

# CURRICULUM VITAE - PAOLO CASTRONOVO

## EDUCATION AND TRAINING

- Dates
- Title of qualification awarded
- Principal subjects/professional skills

September 2013 – January 2016

Master's degree in **Aeronautical Engineering** at "La Sapienza" University of Rome with the final grade of 110/110 cum laude.

Thesis: "*FSI modeling for aeroelastic stability and response problems*". Worked in collaboration with *MSC Software* in Toulouse (France) for the development of procedures and codes to perform flutter and dynamic response analyses by adopting computational fluid dynamics (CFD) for high fidelity unsteady aerodynamic loads. Competences obtained with first class honors in: FEM analysis (linear and non-linear), experimental testing of structures, computational aerodynamics, fluid-structure interaction, smart structures, advanced composite materials, design optimization, control systems, air traffic control.

Awards:

- the "*Excellence Path*" of the Aeronautical Engineering Major to promote the best students by providing extra expertise.

Competitions:

- "*Design/Build/Fly*": sponsored by the *American Institute of Aeronautics and Astronautics (AIAA)*, Cessna and Raytheon. Project lasted one year for the development of a radio-controlled aircraft designed for specific missions. Main task performed: structural analysis and testing, production of composite materials, development of multi-body mechanisms, drafting final report.

- Dates

- Title of qualification awarded
- Principal subjects/professional skills

September 2010 - July 2013

Bachelor's degree in Aerospace Engineering at "La Sapienza" University of Rome with the final grade of 107/110.

Thesis on computational fluid dynamics of scramjet combustors for a European project LAPCAT II in cooperation with the *German Aerospace Center(DLR)*.

Basic learning on engineering subjects focused on the aerospace field: mechanics of solids and structures, aerodynamics, aircraft and space systems.

## PERSONAL SKILLS

## MOTHER TONGUE

## OTHER LANGUAGES

### ITALIAN

**ENGLISH:** advanced level both written and spoken (level C1), IELTS certificate obtained at the *British Council Rome* in September 2014 .

**FRENCH:** fluent speaking, good writing.

## COMMUNICATIONAL SKILLS

- Taken part in national and international engineering competitions of long or short duration where good communicational skills and team spirit have been gained to solve problem quickly.
- Grown up in a Italian-French family; periods spent in France and Belgium; gained predisposition to settle and interact in international cities.
- Carried out lessons on science and engineering for university students; developed attitude for explaining technical issues.
- Taken part in volunteer work and entertainment for church activities.

## ORGANIZATIONAL SKILLS

Competences in leading a team, dividing workloads and time planning related to deadlines and deliveries.

Payload lead in the project for the "*Design/Build/Fly*" competition. Managed a team for the design, manufacturing and ground/flight testing of mechanical systems.

**COMPUTER SKILLS**

## Software:

- Structural analysis: MSC Nastran/Patran, Abaqus, COMSOL Multiphysics, ADINA
- Computational fluid dynamics: ANSYS Fluent, StarCCM+
- CFD mesh generation: ICEM, Gambit
- Multi-body dynamics: MSC Adams
- Numerical computing: Matlab & Simulink, Mathematica
- Design optimization: ModeFRONTIER
- 3D Design: CATIA
- Documents: Microsoft Office, TeX editors

## Programming languages:

- Fortran
- C/C++

**TECHNICAL SKILL**

One year's experience in composite lamination earned during the manufacturing of fuselages with carbon and aramidic fibers in epoxy resin for a high-tech radio-controlled aircraft.

Amateur ability in processing of wood and metals and in the creation and maintenance of small electrical systems.

**DRIVING LICENSE**

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