14th Intl CONFERENCE on
VIBRATION MEASUREMENTS by LASER and NONCONTACT TECHNIQUES
ONLINE EVENT, 28th-29th June 2021

FINAL PROGRAMME

MONDAY, 28th June	
09.10	*WELCOME by Prof. E.P. Tomasini, Polytechnic University of Marche, Italy*
09.20	**TUTORIAL** **"Advancements in Laser Doppler Vibrometry",** *Dr. Jochen Schell and Joerg Sauer, Polytec GmbH*
10.00	**Session 1: METROLOGY, CALIBRATION & STANDARDS** *developed by Prof. L. Zhang, Changcheng Institute of Metrology and Measurement, China* *Chairman: Prof. L. Zhang, Changcheng Institute of Metrology and Measurement, China*
	"Primary Low g Shock Acceleration Calibration Using Laser Interferometry", *H. Sun, D. Zhang, Changcheng Institute of Metrology and Measurement, China* "Research on Dynamic Calibration Technology of Shock Accelerometer Based on Model Method", *Y. Wu, Z. Huang, Changcheng Institute of Metrology and Measurement, China* "A 250kN Sinusoidal Force Calibration Device Based on Laser Interferometric Acceleration Measurement", *T. Feng, Y. Xiao, L. Bo, W. Jinglu, L. Sibo, Changcheng Institute of Metrology and Measurement, China* "Research on high temperature vibration measurement method based on Photon Doppler Interference principle", *X. Duan , D. Zhang, J. Dai, Changcheng Institute of Metrology and Measurement, China*
11.20	*BREAK*
11.40	**INVITED LECTURE** **"Adventures in Laser Vibrometry: taking the rough with the smooth",** *Prof. Steve J. Rothberg, Loughborough University, UK*
12.30	**BOOK PRESENTATION** **"Laser Doppler Vibrometry - A Multimedia Guide to its Features and Usage", Proff.** *Enrico Primo Tomasini and Paolo Castellini, Polytechnic University of Marche, Italy*
12.45	*BREAK*
14.00	**Session 2: Session 2: NEW TECHNIQUES for LASER-DOPPLER VIBROMETRY I** *developed by Prof. C. Rembe, Clausthal University of Technology, Germany* *Chairman: Prof. C. Rembe, Clausthal University of Technology, Germany*
	"Broad-Bandwidth Vibration Excitation with Laser Pulses for Laser Doppler Vibrometry", *X. Cao, L. Mignanelli, C. Rembe, Clausthal University of Technology, Germany* "Influence of optical amplifiers for on-chip homodyne laser Doppler vibrometers", *E. Dieussaert, Y. Li, G. Morthier, R. Baets, Ghent University, Belgium*

	"Impact of a clipped phase modulated photodiode signal on the result of a demodulation", *M. Yu, M. Schewe, G. Bauer, C. Rembe, Clausthal University of Technology, Germany*
15.00	**Session 3: VISION BASED TECHNIQUES: DIGITAL IMAGE CORRELATION-DIC, HIGH SPEED VISION, VIDEOGRAMMETRIC TECHNIQUES, STRUCTURED ILLUMINATION** *Chairman: Dr. A. Sabato, University of Massachusetts at Lowell, USA*
	"Time-Domain Image Filtering for DIC Vibration Measurements", *P. Neri, A. Paoli, A. V. Razionale, C. Santus, University of Pisa, Italy* "3D-DIC analysis for BIM-oriented SHM of a lab-scale aluminum frame structure", *M. Angelosanti, E. Currà, S. Dabetwar, A. Sabato, Sapienza University of Rome, Italy* "Multi-view videogrammetry for the measurement of plate flexural vibration", *R. Rinaldo, P. Gardonio, R. Del Sal, L. Dal Bo, E. Turco, A. Fusiello, University of Udine, Italy*
16.20	**Session 4: LDV APPLICATION TO ADDITIVE MANUFACTURING** *Chairman: Dr. D. Di Maio, University of Twente, The Netherlands*
	"Modal Analysis of Smart Composite Membrane Using Noncontact Technique", *R. Rimašauskiene , M. Rimašauskas, T. Kuncius, T. Stulge, Kaunas University of Technology, Lithuania*
16.40	*END of DAY 1*

TUESDAY, 29th June	
09.10	*WELCOME by Prof. E.P. Tomasini, Polytechnic University of Marche, Italy*
09.20	**Session 5: PRESSURE and SOUND PRESSURE MEASUREMENTS by means of VISION-BASED and OPTICAL TECHNIQUES** *Chairman: Dr B.J. Halkon, University of Technology Sydney, Australia*
	"Speaker Diarisation of Vibroacoustic Intelligence from Drone Mounted Laser Doppler Vibrometers", *J. Richmond, B.J. Halkon, University of Technology Sydney, Australia* "Researches on small amplitude or high frequency dynamic pressure measurement method by laser interferometer based on refractive index", *J. Yang, B. Li, B. Shi, X. Xie, B. Zhang, Changcheng Institute of Metrology and Measurement, China* "Multi-view videogrammetry for the estimate of plate sound radiation", *P. Gardonio, R. Rinaldo, R. Del Sal, L. Dal Bo, E. Turco, A. Fusiello, University of Udine, Italy*
10.20	**Session 6: CONTINUOUS and TRACKING LDV** *Chairman: Prof. S. J. Rothberg, Loughborough University, UK*
	"Continuous Scanning Laser Vibrometry: A Raison d'être and Applications to Vibration Measurements", *D. Di Maio, P. Castellini, M. Martarelli, S. Rothberg, M. Allen, W. D. Zhu, D. J. Ewins, University of Twente, The Netherlands*

	"Extension of continuous scanning laser Doppler vibrometry measurement for plate structure with arbitrary rectangular holes", *L. Zhang , C. Zhang, Nanjing University of Aeronautics and Astronautics, China*
11.00	*BREAK*
11.20	**WEBINAR** **"Modal Analysis: Upgrading basic DIC hardware to resolve high temporal resolution measurements",** *Guven Ogus, Lukas Wittevrongel, Pascal Lava, MatchID, Belgium*
11.50	**MANUFACTURERS' PRESENTATIONS**
12.30	*BREAK*
14.00	**Session 7: NEW TECHNIQUES for LASER-DOPPLER VIBROMETRY 2** *developed by Prof. C. Rembe, Clausthal University of Technology, Germany* *Chairman: Prof. C. Rembe, Clausthal University of Technology, Germany*
	"Influence of detector angles for three-dimensional vibration measurement using laser Doppler vibrometers incorporating signal diversity", *M. Schewe, C. Rembe, Clausthal University of Technology, Germany* "Squeezed-light interferometry on a cryogenically-cooled micro-mechanical membrane", *L. Kleybolte, P. Gewecke, A. Sawadsky, M. Korobko, R. Schnabel, University of Hamburg, Germany* "A new method for speckle noise removal and damage detection using Laser Doppler Vibrometer", *Y. Jin, Z. Li, Delft University of Technology, The Netherlands*
15.00	**KEYNOTE LECTURE** **"Continuous Scanning Laser Vibrometry: From Three-Dimensional and Rotating Structure Vibration Measurements to Structural Damage Detection",** *Prof. Weidong Zhu, University of Maryland, Baltimore County, USA*
15.40	**Session 8: H2020 Marie Sklowska Curie project ECO- DRIVE** *Chairman: Prof. P. Chiariotti, Politecnico di Milano, Italy*
	"Advanced Fitting Methods for the Correlation of Sound Quality Objective Metrics and Subjective Ratings Using Genetic Algorithm and Artificial Neural Network", *R. Jamali, G. Battista, M. Martarelli, P. Chiariotti, C. Colangeli, P. Castellini, Polytechnic University of Marche, Italy* "Dual Assembly State-Space Substructuring Formulation", *R.S.O. Dias, M. Martarelli, P. Chiariotti, Polytechnic University of Marche, Italy*
16.20	*CONCLUDING REMARKS and FINAL GREETINGS*

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