



● EDUCATION AND TRAINING

01/01/2022 – 31/12/2024 Rome, Italy

PHD IN STRUCTURAL ENGINEERING Sapienza University of Rome

Website <https://www.uniroma1.it/it> | Level in EQF EQF level 8

10/09/2017 – 27/03/2020 Rome, Italy

SPECIAL MASTER'S IN AEROSPACE ENGINEERING Sapienza University of Rome

Website <https://www.uniroma1.it/it> | Final grade 107/110 | Level in EQF EQF level 7

10/08/2011 – 15/07/2015 Phagwara, India

BACHELOR OF TECHNOLOGY IN MECHANICAL ENGINEERING Lovely Professional University

Website <https://www.lpu.in/> | Level in EQF EQF level 6

● WORK EXPERIENCE

01/09/2019 – 31/01/2020 Roma, Italy

INTERN GAUSS SRL

- Developed various CAD models for deployers of 5p and 3p PocketQube satellites, ensuring low mass constraints.
- Conducted Structural and Modal analysis using ANSYS.
- Researched and determined the loads acting on structures.

● PUBLICATIONS

2024

Hysteretic tuned mass damper with bumpers for seismic protection: modeling, identification, and shaking table tests

- A nonlinear Tuned Mass Damper (TMD) is introduced for the seismic retrofitting of buildings.
- The TMD design incorporates steel wire ropes and a dual sliding clamping mechanism.
- Bumpers are included in the device to enhance energy dissipation.
- A novel phenomenological model captures the device's pinched hysteresis behavior.
- Shaking table tests confirm the effectiveness of the TMD and validate the numerical model in OpenSees.

V.Y.Janga, P.K.Gourishetty, B.Carboni, G.Quaranta, W.Lacarbonara, Journal of Sound and Vibration

Link <https://doi.org/10.1016/j.jsv.2024.118816>

● CONFERENCES AND SEMINARS

07/07/2022 – 08/07/2022 Turin, Italy

2nd EURASIAN CONFERENCE ON OPENSEES

- I gained insights into current trends and advancements in seismic analysis of structures using OpenSees.
- Engaged with experts and researchers to explore state-of-the-art methodologies, tools, and applications within structural engineering and earthquake resilience.

18/06/2023 – 22/06/2023 Rome, Italy

Third International Nonlinear Dynamics Conference

Hysteretic Tuned Mass Damper (H-TMD) Experimental Results. P.K. Gourishetty, V.Y. Janga, B. Carboni, G. Quaranta, W. Lacarbonara.

- My work focused on identifying HTMD parameters from experimental data using the Differential Evolution algorithm.
- Additionally, I conducted structural parameter identification of a prototype building, fine-tuning the HTMD to enhance its effectiveness.

03/07/2023 – 05/07/2023 Delft, Netherlands

12th International Conference on Structural Dynamics

Sensitivity Analysis and Uncertainty Quantification for a Prototype Building Equipped with HTMD under Earthquakes. V.Y. Janga, P.K. Gourishetty, B. Carboni, G. Quaranta, W. Lacarbonara

- I identified critical parameters influencing HTMD performance and applied parallel computing techniques to enhance computational efficiency, achieving a seven-fold reduction in processing time.

27/08/2023 – 30/08/2023 Palermo, Italy

Engineering Mechanics Institute International Conference

Hysteretic Tuned Mass Damper for Seismic Protection: Experimental Investigation and Numerical Modeling.

P.K. Gourishetty, V.Y. Janga, B. Carboni, G. Quaranta, W. Lacarbonara

- Applied multi-objective optimization to refine and update the building's numerical model, improving accuracy in simulating its structural response to seismic loads.
- Developed a novel Hysteretic Tuned Mass Damper (HTMD) mechanism and conducted an experimental campaign to identify its parameters, fine-tuning it for a prototype building to enhance seismic resilience.

● DIGITAL SKILLS

programming: Python, MATLAB and SQL | Parallel computing | OpenSees | Catia | Solidworks | Ansys | Abaqus | Creo

● HONOURS AND AWARDS

14/10/2021

Complete Python Bootcamp – Udemy

15/09/2020

Python Programming for Everbody – Coursera

17/10/2020

Machine Learning- Andrew Ng – Coursera

Date: 16/12/2024