



First announcement and call for papers

International Conference on More Electric Aircraft Towards cleaner aviation

Bordeaux, October 20-21, 2021

The shift towards more electric aircraft driven by environmental awareness, emission regulations, and accelerated by the recent crisis is a growing challenge that concerns industry and impacts society. Such a shift towards cleaner aviation requires to push the limits of conventional approaches and to achieve transformations leading to new vehicle configurations with disruptive propulsion, new power sources, innovative power management. New research programmes in Europe and beyond are pushing innovative concepts, all electric, hydrogen-powered, turboelectric, hybrid, potentially distributed. The design for this future generation of more electric propulsion aircraft raises challenges not only in airframe configuration but also in energy storage, power distribution, thermal management, reliability and certification, all of which will be addressed during the conference.

Following the successful European conference held in Toulouse in February 2019, the organisers of MEA2021 invite industry and research representatives to contribute to this new exciting edition in Bordeaux, and to share ideas, lessons learnt, research findings and solutions relating 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, either for commercial, military or private use.

The organisers keep confident that the conference will take place physically in Bordeaux as anticipated. Nevertheless in case the sanitary crisis doesn't allow it, they will provide convenient tools for the accepted submissions to be remotely presented as webinars.

The 2-days programme will mostly rely upon oral sessions and highly interactive poster sessions. In this call, you are invited to submit abstracts for the poster sessions referring to the following topics:

1. Design and architectures of Hybrid/All Electric aircraft
2. Propulsion systems for Hybrid/All Electric aircraft
3. Hydrogen on board and associated challenges
4. Electrification of non-propulsive loads
5. High electric power generation and management
6. Power conversion and distribution, incl. superconductivity and cryotechnic
7. Energy storage, regeneration and management
8. Power and energy system architectures
9. EMC management, thermal management, cooling
10. Maintenance and operability
11. Reliability and health monitoring
12. Evolution of regulatory environment and certification for Hybrid/All Electric aircraft
13. Operations and safety for Hybrid/All Electric aircraft
14. Life cycle assessment and environmental impact
15. Lessons to learn from other fields e.g. automotive, ships, railways, ...

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.mea2021.eu

Deadlines and general information

Extended abstracts of at least 2 pages are to be uploaded according to instructions available on the website before **May 14, 2021** using the suggested template. Following the review by the program committee, the notification of acceptance will be forwarded to the main author mid-July.

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

The proceedings will be made available to the audience at the opening of the conference. They will gather the extended abstracts, which the authors will be allowed to amend or replace by a full paper until September 26.

Final program will be available beginning of September on the website.

Program committee:

Co-chairs: **Jean-François Alonso** (Airbus Toulouse), **Andreas Kloeckner** (DLR - Köln)

Secretaries: **Valérie Budinger** (ISAE Supaero, SEE), **Florent Christophe** (ONERA, SEE)

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Gatard	Jacques	3AF	Thomas	Rüdiger	Airbus
Gazzino	Marc	Airbus Helicopters	Thielecke	Frank	U. Hamburg
Gerada	Chris	U. Nottingham	Todeschi	Michel	Airbus
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Organizing committee:

Chair: **Pierre Melchior**, SEE, Bordeaux

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