

Day 3: Wednesday, 26 November

Room 201-393

9:00

Keynote: *Dynamic systems under parametric excitation: unusual phenomena and practical applications.*
A/Pro. Vladislav Sorokin (University of Auckland, NZ)

10:30

Keynote: *Development of transformative engineering solutions that shape the future using Future World Vision, the ENVISION Sustainability Rating System, ASCE 73: Standard practice for sustainable infrastructure, and other resources available from the American Society of Civil Engineers (ASCE) and partners*
Ms. April J. Lander (ASCE R10 Director, NZ)

Room 1 (201-311)

A-10: Multibody Dynamics 2

Chari: Osamu Furuya (Tokyo Denki University)

12:30	164	Mingzhu Jin, Ge Yan and Li Cheng	An integrated isolator for multi-directional low-frequency coupling vibration
12:50	76	Katsuhiko Kuroda	Research on the Vibration Characteristics of Thin Plate Structure as an Excitation Device for Audio Exciter
13:10	94	Toshiki Yokota and Taichi Shiiba	Evaluation of effect of bushings on anti-roll bar deformation with HIL experiment
13:30	95	Jo Saito and Taichi Shiiba	Development and experimental evaluation of a steering model considering gear center distance variation in rack and pinion

A-2: Health Monitoring, Diagnosis 1

Chari: Katsuhiko Kuroda (Nagasaki Institute of Applied Science)

14:40	13	Yutaka Nakano, Naofumi Yoshida, Kazuhiro Ooi and Shuichi Kawajiri	Study on Evaluation Method for Penetration of Cutting Bur at Cancellous Bone based on Spectrum Averaging in oral and maxillofacial surgery
15:00	34	Qianpeng Zhang, Hongkun Li, Mingyang Yuan, Yugang Chen, Chuang Wang and Yizhuo Yang	A Digital Twin Panoramic Stress Prediction Method for Rotating Impellers Based on SVR-XGBoost
15:20	56	Sodai Saito and Osamu Furuya	Study on Predictive Maintenance of Mechanical System using AI and Vibration Analysis
15:40	85	Reo Ataguchi, Daisuke Iba, Atsuhide Nishikawa, Hitoshi Shimasaki, Junichi Hongu, Naoki Yamashita and Chong Low Jing	Durability Evaluation of Smart Gears with Improved Sensor and Antenna Circuits through Operational Tests.
16:00	168	Yuhao Wang and Dongsheng Li	Towards robust statistical damage location and quantification via Gaussian residuals generated by flexibility changes

Room 2 (201-326)

A-9: Noise and Vibration Control 1

Chair: Toshihiko Komatsuzaki (Kanazawa University)

12:30	10	Kengo Murakami and Yuichi Matsumura	An inverse method to allocate multiple resonant frequencies of whole structure in three-dimensional finite element model
12:50	24	Yao-Wei Chin, Zhenbo Lu and Boo Cheong Khoo	Micro slit metasurface with multi-volume back cavities silencer for tunnel ventilation fan
13:10	25	Yao-Wei Chin, Zhenbo Zhenbo Lu and Boo Cheong Khoo	Ventilated acoustic metasurface with broadband low frequency sound insulation
13:30	35	Tian Ran Lin and Hui Xu	An improved convex combination algorithm for the active impulse noise control
13:50	48	Haruka Ogata, Shotaro Hisano, Hiroyuki Iwamoto and Satoshi Ishikawa	Wave-trapping Control For Acoustic Tube Using FIR Filter

A-9: Noise and Vibration Control 2

Chair: Hongkun Li (Dalian University of Technology)

14:40	52	Shuichi Sakamoto, Kohta Hoshiyama, Yoshiaki Kojima and Kenta Saito	Theoretical analyses and experiments on the dependence of the sound-absorption coefficient on the packing structure and grain size of powders and granules
15:00	53	Toshihiko Komatsuzaki, Yusuke Daikuhara and Xuan Bao Nguyen	Semiactive vibration control of a metastructure with a variable stiffness property
15:20	64	Yi Yang, Brian Mace and Michael Kingan	Effects of Curvature on Wave Energy Absorption in Spiral Acoustic Black Holes
15:40	67	Kim Tae Hwan and Akira Saito	Vibration Suppression by Meta-structures with a Bandgap Utilizing Periodic Surface Geometry
16:00	74	Manabu Sasajima, Yoshiteru Uchida, Aya Abe, Keiko Yamazaki and Ichiro Hagiwara	Development of Lightweight Sound-Absorbing Structures Using Origami Structures

Room 3 (201-334)

A-4: Signal Processing 1

Chair:

12:30	22	Kohei Wakui, Michiaki Matsuda, Akira Kikuchi and Ryota Hotta	Experimental Analysis of Acoustic Propagation Characteristics in Piping Systems
12:50	77	Keiichiro Kikuchi and Masami Matsubara	Beam vibration mode measurement using integrated dot centroid tracking and phase locked loop filming
13:10	97	Kota Inaba, Reo Fujimaki, Shingo Maeda and Naoki Hosoya	Biodegradable flexible sensor for measurement of high-frequency vibration
13:30	100	Chaoping Zang	Continuous scanning laser vibrometry method for measuring mode shape of the thin-walled aeroengine casing
13:50	101	Huageng Luo	Damage Detection and Condition Monitoring for RV Reducers Using Vibration Responses

A-4: Signal Processing 2

Chair: Chaoping Zang (Nanjing University of Aeronautics and Astronautics)

14:40	54	Takeru Oikawa and Akira Saito	Identification of Magnitude and Location of External Forces acting on Structures from Measured Acceleration Based on Kalman Filter
15:00	150	Yu Sun, Lei Su, Ke Li, Jiefei Gu, Xinwei Zhao, Yunxia Lou, Huaishi Yang, Shu Cao, Guangpan Peng, Zhonghua Lu and Weipeng Duan	Adaptive Strong Dual-constraint Sparse Representation Method for Chip Microbump Reliability Analysis
15:20	142	Zhangjun Liu, Wenteng Zhu and Xiaojiao Fu	The full paper of Advances in dimension-reduction methods for simulating multivariate non-stationary stochastic ground motions
15:40	159	Momone Tomizawa, Shunsuke Imada and Taichi Shiiba	Compensation of delay in tire-suspension HILS system with Kalman filter

18:00-
22:00

Gara Dinner