1.	Record Nr.	UNINA9910373952503321
	Titolo	Nonlinear Dynamics and Control : Proceedings of the First International Nonlinear Dynamics Conference (NODYCON 2019), Volume II / / edited by Walter Lacarbonara, Balakumar Balachandran, Jun Ma, J. A. Tenreiro Machado, Gabor Stepan
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
	ISBN	3-030-34747-8
	Edizione	[1st ed. 2020.]
	Descrizione fisica	1 online resource (XXII, 349 p. 182 illus., 136 illus. in color.)
	Disciplina	531
	Soggetti	Optics
		Electrodynamics
		Vibration
		Dynamical systems
		Dynamics
		Control engineering
		Statistical physics
		Computational complexity
		Classical Electrodynamics
		Vibration, Dynamical Systems, Control
		Control and Systems Theory
		Applications of Nonlinear Dynamics and Chaos Theory
		Complexity
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Part A: Vibration absorbers and isolators -- Active nonlinear vibration absorber for harmonically excited beam system -- Comparison of linear and nonlinear damping effects on a ring vibration isolator -- Electroacoustic absorbers based on passive finite-time control of loudspeakers: a numerical investigation -- Seismic response prediction of multiple base-isolated structures for monitoring -- Frequency domain nonlinear modeling and analysis of liquid filled column

dampers -- Vibration reduction by using two tuned mass dampers with dry friction damping -- Nonlinear behavior of pendulum tuned mass dampers for vibration control of H-section hangers -- Resonance behavior of the non-ideal system which contains a snap-through truss as absorber -- Experimental dynamic response of a nonlinear wire rope isolator -- Optimization strategies of hysteretic tuned mass dampers for seismic control -- Part B: Control of nonlinear systems -- Sliding mode control of nonlinear systems under non-stationary random vibrations via an equivalent linearization method using block pulse functions -- Experimental dynamic response of a SDOF oscillator constrained by two symmetrically arranged deformable and dissipative bumpers under harmonic base excitation -- Active sling load stabilization -- Multi-objective optimization of active vehicle suspension system control -- Control quality assessment of nonlinear model predictive control using fractal and entropy measures -- Impact of the controller algorithm on the effect of motor vehicle steering during a lane-change manoeuvre -- Fractional order impedance control -- Analysis of quadcopter dynamics during programmed movement under external disturbance -- Non-linear model of quadrotor dynamics during observation and laser target illumination -- Reduced-order modelling friction for line contact in a turbine blade damper system -- Finite-time control of omni-directional mobile robots -- Fast moving of a population of robots through a complex scenario -- Feedback local optimality principle applied to rocket vertical landing VTVL -- Time delayed feedback control applied in a non-ideal system with chaotic behavior -- Distributed event-triggered output feedback control for semilinear time fractional diffusion systems -- Control performance assessment of the disturbance with fractional order dynamics -- Model Correction-based Multivariable Predictive Functional Control for Uncertain Nonlinear Systems -- Part C: Sensors and actuators -- Compensation strategies for actuator rate limit effect on first-order plus time-delay systems -- Reliable output-feedback control for Markovian jump descriptor systems with sensor failure and actuator saturation -- Part D: Network synchronization -- Synchronization analysis of coupled oscillatory network with different node arrangement -- On the synchronization of unbalance vibration exciters, mounted on a resiliently supported rigid body, near resonance -- Mixed synchronization in unidirectionally coupled chaotic oscillators -- Synchronized hopping induced by interplay of coupling and noise -- Index.

Sommario/riassunto	This second of three volumes from the inaugural NODYCON, held at the University of Rome, in February of 2019, presents papers devoted to Nonlinear Dynamics and Control. The collection features both well-established streams of research as well as novel areas and emerging fields of investigation. Topics in Volume II include influence of nonlinearities on vibration control systems; passive, semi-active, active control of structures and systems; synchronization; robotics and human-machine interaction; network dynamics control (multi-agent systems, leader-follower dynamics, swarm dynamics, biological networks dynamics); and fractional-order control.