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Nota di contenuto	Chapter 1. Parametric Approach to Initial Weight Determination at Preliminary Design of a Quadrotor Cargo UAV -- Chapter 2. Comparative Analysis of AI-Supported Drone Operations: Evaluating Critical Aspects Among Pilot Groups -- Chapter 3. Nontraditional Attitude Filtering with Uncertain Process Noise -- Chapter 4. Exergetic Attribute of Fuel Cells In Hydrogen Aviation Including UAVs -- Chapter 5. Direct Numerical Simulation of a Thermal Turbulent Boundary Layer:

An Analogy to Simulate Bushfires and a Testbed for Artificial Intelligence Remote Sensing of Bushfire Propagation -- Chapter 6. Unmanned Aerial Vehicles Cooperation for The Monitoring of Greenhouse Gases -- Chapter 7. Fast-Time Large-Scale Simulations for Unmanned Air Traffic Airspace Capacity Assessment -- Chapter 8. On The Technological and Operational Aspects of the Greening of Aviation -- Chapter 9. Review and Analysis of the Integration Properties of an Aircraft with a Hybrid Power Plant -- Chapter 10. Optimization of Quadcopter Energy Consumption: Insights from Wind Condition Analysis and Trajectory Planning -- Chapter 11. Sustainable Aviation Fuels and Their Use for Large Long-Range Aircraft -- Chapter 12. An Overview of The Possibilities, Current Status, and Limitations of Battery Technologies to Electrify Aviation -- Chapter 13. The Potential of a Proton Exchange Membrane Fuel Cell Powered Light Aircraft Employing Cryogenic Hydrogen -- Chapter 14. Fault Tolerant Estimation of UAV Dynamics in the Presence of Sensor/Actuator Faults -- Chapter 15. Hydrogen Storage in a Commuter Aircraft: Combining Classical Engineering Design Process With Model Based System Engineering for CFRP Pressure Vessel Integration -- Chapter 16. Review of Liquid Hydrogen Tanks Design Principles for Short and Medium-Range Civil Flights -- Chapter 17. New Supersonic Aircraft Emission and Air Pollution Assessment At Airport Operational Scenario -- Chapter 18. Aircraft Emission and Fuel Burn Assessment Scenarios at Local and Global Levels -- Chapter 19. Noise Assessment Scenarios for New Airplane Climate Efficient Designs -- Chapter 20. Composite Gradient Coatings Design for Ensuring Electromagnetic Compatibility of On-Board and Ground Electronic Equipment -- Chapter 21. Renewable Energy Systems for Airports And Aerodromes: a Comprehensive Patent Review and Technological Analysis -- Chapter 22. Adaptation of Smart Energy Map to Transportation Domain a Case Study to Small Airfield Buildings and Other Infrastructures -- Chapter 23. Modeling the Noise Characteristics of a Regional Turboprop Hybrid-Electric Aircraft -- Chapter 24. Concepts of Commercial Aircraft with Hybrid Propulsion -- Chapter 25. Highly Accurate and Confident Basic Aircraft Noise Assessment Scenario.

Sommario/riassunto

The Future of Electric Aviation and Artificial Intelligence presents a unique collection of proceedings papers from two multi-disciplinary symposiums on sustainable aviation and unmanned systems, offering a comprehensive view of the latest research and insights. The International Symposium on Electric Aviation and Autonomous Systems (ISEAS 2023) presents aerospace, autonomous, and piloted unmanned systems research. The International Symposium on Unmanned Systems, AI, Design & Efficiency (ISUDEF 2023) gathers researchers, scientists, engineers, practitioners, policymakers, and students working on topics in the unmanned systems industry and artificial intelligence (AI). The collected papers provide insights on a broad range of current issues in aviation, including hybrid, electric, all-electric, and fuel cell aerial vehicles, electric generation, energy storage, propulsion technology, design issues, AI applications, efficient operations, and new identification and detection systems that adapt to the latest technology standards. ISEAS 2023 and ISUDEF 2023 allow researchers, scientists, engineers, practitioners, policymakers, and students to exchange information and professionals to present new technologies and developments and discuss future direction, strategies, and priorities in aviation and sustainability. Offers recent research on a wide array of topics in aerospace, autonomous and piloted unmanned systems; Addresses current issues in aviation and sustainability; Provides access to all proceeding papers from ISEAS 2023 and ISUDEF 2023.