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Nota di contenuto	Chapter 1 Optical Motion Magnification: A Comparative Study and Application for Vibration Analysis -- Chapter 2 - To the Moon! Space Launch System Modal Testing with Video and Motion Magnification -- Chapter 3 Effects of Image Pair Processing Styles on Phase-Based Motion Extraction -- Chapter 4 Experiment-based optical full-field receptances in the approximation of sound radiation from a vibrating plate -- Chapter 5 Measurements of panel vibration with DIC and LDV imaged through a Mach 5 flow. - Chapter 6 Experimental quantification of sensor-based stereocameras' extrinsic parameters calibration. -

Chapter 7 Towards camera-based monitoring of abdominal aortic aneurysms[AA] -- Chapter 8 Measuring 3D vibrations amplitude with a single camera and a model of the vibrating structure -- Chapter 9 Risk tolerance mapping in dynamically loaded structures as excitation dependency by means of full-field receptances -- Chapter 10 Lightweight Internal Damage Segmentation using Thermography with and without Attention Based Generative Adversarial Network -- Chapter 11 A Novel Framework for the Dynamic Characterization of Civil Structures Using 3D Terrestrial Laser Scanners -- Chapter 12 Orthorectification for Dense Pixel-Level Spatial Calibration for Video-Based Structural Dynamics -- Chapter 13 Digital Twins for Photorealistic Event-Based Structural Dynamics -- Chapter 14 Multi-path vibrometer based strain measurement technique for Very High Cycle Fatigue (VHCF) testing -- Chapter 15 Measurement of Airborne Ultrasound Using Laser Doppler Vibrometer -- Chapter 16 Modal Identification of a Turbine Blade with a Curved Surface under Random Excitation by a 3D CSLDV System and the Extended Demodulation Method -- Chapter 17 Operational modal analysis of a rotating structure using image-based tracking continuously scanning laser Doppler vibrometry via a novel edge detection method -- Chapter 18 Detection of Missing Rail Fasteners Using Train-Induced Ultrasonic Guided Waves: A Numerical Study -- Chapter 19 Dynamic Mode Decomposition for Resonant Frequency Identification of Oscillating Structures -- Chapter 20 Time-inferred autoencoder for construction and prediction of spatio-temporal characteristics from dynamic systems using optical data -- Chapter 21 Rotational Operating Deflection Shapes Analysis with High Speed Camera.

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## Sommario/riassunto

Computer Vision & Laser Vibrometry, Volume 6: Proceedings of the 41st IMAC, A Conference and Exposition on Structural Dynamics, 2023, the sixth volume of ten from the Conference brings together contributions to this important area of research and engineering. The collection presents early findings and case studies on fundamental and applied aspects of Computer Vision, Laser Vibrometry and Structural Health Monitoring, including papers on: Novel Techniques Optical Methods, Scanning LDV Methods Photogrammetry & DIC Structural Health Monitoring.

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