15th February 2022

Hariharan Vitaladevuni

Space Engineering M.Sc.

Via Angelo Massina, 1, Milan

+39 366 822 4808

Personal/ Official

CAREER STATEMENT

I am currently pursuing Masters in Space Engineering at Politecnico di Milano, Italy. I am undertaking my master's thesis and simultaneously, actively looking for opportunities to work in the space industry in the domains of my technical skills. With a wide and holistic past work experience, I am confident in adding value to my team and the project assigned. I am currently living and looking for opportunities in Milan, Italy, however I am open to working online if needed.

EDUCATION

Master's Degree

Space Engineering,
2019(Sep.)-present
Politecnico di Milano, ITALY

Bachelor's Degree

Aeronautical Eng.,
2014-2018
Manipal University, INDIA

SKILLS

Professional

Startup Enterprising
Team Management
Multidisciplinary-Collaboration
UAV Piloting

Technical

Orbital Mechanics
Space Payload System
Space Launcher Design
Remote Sensing

WORK EXPERIENCE

Head of Aircraft Concept and Manufacturing

Center for Avionics, Manipal Univ. | *Aug'16-Dec'17*

Responsible for concept design, manufacturing and test piloting of Micro Air Vehicles for Govt. of India.

- Manufacture of fixed-wing VTOL UAV.
- Code to retrieve aircraft performance characteristics from automated flights.
- 3D Printing, laser cutting, composite fabrication, assembly, integration and flight testing.

Head of Structures and Test Pilot

AeroMIT | *Mar'15-Mar'17*

Responsible for the training, guidance and resource management of the structures and manufacturing subsystem. Designated team UAV Test Pilot.

- Aircraft Design: Sizing and configuration.
- Optimise material, size and shape to achieve aerodynamic goals under constraints.
- Design and manufacturing of several modularity mechanisms for the airframe.

CERTIFICATION

CATIA V5

Solidworks | *2015*

Airbus A3XX Systems

Airbus | *2017*

TOEFL 109/120

TOEFL | *2019*

ACCOLADES

SAE Aero-Design

World Rank 3,1 | *2016&17*

IIT-B Techfest - UAV

Rank 1 | *2016*

TATA GTIO Protean UAV Challenge

Rank 1 | *2017*

TATA Scholarship

Merit Scholarship | *2019*

LANGUAGE

English

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Hindi/Telugu

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Tamil

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French/Italian

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SOFTWARE

Python, Julia, Linux, Git, LabView, Arduino, GNU-Octave, MATLAB, Simulink, CATIA, Fusion360, Solidworks, XFLR5, ANSYS - Fluent/ MechAPDL, ABAQUS, LaTex, GIMP, Keyshot, MS Office

WORK EXPERIENCE (Continued)

DroneAid - (Co-Founder - Design)

Emergency Organ/medical transportation through multi-rotor platforms; partnered with KMC, Manipal.

Redwing Aerospace - (Initial Member - Design and Manufacturing)

Pioneering startup in India - Medical/emergency aid logistics via autonomous UAVs and Industry 4.0.

PROJECTS

Academic

- Time window constrained Interplanetary Single-Gravity Assist Global Cost Optimisation (Jupiter-Earth-Venus)
- Titan High-resolution radar for Altimetry and Natural Observation of the Surface. (Mission Requirements Document System Design Report)
- Development of the conceptual design and performance estimation of a rocket launcher for the insertion of small payloads into LEO.
- Research paper on developing and characterisation of low cost Magnetorheological Fluids, based on microscopic nature, for quasi-active vibration dampening applications.
- Experimental and computational structural analyses to determine deformations and vibrations in an VTOL airframe. In collaboration with NTU, Singapore team.
- Methods for desired CoG with respect to the Aerodynamic Centre throughout several iterations during prototyping of micro UAV.

Non-Academic

- Conceptual design and prototype of completely solar, high endurance UAV.
- Determination of aircraft flight parameters, performance derivatives in almost real-time for a UAV. Under NTU, Singapore team.
- Design and development of light-weight wheels and rocker-bogie mechanism for rover applications.