



International Conference on More Electric Aircraft

Towards cleaner aviation

Toulouse, February 7-8, 2024

The transition to more electric aircraft, driven by the strong goal of reaching net-zero carbon emissions for civil aviation by 2050, is a growing challenge for industry and society. Such an evolution towards cleaner aviation requires pushing the limits of conventional approaches and carrying out transformations leading to new vehicle configurations with an innovative propulsion system, new energy sources and efficient energy management. New research programs in Europe and beyond offer new hybrid, all-electric, hydrogen, turboelectric, and potentially distributed concepts. The design of this future generation of more electrically powered aircraft raises challenges not only of structure and aerodynamics, but also of energy storage and distribution, electrical architecture, thermal management, reliability and certification. All these topics will be discussed at the conference.

Following the successful European conference held in Bordeaux in October 2021, the organizers of MEA2024 invite representatives from industry, research and agencies to contribute to this new exciting edition in Toulouse, and to share ideas, lessons learned, research results, and solutions related to technological developments as well as to future concepts associated to more/all electrical aircraft. Transport aircraft, light aircraft, urban mobility aircraft, unmanned aircraft, fixed wing as well as rotorcraft will be considered, whether they are for commercial, military or private use.

The 2-days program will mostly rely on oral presentations and highly interactive poster sessions, for which you are invited to submit abstracts referring to the following topics:

1. Architectures, design and control of Hybrid/All Electric aircraft - including UAM
2. Propulsion systems for Hybrid/All Electric Aircraft
3. Hydrogen on board - including fuel cell - and associated challenges
4. Electrification of non-propulsive loads (Actuation systems, ECS, IPS,..)
5. High electric power generation and management
6. Power conversion and distribution, superconductivity and cryogeny
7. Energy storage, regeneration and management
8. Thermal management and cooling systems
9. EMC management
10. Reliability, Availability, Maintainability, Health monitoring and Safety for Hybrid/All Electric Aircraft
11. Certification for Hybrid/All Electric Aircraft
12. Test bench platforms for Hybrid/All Electric Aircraft
13. Life cycle assessment and environmental impact of Hybrid/All Electric Aircraft
14. Energy supply challenges and air transport impact of Hybrid/All Electric Aircraft
15. Lessons to learn from other fields (automotive, ships, railways, smart grid)

An industrial exhibition organized together with the conference will give opportunity to the audience to visit booths where labs and industry will highlight their latest achievement related to MEA.

Updated information and abstract submission on www.conference-mea.org

Deadlines and general information

Extended abstracts of at least 2 pages are to be uploaded on the website before **September 10, 2023** using the suggested template.

Following the review by the program committee members, the notification of acceptance will be forwarded to the main author in **November, 2023**.

The final version of the articles will be requested by **December 20, 2023**.

The program committee will recommend a few submissions to be presented at the oral sessions, jointly with invited papers. Other submissions will be presented in the poster sessions.

Program committee:

Co-chairs: **Régine Sutra-Orus** (Safran Tech), **Andre Thess** (DLR – Univ. Stuttgart)

Secretaries: **Valérie Budinger** (ISAE Supaero, SEE), **Carsten Doll** (ONERA, 3AF)

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Budinger	Valerie	ISAE Supaero	Lavigne	Loic	U. Bordeaux - IMS
Cazaurang	Franck	U. Bordeaux - IMS	Laskaridis	Panagiotis	U. Cranfield
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Desforge	Jean-Baptiste	Ascendance	Llobregat	William	Airbus
Devautour	Joel	Thales AES	Malkin	Peter	U. Newcastle
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Doll	Carsten	ONERA – 3AF	Martin Prats	Maria A.	U. Sevilla
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Faure	Bertrand	Airbus DS	Orr	Eddie	Rolls-Royce
Fradin	Jean-Pierre	ICAM Toulouse	Roboam	Xavier	U.Toulouse - Laplace
Fusalba	Florence	Airbus DS	Roger	Guillaume	DGAC
Gatard	Jacques	Independant Expert	Sauzier	Jean-Luc	Safran Power Systems
Gazzino	Marc	Airbus Helicopters	Smyth	Richard	ret. Airbus
Henry	Stéphane	Ret. Ariane Group 3AF	St-Cyr	Thierry	Innovée Quebec
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Iannelli	Pierluigi	CIRA	Todeschi	Michel	Airbus Commercial
Jentink	Henk	NLR	Vevry	Sébastien	Ariane Group
Lagarde	Philippe	Aerospace Valley			

Organizing committee:

Chair: **Francis Guimera** 3AF, Toulouse

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SEE: Société de l'Electricité, de l'Electronique et des technologies de l'information et de la communication

www.see.asso.fr



3AF: Association Aéronautique et Astronautique de France

www.3af.fr