Luca Andolfi

Ai fini della pubblicazione

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About me: My principal aim is to apply what I have learned in my academic career and integrate it with my advanced Aerospace knowledge and my first aspiration: to make a contribution to Space Exploration.

● HONOURS AND AWARDS

15/12/2020
T-TeC-Technology Telespazio Contest 2020 – Telespazio

My team **"MATES- MArs TElecommunications System"** from Naples' Federico II University won **the first prize** in the **T-TeC-Technology Telespazio Contest 2020** ("Light" Category). The submitted project, consisted in a telecommunication system aimed at supporting future robotic and manned missions on Mars.
The contest was organized by Telespazio and the commission was composed by Telespazio, Leonardo, the Italian Space Agency (ASI) and the European Space Agency (ESA).
https://www.telespazio.com/en/innovation/open-innovation/ttec-2020

● WORK EXPERIENCE

03/03/2020 – 02/2021 – Pomigliano d'Arco, Italy
LEONARDO - AEROTECH ACADEMY – LEONARDO

The Aerotech Academy is an advanced training course on cutting edge engineering subjects, designed jointly by Leonardo and the University of Naples Federico II.
Main topic:
- ○ **Aerostructure core technologies and beyond (**Innovative production processes and materials, automated technology processes for aerostructures component assembly and integration);
- ○ **Industry 4.0 and digitalization for future factory (**Big data, ML, IoT, AR &VR, smart supply chain management);
- ○ **Challenges for next-generation aircraft vehicles** (hybrid and UAS).

Project work 03/11/20 - 28/02/21: I have actively worked within the Leonardo Aerostructure maintenance team developing a provisional model for predictive maintenance of an industrial asset at the Pomigliano d'Arco's plant.
http://www.aerotechacademy.unina.it/

2006 – 2019
EXTRA – THEATER OF SAN CARLO OF NAPLES

- Extra. Year 2019 in La dama di Picche with direction of Willy Decker.
- Extra. Year 2018 in Katia Kabanova with direction of Willy Decker.
- Extra. Year 2017 in Simon Boccanegra with direction of Silvano Bussotti.
- **Principal Mime** as John, young apprentice year 2009 in Peter Grimes with direction of Paul Curran.
- Extra. Year 2006 in Cavalleria Rusticana with direction of Maurizio Scaparro.

06/2015 – 07/2015
PROMOTER – ZUEGG

- **Promoter** for Zuegg. I sponsored and sold products for the company before I started University.

● EDUCATION AND TRAINING

2018 – 03/2021 – Naples, Italy
MASTER'S DEGREE – AEROSPACE ENGINEERING – University of Naples 'Federico II'

Analysis and Comparison of different approaches for in orbit collision risk assessment

2015 – 2018 – Naples, Italy
BACHELOR'S DEGREE - AEROSPACE ENGINEERING – University of Naples 'Federico II'

Acquisition in ROS environment of a multi-sensor system for UAV applications

PROJECTS

03/11/2020 – 28/02/2021
Leonardo Aerotech Academy

The project work was gone ahead during the last part of the **Leonardo Aerotech Academy** in collaboration with the Leonardo aerostructure maintenance team. It consisted in the development of a previsional model for **predictive maintenance** of an industrial asset. The main deliverables were:
- Study of the documentation of the involved asset;
- Identification of critical componets to monitor with applicable IoT sensors;
- Acquisition of signals from the involved asset;
- Development and validation of the predictive algorithm;
- Production of the final report;

KNIME and MATLAB were used for the development of the algorithm and the processing of data.

03/2020 – 06/2020
Space Mission Design Project

The project was gone ahead during the academic course of **Space Mission Design** of the Master's degree in Aerospace Engineering at the University of Federico II of Naples. It provides students with the competences needed to perform **the preliminary design of a space mission,** starting from the assigned broad mission objectives. A project work was proposed to students organized in a team and tackled the design of the **phase 0 and A** of a space mission. My team **" MATES- MArs TElecommunications System"** worked on a telecommunication system aimed at supporting future robotic and manned missions on Mars.The course was concluded by a final review including both project work results and presentation of individual contributions.

LANGUAGE SKILLS

Mother tongue(s): ITALIAN

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	B2	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Computer operating systems

Windows │ MacOs │ Linux / Ubuntu

Programming languages

MATLAB (5/5) │ C++ (3/5)

CAD

CATIA-V5 (3/5) │ Fusion360 (3/5) │ Ultimaker Cura 3D Printing (3/5)

Earth Observation and Space Mission Tools

STK - System Tool Kit (4/5) │ Genaral Mission Analysis Tool - GMAT (4/5) │ SNAP (2/5)

Simulation

Ansys Fluent (3/5) | Femap (3/5) | Digital DATCOM+ (4/5) | Abacus FEA (3/5) | XFoil (5/5) | AVL (4/5)

Applications and Platforms

Microsoft Office - Word, Excel, Power Point,... (5/5) | 3DExperience (3/5)

Big Data & ML

KNIME Analytics (4/5) | Databricks (2/5)

Unmanned systems

Mission Planner (3/5)