



# CALL FOR PAPERS/PRESENTATIONS

## AeroTech Europe

September 24-26, 2019 | Bordeaux, France

The SAE AeroTech provides a forum for the global community to meet and discuss current and future challenges for aerospace development. The technical program will cover a broad spectrum of topics including from tip to tail, concept to sustainment. The event provides opportunities for networking and personal discussion with other industry experts.

### Aerospace Operations

- Systems Engineering & Design
- Aerospace Modeling & Simulation
- Airspace Systems Operations

### Auto Fastening / Assembly & Tooling

- Automated Drilling and Fastening Systems
- Advanced Portable Semi-Automated Drilling and Fastening Systems
- Assembly Methodologies & Advanced Assembly Fixtures and Tooling
- Composites Assembly and Fastening
- Composites/Heavy Drilling and Assembly
- Large Component Assembly, Sub-Assembly, Major Section Join and Final Assembly
- Robotic Applications in Drilling, Fastening, and Assembly
- Advancements in Drill Bit, Temporary and Permanent Fastening Technology

### Aviation Cyber-Physical Security

- Threats and Risk Identification, Analysis, Mitigation, and Management
- Attack Detection, Incident Response, and System Recovery Solutions
- Security Standards/Certification and Stakeholder Collaboration Issues
- Common Cyber-Physical Security Issues for Transportation

### Avionics

- Advanced System Architectures and IMA
- Software Platforms & Middleware
- Airborne Electronics Hardware Certification and DO-254
- DO-178C and Related Supplements: Impact on Certification
- Aircraft Networks & Fiber Optics
- Model-based Avionics System, Software, & Electronic Engineering
- COTS and Obsolescence Management
- RTOS and Software Platforms
- Defense and Space Avionics
- Display Technology and Visualization
- Flight Management Systems, Navigation & Guidance
- System Testing, Integration and Simulation
- Avionics and Next-Generation Air Traffic Management
- Cabin Systems, In-Flight Entertainment and Connectivity
- Vehicle Internet of Things
- Aircraft Lighting
- Design for Electro-Magnetic Effects
- Sensor Integration/Interfaces
- Artificial Intelligence & Cyber Security

### Business/Economics

- Electrified Aircraft Concepts
- Aerospace Business Models
- Electrified Aircraft Propulsion Systems
- Government Programs
- Market Forecasts
- New Global Markets

### Environment

- Aircraft Cabin Environment
- Aircraft Design for Environment
- Alternative Fuels and Energies Emissions
- Noise
- Sustainable Materials and Processes

### Flight Engineering

- Aircraft Design
- Flight Dynamics
- Aircraft Projects
- Computational Fluid Dynamics (CFD)
- General Aerodynamics
- High Speed Civil Aircraft
- Hybrid Flight Vehicle and Flying Cars
- LTA /Hybrid Airships

### Integrated Vehicle Health Management

- Data Fusion, Mining, and Processing
- Integrated Vehicle Health Management
- Digital Twin/Digital Thread in Operations
- Digital Transformation of Aerospace Sector
- Electronic Transaction for Aerospace and Blockchain
- Data Security, Interoperability and Governance

### Manufacturing/Materials/Structures

- Advanced Low-Cost Aircraft Structures
- Advanced Robotics Applications
- Aircraft Coatings, Polymers, and Sealant Technologies
- Automated Composites Manufacturing
- Composites Fabrications and Joining
- Aircraft Interiors
- Additive Manufacturing
- Future Challenges and Opportunities in Composites Simulation and Software
- Lean Manufacturing, Six Sigma, & Supply Chain
- Metrology Automated Systems
- Out-of-Autoclave Processing
- Product Design and Manufacturing Integration
- RFID Applications in Aerospace
- Trimming, Drilling & Assembly of Composites Structures
- Metals, Fabrication and Processing
- Tooling Development for Detail Part Fabrication and Aerospace Assembly

### Maintenance, Repair and Overhaul

- Regulatory Approvals and Oversight, Including Existing and Proposed New Rules
- New and Emerging Maintenance Processes and Procedures
- Instructions for Continuing Airworthiness
- Reduction of the Environmental Impact
- Introduction of a Safety Management System (SMS)
- Development of New Repair Processes & Techniques
- Reverse Engineering for Obsolete or Out-of-Production Platforms
- General MRO Technical Issues

### Power and Thermal Systems

- Power Systems for Aerospace Applications
- Systems Integration: Optimized Aerospace Vehicle Energy Use
- Thermal Management for Aerospace Applications
- Integrated Propulsion, Power, and Avionics
- Energy Optimization

### Propulsion

- Aircraft Integration
- Engine and Controls System Certification
- Powerplant Systems & Functionalities
- Propulsion and Integrated Controls
- Turbo-Machinery and Combustors
- Cyber Secure Propulsion Control
- Digital Twins - Propulsion
- Model Based System Engineering

### Safety

- Flight Operations Safety
- Ground Support Systems Safety
- Industry Safety Initiatives
- Infrastructure Safety
- Maintenance Safety
- Manned Space Flight Safety
- Reliability and Maintainability
- Safety Education
- System Architecture of Safety Critical Systems
- Systems Safety
- Unmanned Aerial Vehicle Safety

### Unmanned Aerial Systems

- Aerodynamics
- Cooperative Systems
- Detect Sense and Avoid
- Flight Sciences and Operations
- Guidance, Navigation, and Control
- Materials, Structures, and Manufacturing
- Propulsion Systems
- Guidance, Navigation and Control
- Remote Sensing & Payloads
- Safety, Certification, and Standards
- System Integration
- UAS Traffic Management and Trusted Autonomy
- UAS Human-Machine Interface

### Vehicle Systems / Systems Engineering

- Flight Controls
- System Technologies, Integration, and Design
- Systems Engineering

### Special Topics

- (More) Electric Aircraft
- Additive Manufacturing
- Urban Air Taxi
- Connected Aircraft / Advanced Flight Deck
- Composites Repair
- Digital Thread / Digital Twin
- Augmented / Virtual / Mixed Reality Applications
- Digital and Data
- Cyber-Physical Security
- Economics of Composites
- IA & Autonomy

Abstracts must be submitted online via website page to only ONE session. Offered papers shall not have been previously published; and if accepted, contributors will not release their paper for publication through other media.

- Paper acceptance will be based on organizer moderated peer review of a review-ready manuscript.
- Refer to the author resources site at [volunteers.sae.org/authors.htm](http://volunteers.sae.org/authors.htm) for other useful information in preparing your paper.
- Portal for submission of abstracts will be open on **November 1, 2018**
- Deadline for submitting paper offers **February 19, 2019**
- Review-Ready Manuscripts due to session organizers **April 16, 2019**
- Final Manuscripts and copyright assignments due to SAE **July 17, 2019**
- Authors will be charged a nominal registration fee for colloquium attendance.

General Author Resources Page  
[volunteers.sae.org/authors.htm](http://volunteers.sae.org/authors.htm)

How to Write an SAE International Technical Paper  
[volunteers.sae.org/authors/sae\\_tech\\_paper.pdf](http://volunteers.sae.org/authors/sae_tech_paper.pdf)

#### Reviewer Resources

If you are interested in becoming a paper reviewer, guidance and judgement information is provided here [volunteers.sae.org/reviewers.htm](http://volunteers.sae.org/reviewers.htm)

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