europass

Michela Boscia

Date of birth: 16/10/1998 | **Nationality:** Italian | **Email address:** boscia.1810681@studenti.uniroma1.it

EDUCATION AND TRAINING

2012 – 2017
SCIENTIFIC HIGH SCHOOL DIPLOMA

2017 – 2020
BACHELOR DEGREE IN AEROSPACE ENGINEERING Sapienza University of Rome

Final grade 105 | **Thesis** The sizing of a parachute for the descent of a surface element on Venus

2020 – CURRENT
MASTER DEGREE IN SPACE AND ASTRONAUTICAL ENGINEERING Sapienza University of Rome

LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1

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

ADDITIONAL INFORMATION

TRAINING AND SPECIALIZATION COURSES

07/11/2022 – 11/11/2022
Training Week, Fly Your Satellite! Design Booster Programme

The training week was held at ESA ESTEC (Noordwijk, The Netherlands) and organized by the European Space Agency Education Office.
The training week included pre-selected teams from several universities in Europe.
The training week was part of the Fly Your Satellite! Design Booster Programme, where LEDSAT 2 was presented (CubeSat mission equipped with LEDs for attitude determination)

STUDENT SCHOLARSHIP

06/2022 – 07/2022
Junior student scholarship (borsa di ricerca junior)

Research title: Support to research activities in the IADC (Inter-Agency Space Debris Coordination Committee) framework (Supporto alle attività di ricerca in ambito IADC), code BDR n 3/2022.

Assigned by the Department of Mechanical and Aerospace Engineering at Sapienza University of Rome

PARTICIPATION TO RESEARCH PROJECT

2020 – 2021
LOOPS-M

Student activity for IGLUNA 2021, an interdisciplinary student project coordinated by Space Innovation as part of the ESA Lab@ initiative.
Role: System designer

03/2022 – CURRENT
Greencube

CubeSat mission for the autonomous cultivation of microgreens in a pressurized vessel
Role: AIV Engineer

11/2021 – 12/2022
LEDSAT 2

CubeSat mission equipped with LEDs for attitude determination
The project has been proposed to Fly Your Satellite! 4 (3/2022) and for Fly Your Satellite! Design Booster (10/2022)
During the Fly Your Satellite! Design Booster program I attended the Selection Workshop Training Week
Role: System Engineer

03/2022 – CURRENT
Coral

CubeSat mission for in-orbit demonstration of IoT and LoRa systems
Role: Structural and AIV Engineer

PUBLICATIONS

LOOPS-M Project: Structural and Bioregenerative Systems for a sustainable lunar greenhouse – 2021
Proceedings of the 72nd International Astronautical Congress, IAC, 25th – 29th October 2021, Dubai, United Arab Emirates

The GreenCube CubeSat mission: Development and Qualification of an autonomous Microgreens Cultivation System and demonstration of CubeSat propulsion in MEO
– 2021
Proceedings of the 72nd International Astronautical Congress, IAC, 25th – 29th October 2021, Dubai, United Arab Emirates

questions of fault liability: a case study analysis of in-orbit collisions with debris – 2022
Proceedings of the 73rd International Astronautical Congress (IAC), 18-22 September 2022 Paris, France

Autonomous cultivation system for nano platforms: the GreenCube mission – 2022
Proceedings of the 73rd International Astronautical Congress (IAC), 18-22 September 2022 Paris, France

Microgreens growth tests and space qualification for the GreenCube CubeSat cultivation laboratory
– 2022
Proceedings of the 73rd International Astronautical Congress (IAC), 18-22 September 2022 Paris, France

Early identification and attitude reconstruction of LED-equipped satellites for Space Traffic Management and improved trackability
– 2022
Proceedings of the 73rd International Astronautical Congress (IAC), 18-22 September 2022 Paris, France

Shared CubeSat Bus Approach for the design and development of the Sapienza S5Lab nano-satellites
– 2022
2022 IEEE 9th International Workshop on Metrology for AeroSpace (MetroAeroSpace). IEEE, 2022.

Designing Greenhouse Subsystems for a Lunar Mission: The LOOPS - M Project – 2022
4th Symposium on Space Educational Activities. Universitat Politècnica de Catalunya, 2022.

Questions of Fault Liability: A Case Study Analysis of In-Orbit Collisions With Debris – 2023

Under review
Journal of Space Safety Engineering, under review after minor revision (second version delivered on 21 April 2023), published by Elsevier, Ltd

Best Practices and Lessons learned on Product and Quality Assurance actions on CubeSat missions: the Sapienza S5Lab study case

– 2023
Accepted for oral presentation at the 74th International Astronautical Congress (IAC), 2-6 October 2023, Baku, Azerbaijan

Advances in spaceborne LED payloads attitude determination and autonomous units design for Space Traffic Management

– 2023
Accepted for oral presentation at the 74th International Astronautical Congress (IAC), 2-6 October 2023, Baku, Azerbaijan

Lessons learned from the GreenCube 3U CubeSat operations in Medium Earth Orbit – 2023

Accepted for oral presentation at the 74th International Astronautical Congress (IAC), 2-6 October 2023, Baku, Azerbaijan

Space Capacity building programmes in Dominican Republic and Panama: Lessons learned from the first nano-satellite design and Mission Control Center development

– 2023
Accepted for oral presentation at the 74th International Astronautical Congress (IAC), 2-6 October 2023, Baku, Azerbaijan

CONFERENCES AND SEMINARS

24/10/2021 – 28/10/2021 – Dubai, United Arab Emirates
72nd International Astronautical Congress
Interactive presentation (Poster) presenter for the paper: LOOPS-M Project: Structural and Bioregenerative Systems for a sustainable lunar greenhouse

18/09/2022 – 22/09/2022 – Paris, France
73rd International Astronautical Congress
Oral presenter for the paper: Autonomous cultivation system for nano platforms: the GreenCube mission

DIGITAL SKILLS

MATLAB

Programming software.
Experience gained in university courses

CATIA V5

CAD Model software
Experience gained in the design of CubeSat in research project

ANSYS

Multy-physisc modelling software
Experience gained in LOOPS-M project

FREEFLYER

Space mission analysis software
Experience gained in university courses

OFFICE 365