



# Marzia Corsi

## Personal Details

Mobile:

E-mail: marzia.corsi2@unibo.it

## EDUCATION

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- 09/2016 – 03/2020 **MSc in Aerospace Engineering** (Alma Mater Studiorum - University of Bologna)  
**Graduation Thesis** in Aerospace Technologies and Materials: “Design of experiment analysis of additively manufactured negative stiffness structures for shock absorber applications”.  
Fraunhofer IAPT – Hamburg (Germany).
- 09/2012 – 10/2016 **BSc in Aerospace Engineering** (Alma Mater Studiorum - University of Bologna)  
**Graduation Thesis** in Aeronautical Structures: “Comparison between the XRD and IHD techniques to compute the residual stresses”.

## WORK EXPERIENCE

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### Alma Mater Studiorum – University of Bologna

- 11/2021 – ongoing **PhD Student in Aerospace Science and Technologies**  
Research activity:  
Digital technologies and HMI interaction modes in air traffic control operations.
- 07/2020 – 10/2021 **Research Fellow**  
Research activity:  
HMI interaction modes for airport tower carried on in the framework of the DTT (Digital Technologies for Tower) project funded by the SESAR JU and part of the Horizon 2020 industrial research projects of SESAR funded in 2019.

### A.I.D.A.A. APS - The Italian Association of Aeronautics and Astronautics

The Italian Association of Aeronautics and Astronautics (A.I.D.A.A.) is a national non-profit cultural association. Its members are people and organizations interested in advances in aeronautics and space. A specific section is dedicated to students attending secondary or university courses.

- 03/2021 – ongoing **CT Communication Member – Social Media Team Leader**

### EUROAVIA - The European Association of Aerospace Students

EUROAVIA, the European Association of Aerospace Students, represents the interests of over 2000 students from 42 universities in 18 European countries. Established in 1959, EUROAVIA wants to be a bridge between companies, universities and students.

- 11/2019 – 12/2020 **Affiliated Societies Working Group Coordinator**

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11/2019 – 11/2020	<b>Middle Board of Presidents Coordinator</b>
10/2018 – 11/2020	<b>Southern Board of Presidents Coordinator</b>
09/2017 – 11/2019	<b>Co-founder and President of EUROAVIA Forlì-Bologna</b>
09/2017 – 10/2018	<b>German Board of Presidents Coordinator</b>

### **Fraunhofer Research Institution for Additive Manufacturing Technologies IAPT**

Fraunhofer IAPT is one of the 72 institutes and research units of Fraunhofer-Gesellschaft, a leading organization for applied research in Europe. In the facilities of Fraunhofer IAPT, located in Hamburg (Germany), knowledge gained in over fifteen years in the field of additive manufacturing is transferred to industrial applications.

#### **04/2019 – 10/2019 Scientific Assistant**

Main tasks:

- | Design of Multi-material Connection with FDM technique
- | Design of damping structures
- | Review of Molded Interconnect Device application in Automotive and medical sectors
- | Review of Electromagnetic Interference Shielding application in automotive sector

### **SOFTWARE**

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Altair – Inspire	Materialise Magics	Latex
Fortus – Insight	Solidworks	Office suite
Ultimaker Cura	Matlab	Unity

### **LANGUAGES**

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- | Italian: Mother tongue
- | English: Fluent
- | German: Intermediate
- | French: Basic

### **PUBLICATIONS**

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1. A. Pagani, S. Bagassi, M. Valente, M. Corsi, E. Carrera, Use of space to mitigate the impact of climate change on aeronautics and aviation, 74th International Astronautical Congress (IAC2023) Baku, 2-6 October 2023.
2. S. Bagassi, M. Corsi, M.C. Moruzzi, F. De Crescenzo, S.Santhosh, Maturity-based taxonomy of eXtended Reality technologies in aircraft lifecycle, AIDAA XXVII International Congress, Padova, 4-7 September 2023. (As presenter)
3. T.Fadda, S. Bagassi, M. Corsi, ADS-B driven implementation of an Airport Control Tower Augmented Reality platform, AIDAA XXVII International Congress, Padova, 4-7 September 2023.

4. M. Rossi, S. Bagassi, M. Corsi, M. Cinefra, M. C. Moruzzi, Vibro-acoustic analysis of Additively manufactured acoustic metamaterial via CUF adaptive finite elements, AIDAA XXVII International Congress, Padova, 4-7 September 2023.
5. F. De Crescenzo, S. Santhosh, M. Gomes Araujo, M. Corsi, S. Bagassi, F. Lamberti, F. G. Praticò, D. Accardo, C. Conte, F. De Nola, M. Bazzani, J. A. Losi, State of the art and perspectives of XR for Human Machine Interfaces in Air Mobility and Urban Air Mobility, AIDAA XXVII International Congress, Padova, 4-7 September 2023.
6. S. Bagassi, M. Corsi, Extended Reality Safety Nets for Attention Guidance in Airport Control Towers, Aerospace Europe Conference 2023 Joint 10th EUCASS - 9th CEAS Conference, Lausanne, 9-13 July 2023. (As presenter)
7. E. Carrera, A. Pagani, M. Valente, S. Bagassi, M. Corsi, Impact of Climate Change on Aeronautics and Aviation, 2023 Global Space Conference on Climate Change (GLOC 2023), Oslo, 23-25 May 2023.
8. M. Corsi, (2023). Digital technologies and human-machine interaction in air traffic control operations. Aerospace Science and Engineering: III Aerospace PhD-Days, 33, 36. Bertinoro, 17-19 April 2023. (As presenter)
9. Moruzzi, M. C., Santhosh, S., Corsi, M., Bagassi, S., & De Crescenzo, F. (2023). Design and implementation of eye tracking application for generation of augmented reality content on spatial see through display of remote and virtual control tower (RVT). International Journal on Interactive Design and Manufacturing (IJIDeM), 1-9.
10. Viscione, D., Bianchi, G. M., Ravaglioli, V., Falfari, S., Cazzoli, G., Silvagni, G., ... & Corsi, M. (2022, December). 1D-3D coupled approach for the evaluation of the in-cylinder conditions for Gasoline Compression Ignition Combustion. In Journal of Physics: Conference Series (Vol. 2385, No. 1, p. 012067). IOP Publishing.
11. R.Santarelli, S.Bagassi, M.Corsi, J.Teutsch, R. Garcia Lasheras, M.A. Amaro Carmona, A. R. Groskreutz, Towards a digital control tower: the use of augmented reality tools to innovate interaction modes, Sesar Innovation Days 2022, Budapest, 5-8 December 2022.
12. S. Bagassi, M. Corsi, F. Galuppi, V/A-R air gestures HMI interaction in airport control towers, ICAS Congress 2022, Stockholm, 4/9 September 2022. (As presenter)
13. D. Viscione, G. M. Bianchi, V. Ravaglioli, S. Falfari, G. Cazzoli, G. Silvagni, V. Mariani, M. Corsi, 1D-3D coupled approach for the evaluation of the in-cylinder conditions for Gasoline Compression Ignition Combustion, 77° Congresso ATI 2022, Bari, 12/14 September 2022.
14. M. Corsi, S. Bagassi, M.C. Moruzzi, F.Weigand, Experimental study of additively manufactured cylindrical Negative Stiffness Structures for shock absorber applications, Proceedings of the 10th Design, Modelling and Experiments of Advanced Structures and Systems Conference - DEMEASS2020, Scopello, 1/4 May 2022. (As presenter)
15. . Moruzzi, S. Bagassi, M. Cinefra, M. Corsi, M. Rossi, Design of additively manufactured metamaterials for cabin noise and vibrations reduction. Proceedings of 26th AIDAA International Congress, Pisa, 2021.
16. M. Corsi, M.C. Moruzzi, S. Bagassi, Dimensional accuracy analysis of additively manufactured parts. Proceedings of 26th AIDAA International Congress, Pisa, 2021. (As presenter)

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17. M. Corsi., et al. Correlation between production parameters and mechanical properties of ABS plus p430 fused deposition material. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2021, 09544062211027205.
  18. M. Corsi, et al. Additively manufactured negative stiffness structures for shock absorber applications. Mechanics of Advanced Materials and Structures, 2020, 1-12.

## **AWARDS**

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Master's Degree thesis Award "Franco Persiani – Innovation for the aeronautical sector" - Ser.In.Ar & A.I.D.A.A The Italian Association of Aeronautics and Astronautics, 2021.

Il sottoscritto autorizza al trattamento dei dati personali, secondo quanto previsto dal Decreto Legislativo 30 giugno 2003 n. 196.

Forlì, 08/04/2024

