Personal information

Surname(s) / First name(s) **Zanellati, Ludovico**

Work experience

Date April – September 2017

Occupation Internship, Siemens Industries Software NV

Development of a control hardware for a six axis motion platform suitable with a LMS hardware and control software solution. The control hardware for the purpose has been developed with program working and with an experimental campaigns test. Test data has been acquired with LMS Test.Lab software by using using noise and vibration measurement equipment of LMS hardware. Post processing of the data has been done with LMS Test.Lab and MATLAB.

Education and training

Place and Date University of Ferrara, 2015 – 2017

Title of qualification awarded MSc in Mechanical Engineering

Master thesis Mult-axis vibration control of a six-axis motion platform for earthquake waveform replication

Main Topics:

- Mechanical vibrations fundamental,modelling and analysis of mechanical systems by FEM analysis, modal analysis and digital signal analysis and processing for diagnostics of rotating machines, modelling of continuous system
- Thermal fluid dynamics numeric fundamental, computational numeric method, finite element method, finite difference method, finite volume method, motion of a fluid and turbulence model
- Fluid dynamic design of turbo-machinery, 1D and 2D design of turbo-machinery, development of aerodynamics techniques, equations of motion and numerical methods
- Advanced machine design, fundamentals of design and dimensioning, against static and fatigue loading of structural elements of machines
- Industrial automation,Programmable Logical Controller (PLC), real time programming, PLC programming, programming languages (IEC61131-3 norm)
- Advanced mechanics of machines, kinetostatic analysis and functional design of machines components and joints - ordinary and planetary gearboxes, lubrication, bearings and gears.
- Oil Hydraulic systems, pump and motor fundamental, valve and circuit structure, hydraulic and hybrid transmission

Place and Date University of Ferrara, 2009 – 2015

Title of qualification awarded BSc in Mechanical Engineering

Bachelor thesis Decline measurement in tracked system: analysis of feasibility

Main Topics:

- Math, Physics and Chemistry
- Thermodynamics and machine design fundamental
- Mechanics of machines

Place and Date: I.T.I. Copernico-Carpeggiani of Ferrara, 2004 – 2009

Title of qualification awarded: Secondary school certificate

Topics: Technical drawing, Math and Physic fundamental, Information Technology notion, C.N.C. knowledge and design, System fundamental

Personal skills and competences

Mother tongue(s): **Italian**

Other language(s): English

Self-assessment *European level*(*)	**Understanding**		**Speaking**		**Writing**
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2

(*) *Common European Framework of Reference (CEF) level*

Organizational skills and competences: Good skills for teamwork and practical approach.

Technical skills and competences: Good skills about manually working in laboratory, with PLC Hardware and system and familiar with NVH testing equipment such as:

- Accelerometers and microphones
- Impact hammer and shaker
- Analog to Digital acquisition converter system

Computer skills and competences:

- Basic: Autocad, Visual Basic, C/C++, Comsol Multiphysics
- Intermediate: LMS Test.Lab, Codesys, MSC Nastran and Patran, Simulation Workbench, Ansys
- Advance: MATLAB and Simulink, Solidworks, TwinCAT 2, MS Office

Additional information

Publications: U.Musella, L. Zanellati, M. Grottoli, F. Celiberti, B. Peeters, F. Marulo and P. Guillaume, *'Driving a Motion Platform with a Vibration Control software for Multi-axis environmental testing: challenges and solutions'*, in proc. of the XXXVI IMAC Conference (Orlando, FL), 2018

References

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