

ICGA2025 Accepted Papers		
Track	Topic	Title
Track 1: Green Aero-Power	Digitalization & AI in Propulsion System Developments	An intelligent measurement framework for aero-engine blades
	Fuel Performance & Engine Compatibility	Effect of Hybrid Laminar Flow Control Parameters on Vertical Tail Transition Location
		Numerical Simulation, Testing, and Inner-Shell Improvement Verification of a Novel Low-Emission Combustor for Gas Turbines
	Hydrogen Propulsion Technologies	Key Parameter Design and Sensitivity Analysis of Hydrogen Powered Aircraft
		Analysis of the Application and Development of Airborne 100kW Aviation Hydrogen-Electric Energy System
		Safety Analysis of Hydrogen Internal Hydrogen Internal Combustion Engine Hybrid System Based on FRAM-ISM
		Weight Estimation Method for a Hydrogen Lithium Hybrid Aircraft Based on a Power/Energy Mix
		A Review of the Advantages and Challenges in Hydrogen Aviation Power
		A review of the Key Technologies for Scaled Flight Tests of Liquid Hydrogen Turbine-Powered Aircraft
		Conceptual Design of a Scaled Liquid Hydrogen Turbine-Powered Technology Demonstrator
	Novel Propulsion Concepts and Technologies	Flowpath Dimensions and Weight Estimate for an Advanced Open Rotor Engine
		Key Technologies for Aircraft Electric Propulsion—Research on the Development of High-Temperature Superconducting Motor Technology
		Modeling and Performance Optimization of Turboelectric Propulsion System
		Modeling and Performance Analysis of a Hybrid-Electric Open Fan Engine for Sustainable Aviation
		Numerical Study on the Inlet Guide Vane Adjustment Strategy of a Counter-Rotating Compressor
		Simulation of Temperature and Thermal Stress in Gas Turbine Blades under Fluid-Structure-Thermal Interaction
		Study on the Transient Starting Characteristics of Supersonic Nozzles in Free Jet Tests
		Research on Augmented Thrust Effect and Dynamic Characteristics of Concentric Canister Launch Process
		The performance Research and Benefit Analysis of the New Hybrid Propulsion System Applied to the Trunk Aircraft

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Track 1: Green Aero-Power	Others-Empirical model for NO _x emission simulations	Comparison on NO _x emission empirical models for in-service civil turbofan engines under different control modes
	Others-Flight emission assessment	Ab initio Flight Training Carbon Emission in China: A Bottom-Up Inventory and Decarbonization Methods
	Others-program overview	Overview of the EU Clean Aviation Program
	Others-Review of EU's Green Aviation Deal	EU's Clean Aviation Joint Undertaking: A Comprehensive Review of Progress and Future Directions
Track 2: Sustainable Aviation Fuels(SAF)	Policy and Market	Cost-reducing strategy or emission-reducing strategy? The choice of aviation fuel producers under price threshold subsidy
		Dynamic Pricing Mechanisms for Sustainable Aviation Fuel Integrating Global Patterns and China's Transition Pathway
		Dynamic Multi-Criteria Decision Analysis for Sustainable Aviation Fuel Refueling Modes
		Airline Strategies and Policy Paths to Net-Zero Aviation Amid SAF Supply Limits
		A Study on EU's SAF Development Pathway and Implications for China from Policy-Driven Perspectives
		From CO ₂ to SAF: Compliance Essentials for CO ₂ -Derived Feedstocks
	Production Technologies & Process Optimization	Property-reactivity relations in abietic acid hydrodeoxygenation to sustainable aviation fuel over Y-zeolite supported NiMo catalysts
		Life cycle assessment of Gasification-Fischer Tropsch for sustainable aviation fuel production from Arundo Donax
	Others-Combustion Kinetics	Experimental validated combustion kinetic model and surrogate for a bio-derived jet fuel
	Others-Evaporation of SAF droplets	Experimental Study on the Evaporation Characteristics of Multicomponent Fuels Under High Pressure
Track 3: Green Aviation Smart Structure and Manufacturing	Digital Twins & Intelligent Automation	Benchmarking Modern Large Language Models on MSC Nastran BDF input files: A Comprehensive Study
		The Enhancement of Numerical Control Rate in Key Processes and Its Promoting Effect on Intrinsic Safety
		Analysis of Factors Influencing Vehicle Carbon Emissions: Integrating UAV-Based Traffic Flow and Driving Features
	Energy-Efficient & Low-Carbon Production	Cost-Effective Manufacturing of Electronic Assembly in Aircraft Equipment.
		Research on the Process Management System for Green Manufacturing of Aerospace Equipment
		Hybrid High-Power Laser and Mechanical Drilling of Thick CFRP Laminates
		Thermal Optimization Design of the Electro-Hydraulic Power System Based on Phase Change Heat Storage Units

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Track 3: Green Aviation Smart Structure and Manufacturing	Energy-Efficient & Low-Carbon Production	Load Disaggregation of Green Aviation Based on Interpretability Decision Tree and Hidden Markov Model
		Design and Research of Graphene-Based Heater for Air Compressor Valve Plate
	Green Supply Chains & Collaborative Ecosystems	Surface Modification of TC4 by High Velocity Oxy-fuel
		The Impact of CORSIA on China Cross-Border Aircraft Transactions: Challenges, Opportunities and Strategic Responses
	Sustainable Materials & Smart Lightweight Design	Simulation and analysis of aerospace wingtip skin hydroforming process
		Study on tensile properties of Double-Double laminates
		Study on the equivalence verification of post-impact compression standard of fiber composites
		Research on Fatigue and Damage Tolerance Testing of All-composite Rudder Surfaces in Electric Aircraft
		Self-consistent Clustering Analysis for Efficient Prediction of Material Strength: A Case Study of C/SiC Composites
		Research on the giant slender ratio "I" type long powder manufacturing technology Contribution
		Research on Precision Control Technology for Closing Gaps in Multi-core Composite Molding Structures
		The Long Term Performance Comparison Study of Adhesive Materials for Helicopter Rotor Blade Laminar Replacement
		Multi-Scale Structural Shape preserving Design Method under Thermo-Mechanical Coupling
		Enhanced Damage Tolerance of Out-of-Autoclave Composites through Multi-Scale Interlaminar Toughening
	Others-Corrosion and Protection of Aviation Materials	Surface Corrosion Phenomenon and Mechanism Analysis of SiC Particle-Reinforced Aluminum Matrix Composite Forgings after Anodization
	Others-Energy saving effect analysis	Research on Energy-Saving Effects of Hypersonic Morphing Vehicles
Track 4: Aviation Digitalization and Intelligence	Digital Engineering for Aviation	Research and Implementation of Cloud Deployment Technology for the SABRE System
		LGFG-Net: A Short-Term Trajectory Forecasting Approach Integrating Multi-Feature Extraction and GAN-GCN Framework
		An Operating State prediction model for Aircraft Assembly Lines based on Temporal Graph Neural Network
		A Model and Data Dual-Driven Framework of Gas Path Fault Diagnosis for Aero Engines
		Developing Gravity-dependent Similarity Criteria for Flow Boiling Critical Heat Flux: A Data-Driven Method

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Track 4: Aviation Digitalization and Intelligence	Digital Engineering for Aviation	The Application of Vision-Language Models in The Low-Altitude Economy
		A 3D Uniform Distribution Display Method for Wing Structure Experimental Strain Data Based on the SABRE Visualization Engine
		WMul-Net A Weakly Supervised Multi-Branch Residual Network for Fine-Grained Classification
		An Intelligent Risk Detection Method for Aircraft Towing Operations Based on a Two-Stage Vision Model
		Range and Endurance Calculation of Propeller/Rotor Aircraft Based on the Linear Relationship between Engine Fuel Flow Rate and Shaft Power
		Modeling of In-flight Entertainment System Based on Arcadia Method of KARMA Language
	Intelligent Training Technology	Prediction of Approaching Aircraft Touchdown Speed Based on CNN - BiLSTM - Attention
		Research on airspace route traffic flow prediction algorithm based on improved spatio-temporal feature fusion
		Collision Avoidance Control for Multi-UAV Formation Based on Consensus Algorithm and Artificial Potential Field
		The Displacement Ratio Wiener Process Theory
		Index System Construction and Intelligent Evaluation for Pilot Competency Training
		Design of an NLP-based Ambiguity Detection Model for Aviation English Requirements
	Modeling and Simulation for Digital Twin	Model-based Critical Flight Control Software Code Generation and Verification Method-1
		Fuel-Efficient Trajectory Optimisation through Tailwind-Aware Routing
		Risk Assessment of Logistics Unmanned Aerial Vehicle Safety Under Multi-source Uncertainty Factors
		A K-means clustering-based method for quantitative analysis of stress fields in directional solidification of thin-walled hollow blades
	Others-AI for system engineering	Wind Energy Utilization for UAVs via Deep Reinforcement Learning
	Others-Efficient Aviation Transportation and Management	Research on Trajectory Optimization of Continuous Descent Operations for Green Aviation
Track 5: Autonomous Flight & Air Traffic Integration	Advanced Propulsion & Green Energy Systems	Tiltrotor Blade Parametric Design Study from an Aerodynamic Perspective and its Validation
		Research on Tilting Moment Characteristics of Multi - Condition Electric Ducted Propellers
		Aerodynamic configuration and power system design of tilt rotor flying car

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Track 5: Autonomous Flight & Air Traffic Integration	Advanced Propulsion & Green Energy Systems	Modeling and Simulation Analysis of Transition Mode for Tiltrotor Flying Car
	Autonomous Flight & Air Traffic Integration	Design of Highly Integrated and Low Power Flight Control Computer for eVTOL Vehicles
		Dynamics Modeling and Full-Phase Control of a Z-Folding VTOL Aircraft
		Synergistic Optimization of UAV Swarm Path Planning for Proactive Forest Disturbance Intervention and Ecological Efficacy Quantification
		A review of the application of electric UAV fusion intelligent sensor technology in coal mine safety mining
		Online Four-dimensional Trajectory Planning for eVTOL based on Rolling Optimization
		A cascaded control law design of tilting-ducted fan eVTOL aircraft for thrustborne phases
		Path planning of large fixed-wing unmanned aircraft subject to specific operational ground risk assessment
	Regulatory Frameworks & Ecosystem Development	Legal Regulation of Public Data Open and Utilization via UAV in Smart City Scenarios
		eVTOL Airworthiness Certification Flight Test Considerations