

Giovandomenico Petrolo

Curriculum Vitae

Personal Details

Nationality: Italian

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Education

October 2013 – April 2016 **Master degree in Aerospace Engineering with specialisation in Aeronautical Engineering**, *Dipartimento di Ingegneria Civile e Industriale, Università di Pisa, Italy, Grade 110/110 (CGPA – 4).*

The purpose of this second level degree is to provide the appropriate knowledge to analyse or design components and systems for aeronautical or mechanical applications. The principal subjects are: machine and aircraft design, flight mechanics, aerospace structures, aerospace system analysis and aerospace control system design. Several subjects in the field of aerodynamics like general aerodynamics, aircraft aerodynamics, experimental aerodynamics and computational fluid dynamics are covered.

September 2015 – February 2016 **Master degree thesis**, *Department of Mechanical Engineering, The University of Texas at Dallas, USA.*

The main topic of the activity is Large Eddy Simulations (LES) of two in-line wind turbines with different inlet conditions. Numerical simulations of the flow around two in-line wind turbine models have been performed to assess the effect of wakes on power production variability. Moreover, different inlet conditions have been considered in order to evaluate the influence of turbulence on the flow field. Throughout this time in the USA, language skills in English and technical skills in aerodynamic analysis have been improved.

October 2010 – October 2013 **Bachelor degree in Aerospace Engineering**, *Dipartimento di Ingegneria Civile e Industriale, Università di Pisa, Italy, Grade 110/110 (CGPA – 4).*

This bachelor degree offers a variety of many different courses, such as math analysis, physics, chemistry and material science. Furthermore, subjects like theory of structures, aircraft manufacturing, fluid dynamics, thermodynamics, industrial technical design and aircraft engines are covered. Throughout this first level degree, the basic knowledge of the design in Aerospace Engineering applications has been vested.

September 2005 – July 2010 **Secondary School Diploma in Science**, *Liceo Scientifico (Secondary School of Science) "G. Berto", Contrada Bitonto, 89900 Vibo Valentia (VV), Italy, Grade 100/100 (CGPA – 4).*

Workshops and Seminars

February 11, 2016 **Speaker and coauthor of "Simulation of two in-line wind turbines with different inlet conditions"**, *Thermal-Fluid Sciences Graduate Seminar, The University of Texas at Dallas, USA.*

November 22-24, 2015 **Coauthor of “Effect of subgrid-scale modeling on wind turbines flows”, 68th Annual Meeting of the APS Division of Fluid Dynamics, Hynes Convention Center, Boston, USA.**

Design activities

- 1) **Design of a civil transport airplane**, *Project for the course “Aircraft Design”*.
The preliminary design of an airplane has been developed in order to determine the main aerodynamic characteristics. Particular focusing has been dedicated on the structural design of the wings.
- 2) **Design of an aircraft brake in carbon-carbon material**, *Project for the course “Machine Design”*.
The design of an aircraft brake has been developed by considering the discs in composite material, with both fibers and matrix in carbon. Thermo-structural simulations by using the finite element method have been performed in order to characterise the stresses on the machine during the braking phase of the airplane.

Language skills

Mother tongue **Italian.**

Other language **English**, *Listening: Good (level B2), Reading: Good (level B2), Speaking: Good (level B2) Writing: Good (level B2).*

June 2010 **First Certificate in English (FCE)**, *University of Cambridge*, English for speakers of other languages examinations.

May 2008 **Preliminary English Test (PET)**, *University of Cambridge*, English for speakers of other languages examinations.

May 2007 **Key English Test (KET)**, *University of Cambridge*, English for speakers of other languages examinations.

Computer Skills

Softwares		Operative Systems		Programming Languages	
CATIA	Excellent knowledge	Windows	Excellent knowledge	Fortran	Excellent knowledge
Paraview	Excellent knowledge	Linux	Excellent knowledge	L ^A T _E X	Excellent knowledge
Gnuplot	Excellent knowledge	Mac OS	Excellent knowledge	Message Passing Interface	Excellent knowledge
Ansys	Good knowledge				
NX	Good knowledge				
Matlab	Good knowledge				
Vapor	Good knowledge				
Derive	Good knowledge				

May 2009 **European Computer Driving License (ECDL)**, *Liceo Scientifico (Secondary School of Science) “G. Berto”, Contrada Bitonto, 89900 Vibo Valentia (VV), Italy.*

Exams: Information Technology Security, Computer use and file management, Word processing, Spreadsheet, Database, Presentation, Computer networks and Internet

Other skills

Social skills Good team spirit and adaptability, gained during years of collaboration with different types of associations (Voluntary, Cultural, Sports) with a substantial participation of young people. Furthermore, spirit of cooperation and good interpersonal skills gained over the years of university.

Organisational skills Feasibility analysis, project management and capacity of synthesis. Ability to organise own work, setting priorities and taking responsibility under deadlines, also with coordination of other people. All skills developed during my time at university.

Artistic Skills Guitar and Piano

Driving Licenses European Driving License B and A1

Interests

Music, sports, news, politics, reading, cinema

I hereby authorize the use of my personal details contained in this document.