

ISEAS'21 (International Symposium on Electric Aircraft and Autonomus Systems) Program (Eskişehir Time GMT +3)		
ESTÜ Hall - 15 December 2021 - 16:00-16:30 (GMT+3) - Virtual Cocktail & Zoom Rehearsal Zoom Link: https://zoom.us/j/97763150579?pwd=WXBuaXhDaE1Ha9Fa2p5Zyt5NTR5dz09 Zoom ID: 977 6315 0579 & Passcode: 749194		
(GMT+3) Eskişehir Time	ESTÜ Hall - 16 December 2021 - Zoom ID: 977 6315 0579 & Passcode: 749194 Zoom Link: https://zoom.us/j/97763150579?pwd=WXBuaXhDaE1Ha9Fa2p5Zyt5NTR5dz09	
10:00 - 10:30	Opening Session	Tuncay Döğeroğlu, Honorary Chair of ISEAS'21, Rector - Eskişehir Technical University, Türkiye Ravi Rajamani, Chair of ISEAS'21 T. Hikmet Karakoç, Founding Chair of SARES Symposiums Session Chair: Peter Dannenmann <i>On Large-Scale Production and Storage of Renewable Energy to Enable the Transition to Sustainable Aviation</i>
10:30 - 12:00	1st Keynote Speaker Session	Max Platzer - University of California Davis, USA <i>Where Does the Electricity Comes From</i> Birol Kılıç - OSTİM Technical University, Türkiye <i>Sustainability in Aeronautical Design</i> Ian McAndrew - Capitol Technology University, USA
12:00-12:30 Break		
12:30 - 13:30	1st Technical Session	Session Chair: Navatsn Kongsamutr <i>Design Considerations for Hybrid-Electric Propulsion Systems for FW-VTOL Aircraft</i> Daniele Obertino <i>Two-Phase Heat Exchangers for Thermal Control of Electric Aircraft Equipment</i> Alexander Sergeevich Zhuravlyov , Leonard Vasiliev <i>Test Bench for Electric Propellers and Distributed Propulsion</i> Daniel Castroviejo <i>Moving Towards a Greener Aviation: Electrification of Aircraft</i> Halime Hizarci , Uğur Arifoğlu
13:30 - 14:30	1st Invited Speaker Session	Session Chair: Cengiz Hacizade <i>INS-MEMS/GPS Integrated Systems Based Artificial Intelligence Algorithms for Navigation in GPS Challenging Environments</i> Teodor Lucian Grigorie - Military Technical Academy "Ferdinand I.", Romania <i>Monitoring the Technical State of Heat Pipelines with Using UAVs</i> Artur Zaporozhets - National Academy of Sciences of Ukraine, Ukraine <i>Distributed Autonomous Separation Assurance with Deep Multi-Agent Reinforcement Learning</i> Peng Wei - George Washington University, USA
14:30-14:45 Short Break		
14:45 - 16:15	2nd Keynote Speaker Session	Session Chair: Ian McAndrew <i>Morphing Wing and Morphing Wing-Tip Design for Flow Transition Delay</i> Ruxandra Mihaela Botez - L'École de Technologie Supérieure (ÉTS), Université du Québec, Montreal, Québec, Canada <i>Electric Aircraft: Motivations and Barriers to Adoption</i> Paul Parker - University of Waterloo, Canada <i>Recent Developments in Electric Propulsion</i> Ravi Rajamani - Cranfield University, USA

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10:00 - 11:30	3rd Keynote Speaker Session	Session Chair: Oleksandr Zaporozhets <i>Light-weight Cellular Materials for Next Generation Electric Aircraft</i> Raj Das - RMIT University, Melbourne, Australia <i>Automated Checking of an Autonomous Aerospace System's Sensor Instrumentation for Failure Detection, Identification, and Recovery</i> Peter Dannenmann - RheinMain University of Applied Sciences, Germany <i>Solar-Electric Long Endurance Reflector Craft for Meteorology and Climate Simulation</i> Narayanan M. Komerath - Taksha Institute, USA
11:30 - 12:30	2nd Invited Speaker Session	Session Chair: Berkant Göksel <i>Stability Analysis of More Electric Aircraft Power Systems</i> Kongpan Areerak - Suranaree University of Technology, Thailand <i>Improving the Efficiency of Unmanned Aerial Systems Through Wing Morphing: A Case Study for the Hydra Technologies S4 Éhecaci UAS</i> Oliviu Şugar-Gabor - University of Salford, England <i>Fuel Burn and Aircraft Trajectory Optimization</i> Alejandro Murrieta-Mendoza - Amsterdam University of Applied Science, Netherlands
12:30-13:00 Break		
Parallel Halls ESTÜ Hall - Zoom Link: https://zoom.us/j/97763150579?pwd=WXBuaXhDaE1Ha9Fa2p5Zyt5NTR5dz09		
13:00 - 14:00	2nd Technical Session	Session Chair: Oliviu Şugar-Gabor <i>Aircraft Noise Measurements in Ukrainian Airports</i> O. Zaporozhets , V. Gulevets, S. Karpenko, K. Kazhan, O. Konovalova, V. Paraschanov <i>Acoustic Operational Monitoring of Unmanned Aerial Vehicles' Near Vertiports</i> Vitalii Mykolayovich Makarenko , Vadim Ivanovich Tokarev <i>Vibration Attenuation of Two-wheeled Self-balancing Robot using Control Moment Gyroscope (CMG)</i> Faruk Ünker <i>Small Scale Subsonic Wind Tunnel Design and Prototype Production for Current Monitoring and Data Collection</i> Mesut Pehlivan , Murat Zübeyir Aybastı, Alperen Dođru
14:00 - 15:00	3rd Technical Session	Session Chair: Artur Zaporozhets <i>The Effects of Total Initial Concentration in a Vanadium Redox Flow Battery</i> İlker Kayalı <i>Observed Engine Performance Using Real Flight Data on Varying Ambient Temperature for 787-8 Aircraft</i> Tapdig Imanov , Melih Yildiz <i>Influence of battery aging on energy management strategy</i> Ludovica Spada Chiodo , Teresa Donato, Antonio Ficarella <i>The Effects of Automation Level on the Operators (Pilot, Air Traffic Controller)' Role and Total Loads</i> Abeer Jazzar , Omar Alharasees, Utku Kale
15:00-15:15 Short Break		
15:15 - 16:30	4th Technical Session	Session Chair: Teodor Lucian Grigorie <i>Peculiarities of pre-processing of ADS-B data for aircraft noise modeling and measurement during specific stages of LTO cycle</i> Katherina Kazhan , O.Zaporozhets, S.Karpenko <i>Misunderstandings in Aviation Communication</i> Omar Alharasees , Abeer Jazzar and Utku Kale <i>Flight Testing and Simulation of High Altitude Reflector Components</i> Narayanan M. Komerath , Ravi Deepak, Adarsh Deepak <i>Effect of Phase Change Material on Thermal Behavior of a Lithium-ion Battery</i> Uğur Morali

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10:30 - 11:30	4th Keynote Speaker Session	Session Chair: Peter Dannenmann <i>Fault Detection, Isolation and Accommodation for the UAV Flight Control System</i> Cengiz Hacizade - Istanbul Technical University, Türkiye <i>The Road to the Electrification of Aircraft Powertrains</i> John Olsen - The University of New South Wales, Australia
11:30 - 12:50	3rd Invited Speaker Session	Session Chair: Narayanan M. Komerath <i>Synthesis of Knowledge in the Field of Management of Avionics Systems Used for Specific Air Transport Objects</i> Pavol Kurdel - Technical University of Kosice, Slovakia <i>An Improving Method for Fault Detection in Aircraft</i> Nguyen Dinh Dung - Le Quy Don Technical University, Vietnam <i>Solar-powered UAV for Environmental Monitoring Applications</i> Vis Sripawadkul - Kasetsart University, Thailand <i>Hydrogen Fuel Cell Powered Flying Wing Drones and Air Taxis</i> Berkant Göksel , IB Göksel Electrofluidsystems, Germany
12:50-13:00 Short Break		
13:00 - 14:00	5th Technical Session	Session Chair: İğil Yazar <i>An Evaluation of the Usage of Solar Photovoltaic Panels in Aviation</i> Koray Oncel , Fatih Sertaş <i>Polarization Effect Between Entropy and Sustainability of Cruise Altitude of Jetprop Engine Performance</i> Mehmet Ziya Söğüt <i>Conceptual Application of Hybrid-Electric Propulsion System Configurations on Cessna 172S</i> Burak Akgül <i>Latest Developments on Electrical Air Vehicles Powered by Electric and Hybrid Propulsion Systems</i> Ozgun Balli , Alper Dalkiran, Tahir Hikmet Karakoc
14:00 - 15:00	6th Technical Session	Session Chair: Vis Sripawadkul <i>Design of Aircraft Wings and Wind Turbine Blades</i> Eusébio Z.E. Conceição , M ^a Ines L Conceição, M ^a Manuela R. Lúcio, João M. M. Gomes, Hazim B. Awbi <i>Modeling of exhaust gases jet from aircraft engine for different operational conditions</i> Kateryna Synyo <i>Possibilities of using fuel cells in transport aircraft</i> Marian Hocko , Samer Al-Rabeel, Utku Kale <i>Application of PMV in the Evaluation of the Aircraft Passenger Cabin Thermal Environment</i> Eusébio Z.E. Conceição , M ^a Ines L Conceição, M ^a Manuela R. Lúcio, João M. M. Gomes, Hazim B. Awbi
15:00 - 15:45	Closing Remarks	

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13:00 - 14:00	7th Technical Session	Session Chair: Utku Kale <i>A Review on the Use of Unmanned Aerial Vehicles in the Structural Inspection of Greenhouses</i> Emre Özбек , Elif Koryucu, Selçuk Ekici, T. Hikmet Karakoç <i>Aircraft Accidents and their causes</i> Samer Al-Rabeel , Simona Pjurová, Utku Kale <i>Examination of Different Systems Used for UAV Detection and Tracking</i> Alpaslan Durmuş <i>PIV Experimental Setup Integrated Wind Tunnel Initial Design: Size and Power Requirement Calculation</i> Murat Ayar , T. Hikmet Karakoç
14:00 - 15:00	8th Technical Session	Session Chair: Mehmet Ziya Söğüt <i>Sustainable Aviation of a Leather Industry: Life Cycle Assessment of Raw Materials, Energy Consumption and Discharge of Pollutants and Recovery some Economical Merit Substances</i> Delia Teresa Sponza , Nefise Erdinçmer <i>Subjective Decision-Making of Aviation Operators (Pilots, ATCOs)</i> Utku Kale, Omar Alharasees , Jozsef Rohács and Dániel Rohács <i>Particle Image Velocimetry Measurement With Scaled-Down Aircraft Models: A Review Of The Experiments And Applications</i> Murat Ayar , Ali Haydar Ercaan, T. Hikmet Karakoç <i>Resampling based particle filter estimation of a quadrotor</i> Aziz Kaba , Ahmet Ermeşyan
15:00-15:15 Short Break		
15:15 - 16:30	9th Technical Session	Session Chair: Alper Dalkiran <i>Evaluation of HVAC System Performance in an Aircraft Passenger Cabin</i> Eusébio Z.E. Conceição , M ^a Ines L Conceição, M ^a Manuela R. Lúcio, João M. M. Gomes, Hazim B. Awbi <i>An Examination of the Usage Areas of Big Data Technology in Civil Aviation</i> Betul Kaçar , Emre Nalçacıgil <i>Imaging Techniques based on Unmanned Aerial Vehicle</i> Alpaslan Durmuş , Abdulhamit Sevgi, Cebraill Özmez <i>A Study on Emission Comparison Considering Aircraft Size</i> Dilara Kılıç , Selçuk Ekici, T. Hikmet Karakoç

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13:00 - 14:00	10th Technical Session	Session Chair: Sergii Boichenko <i>Modern Tendencies in Improvement of Technologies of Utilization of the Fulfilled Tires</i> Anna Yakovlieva , Sergii Boichenko, Iryna Shkiliuk, Igor Kubersky <i>Determination of Environmental Impact Assessment Criteria in the Life Cycle of Transport Facilities</i> Khutba V. , Rutkovska I., Lukyanova V., Barabash O., Kharitonova N. <i>Features of Formation of Aerodrome Territories in the Context of Decarbonization</i> Iryna Novakovska , Lillia Skrypnyk <i>Production of Urea Lubricating Oils Based on Plant Oils</i> Oleg Safronov , Larysa Bodachivska, Iryna Venger, Oleksii Papeikin
14:00 - 15:00	11th Technical Session	Session Chair: Anna Yakovlieva <i>Increase of Engine Characteristics by Using of Alcohol Converting</i> Sviatoslav Kryshchop , Liudmyla Kryshchop, Myroslav Panchuk, Volodymyr Korohodskyi, Igor Prunko, Ivan Myktyii <i>On the Peculiarities of Alkaline-catalyzed Route of Synthesis of Fatty Acid Monoalkyl Esters</i> Serhii Konovalov , Stepan Zubenko, Lyubov Patriyak, Anjela Yakovenko, Volodymyr Povazhnyi, Kateryna Burlachenko <i>Improvement of the Process of Wet Conversion of Natural Gas for the Purpose of Optimization of Production of Carbon-free Fuels for Diesel Engine</i> Solovyov G. , Klimash A., Galstyan A. <i>Use of Polyfunctional Additives as a Part of Motor Fuels and Lubricants.</i> Grigov A.B. , Trotsenko A.V.
15:00 - 15:45	Closing Remarks (Please go to ESTÜ Hall for Closing Remarks)	