

1. Record Nr.	UNINA9910766897103321
Autore	Karakoc T. Hikmet
Titolo	Novel Techniques in Maintenance, Repair, and Overhaul : Proceedings of the International Symposium on Aviation Technology, MRO, and Operations 2022 // edited by T. Hikmet Karakoc, Ivan A. Kosti, Aleksandar Grbovi, Jelena Svorcan, Alper Dalkiran, Ali Haydar Ercan, Ognjen M. Pekovi
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	3-031-42041-1
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (447 pages)
Collana	Sustainable Aviation, , 2730-7786
Altri autori (Persone)	Kostilvan A GrboviAleksandar SvorcanJelena DalkiranAlper ErcanAli Haydar PekoviOgnjen M
Disciplina	629.1
Soggetti	Aerospace engineering Astronautics Vehicles Renewable energy sources Mechanical engineering Aerospace Technology and Astronautics Vehicle Engineering Renewable Energy Mechanical Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. Influence of Thickness Ratio on the Aerodynamic Characteristics of a Family of Hybrid Semielliptical Dolphin Airfoils -- Chapter 2. The Effect of T6 Heat Treatment on AlSi12 Alloy -- Chapter 3. Outline the Possible Application of Artificial Intelligence in the Aircraft MRO Process Development -- Chapter 4. A Computational Study of the Heat Transfer Coefficient for Lithium-Ion Battery

Temperature -- Chapter 5. Wind Tunnel Measurement of Pitch-Damping Derivative Using Forced Oscillation Technique -- Chapter 6. Optical Velocity Measurement and Fluid Flow Visualization Techniques -- Chapter 7. Numerical Investigation of Impinging Synthetic Jets on the Flow Field and Heat Transfer at Low Orifice-to-Plate Distances -- Chapter 8. Comparison of Flow Characteristics of Wake Regions of Single and Lined up in a Row Torpedo-Like Geometries at Uniform Flow Conditions -- Chapter 9. Accounting for the Effects of Experimental Setting in Propeller Flow Computation -- Chapter 10. Development and Construction of a Radio-Controlled Aircraft with Distributed Electric Propulsion: Persian Sky-O -- Chapter 11. Improve Aircraft Pilots' Training Using Structural Failure Incidents: a Serious Game Approach -- Chapter 12. Neural Control of Space Trajectories with Pseudolinear Models -- Chapter 13. H-infinity Control of Orbital Trajectories with Stochastic Models -- Chapter 14. Numerical Analysis of Narrow-Body Fuselage Upper Panel Re-design -- Chapter 15. Structural and Flow Analysis of Launch Vehicle for Cubesats -- Chapter 16. Development of a Model of the TCAS Autonomous Diagnostic System Using Non-Contact Current Sensors -- Chapter 17. Testing and Integration of a Hydrogen Fuel Cell in a Hybrid-Electric Propulsion Rig for UAVs -- Chapter 18. Effects of the Partial Use of Diesel Fuel with Kerosene on the Exergetic Sustainability Performance of an UAV Jet Engine in Case of Emergency -- Chapter 19. Swarm Control of a Group of Unmanned Aerial Vehicle Under Fixed Consensus Topology -- Chapter 20. Aviation MRO Operators Assessment by SHELL Model -- Chapter 21. Wind Tunnel Operation and Testing in the 21st Century: The Case of VTI's Test Facilities -- Chapter 22. Comparative Analysis of Flow Fields Around NACA 23012 Airfoil at Three Characteristic Angles-of-Attack -- Chapter 23. Fuel Optimal Aircraft Conflict Resolution Under Various Wind Characteristics -- Chapter 24. Implicit LES Using New Slope Limiters -- Chapter 25. Nanoceramics as Reinforcement for Polymer Matrices and Composite Materials for Aircraft Structures -- Chapter 26. Evaluation of Architectural Structures in Electric Taxiing Systems -- Chapter 27. High-altitude Wind Resource Potential for AWE in Portugal -- Chapter 28. Conceptual Design, Development, Test and System Identification of a Novel Tri-Rotor Configuration for a VTOL Fixed Wing Aircraft -- Chapter 29. Measurement, Exploitation and Method Finalization of PIV Systems -- Chapter 30. Methodology for Testing Damaged Composite Helicopter Rotor Blades -- Chapter 31. Procedures in Testing the Mechanical Characteristics of Composite Structures and the Possibility of Application to Biodegradable Materials: an Overview -- Chapter 32. Aviation Carbon Accounting for Climate Change Mitigation: The Case of Turkey -- Chapter 33. Maintenance of Unmanned Aircraft -- Chapter 34. The Conversion of Ocean Wind Energy into Storable Energy A review of Current Developments -- Chapter 35. A Perspective on Oscillating Foil Propulsion -- Chapter 36. Flow Analysis Inside the Blade of Tip-jet Cold Cycle Helicopter -- Chapter 37. Preliminary Full Configuration Drag Estimation of Fixed Wing UAV Using Analytical Aerodynamics -- Chapter 38. 1D Modeling of an On Board Inert Gas Generation System During Flight Conditions -- Chapter 39. Analysis of Sustainability Activities in Airline -- Chapter 40. CO2 Dilution Effect of Methane Combustion at Premixed Model Gas Turbine Combustor -- Chapter 41. Electrical Conductivity Characteristics of Nanoparticle Reinforced Polymers Produced by Additive Manufacturing -- Chapter 42. Markov Chain Model Development for Forecasting the Lisbon TMA Capacity -- Chapter 43. Removing Kerosene Tax Exemption From Aviation: The Future of Taxation Principles in Europe -- Chapter 44. Torsional Divergence

Analysis of Missile Fins Based on Galerkin's Method -- Chapter 45.  
Effects of Covid-19 on Aviation Sector in Turkey -- Chapter 46.  
Express Method for Detection of Microbiological Contamination of  
Aviation Fuel for Preventing Damage to Aviation Military Equipment --  
Chapter 47. Implementation of RE in the 6R Strategy in Considering the  
Sustainable Development of Parts for the Aviation Industry using  
Additive Technologies -- Chapter 48. Validation of the Laboratory  
Facility for the Nanofluids Forced Convection Research -- Chapter 49.  
Analysis Of Ground Services for Air Carriers: System Dynamics  
Approach -- Chapter 50. Design Methodology Development for UAS  
Integrating Business Assessment and Optimisation Processes --  
Chapter 51. Operating eVTOLs in the Emergency Response Service --  
Chapter 52. Experimental Thermal Analysis of Prismatic Lithium Iron  
Phosphate (LiFePO<sub>4</sub>) Battery -- Chapter 53. Assessment of Entropy  
Management for Piston Engines Considering Fuel Preference in the  
Flight Process -- Chapter 54. Energy and Environmental Evaluation on  
LPG Transition for Piston Engine of the Plane -- Chapter 55.  
Assessment of Thermodynamics Performance for Prop Engine Based on  
Temperature Effect of Flight Altitude.

---

### Sommario/riassunto

The International Symposium on Aircraft Technology, MRO, and Operations (ISATECH) is a multi-disciplinary symposium presenting research on current aerospace issues. The conference provides a platform offering insights on the latest trends in aircraft technology, maintenance, repair, overhaul, and operations that offer innovative solutions to the aviation industry's challenges. Coverage includes the operational and MRO needs of hybrid, electric, all-electric, and fuel cell air vehicles adapted to new technology standards. ISATECH allows researchers, scientists, engineers, practitioners, policymakers, and students to exchange information, present new technologies and developments, and discuss future direction, strategies, and priorities. Offers recent research on a wide array of topics; Addresses current MRO issues in the aviation industry; Complete proceedings of ISATECH 2022 held at the University of Belgrade.

---