

## CURRICULUM VITAE

### **Prof. Dr. T.Hikmet Karakoc**

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### **BIOGRAPHY**

He graduated from Anadolu University, the Department of Mechanical Engineering. He received his M.Sc. degree in Mechanical Engineering from the Yildiz Technical University. He received his Ph.D. degree from the Anadolu University, where he started his full-time teaching. He received his full Professorship from Anadolu University, and he is currently researching at the Eskisehir Technical University. He has a wide range of research interests. His interest topics are "Sustainable Aviation, Aircraft Propulsion System, Insulation, Heating Ventilating, and Air Conditioning, Indoor Air Quality, Gas Turbines, Cogeneration Systems, Renewable Energy, Energy Economics, Fuels, and Combustion." He has taken part in numerous Industrial Projects on these topics as a researcher, consultant, and project manager for over 30 projects and corporations. He also started a contest on special insulation applications among university students. He also served as an Editor-in-Chief, guest editor, and editorial board member roles for international scientific journals. He published national and international papers in over 300 and 40 books. Professor Karakoc actively follows membership positions for the Chamber of Mechanical Engineers and many sectorial associations, international scientific organizations, and societies. He is an active Board of Directors member of the International Association for Green Energy. He is currently holding the presidency of the SARES organization, which is actively supporting scientists and students in the "Sustainable Aviation" subject. He is also organizing four symposiums on aviation subject areas as a Founding Chair.

### **ACADEMIC QUALIFICATION**

- **PhD in Mechanical Engineering**, Anadolu University, Institute of Science and Technology, Department of Mechanical Engineering, Eskisehir, 30/06/1987  
**Thesis:** "Energy economy in the cement industry"
- **Master of Science**, Yildiz Technical University, Department of Mechanical Engineering, Istanbul, 30/06/1983  
**Thesis:** "Calculation methods of Turbo Ramjet propulsion system performance and comparison these methods by examples"
- **Bachelor of Science**, Eskisehir State Academy of Engineering and Architecture, Department of Mechanical Engineering, Eskisehir, 30/06/1980

## ACADEMIC TITLES

- **Assistant Professor**, Mechanical Engineering, Anadolu University, 1988
- **Associate Professor**, Mechanical Engineering, Department of Energy, Department of Energy Economy, Anadolu University, 1991
- **Full Professor**, Faculty of Aeronautics and Astronautics, Anadolu University, 1997
- **Full Professor**, Faculty of Aeronautics and Astronautics, Eskisehir Technical University, 2018

## PROFESSIONAL EXPERIENCE

- **2022- Ongoing**      **Board Member**, Information Technology Research. and Application Center  
Istanbul Ticaret University
- **2020- Ongoing**      **Director**, Civil Aviation Research and Application Center  
Eskisehir Technical University
- **2018- On going**      **Full Professor**, Faculty of Aeronautics and Astronautics  
Eskisehir Technical University
- **2010 – 2014**      **Director**, Civil Aviation Research and Application Center  
Anadolu University
  
- **1997-2018**      **Full Professor**, Faculty of Aeronautics and Astronautics, Anadolu University
- **1991-1997**      **Associate Professor**, Mechanical Engineering, Department of Energy,  
Department of Energy Economy, Anadolu University
- **1988-1991**      **Assistant Professor**, Mechanical Engineering, Anadolu University

## AWARDS

- Article Performance Award, Anadolu University, 2015
- Future Flight Design, Istanbul, Second Place, 2015
- SAE Aero Design West, California, 2016
  - Third Place Overall Micro Class,
  - First Place Payload Fraction
  - Second Place Highest Payload Lifted
- Article Performance Award, Anadolu University, 2016
- Golden Performance Award, Anadolu University, 2016
- SAE Aero Design East, Florida, 2017
  - First Place on Overall Micro Class,
  - Third Place on Payload Fraction
  - Third Place on Highest Payload Lifted
- Article Performance Award, Anadolu University, 2017
- Platinum Performance Award, Anadolu University, 2017
- Article Performance Award, Anadolu University, 2018
- Article Performance Award, Eskisehir Technical University, 2019
- Article Performance Award, Eskisehir Technical University, 2020
- Platinum Performance Award, Eskisehir Technical University, 2020
- Article Performance Award, Eskisehir Technical University, 2021

## RESEARCH INTERESTS

- Aircraft Engine Performance
- Sustainable Aviation

- Energy and Environment
- Gas Turbine Engines
- Propulsion
- Cogeneration Systems
- Combustion
- Combustion Chambers
- Measurement of Emissions from Aircraft Engines
- Thermodynamics
- Energy Analysis
- Exergy Analysis
- Energy and Buildings
- Energy Recovery Systems
- Renewable Energy Sources
- Sustainable Energy
- Indoor Air Quality

## **TEACHING EXPERIENCE**

1. Thermodynamics
2. Gas Turbine Theory
3. Aircraft Fuel Systems of Gas Turbine Engines
4. Evaluation of Engineering Project and Aviation Applications
5. Sustainability in Airport Operations
6. Sustainable Aircraft Propulsion Systems
7. Unmanned Aerial Vehicle Systems

## **EXPERIENCE IN SCIENTIFIC JOURNALS**

### *EDITOR IN-CHIEF*

1. International Journal of Sustainable Aviation (Inderscience), (2015-ongoing)
2. International Journal of Aviation Science and Technology (SARES Society and Dergipark), (2019-ongoing)

### *MANAGING GUEST EDITOR*

1. International Journal of Green Energy, (2016-ongoing)
2. Energy, The International Journal, (Elsevier), (2016-ongoing)
3. Aircraft Engineering and Aerospace Technology (Emerald Publishing), (2019-Ongoing)
4. Sustainability (MDPI), (2020-Ongoing)
5. International Journal of Green Energy, (Elsevier), (2011-ongoing)
6. International Journal of Energy Research, (John Wiley and Sons), (2011-2012)
7. Smart Energy, (Elsevier), (2021-ongoing)
8. SAE International Journal of Aerospace, (SAE International), (2019-ongoing)

### **EDITORIAL BOARD MEMBER**

1. Energy, The International Journal, (Elsevier), (2018-ongoing)
2. International Journal of Unmanned System Engineering, (2014-ongoing)
3. SAE International Journal of Aerospace, (SAE International), (2019-ongoing)
4. International Journal of Engineering and Industries, (2014-ongoing)

## REVIEWER

1. International Journal of Hydrogen Energy, (Elsevier), (2011-ongoing)
2. Energy Conversion and Management, (Elsevier), (2011- ongoing)
3. International Journal of Exergy, (Inderscience), (2011- ongoing)
4. Energy, The International Journal, (Elsevier), (2011- ongoing)
5. International Journal of Energy Research, (John Wiley and Sons), (2015-ongoing)
6. International Journal of Green Energy, (Taylor and Francis), (2011-ongoing)
7. Fuel, The Science and Technology of Fuel and Energy (Elsevier), (2018-ongoing)
8. SAE International Journal of Aerospace, (SAE International), (2017-ongoing)
9. Sustainability (MDPI), (2019-Ongoing)

## SUPERVISED MASTER THESIS

1. Oncel, Metin, "Design and Simulation of Solid Fuel Rocket in Space Orbit with MATLAB Simulink"
2. Tarhan, Burak, "Development of a Lithium-Based Battery Management System" Eskisehir Technical University
3. Kucukkor, Ozge, "Battery Management Systems in Solar and Electric Aircraft" Eskisehir Technical University
4. Kacar, Betul, "Multi-criteria Decision Making Methods Used By Aviation Maintenance Organizations in Supplier Selection" Eskisehir Technical University (current student)
5. Kececi, Mustafa, "Performance and Environmental Analysis of Fuel Cell Based Electrical Taxiing for Aircraft"
6. Özdemir, Salim Berat, "Investigation of the Effects of Alternative and Renewable Fuels on the Operational and Environmental Performance of Aircraft Engines" Eskisehir Technical University (current student)
7. Görgülü, Saliha Cansu, "Mathematical Modeling and Experimental Validation of the Electric Propulsion System of a Medium Class Unmanned Aerial Vehicle Powered by a Super Capacitor" Osmangazi University (current student)
8. Gulyeva, Zarifa, "Battery management system in spacecraft" Eskisehir Technical University (current student)
9. Ekici, Selcuk, "Experimental investigation of the effects of alternative fuel usage on tuboprop engine performance", Eskisehir Technical University, 2019
10. Tuzemen, Seda, "Thermodynamic Analysis of Air Conditioning Systems of aircraft", Osmangazi University, 2018
11. Yigit, Emrah, "Modeling and Experimental Verification of the Mid Class Electric UAV Engine", 2018
12. Yakin, Evren Yılmaz "HAD Analysis and Experimental Evaluation of the Effects of Effusion Hole Properties on Film Cooling Performance", 2018
13. Ozbek, Emre, "Design, Production and Testing of an Electromechanical Bio-Inspired Surveillance Mini UAV", 2018
14. Karagöz Sakir, "PIV analysis of the discrete turbulent flow field", 2016
15. Yalin, Gorkem, "Polymer Electrolyte Membrane Fuel Cell Stack Development for an Unmanned Aerial Vehicle ", Anadolu University, (2015)

16. Ekici, Selçuk, "Advanced exergy analysis of Mini Turbojet/Turboprop engine", Anadolu University, (2015)
17. Karagoz, Sakir."Investigation the interaction of High Dean Number flow with turbulators placed on the surface using PIV method " (2015)
18. Tekce, Mustafa Serdar, "Design of mini UAV 2 Stroke motor power 2.5 hp explode observation and cruising flight optimization ", Anadolu University, 2015
19. Yildirim, Elif, "Exergetic Analysis and Sustainability Assessment of Helicopter Engines", Osmangazi University, 2014
20. Durmus, Seyhun, "Investigation of the use of internal cooling channels Tribulator and simulation based on RANS turbulence model", Anadolu University,2014
21. Sohret, Yasin. "Experimental Determination of a turbojet engine with the engine Emissions Combustion Efficiency ". Anadolu University, 2013
22. Orman, Erkan. "Investigation of the Effects of Wind Turbine Performance of Axial and Tangential Flow Inducing Factor Value ", Anadolu University, 2010
23. Altuntas, Onder, "Vibration Analysis of Aircraft Engine ", Anadolu University, 2007
24. Ozbayraktar, Nail, "Engine Control Systems of Gas Turbine Engines and CFM-56-7B example", Anadolu University, 2004
25. Dalkiran, Alper. "Computerized maintenance management system over the Internet and aerospace application", Anadolu University, High school of Civil Aviation, 2004
26. Turgut, T Enis. "Sizing of Axial flow compressors in aircraft and software for preliminary design", Anadolu University, 2003
27. Aksuzek, Yeliz, "Energy efficiency, conservation and energy management in complex buildings", Suleyman Demirel University, 2003
28. Orhan, Ilkay. "Power technology used in cogeneration plant", Anadolu University, 2003
29. Calisir, Duran. "Corrosion problems in aircrafts, detection methods, strategies to prevent and corrosion prevention and removal operations in Socata TB-20 Trinidad type aircrafts ", Anadolu University, 2001
30. Turan, Onder, "Performance Analysis and Evaluation Program in Gas Turbine Engines ", Anadolu University, 2000
31. Benli, M. Kemal. "Transition to natural gas in houses and arising problems ", Afyon Kocatepe University, 1997
32. Candan, Bulent. "Computer Software for Aircraft Structural Integrity Program – an application for F4 aircraft", Anadolu University, 1997
33. Surucu, Alper. "Economic Analysis of Aircraft Modernization", Afyon Kocatepe University, 1996
34. Erdem, Muhammet. "Pre-design and sizing of Nose Landing Gear Wheel Light Transport Aircraft – an application for HD 19 ", Anadolu University, 1995

## **PhD STUDENT SUPERVISION**

1. Ozbek, Emre, "Experimental investigation of bio inspired morphing wing surface designed for an UAV" (current student)
2. Cinoglu, Bahadir, "Artificial Intelligence-Based Smart Sensing for Unmanned Aerial Vehicle Engine Health Monitoring" (current student)

3. Ayar, Murat, "Aerodynamics and Vortex Prediction at High Angles of Attack" (current student)
4. Tatli, Ali, "Modeling of Airworthiness for Short Term Estimation in Time Series"
5. Ayhun, Sena, "Aerodynamic and Structural Optimization of Winglets at Low Speeds", (current student)
6. Calisir, Duran, "Life Cycle Assessment of Unmanned Aerial Vehicle Powered By a Turbojet Engine",
7. Yalin, Gorkem, "Determination of Optimum Working Parameters of Fuel Cell Systems for UAV's (2019)
8. Ekici, Selcuk, "Experimental Investigation of the Effects of Alternative Fuel Consumption on Turboprop Engine Performance", 2019
9. Koruyucu, Elif, "Matrix evaluation of the energy and environmental effects of a hybrid general purpose helicopter", 2018
10. Coban, Kahraman, "Energy, exergy and sustainability analysis of turbojet engine with different fuels in unmanned aerial vehicles", 2018
11. Dalkiran, Alper, "Investigation Energy Consumption Linked to Environmental Sustainability in the Airports", Anadolu University, (2017)
12. Durmus, Seyhun. "Simulation of Cooling Tribulator Based Investigation of the use of the canal and the RANS turbulence model" (2017)
13. Sohret, Yasin, "Front liquid film-forming, Air Atomizing a fuel-air sprayer with the temperature of the combustion chamber in Raman views and Measurement of Combustion Products ", Anadolu University, (2017)
14. Yildiz, Melih, "Improving Thermal Management Algorithm of the Battery Management System Used in Aircraft", Anadolu University, 2017
15. Kaya, Nevzat, "Exergetic Sustainability Analysis of Unmanned Aircraft Turbofan using Hydrogen", Anadolu University, 2015
16. Acikgoz, Ozgen, "Exergetic and Ecological analysis of Renewable Energy Aided Wall Heating ",2013
17. Akbulut, Ugur, "Theoretical and Experimental Investigation of Renewable Energy Source Heating and Cooling Systems", Yildiz Teknik University, 2012
18. Altuntas, Onder, "Environmental Exergoeconomic Optimization of the Piston-prop Aircraft Engine ", Anadolu University, 2011
19. Sogut, Ziya, "Exergoeconomic Optimization of Rotary Kiln Process in Cement Sector, 2009
20. Yoru, Yilmaz, "Exergy Analysis of Cogeneration Plant ", Eskisehir Osmangazi University, 2008
21. Orhan, Ilkay, " Design of Decision Support for Optimization of the Aircraft Maintenance Planning ", Anadolu University, 2007
22. Turgut, T Enis."Exergoeconomic Analysis of Gas Turbine Engines Used in Aircraft", Anadolu University, 2007
23. Turan, Onder. " Optimization with Elithizm Genetic Algorithms methods of Turbofan Engine", Anadolu University, 2007
24. Turkdogan, Adem. "Investigation of Aircraft Structures Fatigue Angle and Calculation of maneuver a plane wing root load ", Anadolu University, 1997

1. Youth Based Entrepreneurship Network of Unmanned Aerial Vehicle Industry and Technologies, Erasmus+ KA 205 – Strategic Partnerships for Youth (Eskişehir Technical University Civil Aviation Research and Application Center, International Sustainable Aviation and Energy Research Association and Budapest University of Technology and Economics), (Accepted & Ongoing)
2. Next Generation Avionics for Sustainable Aviation, 2531 – TÜBİTAK – DAAD (Germany) Cooperation Project (Eskişehir Technical University and Deutsches Zentrum für Luft- und Raumfahrt (German Aerospace Center)), (Accepted & Ongoing)
3. Unmanned Surface Object Assessment on Roads (U-SOAR), 2522 – TÜBİTAK – NRDI (Hungary) Cooperation Project (Eskişehir Technical University Civil Aviation Research and Application Center, ESRI Turkey, Budapest University of Technology and Economics and Mould Tech Kft), (Accepted & Ongoing)
4. Maritime Logistics Drone Delivery Services (MaLoDDS), 2567 TÜBİTAK – MIGHT (Malaysia) Cooperation Project, (Eskişehir Technical University Civil Aviation Research and Application Center, Autonomous Technology, Universiti Putra Malaysia and De TMAX Engineering), (Submitted in Feb 2021, currently in evaluation)
5. Feasibility And Assessment of Technological Process for the Production of Aviation Oils from Western Ukrainian Oils for Tactical-Class UAVs In Turkey, 2514 - Ukraine/Turkey Scientific & Technological Cooperation – 1 (Eskişehir Technical University Civil Aviation Research and Application Center and National Aviation University), (Submitted in September 2021, currently in evaluation)
6. Evaluation of Waste Management Key Benefits for Airport Green Economy and a Model Development: Case of ESTU and UKKK Airports, 2514 - Ukraine/Turkey Scientific & Technological Cooperation – 2 (Eskişehir Technical University Civil Aviation Research and Application Center and National Aviation University), (Submitted in September 2021, currently in evaluation)
7. Mobile air monitoring system for hazardous pollution alerts and fire prevention, 2514 - Ukraine/Turkey Scientific & Technological Cooperation – 3 (Eskişehir Technical University Civil Aviation Research and Application Center and National Aviation University), (Submitted in September 2021, currently in evaluation)
8. Solar-Powered Unmanned Aerial Vehicle Fleet, SMART4ALL 2nd FTTE under HORIZON 2020 (Eskişehir Technical University Civil Aviation Research and Application Center and Libre Solar Technologies GmbH), (Submitted in September 2021, currently in evaluation)

## **RESEARCH GRANTS AND NATIONAL PROJECTS**

1. Modular and Thermal Camera UAV Design, Production and Tests Suitable for Field Missions, A Drone Project for Turkish Police Special Forces (Project Coordinator) (01.07.2020 - Ongoing)
2. Intelligent Unmanned System Project to Perform Structural Discontinuity Investigation in Aircraft Maintenance and Repair, Drone + NDI Project for MyTechnic MRO Company (01.09.2020 - Ongoing)
3. Electromechanical Nature Simulated Observation Mini-UAV Design, Production and Testing, Publications and Research Promotion Project, Anadolu University, Research Project, (Project Coordinator) (12/12/2018)
4. Experimental Investigation of the Effects of Alternative Fuel Use on Turboprop Engine Performance, Anadolu University, Research Project, (Project Coordinator) (29/10/2018)
5. Energy Exergy and Sustainability Analysis of Turbojet Engine Working with Different Fuels in Unmanned Aerial Vehicles, Anadolu University, Publications and Research Promotion Project

- (Project Coordinator) (10/10/2018)
6. Development and Evaluation of Battery System for Electric Aircrafts, Anadolu University, Research Project, (Project Coordinator) (28/08/2018)
  7. Investigation of Energy Management Infrastructure and Establishing an Energy Management Strategy for Hasan Polatkan International Airport, , Anadolu University, Infrastructure Project, (Researcher) (13/05/2018)
  8. Design, Prototype Manufacture, Analysis, Flight Tests of Micro Class UAV and Participation in “SAE Aero Design 2016-2017” Competition, Anadolu University, Infrastructure Project, (Researcher) (01/12/2017)
  9. Development Of A Model Proposal For Sustainable Aviation And Alternative Energy Sources, Anadolu University, Publications and Research Promotion Project (Project Coordinator) (01/06/2017)
  10. Investigation of Film Cooling Flow Characteristics In Gas Turbines by PIV Method, Anadolu University, Research Project, (Project Coordinator), (25/05/2017)
  11. Investigation of Environmental Sustainability in Energy Consumption at Airports, Anadolu University, General Purpose Project (Project Coordinator), (08/05/2017)
  12. Experimental Investigation of Performance Enhancement on Cooling Channels By Using Turbulators, Anadolu University, General Purpose Project (Project Coordinator), 1403F078 (02/05/2017)
  13. Investigation of Airport Environmental Sustainability Relative to the Energy Consumption, Anadolu University, Graduate Thesis Project (Project Coordinator),1402F053 (11/06/2017)
  14. Investigation of the effect of rib usage on the flow structure and heat transfer of gas turbine cooling channels by experimental and numerical methods, Anadolu University, Graduate Thesis Project (Project Coordinator), (02/01/2017)
  15. Development of Thermal Management Algorithm for Battery Management Systems Used in Aircrafts, Anadolu University, Research Project (Project Coordinator) (28/12/2016)
  16. Investigation the interaction of High Dean Number flow with turbulators placed on the surface using PIV method, Anadolu University, Research Project, (Project coordinator) (10/04/2016)
  17. Investigation of Green Energy Sources for Sustainable Aviation, Publications and Research Promotion Project (Project Coordinator) (20/06/2015)
  18. Design, Prototype Manufacture, Analysis, Flight Tests of Micro Class UAV and Participation in “Future Flight Design 2015” Competition, Anadolu University, Infrastructure Project, (Researcher) (10/06/2015)
  19. Improving Polymer Electrolyte Membrane Fuel Cell Stack for an Unmanned Aerial Vehicle” Anadolu University, Graduate Thesis Project (Project Coordinator), 1404F291 (06/06/2015)
  20. Investigation of aviation and sustainability of alternative energy sources, Anadolu University, Publications and Research Promotion Project (Project Coordinator), 1404F237 (02/06/2015)
  21. Exergetic Sustainability Analysis of Unmanned Turbofan Aircraft using Hydrogen, Anadolu University, Research Project ,1001F14, 12/02/2015
  22. Design of mini UAV 2 Stroke motor power 2.5 hp explode observation and cruising flight optimization, Anadolu University, Postgraduate Thesis Project (Project coordinator), 1306F251, 23/01/2015
  23. UAV Design, Prototype Manufacture, Tests Of Micro Class, Electrical Powered, And Regular Class Aircrafts – Participation In “SAE Aero Design 2014 West” Competition Anadolu University, Infrastructure Project (Project manager), 1309F329, 10/01/2015
  24. “Investigation of sustainable energy sources” Anadolu University, Publications and Research Promotion Project (Project coordinator), 1306F195, 29/07/2014
  25. The Analysis of Illumination System of Anadolu University’s Terminal Building and Green Airport Infrastructure Preparation Work. Research Project. (Supervisor) - 1203F049, 01/04/2014
  26. Investigation of the use of internal cooling channels Tribulator and simulation based on RANS turbulence model (Project Coordinator), 1306F250, 07/02/2014
  27. Two different UAV design, prototype manufacture, tests of Micro Class, electrical powered, and Regular Class, piston engine powered aircrafts – participation in “SAE Aero Design 2013 West”



competition. (Project Coordinator), 1209F128, 17/12/2013

28. Data Communication with Quadrocopter, Anadolu University, Research Project, (Supervisor) 1208F130, 01/12/2013
29. SHAUM Unmanned Aerial Vehicles (UAV) Laboratory Foundation and "SAE International Development UAV Project for Aero Design East 2012 Competition", Anadolu University, Research Project (Project Coordinator), 1110F172, 01/09/2012
30. Development and Modelling of Thermodynamic Cycle for the use of hydrogen as a fuel in Unmanned Aircraft” Anadolu University, Graduate Thesis Project (Project coordinator), 1001F14, 06/05/2012
31. Environmental Exergoeconomic Optimization of piston-Prop Aircraft Engine, Anadolu University, Research Project, 1001F01 (Project Coordinator), 12/05/2011
32. Heating System Load Calculations in order to Preparation for Transition to Natural Gas in Air Supply and Maintenance Command Center, Anadolu University, Faculty of Arts and Sciences, Revolving Fund Office, 01/08/1992
33. Earth Energy Industries, Inc. Evaluation of Energy Saving Facilities Facility, Anadolu University, 01/01/1992
34. Rotary Kiln, Ensuring Automation Between Cooling and Fuel Systems in CITOSAN Corum Cement Industry, Anadolu University, Foundation for Education, Health and Scientific Research, 01/08/1990
35. Energy Savings using the cooler out of the waste gas through the Drying Unit in Eskisehir Cement Factory, Eskisehir Cement Factory (ESCİM), 01/12/1985
36. Energy Savings through Age System Rotary Kiln Rotary Kiln Dry System to deactivate the application precalcination, Eskisehir Cement Factory (ESCİM), 01/10/1985
37. Collectively Evaluation of energy economy on Energy and Factory (ESCİM), Eskisehir Cement Factory (ESCİM), 01/05/1985
38. Energy, Exergy and Sustainability Analyses of a Turbojet Engine Which Runs with Different Types of Fuel on UAVs, Anadolu University, Research Project (Project Coordinator) (continues)
39. Performance Model Creation by Establishing Test Setup of a Turboprop Engine Using in Business Jets, (Project Coordinator), 1303F054 (continues)
40. The Engine Control Unit Used in Aviation Area (FADEC) Design. (Project Monitoring Committee Member) Anadolu University. -TEI Co-Op Project. 001.TEI.001.2011. DR.001.
41. Monitoring of Air Pollution Produced by Aircraft Engines and Auxiliary Power Unit (APU) Inside the airport, TÜBİTAK 2514 Support Program, (evaluation phase)
42. National Aviation Excellence Center (UHAM), Anadolu University, (continues)
43. Establishment of Energy Efficiency of Laboratory Faculty of Engineering and Architecture, Anadolu University, Research Project, 1002F71, (continues)

## **EXPERIENCES IN NATIONAL AND INTERNATIONAL CONFERENCES, COURSES AND WORKSHOPS**

1. Symposium Chair, International Symposium on Electric Aviation & Autonomous Systems 2021, Eskisehir Technical University, Eskisehir, TÜRKİYE, (Dec 16 – Dec 18, 2021)
2. Symposium Chair, International Symposium on Sustainable Aviation 2021, Kassessart University, Bangkok, TAILAND, (Nov 25 – Nov 27, 2021)
3. Symposium Chair, International Symposium on Unmanned Systems and Defence Industry 2021, Howard University, Washington D.C., USA, (Oct 26 – Oct 28, 2021)
4. Symposium Chair, International Symposium on Aircraft Technology, MRO and Operations 2021, Budapest University of Technology and Economics, Budapest, HUNGARY, (Jun 28 – Jun 30, 2021)
5. Symposium Chair, International Symposium on Electric Aviation & Autonomous Systems 2020, National Aviation University, Kiev, UKRAINE, (Sep 22 – Sep 24, 2020)
6. Symposium Chair, International Symposium on Sustainable Aviation 2020, University of UPM, Kuala Lumpur, MALAYSIA, (Nov 09 – Nov 12, 2020)
7. Symposium Chair, International Symposium on Aircraft Technology, MRO and Operations 2020, National Aviation University, Kiev, UKRAINE, (Sep 22 – Sep 24, 2020)
8. Symposium Chair, International Symposium on Sustainable Aviation 2019, Budapest University of Technology and Economics, Budapest, HUNGARY, (May 26 – May 29, 2019)
9. Symposium Chair, International Symposium on Electric Aviation & Autonomous Systems 2019, Budapest University of Technology and Economics, Budapest, HUNGARY, (May 26 – May 29, 2019)
10. Symposium Chair, Sustainable Aviation Research Workshop, Izmir, Turkey, (April 4 – 5, 2019)
11. Symposium Chair, International Symposium on Aircraft Technology, MRO and Operations 2018, Mövenpick Golden Horn Hotel, Istanbul, TURKEY, (November 25 – November 27, 2018)
12. Symposium Chair, International Symposium on Sustainable Aviation 2018, Sapienza Università di Roma, Rome, Italy, (July 9 – 11, 2018)
13. Symposium Chair, International Symposium on Electric Aviation and Autonomous Systems 2018, National Aviation University, Kiev, Ukraine, (October 10 – October 12, 2018)
14. Symposium Chair, International Symposium on Sustainable Aviation 2017, National Aviation University, Kyiv, Ukraine, (Sept 10 – Sept 13, 2017)
15. Symposium Chair, Sustainable Aviation Research Workshop, Gebze, Turkey, (April 6 – 7, 2017)

16. Symposium Chair, International Symposium on Sustainable Aviation 2016 Istanbul, Turkey, (May 29 – June 1, 2016)
17. Symposium Chair, International Symposium on Sustainable Aviation 2015 Istanbul, Turkey (May 31 – June 3, 2015)
18. Symposium Technical –Chair and organizer of special section: Sustainable Aviation and Global Warming, 4th Global Conference on Global Warming, (GCGW-12), Istanbul, Turkey, July 8-12, 2012.
19. Course Chair, Missions Succeeded First: Lessons Learned, Space and Aviation Excident, (Lecturers: Joe Leiberding and Larry Rose-NASA, AEA, TÜBİTAK-Ankara, Anadolu University-Eskişehir Turkey, March 5-9, 2012.
20. Conference Co-Chair, The 6th International Green Energy Conference (IGEC-2011), Istanbul, TÜRKİYE, June 5-9, 2011.
21. Conference Chair, 3rd National Aviation and Space Conference; UHUK12, Eskisehir, September 16-18, 2010.
22. Conference Co-Chair, 1st Global Conference on Global Warming, (GCGW-09), Istanbul, Turkey, July 6-10, 2008.
23. Course chair, Thermodynamic and its Applications, Anadolu University-Eskişehir, Turkey, April 17-18, 2008
24. Course chair, Exergy and its Applications, Anadolu University-Eskişehir, Turkey, August 14-16, 2006

## **PUBLISHED INTERNATIONAL BOOKS AND CHAPTERS**

1. Altuntas O., Sohret, Y., Karakoc, T.H., Fundamentals of Sustainability, Springer (2019), ISBN: 978-3-030-14194-3, pp: 3-5
2. Akyuz M. K., Altuntas O., Sohret, Y., Karakoc, T.H., Energy Management at the Airports, Springer (2019), ISBN: 978-3-030-14194-3, pp: 9-36
3. Ayaz S. K., Altuntas Ö, Acıkkalp E., Karakoc, T.H., Exergy for A Better Environment and Improved Sustainability, Springer (2018), ISBN: 978-3-319-62571
4. Yalcin E., Sogut M. Z., Karakoc, T.H., The Role of Exergy in Energy and the Environment, Springer (2018), ISBN: 978-3-319-89845-2
5. Nizamidinov A., Shamilov A., Sohret, Y., Karakoc, T.H., In Advanced in Sustainable Aviation, Springer (2018)
6. Yildiz, M., Karakoc, T.H., “Advantages and Future of Electric Propulsion in UAVs”, Advances in

7. Coban, K., Sohret, Y., Sogut., M. Z., Turan, O., Karakoc, T.H., “Exergy Approach to Evaluate Performance of a Mini Class Turboprop Engine”, “Energy Solutions to Combat Global Warming”, Springer (2017) ISBN: 978-1-4419-1016-5
8. Sohret, Y., Karakoc, T.H., “Carbon Foot Print of a Passanger Aircraft Engine at Landing and Take-Off Cycle”, “Energy Transportation and Global Warming”, Springer (2017) ISBN: 978-3-319-30126-6
9. Coban, K., Sohret, Y., Sogut, M.Z., Turan, O., and Karakoc, T.H., “Exergy Approach to Evaluate Performance of a Mini Class Turboprop Engine”, “Energetic Solutions to Combat Global Warming”, Springer (2017).
10. Sohret, Y., Sogut, M.Z., Turan, O., and Karakoc, T.H., “Sustainability Assessment of a Turboprop Engine: Exergy-Based Method”, “Energetic Solutions to Combat Global Warming”, Springer (2017).
11. T. Hikmet Karakoc, M. Baris Ozerdem, M. Ziya Sogut, Can Ozgur Colpan, Onder Altuntas, Emin Açikkalp, Sustainable Aviation: Energy and Environmental Issues, 2016
12. Z. Sogut, H. Karakoc, Z. Oktay, A. Hepbasli, Investigating the Exergetic and Environmental Effects of Subcooling and Superheating Processes on the Performance of Direct Expansion Systems, Progress in Exergy, Energy, and the Environment (Springer), 2014, Pages 713-722
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