



**PAGES**  
PANGEA GLOBAL EVENTS



**March  
21-22, 2024**

**Florence,  
Italy**

**2<sup>nd</sup> International Conference on  
Aerospace and Aeronautical Engineering**

**&**

**2<sup>nd</sup> International Conference and Expo on  
3D Printing and Additive Manufacturing**

# March 21-22, 2024 Florence, Italy

## Day 1 | March 21, 2024

**Chair**

*Ian McAndrew*, Dean at Capitol Technology University, USA

**Co – Chair**

*Maj Dean Mirmirani*, Higher Education Leader at Ohio University, USA

**09:00 – 09:30**

**ON SPOT REGISTRATIONS**

### Plenary Presentations

**09:30 – 10:10**

**P** *Title:* Cyberpsychology, and Its Influence on the Aviation Sector in the Future

*Ian McAndrew*, Dean at Capitol Technology University, USA

**10:10 – 10:50**

**P** *Title:* Digitalisation of Material Science - Advancing Additive Manufacturing

*Geoffrey Mitchell*, Vice-Director CDRSP, Polytechnic Institute of Leiria, Portugal

**10:50 – 11:05**

### Refreshment Break

**11:05 – 11:45**

**P** *Title:* Demystifying Orbital Debris Hazard Trends in Low Earth Orbit (LEO)

*Darren McKnight*, Senior Technical Fellow, LeoLabs University, USA

**11:45 – 12:25**

**P** *Title:* Thixotropic Metal Processing and 3D Printing of Zinc and Magnesium Bio-Alloys for Biomedical Implant Applications

*Jack G. Zhou*, Drexel University, USA

**12:25 – 13:05**

**P** *Title:* Sustainable Aerospace Talent Pipeline; Training Tomorrow's Workforce, Today

*Tammera L. Holmes*, Aerostar Avion Institute, USA

**13:05 – 14:05**

### Group Photo

### Lunch Break

**14:05 – 14:45**

**P** *Title:* Primary Photochemical Processes Involved in 3D Printing by VAT Photopolymerization

*Xavier Allonas*, Director, Laboratory of Macromolecular Photochemistry and Engineering, France

**14:45 – 15:25**

**P** *Title:* Strategies for the Airline Industry on the African Continent

*Tilman Gabriel*, African Aviation and Aerospace University, Nigeria

## Keynote Presentations

15:25 – 15:55

- K** *Title:* Urban Air Mobility, Challenges and Promise  
*Maj Dean Mirmirani*, Higher Education Leader, Ohio University, USA

15:55 – 16:25

- K** *Title:* 3D Printing Technology as an Accelerator for Education  
*Maria Mavri*, Member of Board of Directors of UoAegean, University of the Aegean, Greece

16:25 – 16:40

## Refreshment Break

16:40 – 17:10

- K** *Title:* Enhancing Runway Incursion Prevention Strategies Using Multi-Actor Multi-Criteria Analysis (MAMCA) Model  
*Awad Awad Mohamed Khireldin*, Singapore Institute of Technology, Singapore

17:10 – 17:40

- K** *Title:* Exploiting Machine Learning Techniques to Predict the Stainless Steel Density Produced by Selective Laser Melting Additive Manufacturing  
*Rima Hleiss*, CESI Graduate School of Engineering, France

17:40 – 18:10

- K** *Title:* GPV - Geocosmic General Planetary Vehicle for Near Space Industrialization (THE USPACE PROGRAM)  
*Anna Telegina*, Astroengineering Technologies, LLC, USA

## Invited Presentations

18:10 – 18:30

- I** *Title:* Welding of Thermoplastic Composites at TWI  
*Chris Worrall*, TWI Ltd, UK

18:30 – 18:50

- I** *Title:* Additive Manufacturing in Architecture - Focus on Robotic Printing and Joint Fabrication Case Studies  
*Hiroki Awaji*, Asahi Building-Wall Co., Ltd, Japan

18:50 – 19:10

- I** *Title:* Electromagnetic Models of Low-TEC(Thermo-Elastic Coefficient) Materials for Space Applications  
*Laurent Patier*, Centre National d'Etudes Spatiales, France

End of the Day 1 Conference

# March 21-22, 2024 Florence, Italy

## Day 2 | March 22, 2024

**Chair**

**Geoffrey Mitchell**, Vice-Director CDRSP, Polytechnic Institute of Leiria, Portugal

**Co – Chair**

**Maria Mauri**, Member of Board of Directors of UoAegean, University of the Aegean, Greece

### Plenary Presentations

**09:00 – 09:40**

**P** **Title:** CMCs as Promising Materials for the Aircraft Gas Turbine  
**Edvin Hevorkian**, University of Life Sciences in Lublin, Poland

**09:40 – 10:20**

**P** **Title:** Preliminary Results on Additive Manufacturing Improvements by Means of the Advantages of the Modern Dimensional Analysis  
**Ioan Száva**, University of Brasov, Romania

**10:20 – 11:00**

**P** **Title:** Numerical Dissipation Control in High Order Methods for Compressible Turbulence: Recent Development  
**Helen M.C. Yee**, Nasa Ames Research Center, USA

**11:00 – 11:15**

### Refreshment Break

**11:15 – 11:55**

**P** **Title:** Graphene Based Inks for 3d-printed Scaffold for Bone Tissue Engineering  
**Mariana Ionita**, Politehnica University of Bucharest, Romania

**11:55 – 12:35**

**P** **Title:** Nano Magnetic Composite Materials with Polymer Matrix Obtained with the Help of Magnetic Nano Fluids  
**Nicolae Crainic**, Polytechnic University of Timisoara, Romania

### Group Photo

**12:35 – 13:35**

### Lunch Break

### Keynote Presentations

**13:35 – 14:05**

**K** **Title:** Plasma Source Design Method for a Nagoya Type III Geometry  
**Daniele Iannarelli**, Sapienza University of Rome, Italy

**14:05 – 14:35**

**K** **Title:** Thixotropic Metal Processing and 3D Printing of Zinc and Magnesium Bio-Alloys for Biomedical Implant Applications  
**Jack G. Zhou**, Drexel University, USA

**14:35 – 15:05**

**K** **Title:** Leveraging Science Payloads through the Lens of Microgravity  
**Pedro J. Llanos**, Embry-Riddle Aeronautical University, USA

**15:05 – 15:35**

**K** **Title:** General Planetary Transport System is the Tool of Non-rocket Space Industrialization to Prevent Planetary Ecological-resources Catastrophe and to Ensure the Further Technocratic Development  
**Arsen Babayan**, Astroengineering Technologies, LLC, USA

15:35 – 16:05

**K** *Title:* Fiber Optic Ice Detector Potential Application in Determining the Local Freezing on Wings of Aircraft  
*Aris Ikiades*, University of Ioannina, Greece

16:05 – 16:20

### Refreshment Break

16:20 – 16:50

**K** *Title:* Potential Space Weather Impacts on Aviation and Some of the Mitigation Approaches That are Being Developed  
*Juha-Pekka Luntama*, Head of Space Weather, European Space Agency, France

### Invited Presentations

16:50 – 17:10

**I** *Title:* New Modern Dimensional Analysis Approaches on the Plastic Materials Additive Manufacturing  
*Zsolt Asztalos*, University of Brasov, Romania

17:10 – 17:30

**I** *Title:* Analysis Methods and Results of Building Platform in Homogeneities in PBF-LB/M Process  
*Marco Palladino*, Senior Engineer, Baker Hughes, Italy

17:30 – 17:50

**I** *Title:* Additive Manufacturing-Enabled Architected Lattices for Water Quality Monitoring  
*Sara Fateixa*, University of Aveiro, Portugal

17:50 – 18:10

**I** *Title:* Radio Protection for Astronauts: Shielding Materials Effectiveness  
*Filomena Loffredo*, University of Naples Federico II, Italy

18:10 – 18:30

**I** *Title:* The Hawai'i Space Exploration Analog and Simulation Habitat and Emmihs 2023/2024 Missions  
*Kato Claeys*, Hawaii Space Exploration Analog and Simulation, Belgium

18:30 – 18:50

**I** *Title:* Effects of High Gravity Conditions on Additive Manufacture by Fused Deposition Modeling  
*Xin Jiang*, Kanagawa Institute of Industrial Science and Technology, Japan

## Poster

*Title:* INS-MEMS/GPS Integrated Systems based Artificial Intelligence Algorithms for Navigation in GPS Challenging Environments

*Ruxandra Mihaela Botez*, ÉTS Higher Technology School, University of Quebec, Canada

## Poster

*Title:* 3D Printed in Polymer Tissue Scaffolds

*Amani Habib*, Royal Embassy of Saudi Arabia Cultural Bureau, UK

**End of the Day 2 Conference**



# **Aerospace-2025**

## **3<sup>rd</sup> International Conference on Aerospace and Aeronautical Engineering**

**February 20-22, 2025 | Rome, Italy**

### **Upcoming Events**



## **IC3DPAM2024**

### **3<sup>rd</sup> International Conference and Expo on 3D Printing and Additive Manufacturing**

**November 04-06, 2024 | Vancouver, Canada**