



Conference website: <https://saeindia.org/aerocon2024/>

## **LIST OF SUBMISSIONS ABSTRACTS ACCEPTED**

### 1 Paper Abstracts (Written & Oral Presentations)

Below is the list of abstract submissions accepted for full length paper submission. The full length paper needs to be submitted for review by the deadline indicated in conference website (hard deadline). Authors are encouraged to submit their manuscripts earlier, and not wait till the last date. As indicated in the acceptance, the length of the paper should be between 9 to 12 pages in length in 2 column format per template. Papers beyond/ too short to these limits, multiple submissions, and self-plagiarized papers will be rejected without further review. All submitted full-length papers will be subjected to formal peer-review process. Post the peer review process, authors will be notified of acceptance. Please note that the review processes will be initiated as soon as the full paper is submitted for review. Please submit your full paper manuscript early to receive feedback early. The paper template that needs to be used, and detailed instructions can be found at <https://www.sae.org/participate/volunteer/author/event-paper-process> (refer section "2. Submit Your Manuscript"). Once the paper is completed, please convert to PDF format, and upload against your submission record in MyTechZone ("Manuscript" tab)

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#	Paper Title
24AC-0003	System and Method for Collecting Instrumentation-Less Trace Data from Multicore Soc
24AC-0004	Energy Consumption in Lightweight Electric Aircraft
24AC-0005	Structural Optimization of a Quadcopter Uncrewed Aircraft System Using Generative Design for Additive Manufacturing
24AC-0009	Advanced Nozzle Design of Fighter Aircraft and their Performance Penalties
24AC-0012	Predicting Future Trajectory of the Aircraft
24AC-0013	Study of Different Designs of Chevrons for Effective Noise Reduction in Jet Engines
24AC-0015	Control Operations inside Aircraft Cabin with IOT and Voice Recognition
24AC-0017	Method to Determine the Alternate Landing Site for eVTOL in the Medical and Vehicle Contingencies
24AC-0018	Adaptive Control for Mitigating Wind Shear Effects on Aircraft Approach and Landing

#	Paper Title
24AC-0019	A Non-Intrusive Approach for Measuring Data and Control Coupling b/w Software Components: Addressing the Challenges of DO-178C Compliance, Verification and Certification
24AC-0020	Introductory Design on Unmanned Aero-Amphibious Vehicle
24AC-0022	Battery Cell Charge Equalization
24AC-0023	An Efficient Method to Represent the System Model to Extract Textual Requirements
24AC-0024	CFD Methodology Development to Predict Lubrication Effectiveness in Electromechanical Actuators
24AC-0025	Validation of Mission Engineering Tenets through System-of-Systems Architecture Modeling Framework
24AC-0026	Signal Classification, Spectrum Sensing, and Monitoring using Deep Learning
24AC-0027	Implementation of Digital Twin Technology for Sustainable and Circular Air Cargo System
24AC-0030	Enhancing Aerodynamic Performance through In-Flight Airfoil Morphing on Different Airfoils using CFD Analysis
24AC-0031	Towards Certification of AI-based Avionics Systems: Perspectives & Challenges
24AC-0032	CFD Analysis of Cavitation in a Flow through GERotor Pump
24AC-0033	Assessment of Surface Scratches on Metallic Components under Static and Cyclic Loading through Analytical Methods
24AC-0034	Additive Manufacturing as Sustainability Enabler in Aerospace Sector
24AC-0035	Sustainable Microalgae-Membrane Photobioreactor (MPBR) System for Onboard Oxygen Production in an Aircraft
24AC-0036	Framework for Progressive Autonomy in Avionics for Sustainable Aviation
24AC-0037	AI/ML-Powered Flight Operations Optimization for Minimal Fuel Consumption and Dynamic Adaptability, Enabling Sustainable Skies
24AC-0038	Design and Comprehensive Computational Analyses of Additional Energy Extractors on Empennage of Fixed Wing UAV Equipped with Wells Turbine
24AC-0039	Design, Structural Integrity, and Energy Extractions on the Axial Flow Compressor Blades of Unmanned Aerial Vehicles using Validated Computational Analyses
24AC-0040	Design and Multi-Parametric Investigation on the Performance Factors of Fixed Wing Unmanned Aerial Vehicles Attached with Wingtip Vertex Wind Turbine (WVWT)
24AC-0041	Design, Aerodynamic Performances, and Aero-Acoustics-Based Comprehensive Investigations on Wing with and without the Performance Enhancers of Hybrid Multi-rotor UAVs for various Mission Profile Phases
24AC-0042	Cargo Loading System for Aircraft using Maglev
24AC-0043	Development of the Smallest & Lightest 60A Aerospace Contactor
24AC-0045	Design Optimization of Aerospace Contactor using Multi-Physics Simulation & Predictive Analytics
24AC-0046	Reduction in Flight Operational Costs by Automating Weather Forecast Updates
24AC-0047	Influence of Manufacturing Process Sensitivity on Product Performance Under Static and Fatigue Loading
24AC-0049	Characterization and Modelling of Evacuation Inflatable Fabric for Aerospace Applications
24AC-0050	Enhancing Sustainable Aviation through Contrail Management – A Framework for Multiple Platforms
24AC-0052	Synergized Mixed-Signal System-on-Chip (SoC) Design and Development with System Level Modelling and Simulation for Emerging Trends using MATLAB and Simulink Tools
24AC-0053	Design, Aerodynamic Performances, and Structural Integrity based Multi-Parametric Computational Investigations on Doctoral Committee Crew Based Air Car for Medical Emergency
24AC-0055	A Parametric Approach Toward Vibration Level Prediction for Aircraft Line Replaceable Units
24AC-0056	Multi-Parametric Investigations on Propulsive System of Flying Fish Inspired Unmanned Amphibious Vehicle for Marine Border Surveillance

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24AC-0058	On the Aero-Thermo-Structural Performance of Rectangular and Axisymmetric Scramjet Configurations
24AC-0059	Hybrid Cooling System for Thermal Management in Electric Aerial Vehicles
24AC-0060	Design, Optimization and Validation of Vibration Fixture Through Simulation
24AC-0061	Design and Multi-Domain based Computational Investigations of Aeroacoustics, Structural, and Thermal Parametric Factors on Bell Nozzle through Advanced & Validated Approaches
24AC-0062	Estimations and Investigations of Renewable Energy Extraction from PVEH Devices for Unmanned Airships in Titan: An Integrated and Validated Approach
24AC-0066	Deep Learning-Based Digital Twinning Models for Inter System Behavior and Health Assessment of Combat Aircraft Systems
24AC-0067	Design and Multi-Parametric Computational Investigations on the Co-Axial Propeller and Conventional Propeller Set-Ups Associated Multi-Rotor UAVs
24AC-0068	Innovative Design and Multi-Perspective Computational Investigations of Multirotor Micro Aerial Vehicle through Fluid-Structure Interaction Analyses
24AC-0069	Optimising Aircraft Performance with Advanced Polymers: A Study of UHWPE and PEEK for Seat Foam Replacement
24AC-0070	Quantum Computing in Avionics Software Verification and Validation: An Overview
24AC-0071	Potential Benefits of Quantum Computing in Aerospace and Avionics Domain
24AC-0072	Digital Twin Of an Aircraft Air Conditioning System
24AC-0073	Simplifying Back-to-Birth Traceability of Components in Aircraft Lease Transactions
24AC-0074	Sustainability Decarbonization and Circularity of Future Electric Air Vehicles Power Sources Based on the Analysis of Already Existing Similar Ones
24AC-0077	Workforce Productivity Management and Health Monitoring System of Manufacturing Engineers in Aeronautics Industry
24AC-0078	Security System for Passengers Baggage
24AC-0080	FE Modelling and Experimental Evaluation for the Surface Integrity of Thin Walled Aluminum Alloy
24AC-0082	Conceptual Design Studies of a Battery Electric Utility Aircraft
24AC-0083	Overview of Integrated Aircraft Health Management Standards - Current Status and Future Needs
24AC-0084	Aero-Engine Fastened Structural Components: An Investigation into Impact Induced Three-Dimensional Dynamic Fracture Mechanism
24AC-0085	A Smart Lighting System for Controlling the Lux Level of LED using Wireless Communication and IOT.
24AC-0086	Vibrational Analysis of Multirotor UAVs for Urban Air Mobility (UAM) Scenarios – Experimental Approach
24AC-0087	Effect of Autoclave Curing Cycle of the Composites on the Mechanical Properties of the Composites
24AC-0088	Optimized Composite Structure for Drones using Different Manufacturing Methods
24AC-0091	A Multi-Scale Computational Scheme for Prediction of High-Cycle Fatigue Damage in Metal Alloy Components
24AC-0092	Empowering Air Travel Accessibility for Passengers with Reduced Mobility (PRM)
24AC-0093	Comparative Study for Optimization of Selective Assembly Design Methods for Effective Aerospace Designs
24AC-0095	Efforts in the Development of Newer Nose Geometries for Hypervelocity Operations
24AC-0097	Aircraft Design and Manufacture from India: A Review
24AC-0098	Liquid H2 Powered Turbofan Engine for Long Range Transport Aircraft: Technological Feasibility and Implementation
24AC-0100	Anechoic Graphene Chamber Absorbing Electromagnetic Waves for Aircraft Maintenance
24AC-0101	Design of Perovskite Solar Cell For Aircraft using FEM
24AC-0102	Design of Solar Power Conversion using Photonic Crystals for Aircraft

#	Paper Title
24AC-0103	Graphene Based Solar Photonic Battery for Aircraft-A Finite Element Based Analysis
24AC-0104	A Robust Trajectory Tracking Control Method for Biomimetic Unmanned Aerial Vehicle
24AC-0106	Comparative Analysis of Axial Flux and Radial Flux Motors for UAV Propulsion: Design and Suitability Assessment
24AC-0107	Finite Element Modelling and Experimental Investigation of Machining of Titanium Alloy Ti-6Al-4V
24AC-0109	Elastomeric Swaging Finite Element Analysis Methodology to Evaluate Structural Integrity of Internal Swaged Joints
24AC-0110	Numerical Simulation of Cooling Plates/Tubes of BTMS of Electric Vehicles by Changing Internal Structure and Coolant Mass Flow Rate
24AC-0111	Effect of Fatigue Loads on Behavior of 2024-T351 Aluminum Conduits for Aircraft Hydraulic Applications
24AC-0112	Effect of Turbulent Model Constants on Heat Transfer Coefficient Over Wing Surface
24AC-0113	Stochastic Finite Element Formulation of a Three-Node Quadratic Bar Element with Non-Uniform Cross-Section Based on the Perturbation Method for Simultaneously Non-Deterministic Elastic Modulus and Applied Load
24AC-0115	Development of an Autonomous Blimp (Airship) for Indoor Navigation
24AC-0116	BIST Based Method for SEE Testing of Vikram1601 Processor
24AC-0118	Numerical Investigation of Aerodynamic Characteristics on a Blunt Cone Model at Various Angles of Attack under Hypersonic Flow Regimes
24AC-0119	Aviation Parts Demand Forecasting using AI in Blockchain Enabled Supply Chain Platform
24AC-0121	Innovative Design, Aerodynamic Performances, and Structural Integrity based Investigations on the Butterfly Multirotor Unmanned Aerial Vehicle
24AC-0122	Design, Aerodynamic Performances, and Structural Analyses of Various Hybrid Micro Aerial Vehicles Frames
24AC-0123	Whisper-Blade: A Counterweight Propeller Design for Noise Reduction in Unmanned Aerial Vehicles
24AC-0124	Fast Coupled Load Analysis through Reanalysis Technique: Formulation and Demonstration on Sample Problems
24AC-0125	Static Aeroelastic Analysis and Study of Control Effectiveness of a Typical Reusable Launch Vehicle
24AC-0126	Electric Propulsion in Aerospace: Past, Present and Future
24AC-0127	Voice Transcription Based Approach For Detecting Unauthorized Runway Crossing
24AC-0129	Conceptual Design of a EVTOL Aircraft for Inter-City Air Taxi Operation
24AC-0130	Analysis for Effect of Angle of Attack on Coefficient of Lift of Wing Structure
24AC-0131	Structural Loads for Crew Escape System (CES) of Gaganyaan Launch Vehicle During Abort
24AC-0132	Integrated Guidance and Control Law Design for a SCRAMJET Hypersonic Vehicle
24AC-0133	Investigation on Multi-Body Modal Dynamics of Parachute Cluster – Riser – Payload System
24AC-0134	Consensus Based Air Transport System for Strategic Deconfliction for Advanced Air Mobility
24AC-0135	Towards Sustainable Aviation
24AC-0136	AI Based Computer Vision Leakage Detection System
24AC-0137	Post Flight Simulation of Dynamic Responses at the Satellite Interface of a Typical Launch Vehicle During Solid Motor Ignition
24AC-0140	Numerical Investigation of Autoignition Behavior of Alcohol-to-Jet Fuel and Jet-A Blends at Elevated Pressures.
24AC-0141	Velocity Estimation of a Descending Spacecraft in Atmosphereless Environment using Deep Learning
24AC-0143	Relative Impact of Spacecraft Mass & Mass Fraction on Spacecraft Survivability
24AC-0145	Statistical Evaluation of Spacecraft Reliability Across Diverse Interplanetary Environments
24AC-0147	Design of Compact Biosphere for Sustainable Human Presence on Mars
24AC-0148	Human Crewed Interplanetary Transport Architecture for a Roundtrip Exploration of Mars and Ceres

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24AC-0151	Dormant Digital Twin
24AC-0152	Enabling Zero Defects Through Effective DFMEA Processes in the Aerospace Industry
24AC-0153	A Piezoelectric Based Smart Fastener System for Multi-Modal Sensing
24AC-0154	Experimental Assessment of Aircraft Hose Installation Loads on its Interfaces
24AC-0155	An Overview on Tail-Mounted Distributed Electric Propulsion Systems for Civil Aircraft applications
24AC-0156	RLV LEX Mission: Guidance Approach for Autonomous Landing
24AC-0157	Buckling and Post-Buckling Response of 3D Printed Cylindrical Shell with Circular Cutout Under Axial Compression
24AC-0158	Experimental Analysis of Force Recovery and Response Time using Strain Measurement Sensors in Stress Wave Force Balance
24AC-0159	Mixing Studies in an Axisymmetric Cavity Combustor in a Supersonic Flow
24AC-0160	Integrated Guidance and Control Law Design for Terminal Phase of a Lunar Lander Module
24AC-0161	Enhancing the Self-Starting Ability of Darrieus Vertical-Axis Turbine by Utilizing Variable-Pitch Blades
24AC-0162	Control Allocation Strategy to Alleviate Tail Wags Dog Phenomenon in Launch Vehicle with Multiple Control Systems
24AC-0163	Fuel Injector Configuration Study for Hypersonic Scramjet Vehicle
24AC-0165	Aerodynamic Parameter Estimation of Re-entry Flight Vehicle
24AC-0166	Design and Analysis of Propellers for UAVs
24AC-0167	Radar Cross Section and Scattering Centers for Marine Vessels
24AC-0168	Design and Development of Air Cycle Machine
24AC-0169	Spatio-Temporal Visualization of Air Combats of UCAVs
24AC-0170	Design and Realization of Electro-Hydraulic Unit
24AC-0171	Stability Oriented Attitude Control Design of Launch Vehicle Rigid Body Dynamics
24AC-0173	Single Board Computer Based Data Acquisition System for Monitoring Parameters of Reusable Launch Vehicle
24AC-0174	Flight Dynamics Modelling & Crosswind Landing Simulation Studies for UAVs
24AC-0176	Validate Models and Requirements Using Simulation
24AC-0177	Miniaturized Configurable Telemetry System for Next Generation Launch Vehicle (NGLV)
24AC-0178	Study of Crew Seat Impact Attenuation System for Indian Manned Space Mission
24AC-0180	A study on Population Guided Gradient Based Algorithm For Multi-Disciplinary Design Space
24AC-0181	Structural Health Monitoring on a Beam Section
24AC-0182	Modelling and Validation of Spacecraft Manipulator System Dynamics
24AC-0183	Using Generative Models to Synthesize Multi-Component Asset Images for Training Defect Inspection Models
24AC-0184	RTAB-Map Based Adaptive-Resolution Field Mapping, an Improved Dynamic Obstacle Avoidance Pipeline for Smaller UAVs
24AC-0185	Model Based Systems Engineering Based Drone Navigation Management using High Altitude Pseudo Satellite
24AC-0186	Advancements in Renewable Energy Sources and Electrical Power Systems for the Electrified Aircraft
24AC-0187	Sustainability Indices for Aerospace Products and Platforms
24AC-0188	Dynamic Ascent Loads Estimation of Winged Reusable Launch Vehicle: Formulation, Analysis and Post Flight Studies
24AC-0189	Enhancing Robustness and Human Machine Collaboration in Aircraft Traffic Management: A Comprehensive Study
24AC-0190	An Analysis of Advancements of Electro-Propulsive Systems in Aircraft

#	Paper Title
24AC-0191	Functional Model for Weight Optimization of Power Cables in a Commercial Aircraft using Soft Computing Technique
24AC-0193	Evaluating Time and Frequency Response of SSLV Flight Actuator Systems
24AC-0194	Modeling of Equivalent Geometric Imperfection for Buckling Prediction of Oblate Ellipsoidal Shells
24AC-0196	Analytical and Experimental Evaluation of Seal Drag using Variety of Different Fluids
24AC-0197	Energy Optimization of Commercial Airliner Environmental Control System using Energy Recovery Unit
24AC-0198	Knockdown Factor Estimation of Stiffened Cylinders under Combined Loads - A Numerical Study
24AC-0199	Development of Numerical Framework for Structural Response Analysis of RLV during the Ground-Roll Phase
24AC-0200	Design and Development of Terminal Velocity Measurement System for Enhancing Crew Module Safety in Gaganyaan Missions
24AC-0201	Experimental and Comprehensive Numerical Investigations on Small Convergent Divergent Nozzles with and without Chevrons for High-Speed Unmanned Vehicles
24AC-0202	Design and Computations of Performance Investigations on Advanced Ornithopter Design for Foreign Object Surveillance at Airport Runways
24AC-0203	Noise Level Analysis in UAVs using Toroidal Propellers and Honeycomb Structures
24AC-0204	Study of Damage in CFRP Laminates under Low-Velocity Impact using High-speed 3D Digital Image Correlation
24AC-0205	Structural Health Monitoring and Damage Classification in CFRP Laminates under Compression Loading Using Acoustic Emissions and Deep Learning
24AC-0206	Generating Reduced-Order Image Data and Detecting Defect Map on Structural Components using Ultrasonic Guided Wave Scan
24AC-0207	Fault-Tolerant Avionics for On-orbital Experiments and Satellite Servicing using Spent Stages
24AC-0208	Conceptual Design of Steam Propelled and Nuclear Powered Interplanetary Transit Vehicle for Human Crewed Extraterrestrial Exploration
24AC-0209	Configuration and Design of Mobile Checkout System for Ground Testing of Winged Body Reusable Launch Vehicle
24AC-0210	Transient Response Analysis of a Water-Landing Space Capsule Subjected to a Pressure Field with Spatial and Temporal Variation
24AC-0211	Metropolitan City Aerial Logistics (MCAL)
24AC-0213	Fastener Joint Failure Modes Analysis using 3D Bolt Group Approach for Metallic and Composite Joints
24AC-0214	Conversion of an Airplane from Passenger to Cargo
24AC-0215	Optimization of Ducted Fan Systems for a Sustainable eVTOL
24AC-0216	Mathematical Modelling of Nose Wheel Steering System
24AC-0217	Comparative Analysis of the Geometry and Material Characteristics for Hypersonic Re-entry Vehicles
24AC-0218	Additive Manufacturing
24AC-0219	Design Analysis and Comparison of Aerospike Nozzle
24AC-0220	A Methodology for Accelerated Thermo-Mechanical Fatigue Life Evaluation of Advanced Composites
24AC-0221	Synergistic Design and Optimization of Multifunctionally Compliant Battery Integration in Composite Material
24AC-0222	Selective Laser Melting based Additive Manufacturing Process Diagnostics using In-line Monitoring Technique and Laser-Material Interaction Model
24AC-0223	Assessing the Structural Feasibility and Recyclability of Flax/PLA Bio-Composites for Enhanced Sustainability
24AC-0226	State of the Art Technologies for Developing a Digital Ecosystem for Aerostructure Maintenance

#	Paper Title
24AC-0227	Measurement and Analysis of Vibration Data Recorded at Payload Mounted on the Aircraft Nose Cone Structure during Inflight Operations
24AC-0228	Automatic Maneuver Detection in Flight Data using Wavelet Transform and Deep Learning Algorithms.
24AC-0230	Thermal Performance Evaluation of Oxide CMC Tiles for Hypersonic Vehicle Application
24AC-0231	Multi-Scale Modeling of Selective Laser Melting Process
24AC-0232	Formal Technique for Fault Detection and Identification of a Control Intensive Application
24AC-0234	Conceptual Sailplane Design at Computational Aerodynamics Innovation Lab: Knowledge Creation in Aeronautical Systems Engineering
24AC-0235	Reduced Order Modeling of a Heat Exchanger with a Multi-layered Stacking Ensemble to reduce Computational Inefficiencies
24AC-0236	High-Frequency Unsteady Pressure Measurement System for Aerodynamic Characterization in Launch Vehicles
24AC-0237	Computational Analysis of Shock Tube Flows: Investigating Tailored Conditions and Shockwave Characteristics.
24AC-0239	Integrated Aircraft Health Management Technologies - Current Status and Future Roadmap
24AC-0240	A Methodical Approach to Identify the Nominal Combination of Failures Using Quantitative Sensitivity Analysis
24AC-0241	Sustainability in Aviation: Summary of Regulations and Proposed Updates
24AC-0244	Design and Manufacturing of an Inclinometer Sensing Element for Launch Vehicle Applications
24AC-0245	Thermal Analysis of Prismatic Core Sandwich Structural Panel for Hypersonic Application
24AC-0246	An Empirical Investigation into the Integration of Advanced Technologies and Proactive Policies for Improved Efficiency in Air Traffic Management
24AC-0247	Development of Deployment Mechanism for RAMBHA-LP Payload Onboard Chandrayaan-3 Lander
24AC-0250	A CDMA Based Approach for QoS Improvement in Intra-Aircraft Wireless Sensor Networks (WSN)
24AC-0251	Inverse Machine Learning Approach for Metasurface based Radar Absorbing Structure Design for Aerospace Applications
24AC-0253	Aircraft Weather Data Representation and Threat Management for Connected Weather Applications
24AC-0254	Modelling of Parachute Cluster Dynamics for Crew Module Descent
24AC-0255	Impact of Proximity Failure Methodology Adopted in Prognostic Health Management Decision Systems on Aircraft Design, Testing, Manufacturing, and Product Support
24AC-0256	Design of Mini-Hexapod Rover System for Future Lunar Exploration
24AC-0257	Adjoint-Based Shape Optimization using a High-order Finite Element Method for Compressible Flows.
24AC-0259	Open-Sourcing of Interlinked Additive Manufacturing Techniques Using Robot Operating System
24AC-0261	Design, Synthesis & Optimization of Latch Mechanism using Mathematical Model for Closing Payload Bay Doors of a Typical Reusable Launch Vehicle
24AC-0269	Aircraft Noise Reduction
24AC-0276	Streamlining Flight: Minimising Drag with Triangular Perforations over a Wing's Surface
24AC-0277	Regression Models for Predictive Analysis of Rocket Engine Parameters
24AC-0278	High Payload Fraction UAV Design and Performance Evaluation
24AC-0283	Aerospace Vehicle Motion Simulation with Real-Time Telemetry Data
24AC-0286	Numerical Investigation of Flow Control Techniques for a Scramjet Inlet
24AC-0287	Shock Wave-Boundary Layer Interaction in Supersonic Flow Over a Forward-Facing Step
24AC-0289	Aerodynamic Shape Optimization of a Missile Geometry

#	Paper Title
24AC-0290	Numerical Investigation of the Aerodynamic Performance of Single Expansion Ramp Nozzle at Off-Design Conditions
24AC-0291	A Comparative Study of RANS and Machine Learning Techniques for Aerodynamic Analysis of Airfoils
24AC-0292	Numerical Investigation of Flow Separation Over an Airfoil at Low and Moderate Reynolds Numbers
24AC-0293	Stability of Hypersonic Boundary Layers on Flat Plates with Sharp and Blunt Leading Edges
24AC-0294	Wireless Drone Charging by means of Electromagnetic Induction
24AC-0295	INLS 3U Unipod Nano Satellite (CubeSat) Dispenser System for 3U Class Satellites
24AC-0301	Adaptive Anti-Skid Braking Control for a Light Transport Aircraft
24AC-0307	Design, Structural Integrity, and Aerodynamic Performance Investigations on the Axial Flow Turbine Blades of Unmanned Aerial Vehicles using Validated Computational Analyses
24AC-0308	Review on Design and Development of High-Altitude Platforms (HAPs)
24AC-0310	Fault Detection in Machine Bearings using Deep Learning - LSTM

## 2 Presentation Abstracts (Oral Only Presentations)

Below is the list of abstract submissions accepted for oral only presentations. Authors are requested to submit the full length presentation for review per the instructions and deadline indicated in the conference website. Please refer <https://www.sae.org/participate/volunteer/presenter-resources> for guidelines and templates. Please also upload your brief profile in your submission record in MyTechZone. Authors are requested to note that oral only Presentations are not subject to the formal peer-review processes and will NOT be included in the conference proceedings. If the authors intended to submit a paper (written+oral), please contact the conference organizers immediately at the email/phone given on the conference website.

#	Presentation Title
24AC-0016	Configuration sensitivity for Range Estimation of Electric Rotorcraft UAV
24AC-0065	Leveraging the Digital Twin in Prognostics of the Engineering Systems
24AC-0076	ML based Predictive model for Mechanical Behavior of Cellular Structured Super alloys
24AC-0120	Enabling Airframe Structures Modelling and Simulation as Certification Means of Compliance - Recommended best practices to demonstrate M&S credibility
24AC-0164	Positive Impact by Leveraging Fasteners on the One Way Assembly (OWA) Processes
24AC-0172	The Need for Smarter Testing & Simulation of Airframe Structural Fatigue
24AC-0225	Biomimetic solution for enhancing electrical power characteristics of a small wind turbine
24AC-0233	Experimental Investigation of a Curved Compression Ramp Air Intake at Mach 6
24AC-0242	Application of a framework for continuous integration and deployment of system model library components.
24AC-0248	A nonlocal framework for modeling damage in composites via fractional calculus approach
24AC-0249	Control of large-amplitude unsteadiness over axisymmetric bodies in high-speed flow
24AC-0252	Numerical Simulation and Experimental Verification of Response of a Pneumatically Operated Valve
24AC-0260	Unsteady Flow Phenomena in Supersonic Retropropulsion Jets.
24AC-0262	Prediction of a failure envelope of short fiber reinforced polymer composites (SFRPs) using artificial neural network
24AC-0263	Nonlinear Waves in Multistable Magnetoelastic Lattices
24AC-0281	Fastening schemes for ultra-high temperature structures
24AC-0302	Reviewing the manufacturing techniques of Flywheel Energy Storage Systems.
24AC-0309	Mechanical and Acoustic Behavior of 3D-Printed Hierarchical Mathematical Fractal Menger Sponge
24AC-0311	Low-frequency Vibration Isolation using Bandgap Metamaterials