

PERSONAL INFORMATION

Lakshmi Narayana Phaneendra Peri



LinkedIn: www.linkedin.com/in/phanindraperi

Gender: Male, **Date of Birth:** 24/10/1994, **Nationality:** Indian

WORK EXPERIENCE

April 2022 - Present

Research Fellow

School of Aerospace Engineering, Sapienza University of Rome, 00138, Rome, Italy

- Currently working as a research fellow of the National Institute of Astrophysics (INAF) - Agenzia Spaciale Italiana (ASI) at the School of Aerospace Engineering 'La Sapienza' on the Aerodynamic and Aerothermodynamic analysis of the Schiaparelli capsule coupled with the supersonic DGB Parachute analysing the behaviour of the turbulent wake behind the capsule and its effects on the parachute and also the study on the area oscillations of the DGB parachute after deployment at the supersonic speeds during the re-entry phase in the martian atmosphere.
- Worked on a defence-project from the Italian Ministry of Defence on the possible impact assessment of large debris on the aircraft carrier ship's deck after deflagration of the rocket launched.
- Designing a re-usable new launch vehicle system for efficient accessibility to the low earth orbits by integrating the scramjet and the hybrid rockets.

EDUCATION AND TRAINING

September 2018-January 2022

Special Master's Degree in Aerospace Engineering

95/110

Sapienza University of Rome, Italy

- Space Technology, Hybrid Rocket Engines and new launch technics, Design of Electronics for Space, Advance topics of Aerospace Engineering, Astrodynamics, Design of Space Vehicles, Fundamentals of Space Systems - Navigation Systems & Attitude Determination, Numerical Modelling of Space Structures, Control System for Aerospace Engineering, Electrical Power Systems, Satellite Remote Sensing

September 2012-June 2016

Bachelor of Engineering in Automobile Engineering

Osmania University, Hyderabad, India

- Structural components design & analysis, Kinematic & Dynamic analysis, Material sciences, IC Engines, Automotive Electronics & Electricals, Automotive Thermodynamics and Air-Conditioning, Automotive Chassis & Body Aerodynamics, Design of Mechanical & Automotive components, Quality control and Reliability management

PERSONAL SKILLS

Mother tongue

Telugu

Other languages

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	

English	C2	C2	C2	C2	C2
Hindi	C2	C2	C2	C2	C2
Italian	A2	A2	A2	A2	A2

Organisational / managerial skills

- Team working, problem solving and multi-tasking abilities acquired during my experience in H2020 More&Less Academy, MOWE, Supra SAE India and Eko-Kart

Computer skills

- Hands-on experience on CFD codes (ANSYS Work bench, Fluent, Chemkin, LS-Dyna) conducting and analysing RANS and Large-Eddy Simulations, 3D modelling in DSS Solidworks, Auto CAD, Pro Engineer, MatLab, Microsoft (Excel, Word, Power point)

Other skills

- Lathe, welding SMWA, TIG, MIG, Sheet metal working, carpentry,
- Hands-on experience on working with the Composite materials (Fiberglass)
- Technical / Scientific writing skills

ACADEMIC PROJECTS

April 2021-September 2021

- I with a team of five members have won the 1st edition of the European MDO and Regulations for Low-boom and Environmentally Sustainable Supersonic aviation (More&Less Academy - H2020) with the Project Proposal-SHAR, Design of Supersonic and Hybrid Engine Based Advanced Rocket and obtained the highest score by presenting the design of an innovative launcher to place a 100 kg payload at an altitude of 200 km. The launcher consists of a solid booster in the first stage, an axisymmetric scramjet motor with a circular combustor in the second stage, and a hybrid motor for the third stage. And also we have presented the project-SHAR at the 11th EASN International Conference

ADDITIONAL INFORMATION

- Publications**
- Design of Supersonic and Hybrid engine based Advanced Rocket (**SHAR**) published in the IOP Conf. Series: Material Science and Engineering 1226 (2022) 012031 doi: 10.1088/1757-899X/1226/1/012031
 - Peri, L.N.P.; Antonella, I.; Teofilatto, P. Large-Eddy Simulations of a Hypersonic Re-entry Capsule Coupled With the Supersonic Disk-Gap-Band Parachute. *Preprints.org* **2023**, 2023050350. [https://doi.org/ 10.20944/preprints202305.0350.v1](https://doi.org/10.20944/preprints202305.0350.v1)
 - SHAR for a TSTO Launcher, 25th AIAA International Space Planes and Hypersonic Systems and Technologies conference, <https://doi.org/10.2514/6.2023-3036>
 - Understanding of the total pressure losses nature in a Scramjet Combustor, 25th AIAA International Space Planes and Hypersonic Systems and Technologies conference, [https://doi.org/ 10.2514/6.2023-3040](https://doi.org/10.2514/6.2023-3040)
 - Investigation of shocks, boundary layer and fuel injection interaction in the HIFiRE 2 scramjet, 74th International Astronautical Congress, Baku, Azerbaijan. (Abstract accepted)
- Certifications**
- Completed a certification Course on **SolidWorks** from the **Central Institute of Tool Design**, Hyderabad, India
- Achievements**
- Received a Research Fellowship of Agenzia Spaziale Italiana - Istituto Nazionale di Astrofisica – January 2023
 - Received a defence project to work-on from the Italian Ministry of Defence - June 2022
 - Received a Research Fellowship of Agenzia Spaziale Italiana - Istituto Nazionale di Astrofisica - June 2022
 - Received a Research Fellowship of Agenzia Spaziale Italiana - Istituto Nazionale di Astrofisica-April 2022
- References**
- Dr. Antonella Ingenito, School of Aerospace Engineering 'La Sapienza' antonella.ingenito@uniroma1.it
 - Dr. Paolo Teofilatto, School of Aerospace Engineering, 'La Sapienza' paolo.teofilatto@uniroma1.it
 - Dr. Giovanni B. Palmerini, School of Aerospace Engineering, 'La Sapienza' giovanni.palmerini@uniroma1.it
- Personal Data**
- I authorize the processing of my personal data pursuant to Legislative Decree 30 June 2003, n. 196 "Code regarding the protection of personal data".

I Lakshmi Narayana Phaneendra Peri the undersigned declares to be aware that this curriculum vitae will be published on the institutional website of the University, in the "Transparent Administration" section, in the manner and for the duration provided for by Legislative Decree no. 33/2013, art. 15.

Date 03/07/2023

Phaneendra LN Peri