Curriculum Vitae

Personal Information

Name: **Giacomo D'Elia**

Education and Training

November 2017 – Today
Ph.D. in Engineering Science, University of Ferrara, Italy.
Description: The project aims to develop and perform innovative multi-axis vibration testing methodologies.

April 2017 – October 2017
Postgraduate Fellowship , University of Ferrara, Italy.
Description: MIMO advanced vibration control strategies using a tri-axis electro-dynamic shaker.

September 2014 – March 2017
MSc in Mechanical Engineering, University of Ferrara, Italy.
Final grade: **110/110 cum laude**
Thesis: *"Reference matrix for multi–axis random vibration control tests"*
Description: The purpose was to investigate innovative MIMO target generation procedures pointing out the advantages and the challenges in terms of physical meaning and their impact on the random control strategy, in order to obtain a well-defined automatic procedure to include in the standard practice.
Advisor: Prof. Emiliano Mucchi
Co-Advisors: Prof. G. Dalpiaz, Dr. B. Peeters, Dr. U. Musella

July 2016 – December 2016
Internship for Master Thesis.
Company: **SIEMENS Industry Software NV, Belgium.**
Advisors: Dr. Bart Peeters, Dr. Umberto Musella

September 2010 – March 2014
BSc in Mechanical Engineering, University of Ferrara, Italy.
Thesis: *"Analisi degli aspetti economici e legislativi della produzione di energia da fonti non fossili"*
Final grade: 105/110
Description: This thesis explored the economical faisability of three main sustainable energy systems, i.e. mini-hydro, small wind farm and photovoltaic system.
Advisor: Prof. Mauro Venturini

July 2010
Scientific high school diploma, Ferrara, Italy.

Publications

September 2018
G. D'Elia, U. Musella, E. Mucchi, B. Peteers, P. Guillaume. "**Drives power reduction procedure to fill in the multiple-input multiple-output random control reference matrix**". In: proc. of International Conference on Noise and Vibration Engineering - ISMA2018, Leuven, Belgium.

January 2018
U. Musella, G. D'Elia, A. Carella, B. Peteers, E. Mucchi, F. Marulo, P. Guillaume. "**A minimum drives automatic terget definition procedure for multi-axis random control testing**". Mechanical Systems and Signal Processing 107(2018): 452-468.

July 2017
G. D'Elia, U. Musella, E. Mucchi G. Dalpiaz. "**Definizione della matrice di riferimento per test multiassiali controllati ad eccitazione stocastica**". In: proc. of Undicesima giornata di studio Ettore Funaioli, Bologna, Italy.

March 2017
U. Musella, G. D'Elia, S. Manzato, B. Peteers, P. Guillaume, F. Marulo, E. Mucchi. "**Tackling the target matrix definition in MIMO Random Vibration Control testing**". In: proc. of Aerospace Testing Seminar, Los Angeles, USA.

January 2017
U. Musella, G. D'Elia, S. Manzato, B. Peteers, P. Guillaume, F. Marulo. "**Analyses of target definition processes for MIMO Random Vibration Control tests**". In: proc. of IMAC XXXV, Los Angeles, USA.

Training Courses and Seminars

February 2018	*3th Seminary of Acoustics and Industry: Innovative Vibration and Noise Control Technologies for Industrial Products*, University of Ferrara, Italy.
April 2017	*Multi-Axis Rondom Vibration Testing: test tailoring and structural durability*, University of Ferrara, Italy.
September 2016	*Course of modal analysis: theory and practice*, ISMA-2016 KU Leuven, Belgium.

Teaching

February 2018 Today	**Tutor** at University of Ferrara (Italy) in 'Mechanics of Machines'.
December 2017 Today	**Teaching Assistant** at University of Ferrara (Italy) in *'Mechanics of Vibrations'*, *'Mechanics of Machines'*, *'Drives Mechanics'*, *'Vibration Simulation and Testing for Product Development'* and *'Vibration Diagnostics of Rotating Machines'*.

Skills

Software and programming languages	LMS Test.Lab, LMS Virtual.Lab, MATLAB/Simulink, Latex, MSC.Nastran/MSC.Patran, COMSOL Multiphysics, SolidWorks and ANSYS.
Technical	Multi-Axis Vibration Tests, MIMO advanced vibration control strategies, Signal processing for the diagnostics of rotating machines and FE model.
Personal	Excellent interpersonal and organizational skills gained through training experience. During my academic career, I had the opportunity to work as active member of a team, enhancing my communication and presentation skills.

Languages

Italian	Mother tongue
English	Intermediate
French	Basic

In compliance with the Italian legislative Decree no. 196/03, I hereby authorize you to use and process my personal details contained in this document.

Ferrara, January 2019 Giacomo D'Elia