting buried micro-cracks. / Wan, Xiang; Zhang, Qing; Xu, Guanghua; Tse, Peter W. In: Sensors (Switzerland), Vol. 14, No. 5, 05.2014, p. 8528-8546.

Recognition of rolling bearing fault patterns and sizes based on two-layer support vector regression machines. / Shen, Changqing; Wang, Dong; Liu, Yongbin; Kong, Fanrang; Tse, Peter W. In: Smart Structures and Systems, Vol. 13, No. 3, 03.2014, p. 453-471.

A one-versus-all class binarization strategy for bearing diagnostics of concurrent defects. / Ng, Selina S. Y.; Tse, Peter W.; Tsui, Kwok L. In: Sensors (Switzerland), Vol. 14, No. 1, 01.2014, p. 1295-1321.


A Doppler transient model based on the laplace wavelet and spectrum correlation assessment for locomotive bearing fault diagnosis. / Shen, Changqing; Liu, Fang; Wang, Dong; Zhang, Ao; Kong, Fanrang; Tse, Peter W. In: Sensors (Switzerland), Vol. 13, No. 11, 11.2013, p. 15726-15746.


Congress Handbook of the 8th World Congress on Engineering Asset Management (WCEAM) & the 3rd International Conference on Utility Management & Safety (ICUMAS ). / LAM, Rocky (Editor); TSE, Wai Tat (Editor); WONG, King (Editor).
A Relevance Vector Machine-Based Approach with Application to Oil Sand Pump Prognostics. / Hu, Jinfei; Tse, Peter W.
In: Sensors (Switzerland), Vol. 13, No. 9, 09.2013, p. 12663-12686.

Lift Ropes and Building Gas Pipes Quality Inspection by Using Smart Sensors and Advanced Guided Waves. / Tse, Peter W.

A fast and adaptive varying-scale morphological analysis method for rolling element bearing fault diagnosis. / Shen, Changqing; He, Qingbo; Kong, Fanrang; Tse, Peter W.

Fabrication and testing of an energy-harvesting hydraulic damper. / Li, Chuan; Tse, Peter W.
In: Smart Materials and Structures, Vol. 22, No. 6, 06.2013.

Fault diagnosis of rotating machinery based on the statistical parameters of wavelet packet paving and a generic support vector regressive classifier. / Shen, Changqing; Wang, Dong; Kong, Fanrang; Tse, Peter W.

Characterization of pipeline defect in guided-waves based inspection through matching pursuit with the optimized dictionary. / Tse, Peter W.; Wang, Xiaojuan.

An enhanced Kurtogram method for fault diagnosis of rolling element bearings. / Wang, Dong; Tse, Peter W.; Tsui, Kwok Leung.

A novel signal compression method based on optimal ensemble empirical mode decomposition for bearing vibration signals. / Guo, Wei; Tse, Peter W.

A Multivariate Control Chart for Detecting a Possible Outbreak of Disease. / TSE, Wai Tat; Hu, J F; Shrivastava, A K; Tsui, K L.
2012. the 7th World Congress on Engineering Asset Management (WCEAM 2012), Korea, Republic of.

Corrosion Identification of Gas Pipe Risers in Buildings Using Advanced Ultrasonic Guided Waves. / TSE, Wai Tat; wang, x.
2012. the 7th World Congress on Engineering Asset Management (WCEAM 2012), Korea, Republic of.
Numerical simulation on propagation characteristics of low frequency longitudinal guided wave modes in steel floral pipes. / Wu, Bin; Xie, Xiaodong; Tse, W Peter; Li, Yuhao; Liu, Zenghua; He, Cunfu.

Experiment research on propagation characteristics of low frequency ultrasonic longitudinal guided waves in steel floral pipes. / Wu, Bin; Xie, Xiao-Dong; Li, Yu-Hao; Liu, Zeng-Hua; He, Cun-Fu; Tse, W Peter.

A morphogram with the optimal selection of parameters used in morphological analysis for enhancing the ability in bearing fault diagnosis. / Wang, Dong; Tse, Peter W; Tse, Yiu L.
In: Measurement Science and Technology, Vol. 23, No. 6, 65001, 06.2012.

Faulty bearing signal recovery from large noise using a hybrid method based on spectral kurtosis and ensemble empirical mode decomposition. / Guo, Wei; Tse, Peter W.; Djordjevich, Alexandar.

A new method based on ultrasonic guided wave inspection and matching pursuit for evaluating the axial severity of pipeline defect. / Tse, Peter W.; Wang, Xiaojuan.

A new method based on ultrasonic guided wave inspection and matching pursuit for evaluating the axial severity of pipeline defect. / TSE, Wai Tat; WANG, Xiaojuan. 2012. Acoustics 2012 Hong Kong, China.


Process parameters selection for laser polishing DF2 (AISI O1) by Nd : YAG pulsed laser using orthogonal design. / Guo, Wei; Hua, Meng; Tse, Peter Wai-Tat; Mok, Albert Chiu Kam.

The evaluation of pipe corrosion through the use of ultrasonic guided wave and novel matching pursuit. / Tse, Peter W.; Wang, Xiaojuan.

An ensemble empirical mode decomposition-based lossy signal compression method for a remote and wireless bearing condition monitoring system. / Tse, Peter W.; Guo, Wei.

Effective techniques for assessing the safety of building structures with the emphasis on lift ropes and pipes. / Tse, Peter W.

Ensemble of unsupervised fuzzy C-means classifiers for clustering health status of oil sand pumps. / Di Maio, F.; Zio, E.; Pecht, M.; Tse, P.; Tsui, K.

Morphogram : A simple and useful way to determine the optimal length of flat SE used in morphological analysis for bearing fault feature extraction. / Wang, Dong; Tse, Peter W.


Determination of the width of the output angular power distribution in step-index multimode optical fibers. / Savović, Svetislav; Djordjevich, Alexandar; Tse, Peter W.; Zubia, Joseba; Mateo, Javier; Losada, M. Angeles. In: Journal of Optics, Vol. 12, No. 11, 115405, 11.2010.

Mode coupling in strained and unstrained step-index glass optical fibers. / Djordjevich, Alexandar; Savović, Svetislav; Tse, Peter W.; Drijača, Branko; Simović, Ana.
A Fault Diagnosis Approach for Rolling Bearing Based on Ensemble Empirical Mode Decomposition. / TSE, Wat Tat; Guo, W. 2010. 797-800 23rd International Congress on Condition Monitoring and Diagnostic Engineering Management (COMADEM 2010), Nara, Japan.


Application of ultrasonic guided waves to quantitative characterization of defects in pipeline. / TSE, Peter W.; Wang, X.  

Application of Daubechines 44 in Machine Fault Diagnostics. / Rafiee, J.; Rafiee, M. A.; Prause, N.; Tse, P. W.  

A novel, fast, reliable data transmission algorithm for wireless machine health monitoring. / Chan, Jeffrey C.; Tse, Peter W.  

Automatic frequency extraction using sinusoidal approximation and wavelet transform. / Rafiee, J.; Rafiee, M. A.; Prause, N.; Tse, P. W.  

Semi-quantitative analysis of defect in pipelines through the use of technique of ultrasonic guided waves. / Tse, Peter W.; Wang, Xiaojuan.  

Development of a Generator Health-Monitoring and Performance-Enhancement System. / TSE, P.; Li, Y.  

A Novel Data Compression Algorithm using Empirical Mode Decomposition for Wireless Machine Monitoring Data Transmission. / Chan, J.; TSE, P.  

The Algorithm for Defect Characterization in Guided Wave Based Pipeline Inspection. / Wang, X.; TSE, P.  

基于盲均衡理论的弱冲击故障的检测研究. / 张金玉; 黄先祥; 谢伟达.  
In: Jixie Kexue Yu Jishu/Mechanical Science and Technology, Vol. 27, No. 8, 08.2008, p. 996-999.

机械信号处理的BSS算法及其比较研究. / 张金玉; 黄先祥; 谢伟达.  

Recovery of vibration signal based on a super-exponential algorithm. / Li, Yujun; Tse, Peter W.; Wang, Xiaojuan.  

Characterize the pipeline damage caused by corrosion through the use of ultrasonic guided waves. / Wang, X. J.; Tse, Peter W.  

Enhanced eigenvector algorithm for recovering multiple sources of vibration signals in machine fault diagnosis. / Tse, P. W.; Gontarz, S.; Wang, X. J.  

Recent Trend in the Use of Guided-Waves for Inspecting Pipeline Defects. / WANG, X J; TSE, Wai Tat.  

An Economical Engineering Monitoring System with Embedded Advanced Fault Diagnostic Features. / Leung, Jacko T.C.; Tse, Peter W.
Singularity analysis of the vibration signals by means of wavelet modulus maximal method. / Peng, Z. K.; Chu, F. L.; Tse, Peter W.

Remote machine maintenance system through Internet and mobile communication. / Wang, Wanbin; Tse, Peter W.; Lee, Jay.

The use of cylindrical guided waves for inspecting defects in surface/buried pipelines. / Tse, Peter.
In: Hong Kong Engineer, Vol. 34, No. 12, 12.2006, p. 17.

Blind source separation and blind equalization algorithms for mechanical signal separation and identification. / Tse, Peter W.; Zhang, J. Y.; Wang, X. J.

A sophisticated but easy-to-use and cost-effective machine condition monitoring and degradation prediction system. / Tse, Peter W.; Leung, Jacko T.

Blind equalization based eigenvector algorithm for the recovery of mechanical vibrations. / Tse, Peter W.; Gontarz, Szymon W.; Wang, Xiaojuan.

Remote machine monitoring through mobile phone, smartphone or pda. / Wanbin, W.; Tse, P. W.

Security considerations for modern web-based maintenance or remote sensing system. / Cheuk, Alan N.; Tse, Peter W.

A comparison study of improved Hilbert-Huang transform and wavelet transform: Application to fault diagnosis for rolling bearing. / Peng, Z. K.; Tse, Peter W.; Chu, F. L.

Effective Architecture for Web-Based Maintenance System and Its Security. / Cheuk, Alan N.; Leung, Jacko T.; Tse, Peter W.

An improved Hilbert-Huang transform and its application in vibration signal analysis. / Peng, Z. K.; Tse, Peter W.; Chu, F. L.

An advanced strategy for detecting impulses in mechanical signals. / Yang, Wen-Xian; Tse, Peter W.

Detection of the rubbing-caused impacts for rotor-stator fault diagnosis using reassigned scalogram. / Peng, Z. K.; Chu, F. L.; Tse, Peter W.

Applying six sigma to software quality management. / Wang, Wanbin; Tse, Peter W.


Machine fault diagnosis through an effective exact wavelet analysis. / Tse, Peter W.; Yang, Wen-Xian; Tam, H. Y. In: Journal of Sound and Vibration, Vol. 277, No. 4-5, 05.11.2004, p. 1005-1024.


The Practical Use of Wavelet Transforms and Their Limitations in Machine Fault Diagnosis. / Tse, Peter W.; Yang, W. X. 2002. 9-16 International Symposium on Machine Condition Monitoring and Diagnosis, Tokyo, Japan.


WAVELET PACKET AND FUZZY NEURAL NETWORK FOR TOOL CONDITION MONITORING. / Peng, Yonghong; Chen, Tongjian; Tse, Peter W. In: Huanan Ligong Daxue Xuebao/Journal of South China University of Technology (Natural Science), Vol. 26, No. 11, 11.1998, p. 150-159.


Proceedings : Fifth International Conference on Mechatronics and Machine Vision in Practice, M²VIP’98. / Xu, F.M. (Editor); Tso, S.K. (Editor); Zhang, Y.L. (Editor); Cheung, Edmund H.M. (Editor); Li, X.N. (Editor); Tse, Peter W. (Editor); Sun, S.K. (Editor); Xu, W.L. (Editor); Fang, D.G. (Editor); Lang, Sherman (Editor); Xu, Y.J. (Editor); BRADBEER, Robin (Editor); Yuan, H.B. (Editor); Yeung, L.F. (Editor); Li, Robin C.W. (Editor). Hong Kong : City University of Hong Kong, 1998. 550 p.
Harmony theory yields robust machine fault-diagnostic systems based on learning vector quantization classifiers. / Tse, Peter; Wang, D. D.; Atherton, Derek.

A Hybrid Neural Networks based Machine Condition Forecaster and Classifier by using Multiple Vibration Parameters. / Tse, Peter; Wang, D.D.

Fuzzy mobile robot navigation and sensor integration. / Chee, Bing Yung; Lang, Sherman Y T; Tse, Peter W T.

Improving Learning Vector Quantization Classifier in Machine Fault Diagnosis by Adding Consistency. / Tse, Peter; WANG, D.D.; Atherton, Derek.

Advanced Machine Vision System for Garment Inspection. / Tse, Peter W; Wu, Paul S.

Precision measurement of heat transfer data of anisotropic materials. / Leung, Sai Wing; Leung, Raymond M W; Tse, Peter W.

Simulation of model reference adaptive control used in high speed hydraulic and pneumatic driven system. / Tse, Peter; Leung, S. W.