Conference Programme: The 19th Asia Pacific Vibration Conference

1st November 2022 (Tuesday)

ZOOM: https://us06web.zoom.us/j/81337801927?pwd=MytucHFmV0hYeE05eG8wUzYzY3FXdz09 (Meeting No: 813 3780 1927)
Tencent: https://meeting.tencent.com/dm/QMBxVGlsjTrD (Meeting No: 288-482-603)

8:10 am - 8:30 am **Beijing Time** (UTC +8)	**Opening Ceremony** - Welcome addresses from the General Chair, the president of Qingdao University of Technology, the president of the Chinese Society for Vibration Engineering. the chairman of the Organizing Committee, and the chairman of the International Steering Committee (Approximately 3 mins each)			
8:30 am - 9:30 am	Distinguished Plenary Lecture 1 (chaired by Professor Takuya Yoshimura, TMU Japan) **How to Understand and Utilize Time Delays in Vibration Control** Professor Haiyan Hu, Beijing Institute of Technology			
9:30 am -10:30 am	Distinguished Plenary Lecture 2 (chaired by Professor Youngjin Park, KAIST Korea) **Acoustic Black Hole Effects for Vibroacoustic Applications** Professor Li Cheng, Hongkong Polytechnic University			
10:30 am -10:50 am	**Morning Tea Break**			
10:50 am -11:30 am	Keynote Speech 1 (chaired by Professor Weikang Jiang, SJTU China) **Control of Vibration Field by Actuator Array for Enhancing the Sound Quality of Panel Speakers** Professor Jeong-Guon Ih, Korea Advanced Institute of Science and Technology			
11:30 am -12:10 pm	Keynote Speech 2 (chaired by Professor Michael Mcfarland, ZJUT China) **Mechanical Applications of Cepstrum Analysis in Machine and Structural Health Monitoring** Emeritus Professor Robert Randall, The University of New South Wales			
12:10 pm - 1:30 pm	**Lunch Break**			
Internet Link	**ZOOM: 474 939 1426** **https://us06web.zoom.us/j/4749391426?pwd=NWNsSFpYUzMxd1RVMWxIdEg5QkJnQT09** **Tencent: 894-426-119** **https://meeting.tencent.com/dm/uPMJNMVY1fjA**	**ZOOM: 202 846 6864** **https://us06web.zoom.us/j/2028466864?pwd=L3ZRRUZyM3hCZ2tEeW8vaGFwNWY5UT09** **Tengcent: 204-844-123** **https://meeting.tencent.com/dm/9xs9cSEa7R4M**	**ZOOM: 359 201 4584** **https://us06web.zoom.us/j/3592014584?pwd=bFkvYUxha25sQ1UwUUVlbzdqZW9Udz09** **Tencent: 645-894-813** **https://meeting.tencent.com/dm/AWgVioOktMJO**	**ZOOM: 686 554 3279** **https://us06web.zoom.us/j/6865543279?pwd=TGRkajlzZ25BTVZkTTN4ZnhQS005Zz09** **Tencent: 494-731-158** **https://meeting.tencent.com/dm/BjpOFPK62yaH**
	CONCURRENT SESSION 1A **CT01 Vibration of Continuous Systems** *Prof. Huancai Lu, ZJUT China* *Prof. Bo Wang, CHDU China*	**CONCURRENT SESSION 1B** **CT04 Noise and Vibration Control** *Dr Liling Tang, SYSU China* *Dr Yuxing Wang, ZJU China*	**CONCURRENT SESSION 1C** **CT16 Machine Condition Monitoring and Fault Diagnosis** *Prof. Shixi Yang, ZJU China* *Prof. Hongjun Wang, BISTU China*	**CONCURRENT SESSION 1D** **SS01: Vehicle noise, vibration and harshness: Challenge and Solution** *Prof. Takuya Yoshimura, TMU Japan* *Prof. Zhichao Hou, Tsinghua China*
1:30 pm - 1:45 pm	#114 Wave Propagation in Smart Functionally Graded Porous Nanocomposite Plates under Multi-Physics Fields *Wenliang Gao & Babak Safaei & Zhaoye Qin & Fulei Chu* Tsinghua University	#41 Robust Stability Enhancement of Model-Free Vibration Control for Dynamic Characteristic Variations of Proof-Mass Actuator *Yuto Sato & Ansei Yonezawa & Heisei Yonezawa & Itsuro Kajiwara* Hokkaido University	#94 Vibration Phase Information based Real-time Fault Detection Method for Power Transformers *Jing Zheng & Hai Huang & Lingzhi Li & Xishan Jiang & Guowei Zhou & Hui Yao & Hong Zheng* Zhejiang University & China Jiliang University	#256 Estimation of center of gravity of upper body in sitting posture using force platforms *Hiroto Murakami & Motomichi Sonobe* Kochi University of Technology
1:45 pm - 2:00 pm	#327 An exact dynamic stiffness method for built-up structures consisting of rigid bodies and flexible beams *Hao Xu & Xueyi Zhao & Xiang Liu* Central South University	#105 Free and forced vibration analysis of rotating shell-plate coupled structures treated with constrained layer damping *Runze Zhu & Zhaoye Qin & Fulei Chu* Tsinghua University	#112 The Semi Supervised Fault Diagnosis Model Based on Convolutional Neural Network and Tri-Training *Tian Han & Chao Zhang & Jiachen Pang & Longwen Zhang* University of Science and Technology Beijing	#311 Improvement of transient vibration by mutual mean compliance and sensitivity analysis *Kenta Akazawa & Takuya Yoshimura* Tokyo Metropolitan University
2:00 pm - 2:15 pm	#383 Vibration characteristics of folded laminated composite plates with various fibre orientations *Chendi Zhu & Gang Li* Ningbo Institute of Dalian University of Technology	#120 Robust topology optimization of CLD on plates under interval uncertainty *Dongdong Zhang* University of Shanghai for Science and Technology	#221 Dynamic response analysis of a planetary gear system with tooth tip chipping fault *Yinghui Liu & Jirui Zhu & Dong Zhen & Hao Zhang & Zhanqun Shi & Fengshou Gu* Hebei University of Technology & University of Huddersfield	#312 The prediction of the occupant's response to the vehicle body vibration using a modular transfer matrix *Jianchun Yao & Mohammad Fard & Kazuhito Kato* RMIT University & NHK Spring Co., Ltd.
2:15 pm - 2:30 pm	#400 Influence Mechanism of Low-frequency Characteristics of Long-period Ground Motions on the Cooperative Performance of RC Frame-Shear Wall Structures *Bo Wang & Ke Yang & Boquan Liu* Chang'an University	#122 Development of Mode Separation Method for Frame-Panel Structures Using 3D Discrete Wavelet Transform *Itsuki Nakashima & Takumi Inoue & Ren Kadowaki & Yuki Abe* Kyushu University	#232 Dynamic Modeling of Rolling Bearing with Local Defect under Thermal Elastohydrodynamic Lubrication *Yubo Wang & Changfeng Yan & Bin Liu & Xin Zhang* Lanzhou University of Technology	#40 Signal Simulation of Stochastic Road Excitation *Daoyu Shen & Shilei Zhou & Paul Walker & Nong Zhang* University of Technology Sydney
2:30 pm - 2:45 pm	#414 Wave Localization in Two-dimensional Membranes Coupled to Continuous Viscoelastic Supports *Xiangle Cheng & Haoyu Wang & Yongxiong Xiao & Michael McFarland & Huancai Lu & Alexander F. Vakakis & Lawrence A. Bergman* Zhejiang University of Technology & PanoSim Technologies Ltd. & Zhejiang Lab & University of	#128 A wide-frequency tuned mass damper for inhibiting rail corrugation on curve section of viaduct *Xuejun Yin & Xiaotang Xu & Yapeng Wang& Huichao Li* Qingdao Create Environment Control Technology Co., Ltd & GERB (Qingdao) Vibration Control Co., Ltd. & Lanzhou Jiaotong University	#325 Bearing Fault Diagnosis Under Multiple Loads Based on Deep-Stacked CNN *Qiankun Li & Xin Ma & Yu Hu & Youqing Wang* Beijing University of Chemical Technology & Shangdong University of Science and Technology	#318 Effects of head motion on motion sickness during roll oscillation and car travel *Kazuhito Kato & Kousuke Suzuki & Chikanori Honda* NHK SPRING CO., LTD.
2:45 pm - 3:00 pm	#417 Dynamic modeling of complex spatial fluid-conveying pipeline based on transfer matrix method *Xumin Guo & Hui Ma & Bangchun Wen* Northeastern University	#180 Simulation on Relation between Excitations and Structure-borne Noise of a Diesel Engine *Junhai Zhang & Guoxi Jing & Teng Ma & Xiaochun Zeng & Yi Wang & Hai Liu* Hebei University of Technology & Jiangling Automobile Co., Ltd.	#258 A transfer learning method for bearing fault diagnosis *Xueli Chen & Baojia Chen & Fafa Chen & Wenrong Xiao & Qiang Liu & Bin Zhou* China Three Gorges University	#275 Analysis of Vertical Vibration Characteristics of a Vehicle with Non-circular Wheels *Yunfeng Zhi & Ranyi Liu & Zhichao Hou* Tsinghua University
3:00 pm - 3:15 pm	#425 Dynamic Modeling of Hub-tapered Flexible Beam System by a High-precision Assumed Mode Method *Xianming Wang & Shuhao Guo & Michael McFarland & Huancai Lu* Zhejiang University of Technology	#182 Vibration characteristic analysis of laminated composite conical-cylindrical shell in thermal environment with arbitrary boundary conditions *Peng Zuo & Xianjie Shi* University of Science and Technology of China & China Academy of Engineering Physics	#223 Rolling bearing fault diagnosis based on wavelet threshold denoising and Fast spectral correlation *Shaoning Tian & Yang Chen & Dong Zhen & Hao Zhang & Zhanqun Shi & Fengshou Gu* Hebei University of Technology & University of Huddersfield	#316 Broad-range vibration isolation characteristics of an electric vehicle transmission mounting system *Yuming Yin & Wenbin Shangguan & Xiaoyong Pan & Xiaofeng Tu & Dongming Shen & Chao Yu* Zhejiang University of Technology & South China University of Technology & Ningbo Tuopu Group
3:15 pm - 3:30 pm	#109 Research on Flow-Induced Transient Vibration Characteristics of Elbow Based on Fluid-Structure Coupling *Kai Zhang & Ziwei Deng & Baocheng Zhang & Yetao Wu & Kaisheng Zhang* Ocean University of China	#203 Design and application of lightweight composite partitions with high sound insulation in hotel interior spaces *Ting Qu & Bo Wang & Hequn Min* Southeast University	#382 An unsupervised domain adaptive bidirectional long short-term memory transfer learning method for remaining useful life prediction *Chengying Zhao & Xianzhen Huang & Huizhen Liu* Northeastern University	#70 A novel seat suspension with a negative stiffness structure and a variable inertance device *Junjie Zhao & Donghong Ning & Haiping Du & Guijie Liu* Ocean University of China & University of Wollongong
3:30 pm - 4:00 pm	**Afternoon Tea Break**			

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	CONCURRENT SESSION 2A **CT03 Vibro-acoustics and Structure-borne Noise** *Prof. Xiang Liu, CSU China* *Dr. Kai Zhang, OUC China*	**CONCURRENT SESSION 2B** **CT04 Noise and Vibration Control** *Prof. Baocheng Zhang, OUC China* *Prof. Zhicheng He, HNU China*	**CONCURRENT SESSION 2C** **CT16 Machine Condition Monitoring and Fault Diagnosis** *Prof. Niaoqing Hu, NUDT China* *Dr. Yi Yang, NUDT China*	**CONCURRENT SESSION 2D** **CT11 Vehicle System Dynamics and Control** *Prof. Wenbin Shangguan, SCUT China* *Prof. Donghong Ning, OUC China*
4:00 pm - 4:15 pm	#135 Acoustic analysis in a pipe by using analytical SEA (Optimization of an automobile exhaust pipe) *Kai Kurihara & Toru Yamazaki & Guanchi Chen & Pengcheng Yan & Kazumasa Ikeda* Kanagawa University	#214 Low frequency and broadband vibration and sound reduction of panels from high performance metamaterial damping *Yubao Song* China Aerodynamics Research and Developmment Center	#391 On the automated failure diagnostic system for the hydraulic pressing machine *Shinsuke Tsubokawa & Zhe Li & Naoyuki Takeda & Kento Horie & Osamu Terashima* Toyama Prefectural University	#313 Structural design controlling vibration energy flow *Kouki Ooura & Takuya Yoshimura* Tokyo Metropolitan University
4:15 pm - 4:30 pm	#409 Modeling and experimental study of non-reciprocal acoustic energy transfer in vibro-acoustic Duffing oscillator *Jingxiao Huang & Jiangming Jin & Yuepeng Xiao & Donald Michael McFarland & Huancai Lu* Zhejiang University of Technology	#228 Automated tuning of Kalman based virtual sensors for full-field acoustic pressure *Bart Forrier & Mahmoud Elkafafy & Alberto Garcia de Miguel & Mariano Alvarez Blanco & Karl Janssens* Siemens Industry Software NV	#399 Impact load sparse recognition method based on MC penalty function *Hongjun Wang* Beijing Information Science &Technology University	#288 Error analysis on inertial parameter identification of a rigid body based on mass line method *Peibao Wu & Zhichao Hou & Rongkang Luo* Tsinghua University
4:30 pm - 4:45 pm	#381 A Parametric Study of Wave Energy Dissipation in Eccentric Acoustic Black Hole Indentations *Wei Huang & Hongli Ji & Jinhao Qiu* Nanjing University of Science and Technology	#274 Study of adaptive algorithm of feedback active noise control system *Lingchen Zhou & Ning Han* Southeast University	#259 Application of dFIF Decomposition Method for Rolling Bearing Early Fault Diagnosis *Xueliang Chen & Baojia Chen & Wenrong Xiao & Nengqi Xiao & Bin Zhou & Qiang Liu* China Three Gorges University	#69 Controllable electrically interconnected suspension for the shock control of high-speed marine craft *Haoyu Zhan & Donghong Ning & Haiping Du & Guijie Liu* Ocean University of China & University of Wollongong
4:45 pm - 5:00 pm	#426 Reconstruction of Acoustic Radiation from a Plane under Subsonic Turbulent Boundary Layer Excitation using Near-field Acoustic Holography *Jiangming Jin & Liujiang Hou & Chengjie Xiong & Daren Zhou & Yongxiong Xiao & Minzong Li & Michael McFarland & Huancai Lu* Zhejiang University of Technology & Shanghai Ocean University	#348 Research of random excitation identification for stochastic structures based on whole vehicle road noise *Zhicheng He* Hunan University	#299 Dynamic modeling and vibration analysis of a planetary gear transmission with tooth tip chipping *Yi Yang & Yuehao Li & Lun Zhang & Guoji Shen & Jiao Hu & Peng Luo & Niaoqing Hu* National University of Defense Technology	#191 Utilization of Smith Predictor in a Leveling Operation by Scale Model of Hydraulic Excavator *Takashi Kawamura & Takashi Hirano & Nobutaka Tsujiuchi & Akihito Ito* Doshisha University
5:00 pm - 5:15 pm	#249 A semi-analytical method for vibro-acoustic Characteristics of submerged Composite laminated Cylindrical Shell *Tiangui Ye & Yuhang Yang* Harbin Engineering University	#408 Bandgap Tuning and Vibration Suppression of the Acoustic Black Hole-Piezoelectric Shunt Damping Composite Structure *Zanxu Chen & Tiangui Ye* Harbin Engineering University	#302 Bearing prognostic using a self-attention sequence-to-sequence network *Tengyi Peng & Shilong Sun & Yu Zhou & Xiao Zhang* Harbin Institute of Technology	#116 A semi-active inertance device based on electromagnetic dampers for the high-speed craft seat *Guangrui Luan & Donghong Ning & Haiping Du & Guijie Liu* Ocean University of China & University of Wollongong
5:15 pm - 5:30 pm	#428 Calibrating Acoustic Field of a Vibrating Structure Located near a Pressure-Release Boundary *Daren Zhou & Yongxiong Xiao & Zhimin Chen & Jingjun Lou & Minzong Li & Michael McFarland & Huancai Lu* Zhejiang University of Technology & Naval University of Engineering & Shanghai Ocean University	#412 A Pre-identifying Method of Secondary Path for Active Vibration Control System *Feng Li & Minggang Zhu & Lei Wu & Xinhui Li & Tiejun Yang* Harbin Engineering University	#196 Order-frequency spectral correlation decomposition based on RPCA for weak fault feature extraction of rolling bearings under time-varying conditions *Ran Wang & Junwu Zhang & Longjing Yu & Haitao Fang & Liang Yu & Jin Chen* Shanghai Maritime University & Shanghai Jiaotong University	#328 Environmental vibration analysis of box-girder bridge subjected to train moving loads using the analytical dynamic stiffness method *Sitan Tao & Xueyi Zhao & Xiang Liu* Central South University
5:30 pm - 5:45 pm	#326 A highly accurate and efficient analytical spectral dynamic stiffness method for acoustic and vibration problems within the whole frequency range *Xueyi Zhao & Jiayu Pei & Xiang Liu* Central South University	#187 Combination ray wave superposition method for near field acoustic holography and neural network construction of its combination coefficient *Yanhao Chen & Yu Xiang & Jing Lu & Yujiang Wang* Guangxi University of Science and Technology	#437 Vibration-based Condition Monitoring of Abnormal Friction in RV Re-ducer *Qirong Xu & Fengshou Gu* University of Huddersfield	#238 On the tonal noise emitted from the automobile wheel *Zhe Li & Kohei Ono & Ryo Kiyotaki & Osamu Terashima* Toyama Prefectural University

2nd November 2022 (Wednesday)

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8:00 am - 8:40 am	Keynote Speech 3 (chaired by Professor Yang Xiang, WUT China) **Structural Health Monitoring of Wind Turbine Blades by Means of Vibration and Sound Measurements** Professor Fulei Chu, Tsinghua University
8:40 am - 9:20 am	Keynote Speech 4 (chaired by Professor Lirong Cui, QDU China) **Machine Learning and its Applications in Prognosis and Health Management** Professor Mingjian Zuo, University of Alberta, Canada
9:20 am - 10:00 am	Keynote Speech 5 (chaired by Professor Youqing Wang, BCU China) **Vibration-based Structural Damage Detection** Professor Weidong Zhu, University of Maryland, USA
10:00 am - 10:20 am	**Morning Tea Break**
10:20 am - 11:00 am	Keynote Speech 6 (chaired by Professor Zhichun Yang, NWPU China) **Research of sound field control in automotive cabins at Huawei** Dr. Xiaojun Qiu, Huawei Technologies Co., Ltd.
11:00 am - 11:40 am	Keynote Speech 7 (chaired by Professor Ling Zheng, CQU China) **Hyundai's World's First Road-Noise Active Noise Control, RANC** Dr Kang-duck Ih, Hyundai Motor Company
11:40 am - 12:20 pm	Distinguished Keynote Speech 8 (chaired by Professor Qian Ding, TJU China) **The Future and Evolution of Noise and Vibration Design in Automobile** Mr Hirotaka Shiozaki, CTE, Mitsubishi Motors Corporation
12:20 pm - 1:30 pm	**Lunch Break**

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	CONCURRENT SESSION 3A **CT10 Nonlinear Vibration and Control** *Prof. Linke Zhang, WUT China* *Prof. Haining Liu, UJN China*	**CONCURRENT SESSION 3B** **SS10: Applications of active control** *Dr Haishan Zou & Dr Jiancheng Tao, NJU China* *Prof. Youngjin Park, KAIST Korea*	**CONCURRENT SESSION 3C** **SS16: Acoustic black hole and vibro-acoustic coupling** *Prof. Hongli Ji, NUAA China* *Prof. Jinhao Qiu, NUAA China*	**CONCURRENT SESSION 3D** **SS05: Dynamic modelling, simulation and application of rotor systems** *Prof. Hui Ma, NEU China* *Dr Zhaoye Qin, Tsinghua China* *Dr Yang Yang, SWJTU China*

1:30 pm - 1:45 pm	#283 Research on Vibration Response of Compound Planetary Considering Backlash and Comprehensive Error *Tingqiong Cui & Yinong Li & Chenglin Zan* Chongqing University	#110 Active control of low frequency sound absorption of large sized micro-perforated panel absorber on oblique incidence condition *Xiyue Ma & Kean Chen & Lei Wang & Yang Liu* Northwestern Polytechnical University & Xi'an University of Architecture and Technology	#26 Flexural wave bandgap in plate strip with embedded periodic two-dimensional acoustic black holes *Bing Han & Hongli Ji & Jinhao Qiu & Li Cheng* Nanjing University of Aeronautics and Astronautics & The Hong Kong Polytechnic University	#44 Research on sideband distribution of planetary gear system with sun/ring gear tooth crack fault and output shaft installation error *Hongzheng Han & Hui Ma & Zhifang Zhao* Northeastern University
1:45 pm - 2:00 pm	#384 RBFNN-based sliding mode control strategy for an active suspension system with nonlinear air spring *An Qin & Bohuan Tan* Hunan University & Xiangtan University	#131 Performance Degradation Factors of Compact Hybrid Noise Control System using Theoretical Control Filter *Sanghyeon Lee & Youngjin Park* Korea Advanced Institute of Science and Technology	#43 Transmission Loss of Periodic Plates with Acoustic Black Holes *Liling Tang & Li Cheng & Kean Chen* The Hong Kong Polytechnic University & Northwestern Polytechnical University	#277 Nonlinear modal analysis of rotor systems considering gyroscopic and dry friction effects *XingRong Huang* Beihang University
2:00 pm - 2:15 pm	#410 Enhanced energy transfer and multimodal vibration mitigation in an electromechanical acoustic black hole beam *Linli Zhang & Xiang Sun & Jennifer Dietrich & Gaetan Kerschen & Li Cheng* Hong Kong Polytechnic University & University of Liège, Belgium	#161 Active control of sound radiation through a door slit *Shuping Wang & Ziyi Yang & Jiancheng Tao & Xiaojun Qiu* University of Technology Sydney & Nanjing University	#241 Effects of Annular Acoustic Black Holes on Noise Mitigation *Ling Zheng & Jie Deng* Chongqing University & Northwestern Polytechnical University	#30 Position and Orientation Identification of Inertial Sensors Mounted on an Industrial Robot *Huan Liu & Yaguo Lei & Xiao Yang & Wenlei Song & Junyi Cao* Xi'an Jiaotong University
2:15 pm - 2:30 pm	#416 Design of Granular Chains to Reduce the Force Transmitted to a Fixed Barrier *Zhenjiang Zhou & Huancai Lu & Michael McFarland & Xiangle Cheng & Alexander F. Vakakis* Zhejiang University of Technology & University of Illinois at Urbana-Champaign	#184 Research on Suppression of Lateral Vibration of Propulsion Shaft Based on Electromagnetic Actuator *Fucai Hu & Hongshuai Li & Liang Guo & Cong Zhang* Wuhan University of Technology	#407 Vibration attenuation characteristics of a beam with cantilever-type resonators and lever-type inertial amplification mechanisms *Yonghang Sun & Chenyang Xi & Hui Zhen* g Shanghai Jiaotong University	#415 Coupling effects of outer ring tilt and defect on vibration characteristics of gear-rotor-bearing system *Hongyang Xu & Xiang Zhao & Pengfei Wang & Hui Ma & Yang Yang* Northeastern University & China North Vehicle Research Institute
2:30 pm - 2:45 pm	#46 Theoretical and experimental investigation on active control of stiffness and damping characteristics of sandwich plate with MRE function core *Hui Li & Wenyu Wang & Qingshan Wang & Qingkai Han & Jinguo Liu & Zhaoye Qin & Jiang Xiong & Xiangping Wang* Northeastern University	#193 Comparison of FxLMS Algorithm and Transformer Algorithm for Automobile Engine Noise Control *Pengju Zhang & Xu Zhong & Haishan Zou & Jiancheng Tao & Sheng Wu* Nanjing University & Shanghai Huawei Technologies Co., Ltd.	#173 Dissipation mechanism of viscoelastic layers on sound transmission through active constrained layer damping composite plates *Hequn Min & Bo Wang & Chong Shen* Southeast University	#430 Basis Reduction in the Finite Element Analysis of Fokker-Planck Equations *Hangyu Fu & Lawrence A. Bergman & Michael McFarland & Huancai Lu* Zhejiang University of Technology & University of Illinois at Urbana-Champaign
2:45 pm - 3:00 pm	#167 The Effect of Damping on Self-Synchronization in Two Unbalanced Rotors *Miwa Sueda & Hiroki Mori & Takahiro Kondou* Kyushu University & Kyushu Polytechnic College	#118 Multichannel feedback active headrest combined conveniently adjustable structure and virtual microphone technique *Zeqiang Zhang & Ming Wu & Chen Gong & Lan Yin & Jun Yang* Institute of Acoustics, Chinese Academy of Sciences	#339 Vibration Absorber using Integrated Acoustic Black Holes *Meiyu Li & Jie Deng & Ling Zheng* Chongqing university & Northwestern Polytechnical University	#418 Simulation and experimental research on vibration characteristics of helical gear system considering multi-tooth spalling fault *Zimeng Liu & Erliang Shang & Hui Ma & Hongzheng Han & Zhifang Zhao & Hongxu Tian* Northeastern University
3:00 pm - 3:15 pm	#422 Nonlinear vibration of rotor system with dynamic angular misalignment of ball bearing *Pengfei Wang & Yang Yang & Hongyang Xu & Hui Ma* Northeastern University	#212 A sensitivity constrained FeLMS algorithm for interior road noise *Li Shi & Chaohui Zhou & Haishan Zou & Kai Chen & Jiancheng Tao & Xu Zhong & Sheng Wu* Nanjing University & Shanghai Huawei Technologies Co., Ltd.	#91 Vibrotactile rendering method for radiating desired sound from a plate *Wheejae Kim & Sangwon Park & No-Cheol Park* Yonsei University	#433 Unsupervised machine anomalous sound detection based on domain generalization technique *Linke Zhang & Yanwu Xu & Ming Jin & Yongsheng Yu* Wuhan University of Technology
3:15 pm - 3:30 pm	#444 Analysis of vibration damping performance of thermoplastic composite structures *Hui Ye & Haoqi Wang & Tong Li* Dalian University of Technology	#208 Digital Structural Acoustic Control of Noise Transmission Through Transformer Tank with Active Constrained Layer Damping *Bo Wang & Ting Qu & Hequn Min* Southeast University	#331 Noise Control by Sonic Black Holes *Li Cheng & Jiajun Xia & Xiaoqi Zhang* The Hong Kong Polytechnic University & Wuhan University of Technology	#372 A method and structure design for identification of analyte concentration in aqueous solution by using a mistuned fluid-structure coupled vibration *Yugang Chen & Yong Hwa Park* Dalian University of Technology & Korea Advanced Institute of Science and Technology
3:30 pm - 4:00 pm	**Afternoon Tea Break**			
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	CONCURRENT SESSION 4A **CT18 Other Vibration Related Topics** *Prof. Xiangqian Zhu, SDU China* *Prof. Wenli Yao, QUT China*	**CONCURRENT SESSION 4B** **SS17: Human vibration and health sensor applications** *Dr Yong-Hua Park, KAIST Korea*	**CONCURRENT SESSION 4C** **SS06: Dynamics analysis and PHM of hydroelectric machinery** *Prof. Zifan Fang, CTGU China* *Prof. Baojia Chen, CTGU China*	**CONCURRENT SESSION 4D** **SS08: Applications of machine learning in vibration and noise problems** *Dr Yongsheng Yu WUT China* *Dr Haijun Wu, SJTU China* *Dr Li Wang, WUT China* *Dr Meng Hee Lim, USM, Malaysia*
4:00 pm - 4:15 pm	#34 Effects of simplifying assumptions on vibration serviceability assessment of pedestrian structures *Xinxin Wei & Michael Kasperski* Ruhr-Universität Bochum	#349 Design and Fabrication of cardiovascular dynamic simulator for reproducing human blood pressure waveform *Jae-Hak Jeong & Yong-Hwa Park* Korea Advanced Institute of Science and Technology	#16 Research on Dynamic Modeling and Simulation of Acquisition Mechanism of Oscillatory Flapping Wing Wave Energy Power Generation Device *Zifan Fang & Liming Zhang & Xinqiu Zhou & Jiajia Wang & Fei Xiong & Xueyuan Xie & Kongde He & Weihua Yang* China Three Gorges University	#92 A Modified SSA Functional for Real-Time Sound Source Localization *Yongsheng Yu & Linke Zhang & Chang Liu & Xiaohui Song & Li Xia* Wuhan University of Technology
4:15 pm - 4:30 pm	#62 Free vibration analysis of ring-stiffened cylindrical shell-plate coupled structures by using the Chebyshev-Ritz formulation *Tiantong Zhao & Yuehua Chen* Ningbo University	#350 Correlation Analysis of Human Upper Limb Parameters and Oscillometric Signal in Blood Pressure Measurement *Bomi Lee & Yong-Hwa Park* Korea Advanced Institute of Science and Technology	#133 Intelligent Cross-Domain Fault Diagnosis Method with Domain Alignment and Discriminative Feature Learning *Yongchao Zhang & Kun Yu & Zhaohui Ren* Northeastern University & China University of Mining and Technology	#99 The Leaking Recognition Of SF6 gas Based On Feature Extraction *Li Wang & Yongsheng Yu & Zhe Wang* Wuhan University of Technology
4:30 pm - 4:45 pm	#404 Development of Shock Absorption Mechanism for Baby Carriage *Chihiro Kamio & Tatsuhito Aihara* Gunma University & Hosei University	#389 Reliability of standing model and identification technique in response to support surface perturbation *Jin Tsuneda & Motomichi Sonobe* Kochi University of Technology	#250 Bearing fault diagnosis under variable conditions based on adaptive variational mode decomposition and generalized morphological fractal dimensions for wind turbines *Xiaojia Kong & Tongle Xu* Shandong University of Technology	#230 An Application of Machine Learning Technique on Defect Detection of Steering Wheel Armatures based on the Transfer Function *Yilin Zhang & Qiang Liu & Pingyu Mao & Chunwei Cao & Yisheng Xu & Christopher Morgan* Autoliv (Shanghai) Vehicle Safety System Technical Center Co.Ltd. & Autoliv Steering Wheel Co.Ltd.

4:45 pm - 5:00 pm	#171 Seismic response and reliability analysis of long-span and high-pier bridge under multi-component non-uniform ground motion *Zixin Liu & Zhangjun Liu & Xinxin Ruan* Institute of Disaster Prevention & Wuhan Institute of Technology	#411 Estimation of Transfer Function between Brachial Arterial Blood Pressure and Cuff Oscillometric Signal in Blood Pressure Measurement using Cardiovascular Simulator *Junki Hong & Yong Hwa Park* Korea Advanced Institute of Science and Technology	#261 Attentional Temporal Convolutional Network for Remaining Useful Life Prediction of Bearings *Zhengkun Chen & Baojia Chen & Wenlong Fu & Wenrong Xiao & Fafa Chen & Gongfa Li* China Three Gorges University & Wuhan University of Science and Technology	#247 Howling abnormal sound diagnosis of aircraft based on spectrum visibility graph *Xin Wen & Haijun Wu & Chenyi Zhao & Huayong Zhao* Shanghai Jiaotong University & Shanghai Aircraft Design and Research Institute
5:00 pm - 5:15 pm	#395 3-D numerical investigation into the hydroacoustic effect of cavity depth on low Mach number cavity in water *Tiangui Ye & Jin Mi* ao Harbin Engineering University	#364 Person identification utilizing vibration response of human fingers *Hyewon Yoo & Jae Woong Bae & Jae-Hak Jeong & Yong-Hwa Park* Korea Advanced Institute of Science and Technology	#18 Design and Research on Electric Energy Conversion System of the Oscillating Flapping-Wing Wave Energy Converter *Zifan Fang & Yu Zhang & Xueyuan Xie & Jiajia Wang & Fei Xiong & Kongde He* China Three Gorges University	#117 Mobile intelligent noise analysis system based on cloud computing *Fucai Hu & Ming Jin & Yanwu Xu & Yongwen Hu & Yongsheng Yu* Wuhan University of Technology
5:15 pm - 5:30 pm	#166 Whistle acoustic simulation *Wang Li & Xia Li* Wuhan University of Technology	#438 Vision-based High Precision Frequency Detection with the Assistance of Non-Harmonic Analysis Technology *Rongfeng Deng & Fengshou Gu* Beijing Institute of Technology; Zhuhai & University of Huddersfield	#227 Application of CYCBD for the planetary gearbox fault diagnosis based on encoder information *Boyao Zhang & Yonghao Miao & Jing Lin & Chenhui Li* Beihang University	#385 Observer-based H∞ controller for the cab suspension of heavy duty vehicles *Bohuan Tan & Minyao Liu* Xiangtan University & Hunan University
5:30 pm - 5:45 pm	#268 The effect of whole-body vibration on comfort during the cruise of aircraft *Yu Huang & Jingdong Li* Shanghai Jiaotong University	#371 Measurement of Glucose Concentration in Test Solution by Using Acoustic Resonance in Helmholtz Resonators *Yugang Chen & Bomi Lee & Yong-Hwa Park* Dalian University of Technology & KAIST	#157 Research on Torsional Vibration of Marine Diesel Generator System Based on Silicon Oil Damper *Nengqi Xiao & Lei Zou & Baojia Chen & Jiadong Hu* China Three Gorges University	#107 Gas Leakage Signal Recognition Method Based on Convolution Neural Network *Yongsheng Yu & Ziqin Zhou & Zhe Wang & Peng Song & Li Wang* Wuhan University of Technology

3rd November 2022 (Thursday)

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	CONCURRENT SESSION 5A **SS04: Vibration-based structural damage detection** *Prof. Weidong Zhu, UM USA* *Dr Wei Xu, Hohai U. China*	**CONCURRENT SESSION 5B** **CT12 & SS10 Vibration Isolation and active control** *Dr Xuejun Yin, GERB Qingdao* *Prof. Hiroki Mori, Kyushu University Japan*	**CONCURRENT SESSION 5C** **SS11 & CT06: Metamaterials for noise and vibration control** *Dr Yanni Zhang, NUST China* *Prof. Ying Cheng, NJU China* *Prof. Toshihiko Komatsuzaki, Kanazawa U. Japan*	**CONCURRENT SESSION 5D** **SS09: Nonstationary signal processing algorithms and applications** *Dr Gang Yu, UJN China* *Dr Shiqian Chen, SWJTU China*
8:15 am - 8:30 am	#8 Closed form solution of forced vibrations of double-curved-beam systems by means of Green's function *Xiang Zhao & Shiyao Meng & Weidong Zhu & Yinghui Li* Southwest Petroleum University & University of Maryland USA & Southwest Jiaotong University	#13 Vibration Control with a Tunable Electromagnetic Shunt Damper under Opposing Magnet Pairs Configuration *Ruqi Sun & Waion Wong & Li Cheng* The Hong Kong Polytechnic University	#37 Vibration analysis of an acoustic metamaterial plate with periodical multi-degree of freedom resonators attached *Ting Wang & Xiao Wang & Meng Xu & Gong Zhao* Huazhong University of Science and Technology & Institute of Machinery Manufacturing Technology	#4 Wavelet-based time-frequency analysis tool for the diagnosis of vibration fault *Haoran Dong & Gang Yu & Zhenghao Cui* Jinan University
8:30 am - 8:45 am	#56 Structural damage detection using longitudinal vibration shapes through 3D laser scanning *Wei Xu & Weidong Zhu* Hohai University & University of Maryland USA	#213 Reference signal selection in the feedforward active road noise control for an electric vehicle *Youfan Wang & Xu Zhong & Jiancheng Tao & Haishan Zou & Sheng Wu* Nanjing University & Ltd.; Shanghai Huawei Technologies Co.	#211 An underwater meta-structure for low-frequency broadband sound absorption *Yanni Zhang & Li Cheng* Nanjing University of Science and Technology & The Hong Kong Polytechnic University	#21 Generalized Horizontal Multi-synchrosqueezing Transform *Wenjie Bao & Fucai Li & Nan Ye & Zhen Liu & Zhihao Chen & Gangao Zu* Shanghai Jiaotong University
8:45 am - 9:00 am	#75 A Nonlinear Dynamical Model for Rotating Composite Thin-Walled Beams Subjected to Hygrothermal Effects *Liang Li* Anhui University of Science and Technology	#337 Degree of controllability based on input energy minimization for active noise control system *Ikchae Jeong & Youngjin Park* Korea Advanced Institute of Science and Technology	#129 Analysis of dual-function thermoelastic cloak based on coordinate transformation theory *Yuze Tian & Yanfeng Wang & Ganyun Huang & Yuesheng Wang* Tianjin University	#25 Study on fluctuation in the spectrums of torque data during golf swing due to the mass difference of golf club shafts *Kousuke Okazaki & Nobutaka Tsujiuchi & Akihito Ito & Masahiko Ueda & Yuto Nakamura* Sumitomo Rubber Industries, Ltd. & Doshisha University
9:00 am -9:15 am	#73 Status monitoring of fatigue cracks using nonlinear vibration responses *Qitian Lu & Wei Xu* Hohai University	#148 Research on 3-RPC Parallel Vibration Isolation Platform Based on Magnetorheological Damper *Jinghui Chen & Lixiang Tian & Xiaqi Zhou & Chaoqun Wu* Wuhan Digital Engineering institute & Wuhan University of Technology	#301 Vibration Reduction Effects of Multi-layered Noise Absorbing and Insulating Materials *Jiajun Hong & Tatsuya Araki & Takuya Yoshimura* Tokyo Metropolitan University	#333 Wheel diameter difference detection of railway vehicle by ACMD *Bo Xie & Shiqian Chen & Shunqi Sui & Kaiyun Wang* Southwest Jiaotong University
9:15 am -9:30 am	#3 A monocular vision-based measurement method used for low-frequency linear and rotary vibration *Yang Ming & Junjie Yang & Haibin Chen & Zhihua Liu & Chenguang Cai* Guizhou University	#240 A database for active control of automobile engine noise *Jiancheng Tao & Xu Zhong & Haishan Zou & Sheng Wu & Xiaojun Qiu* Nanjing University & Ltd.; Shanghai Huawei Technologies Co.	#390 On the reduction of the flow-induced noise generated from HVAC system in a vehicle cabin using porous materials *Koki Shige & Taisei Kusano & Osamu Terashima* Toyama Prefectural University & Kanazawa University	#210 Acoustic-Net: A Novel Neural Network for Sound Localization and Quantification *Guanxing Zhou & Hao Liang & Xinghao Ding & Xiaotong Tu & Yue Huang & Saqlain Abbas* Xiamen University
9:30 am -9:45 am	#262 Strength calculation and dynamics analysis of large modulus rack and pinion *Baojia Chen & Zongxing Gong & Shaoxiong Dai & Nengqi Xiao & Gongfa Li & Qiang Liu* Three Gorges University & Wuhan University of Science and Technology	#396 Design of A Pseudo-Active Actuator with Semi-Active Actuators *Xianxu Bai & Jianchuan Chen & Chengxi Li* Hefei University of Technology	#201 Research on the characteristics of acoustic metamaterials based on triply periodic minimal surface *Jiulu Jin & Zheng Hao & Zhang Cong & Yang Lei* Wuhan University of Technology	#342 Detection for wheel eccentricity of freight wagons based on adaptive chirp mode decomposition *Shunqi Sui & Shiqian Chen & Kaiyun Wang & Liang Ling & Bo Xie* Southwest Jiaotong University
9:45 am -10:00 am	#356 An inverse method for quantitative damage assessment of plate-like structures based on vibration responses *Shuai He & Jiaxin Li & Tian Ran Lin* Qingdao University of Technology	#441 A multi-scale attention residual network for end-to-end environmental sound classification *Fucai Hu & Peng Song & Yongsheng Yu* Wuhan University of Technology	#29 Low frequency sound insulation of a perforated plate-type acoustic metamaterial *Zhongyuan Liu & Tianran Lin* Qingdao University of Technology	#98 Speech Separation by Time-frequency Analysis Using Deep Learning *Kohei Takahashi & Toshihiko Shiraishi* Yokohama National University
10:00 am - 10:30 am	**Morning Tea Break**			
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	CONCURRENT SESSION 6A CT15 Signal Processing *Prof. Zhipeng Feng, USTB China* *Dr Shilong Sun, HIT China*	CONCURRENT SESSION 6B CT05 Control and Optimization of Dynamic Systems *Prof. Ling Zheng, CQU China* *Dr Jie Deng, NWPU China*	CONCURRENT SESSION 6C SS03: Noise, vibration and their application in power systems *Prof. Xuan Cai, State Grid HEPRI* *Dr. Chen Xu and Dr Xiaoqi Zhang, WUT China*	CONCURRENT SESSION 6D CT05 & SS12: Mechanical dynamics *Prof. Hongkun Li, DLUT China* *Prof. Toshihiko Shiraishi, Yokohama N. U. Japan*
10:30 am -10:45 am	#237 Ground Reaction Force Estimation from Measured Kinematic Data: Data-driven Approaches *Yang Lv & Hongbin Fang & Jian Xu & Xiaoxu Zhang* Fudan University	#119 An Optimal Designing of Vibration Absorber Based on Two-dimensional Acoustic Black Holes *Xiaoning Zhao & Hongli Ji & Jinhao Qiu* Nanjing University of AeroNautics and Astronaytics	#19 Application of optical vibration sensing in dry-type transformer condition monitoring *Huihui Jin & Qizhen Wang & Chunming Pei & Yuxing Wang* Zhejiang University	#89 Dynamics simulation of fault planetary gearbox based on rigid-flexible coupling model and experimental study *Kongliang Zhang & Hongkun Li & Shunxin Cao & Chaoge Wang & Bin Sun* Dalian University of Technology
10:45 am - 11:00 am	#419 High Sound Quality Recognition Method for an Automobile Seat Adjusting Mechanism *Hongxin Shen & Michael McFarland & Huancai Lu* Zhejiang University of Technology	#132 Self-powered active control on a single degree of freedom system under seismic excitation *Jinyang Li & Songye Zhu* The Hong Kong Polytechnic University	#66 Analytical research of transverse/longitudinal vibration of propulsion shaft in pod *Yaqi Tian & Cong Zhang & Xiaowei Dong & Kangpeng Hou & Xincong Zhou* Wuhan University of Technology & China Merchants Bureau Cruise Manufacturing Co., Ltd	#59 Vibration and meshing characteristics of multi-stage gear transmission system with tooth modification under different assembly errors *Zhifang Zhao & Hongzheng Han & Pengfei Wang & Chenyi Han & Hui Ma & Yang Yang* Northeastern University & China North Vehicle Research Institute
11:00 am - 11:15 am	#429 Reconstruction of granular bead motion based on acoustic holography *Huancai Lu & Michael McFarland & Xiangle Cheng & Li Yongjun & Zhou Daren & Li Minzong & Ye Zhansheng* Zhejiang University of Technology & Zhejiang University of Science and Technology	#183 A simulation-based approach to identify dozer blade loads for data acquisition decision making *Xiangqian Zhu & Longye Pan & Yajun Huang & Jin-Hwan Choi* Shandong University & Shantui Construction Machinery co. Ltd & Kyunghee University	#126 Energy transmission in a two-dimensional duct-plate-cavity coupling system *Yang Liu & Yufei Zhang & Jingtao Du* Harbin Engineering University & Dalian Maritime University	#435 Input signal generation for virtual vibration test rig *Lei Hou & Xiangqian Zhu* Shandong University
11:15 am - 11:30 am	#443 Sound source localization based on residual network and channel attention module *Fucai Hu & Xiaohui Song & Yongsheng Yu* Wuhan University of Technology	#159 Cascade Control of Liquid Fuel Thorium-based Molten Salt Reactor *Hexiang Wang & Minghai Li & Jian Tian & Yongzhong Chen* Shanghai Institute of Applied Physics, Chinese Academy of Sciences, Jiading Shanghai	#83 Research on the Interference Characteristics of Environmental Noise in UHV Substations with Vibration Signal as Calculating Boundary *Xuan Cai & Xishan Jiang & Huanyu Zhang & Haitao Shen* Zhejiang University	#405 Diagnosis and Analysis of an Aero-engine Rotor Blade Rubbing Fault *Fujian Xu* AECC Hunan Aviation Power plant Research Institute
11:30 am - 11:45 am	#378 A phase-based vibration measurement technique using double tree-complex wavelet transform *Wendi Zhang & Jiwen Zhou & Hongguang Li & Xiang Luan* Shanghai Jiaotong University	#424 Testing data analysis of the synthetic baseline positioning system of a multi-jointed autonomous vehicle *Ruihu Zhang & Huancai Lu & Michael McFarland* Zhejiang University of Technology	#442 A gas leakage detection method with hybrid acoustic feature selection and stacking ensemble learning *Linke Zhang & Yongwen Hu & Ruhan He & Zhaoli Yan & Yongsheng Yu* Wuhan University of Technology & Wuhan Textile University & Institute of Acoustics CAS	#421 Studies on modal characteristics of GTF star gear-rotor system considering structural flexibility and gyroscopic moments *Hongxu Tian & Haixu Wang & Zimeng Liu & Hui Ma* Northeastern University
11:45 am - 12:00 pm	#317 Separation and conversion of mono speech and noise *Xiaoping Xie* Hunan University	#232 Dynamic Modeling of Rolling Bearing with Local Defect underThermal Elastohydrodynamic Lubrication *Yubo Wang & Changfeng Yan & BinLiu & Xin Zhang* Lanzhou University of Technology	#379 Comparative study of surface integral methods in aeroacoustic prediction *Shihao Wang & Chengyu Han & Xujing Tang & Chen Xu* Wuhan University of Technology	#215 Control and optimization of contact behavior in four-point contact ball bearings *Hui Xi & Tian Ran Lin & Xiaoli Ma & Guifei Wang & Ye Zhou & Guofa Sun* Qingdao University of Technology
12:00 pm - 12:15pm	#440 Numerical comparison of adaptive filters in stiffness parameter identification: extended Kalman filter and recursive least squares *Alireza Sadegh & Ali Bakhshi & Mohammad Rahai* Sharif University of Technology, Iran	#60 A diffusion transform domain FxLMS algorithm for multi-channel active noise control with variable spatial smoothing *Y. J. Chu & S. C. Chan & C. M. Mak & M. Wu* South China University of Technology & The University of Hong Kong & The Hong Kong Polytechnic University & Institute of Acoustics, Chinese Academy of Sciences		#436 Preparation and High Temperature Damping Properties of Graphene Oxide Reinforced Polydimethylsiloxane Composites *Juan Du & Tong Li* Dalian University of Technology
12:15 pm - 1:30 pm	**Lunch Break**			
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	CONCURRENT SESSION 7A CT16&17 Machine and Structural Condition Monitoring *Prof. Tian Han, USTB China* *Dr Guojin Feng, HBUT China*	CONCURRENT SESSION 7B CT13 Vibration Utilization and Energy Harvesting *Prof. Shigeru Aoki, TMCIT Japan* *Dr. Tong Li, DLUT China*	CONCURRENT SESSION 7C SS14: Multifunctional integrated devices and applications *Prof. Jiu Hui Wu, XJTU China* *Prof. Tianning Chen, XJTU China*	CONCURRENT SESSION 7D MS01: Mini-symposium on Non-linear Dynamics and Its Application *Prof. Qian Ding, TJU China* *Prof. Jun Jiang, XJTU China*
1:30 pm - 1:45 pm	#152 Damage identification of twist-beam based on strain modal analysis *Yulin Luo & Lixin Song & Zhichao Hou & Hongyu Wang* Tsinghua University	#36 A New Knurling Technology Using Ultrasonic Vibration *Shigeru Aoki & Yasunori Sakai & Tomohisa Tanaka* Tokyo Metropolitan College of Industrial Technology & Shibaura Institute of Technology & Tokyo Institute of Technology	#48 Synergetic coupling design method of acoustic functional devices (**Invited paper**) *Fuyin Ma & Jiuhui Wu* Xi'an Jiaotong University	#52 Rate-dependent tipping phenomenon in a thermoacoustic system with Lévy noise *Xiaoyu Zhang & Yong Xu* Northwestern Polytechnical University
1:45 pm - 2:00 pm	#401 A noncontact and automatic laser-based Rayleigh wave system for inspecting the integrity of rails *Peter W. T. TSE & Imran Ghafoor* City University of Hong Kong	#388 Applicability of powering sensors by harvesting vehicle body vibration energy: A tentative review *Ranyi Liu & Zimu Chen & Haoyang Li & Peiqi Yu & Pengyu Zu & Zhichao Hou* Tsinghua University	#373 Reduction of vibrotactile perception level for vehicle accelerator pedal *Junsun Yoo & Seonbin Lim & No-Cheol Park* Yonsei University	#108 Modal balancing of the nonlinear rotor-bearing system based on nonlinear normal modes *Tianzhu Wang & Qian Ding* Tianjin University
2:00 pm - 2:15 pm	#255 Multiple Damage Identification Analysis of Frame Structure by Artificial Neural Network *Hiroyuki Kuroki* Kyushu Polytechnic College	#174 Baesd Hybrid Simulation Method Study of Pipe Resonance Cavity *Changan Bai & Tianning Chen & Wuzhou Yu & Ze Zhou* Xi'an Jiaotong University & Tongji University & Hexagon | FFT	#125 Vibro-Acoustic Characteristics Analysis of Building Structures Based on Mode Synthesis Strategy and Nonlinear Modal Theory *Xingrong Huang* Beijing University of Aeronautics and Astronautics	#361 Dynamic Modeling and Vibration Analysis of Compound Planetary System Considering Nonlinear Factors *Tingqiong Cui & Yinong Li & Chenglin Zan* Chongqing University
2:15 pm - 2:30 pm	#234 Analysis of Abnormal Vibration of Nuclear Power Pump Based on Data Mining *Xiuqun Hou & Qinglei Jiang & Biqi Miao* China Nuclear Power Operation Technology Corporation, Ltd.	#392 Variable stiffness characteristics for vehicle vibration energy harvesting *Ranyi Liu & Zimu Chen & Haoyang Li & Peiqi Yu & Pengyu Zu & Zhichao Hou* Tsinghua University	#242 Vibro-acoustic response of the rectangular panel with elastic constraints induced by aeroacoustic noise from the backed cavity *Chizhen Xu & Heye Xiao & Dan Sui & Jie Zhou & Jintao Gu* Northwestern Polytechnical University	#101 Non-smooth characteristics of rotor/stator rubbing systems with the Stribeck friction model *Yang Li & Shunzeng Wang & Ling Hong & Jun Jiang* Xi'an Jiaotong University

2:30 pm - 2:45 pm	#439 Partial Transfer Fault Diagnosis of Rotating Machines Based on Subclass Alignment Network *Kun Yu & Kari Koskinen & Tian Ran Lin & Xuesong Wang & Yuyu Cheng* China University of Mining and Technology, Tampere University Finland, Qingdao University of Technology	#233 Analysis of Friction Effect on Seat Suspension Transmission Characteristics *Rongkang Luo & Peibao Wu & Jiabing Luo & Le He & Fengquan Wang & Zhichao Hou* Tsinghua University & China University of Mining and Technology-Beijing & Inner Mongolia North Heavy Industries Group Corp Ltd	#248 The study on underwater vibration and acoustic radiation of functionally graded piezoelectric plates with general boundary conditions *Tiangui Ye & Xinxin Wang* Harbin Engineering University	#143 Vibration of Solar Panels in Consideration of Nonlinear Stiffness of Tape Spring Hinges and Flexible Deformation of Panels *Wenyan Gu & Xiangqian Zhu & Jinsheng Zhang & Yegao Qu* Shandong University & Shanghai Jiaotong University
2:45 pm - 3:00 pm	**Closing Ceremony & the Best Student Paper Awards**			

Papers to be included in the proceedings but not presenting in the parallel sessions

	#45 Half Order Noise Refinement of the Hybrid Powertrain *Rong Bi & Wenfeng Zhan & Jingsi Wei & Chuanfeng Zhu & Liangliang Zhang & Bo Gao* GAC Automotive Research & Development Center, Guangzhou	#55 Vibration characteristics of a rotating drum partially coated with strain-depended hard coatings *Dongxu Du & Wei Sun* Northeastern University	#141 Analysis of dynamic characteristics of the gear bearing considering the fractal rough tooth surface wear *Jinchi Xu & Xiaopeng Li & Xingchao Qu* Northeastern University	#142 Dynamic response of a rub-impact sealed rotor system considering bearing time-varying stiffness under maneuvering flight *Renzhen Chen & Xiaopeng Li & Jing Su* Northeastern University
	#226 An improved modal method for sensitivity analysis of elemental modal strain energy *Sheng Lei & Wei Tian & Min Lei* South-Central University for Nationalities, Wuhan China	#406 Analytical and Experimental-Hybrid Dynamic Stiffness Formulation For a Truss Raft System With a Three-DOF Machine *Zitian Wei & Dequan Ji &Peng Liu & Xuewen Yin* China Ship Scientific Research Center	#332 Free vibration analysis of a cylindrical shell under discontinuous variable-stiffness boundary conditions *Dongxu Du & Wei Sun & Xianfei Yan* Northeastern University	#340 Pitting Failure Model and Effect on Time-Varing Meshing Stiffness of Spur Gears *Jiasong Li & Zong Meng & Yang Guan* Yanshan University
	#345 Research on Collision Depolymerization Process of Agglomerate with Flip-flow Screen Panel *Tang Jian & Xiong Xiaoyan & Tang Xian & Shen Qi* Taiyuan University of Technology	#185 Equivalent source method based on ray wave function constrained by Dirac-delta function for near-field acoustic holography *Ziyu Shi & Yu Xiang & Jing Lu & Yujiang Wang* Guangxi University of Science and Technology	#81 Analysis and tests of magnetorheological adaptive shock mitigation system *Ping Jiang & Ling Yuan & Zhiyuan Si & Xianxu Bai* Hefei University of Technology	#352 A novel Fault Identification Method for Planetary Wheel of RV Reducer Based on Variational Mode Decomposition and S Transform *Yu Zi & Jun Zhou* Kunming University of Science and Technology
	#376 Development of compact, reliable and high-performance PMSM for a clutch coupling motor module used for Hybrid Vehicles *Guojun Bai* Guangdong Zhuhai Supervision Testing Institute of Qualityand Metrology	#245 Study on fault diagnosis of rolling bearing based on S-transform and BP neural network *Hefeng Zhou & Ruifeng Li & Zhangfu Tian & Yun Zhao & Haijun Wu & Weikang Jiang* National University of Defense Technology & Shanghai Jiao Tong University & Changsha University of Science and Technology		

End of Programme