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SILVIA MILANA
Curriculum Vitae

Roma
02/01/2023

Part I – General Information

Full Name	Silvia Milana
Citizenship	Italian
Spoken Languages	Italian, English

Part II – Education

Type	Year	Institution	Notes
University graduation	2013	La Sapienza - University of Rome	Laurea Specialistica in Ingegneria Meccanica con votazione 110/110
PhD	2017	La Sapienza - University of Rome	PhD in Therotical and Applied Mechanics. Thesis: Inverse approach for load identification in structural dynamics

Part III – Appointments

IIIA – Academic Appointments

Start	End	Institution	Position
February 2022	January 2023	Department of Mechanical and Aerospace engineering – La Sapienza – University of Rome	Research fellow (1 year) Robotic systems for waste to chemical reactors automatic feeding
February 2018	August 2019	Department of Mechanical and Aerospace engineering – La Sapienza – University of Rome	Research fellow (19 months) Sviluppo di una procedura per l'identificazione di carichi su strutture soggette ad un getto impattante in condizioni operative
November 2016	October 2017	Department of Mechanical and Aerospace engineering – La Sapienza – University of Rome	Research fellow (1 year) Vibroacoustic analysis and control of aerospace vehicle under critical loads
November 2017	January 2018	Department of Mechanical and Aerospace engineering – La Sapienza – University of Rome	Fellow (2 months) Sviluppo di un codice di calcolo per la soluzione di problemi di identificazione di danni strutturali tramite la trasformata Hilbert-Huang ed analisi dei risultati

IIIB – Other Appointments

Start	End	Institution	Position
September 2019	January 2022	Istituto Nazionale di Fisica Nucleare	Research fellow (2 years - 5 months maternity leave)

Mechanical design for experimental physics equipment through the use of specific CAD3D software and finite element analysis software

Part IV – Teaching experience

Year	Institution	Lecture/Course
2017	Faculty of Civil and Industrial Engineering La Sapienza - University of Rome	Lab of Vehicle Dynamics (MMER 3 cfu) AA2016/2017
2018	Faculty of Civil and Industrial Engineering La Sapienza - University of Rome	Lab of Vehicle Dynamics (MMER 3 cfu) AA2017/2018
2019	Faculty of Civil and Industrial Engineering La Sapienza - University of Rome	Lab of Vehicle Dynamics (MMER 3 cfu) AA2018/2019
2020	Faculty of Civil and Industrial Engineering La Sapienza - University of Rome	Lab of Vehicle Mechatronics (MMER 3 cfu) AA2019/2020
2022	Faculty of Civil and Industrial Engineering La Sapienza - University of Rome	Lab of Vehicle System Dynamics and Mechatronics (MMER 3 cfu) AA2021/2022
2022	Università Luiss Guido Carli.	Robotics, Mechatronics, Biotech & Other Key Enabling Technologies, co-docente per 3 CFU-Master Degree Law, Digital Innovation And Sustainability (Aa 2022/2023)

Part V - Funding Information

Year	Title	Program	Grant value

Collaboration

Year	Title	Project
2022	Contract DIMA-CNR-Marina Militare	PERSICO: PEscce Robotico Silenzioso per Campionamento e Osservazione
2017	Contract Fincantieri - CNR	MIT POLAR: Secure Platform
2014	Contract DIMA-AGCOM	Study on the resistance and thermal dissipation of a road cabinet support
2014	Contract DIMA-TECH SOLUTIONS INTEGRATOR SAS	Analysis of motorway portals mechanical vibrations: finite element model, response to wind actions and vehicle traffic
2013	Contract DIMA - AVIO	Calculation of vibro-acoustic response (High frequency) of part of the VEGA launcher

Part VII – Research Activities

Keywords	Brief Description
Vibroacoustic	Study of vibroacoustic problems at low, medium and high frequency with classical methodologies (FEM, BEM) and with energy methods (SEA)
Mechatronics	Study and development of mechatronics Systems
Vibration control	Study of structural vibration control techniques
Friction	Study of contact problems (friction) for the analysis of instability problems and of elastic wave propagation

Inverse problems	Study of modal and load identification and techniques
Multi body	Analysis and simulation of multi-body system
SHM	Structural Health Monitoring of civil structure by using continuous wavelet transform
Mechanical Design	Mechanical design of Experimental Physical Apparatus
Additive Manufacturing	Components for experimental setup using 3D printers

Part VIII – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	27	SCOPUS	2014	2023

Total Impact factor	36.614
Total Citations	131
Average Citations per Product	4.85
Hirsch (H) index	7
Normalized H index*	0.7

*H index divided by the academic seniority(2014-2023).

Part IX– Selected Publications

List of the publications selected for the evaluation.

	Authors, Title, Data, Journal, Vol. number, art.no/pp, Number of citation	Impact Factor (year of publication) from JCR(Journal Citation Reports)
1	Cavoto, G., Chiarello, G., Hildebrandt, M., Hofer, A., Ieki, K., Meucci, M., Milana, S., Pettinacci, V., Renga, F., Voena, C. A photogrammetric method for target monitoring inside the MEG II detector (2021) Review of Scientific Instruments, 92 (4), art. no. 043707, . Cited 2 times. DOI: 10.1063/5.0034842 DOCUMENT TYPE: Article SOURCE: Scopus	1,843
2	Roveri, N., Pepe, G., Mezzani, F., Carcaterra, A., Culla, A., Milana, S. OPTYRE—Real time estimation of rolling resistance for intelligent tyres (2019) Sensors (Switzerland), 19 (23), art. no. 5119, . Cited 3 times. DOI: 10.3390/s19235119 DOCUMENT TYPE: Article SOURCE: Scopus	3,275
3	Lacerra, G., Di Bartolomeo, M., Milana, S., Baillet, L., Chatelet, E., Massi, F. Validation of a new frictional law for simulating friction-induced vibrations of rough surfaces (2018) Tribology International, 121, pp. 468-480. Cited 23 times. DOI: 10.1016/j.triboint.2018.01.052 DOCUMENT TYPE: Article SOURCE: Scopus	3,517

4	<p>Culla, A., D'Ambrogio, W., Fregolent, A., Milana, S. Vibroacoustic optimization using a statistical energy analysis model (2016) Journal of Sound and Vibration, 375, pp. 102-114. Cited 28 times. DOI: 10.1016/j.jsv.2016.04.026 DOCUMENT TYPE: Article SOURCE: Scopus</p>	2,593
5	<p>Massi, F., Bouscharain, N., Milana, S., Le Jeune, G., Maheo, Y., Berthier, Y. Degradation of high loaded oscillating bearings: Numerical analysis and comparison with experimental observations (2014) Wear, 317 (1-2), pp. 141-152. Cited 22 times. DOI: 10.1016/j.wear.2014.06.004 DOCUMENT TYPE: Article SOURCE: Scopus</p>	1,913
6	<p>Roveri, N., Milana, S., Culla, A., Conte, P., Pepe, G., Mezzani, F., Carcaterra, A. Machine learning and sensor swarm for structural health monitoring of a bridge (2020) Proceedings of ISMA 2020 - International Conference on Noise and Vibration Engineering and USD 2020 - International Conference on Uncertainty in Structural Dynamics, pp. 2817-2824. EDITORS: Desmet W., Pluymers B., Moens D., Vandemaele S. DOCUMENT TYPE: Conference Paper SOURCE: Scopus</p>	
7	<p>Mesbahi, S., Milana, S., Culla, A., Pepe, G., Roveri, N., Carcaterra, A. Inertial properties control by variable damping actuators and application to automotive suspensions (2020) Proceedings of ISMA 2020 - International Conference on Noise and Vibration Engineering and USD 2020 - International Conference on Uncertainty in Structural Dynamics, pp. 755-767. EDITORS: Desmet W., Pluymers B., Moens D., Vandemaele S. DOCUMENT TYPE: Conference Paper SOURCE: Scopus</p>	
9	<p>Milana, S., Roveri, N., Carcaterra, A., Culla, A. Continuous wavelet transform for structural health monitoring of a pipe (2018) Proceedings of ISMA 2018 - International Conference on Noise and Vibration Engineering and USD 2018 - International Conference on Uncertainty in Structural Dynamics, pp. 3925-3933. EDITORS: Moens D., Desmet W., Pluymers B., Rottiers W. DOCUMENT TYPE: Conference Paper SOURCE: Scopus</p>	
8	<p>Milana, S., Acunzo, G., Gabriele, S., Culla, A., Argento, G.R. Multi-level damage identification in operational condition (2018) Proceedings of ISMA 2018 - International Conference on Noise and Vibration Engineering and USD 2018 - International Conference on Uncertainty in Structural Dynamics, pp. 3849-3858. EDITORS: Moens D., Desmet W., Pluymers B., Rottiers W. DOCUMENT TYPE: Conference Paper SOURCE: Scopus</p>	
10	<p>Milana, S., Culla, A. Load identification by operational Statistical Energy Analysis inverse approach (2016) Proceedings of ISMA 2016 - International Conference on Noise and Vibration Engineering and USD2016 - International Conference on Uncertainty in Structural Dynamics, pp. 1663-1671. EDITORS: Sas P., Moens D., van de Walle A. DOCUMENT TYPE: Conference Paper SOURCE: Scopus</p>	

11	Milana, S., Fregolent, A., Culla, A. Observation DOF's optimization for structural forces identification (2015) Conference Proceedings of the Society for Experimental Mechanics Series, 3, art. no. A10, pp. 27-34. Cited 1 time. DOI: 10.1007/978-3-319-15224-0_3 DOCUMENT TYPE: Conference Paper SOURCE: Scopus	
12	Culla, A., D'Ambrogio, W., Fregolent, A., Milana, S. Medium-high frequency optimization using SEA sensitivity (2014) Proceedings of ISMA 2014 - International Conference on Noise and Vibration Engineering and USD 2014 - International Conference on Uncertainty in Structural Dynamics, pp. 2231-2244. EDITORS: Sas P., Moens D., Denayer H. DOCUMENT TYPE: Conference Paper SOURCE: Scopus	

Rome 02/01/2023

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