

<https://zoom.us/j/97763150579?pwd=WXBuaXhDaE1Hai9Fa2pSZyt5NTR5dz09>
 Meeting ID: 977 6315 0579
 Passcode: 249194

Zoom Link: <https://zoom.us/j/93340292967>

| ISSA'21 (International Symposium on Sustainable Aviation) Program (Bangkok Time GMT +7) | | |
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| 24 November 2021 - 20:00-20:30 (GMT+7) - Virtual Cocktail & Zoom Rehearsal Zoom ID:977 6315 0579 & Passcode:749194 Bangkok Hall - Zoom Link: https://zoom.us/j/97763150579?pwd=WXBuaXhDaE1Hai9Fa2pSZyt5NTR5dz09 | | |
| (GMT+7) | 25 November 2021 - Zoom ID:977 6315 0579 & Passcode:749194 | |
| Bangkok Time | Zoom Link: https://zoom.us/j/97763150579?pwd=WXBuaXhDaE1Hai9Fa2pSZyt5NTR5dz09 | |
| 13:00 - 14:00 | Opening Session | Live Opening Concert Alper Çabuk, Honorary Chair of ISSA'21, Deputy Rector - Eskişehir Technical University, Turkey Chongrak Wachrinrat, Honorary Chair of ISSA'21, President of Kasetsart University, Thailand Siripong Atipan, Chair of ISSA'21 Raj Das, Chair of ISSA'22 T. Hikmet Karakoç, Founding Chair of SARES Symposiums |
| 14:00 - 15:30 | 1st Keynote Session | Session Chair: Hikmet Karakoç <i>Ramifications of the 2nd Law of Thermodynamics on Sustainability, Daily Life, and Philosophy</i> Yunus Cengel - University of Nevada, Reno, USA <i>Where will the renewable energy for the transition to sustainable aviation come from?</i> Max Platzer - University of California Davis, USA <i>Global, regional and local issues of ICAO Balanced Approach to aircraft noise management in airports</i> Oleksandr Zaporozhets - National Aviation University, Kyiv, Ukraine |
| 15:30-15:45 | Short Break | |
| Parallel Halls: Bangkok Hall - Zoom Link: https://zoom.us/j/97763150579?pwd=WXBuaXhDaE1Hai9Fa2pSZyt5NTR5dz09 | | |
| 15:45 - 16:45 | 1st Technical Session - Sustainable Airports and Policies | Session Chair: Siripong Atipan <i>Sustainability Indices for Airport Sustainability Evaluation</i> Orhan Yücel , Alper Dalkiran, Seval Kardeş Selimoğlu, Tahir Hikmet Karakoç <i>Features of Formation of Aerodrome Territories in the Context of Decarbonization</i> Liliia Skrypnik <i>Research on The Effects of Flight Procedures on Noise Contours Map around Tan Son Nhat International Airport</i> La Tuân Kiệt <i>Development strategy for Tan Son Nhat International Airport</i> Tinh Thanh Nguyen |
| 16:45 - 17:45 | 2st Technical Session - Aircraft Design | Session Chair: Abd Rahim Abu Talib <i>Breaking The Aircraft Vortex Wake Near the Ground - Mitigation of Turbulence Wake Hazard</i> Theerawit Tekitchamroon <i>Circulation Control Flap - En Route Toward Sustainable High-Lift Devices</i> Akanit Nimmanmongkol , Chinnapat Chumsing, Vejapong Juttijudata <i>Design of Hybrid Laminar Flow Control System for Aircraft Wings</i> Muhammad Mohamed Faizan Pathan <i>Numerical Design of Aircraft Passenger Cabin</i> Eusébio Z.E. Conceição |
| 17:45-18:00 | Short Break | |
| 18:00-19:00 | 3rd Technical Session - Aviation Materials | Session Chair: Roberto Sabatini <i>Design and Testing of Multiple Web Composite Wing Spar for Solar-Powered UAV</i> Varissara Wongprasit , Nasapol Thanomwong, Chinapat Thipyopas <i>Comparative Study between Aluminium and Hybrid Composites for UAV</i> Karunamit Saensuriwong , Veena Phunpeng, Thongchart Kerdphol <i>Static and Modal Analysis of UAV Composite-Based Structures</i> Sireegorn Sumklang , Veena Phunpeng, Thongchart Kerdphol <i>Strength Analysis of a Wing Structure for a Single Turboprop Normal Category Aircraft</i> Vis Sriwadkul, Phacharaporn Bunyawanichakul |
| 19:00-20:30 | 2nd Keynote Session | Session Chair: Oleksandr Zaporozhets <i>Sustainability Initiatives at US Airports</i> Mary E. Johnson - School of Aviation and Transportation Technology Purdue University, USA <i>The future of sustainable aviation fuels</i> Nadir Yilmaz - Professor and Department Chair Department of Mechanical Engineering, Howard University Washington DC, USA <i>Quality Category In Aviation's Modern Fuel Supply Technologies</i> Sergii Boichenko - Ukrainian Center for Chemmatology, Ukraine |

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| 24 November 2021 - 20:00-20:30 (GMT+7) - Virtual Cocktail & Zoom Rehearsal Zoom ID:977 6315 0579 & Passcode:749194 Eskişehir Hall - Zoom Link: https://zoom.us/j/93340292967 | |

| Eskişehir Hall - Zoom Link: Join Zoom Meeting https://zoom.us/j/93340292967 | |
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| 12th Technical Session - Chemmatology Session | Session Chair: Oleksandr Zaporozhets <i>Experimental and Analytical Principles of Improving Waste Management Technologies in the Technosphere</i> Iryna Shkilniuk, Sergii Boichenko, Ihor Trofimov , Anna Yakovleva, Sergii Shamansky, Tetyana Kondratyuk <i>Analysis of world practices of using liquid hydrogen as a motor fuel for aviation</i> Tarasjuk O. , Boichenko S., Trofimov I. <i>Research of physicochemical properties of Nigerian oils and prospects of their use technological scheme of their processing</i> Babatunde Olaulava Olufemi , Topilnytsky P., Romanchuk V. <i>Research of tribotechnical characteristics of modern aviation oils.</i> Mikosianchyk O. , Iliina O. |
| 13th Technical Session - Chemmatology Session | Session Chair: Sergii Boichenko <i>Main directions of activity and prospects of development Iraq Gas Company</i> Ibrahim Asaad M. Ali <i>Properties of diether - ethanol - gasoline blends</i> Viktorii Ribun <i>Cause-effect analysis of factors that contribute to the occurrence of microbiological contamination of aviation fuel and fuel tanks aircraft</i> Iryna Shkilniuk , Kazimierz Lejda, Sergii Boichenko <i>Physical-chemical properties of alternative jet fuels produced from alcohols</i> Anna Yakovleva , Sergii Boichenko, Vasyil Boshkov |
| Short Break | |
| 14th Technical Session - Chemmatology Session | Session Chair: Anna Iakovlieva <i>Technologies for modifying the composition of aviation gasoline</i> Alina Tinkevich <i>Ecological properties of anti-ice liquids based on propylene and ethylene glycol</i> Bakhtin A., Shkilniuk I., Boichenko S., Yezhov S. |

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| (GMT+7) | | 26 November 2021 - Zoom ID:977 6315 0579 & Passcode:749194 |
| Bangkok Time | | Zoom Link: https://zoom.us/j/97763150579?pwd=WXBuaXhDaE1H9Fa2pSZyt5NTR5dz09 |
| 13:00-14:30 | 3rd Keynote Session | <p>Session Chair: Siripong Atipan</p> <p><i>Digital Transformation and Sustainability of the Air and Space Transport Sector: Research and Innovation Perspectives</i></p> <p>Roberto Sabatini - Aerospace Engineering, Khalifa University, UAE</p> <p><i>Sustainable Materials for Next Generation Aerospace and Aviation Sector – Perspectives and Outlook</i></p> <p>Raj Das - Aerospace and Aviation - School of Engineering, RMIT University, Australia</p> <p><i>Multi-camera multi-target tracking systems with trajectory-based target matching and re-identification</i></p> <p>Sutthiphong Srigrarom - Mechanical Engineering, National University of Singapore, Singapore</p> |
| 14:30 - 15:50 | 1st Invited Session | <p>Session Chair: Navatasn Kongsamutr</p> <p><i>Aviation Sustainability and the Environment in Thailand</i></p> <p>Pasavi Ratchapongsirikul - Head of Aviation Environment Division, Civil Aviation Authority of Thailand, Thailand</p> <p><i>Further beyond Green Destination : Challenges in creating airport sustainability</i></p> <p>Chakarapop Charatsri - Vice President (Environment), Airports of Thailand Plc., Thailand</p> <p><i>Air Traffic Flow Management Contribution to Sustainable Aviation</i></p> <p>Piyawut Tantimekabut - Air Traffic Management Network Manager, AEROTHAI Chair, ICAO APAC Air Traffic Flow Management Steering Group, Aeronautical Radio of Thailand Co., Ltd., Thailand</p> <p><i>Liberalisation, Competition and Pandemic Disruption: An LCC perspective on Thai airline business sustainability</i></p> <p>Narudh Cheramakara - Director of Aviation Research, Nok Airlines Plc., Thailand</p> |
| 15:50 - 16:00 | | Short Break |

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| Parallel Halls: | | Bangkok Hall - Zoom Link: https://zoom.us/j/97763150579?pwd=WXBuaXhDaE1H9Fa2pSZyt5NTR5dz09 |
| 16:00 - 17:00 | 4th Technical Session - Aviation Materials | <p>Session Chair: Laurent Patrick Mezeix-Varagnat</p> <p><i>Applying Glass Fiber Reinforced Composites with Microsphere Particles to UAV Components</i></p> <p>Wipada Boransan, Veena Phunpeng, Thongchart Kerdphol</p> <p><i>Highly Aligned Discontinuous Fibre Composite Filaments For Fused Deposition Modelling: Tensile Properties And Printability Investigation</i></p> <p>Narongkorn Krajangsawadi, Benjamin K.S. Woods, Ian Hamerton, Dmitry S. Ivanov, Marco L. Longana</p> <p><i>Dye Visualization Of Flow Structure Of Circular Cylinder Oscillating At Re=1000</i></p> <p>Cemre Polat, Dogan Burak Saydam, Mustafa Soyluer, Coskun Ozalp</p> <p><i>The analysis of lightning strike effects on aircrafts by finite elements method</i></p> <p>Semen Memis, Özcan Kalenderli, Özkan Altay</p> |
| 17:00 - 18:00 | 5th Technical Session - Life Cycle Assessment in Aviation | <p>Session Chair: Raj Das</p> <p><i>Sustainable Aviation of Textile Industry: Life Cycle Assessment of the Pollutants of a Denim Jean Production Process</i></p> <p>Delia Teresa Sponza, Nefise Erdinçmer</p> <p><i>Effects of Alternative Aviation Fuels on Environment and Enviro-Economic</i></p> <p>Selçuk Sarikoç</p> <p><i>Sustainable Aviation of Textile Industry: Life Cycle Assessment of the Pollutants of a Denim Jean Production Process</i></p> <p>Delia Teresa Sponza, Nefise Erdinçmer</p> <p><i>Assessment of Oxygenated and Nanofluid Fuels as an Alternative/Green Aviation Fuels</i></p> <p>Selçuk Sarikoç</p> |
| 18:00 - 18:15 | | Short Break |
| 18:15 - 19:15 | 6th Technical Session - Greener Engine and Aviation Fuels | <p>Session Chair: Thomas Gries</p> <p><i>Exposure potential of Environment by Entropy continuity for Cruise Altitude of Aircraft Engine</i></p> <p>Mehmet Ziya Söğüt</p> <p><i>The influence of fuels containing fatty acids ethers on fuel systems</i></p> <p>Daryna Popytailenko, Olena Shevchenko</p> <p><i>Aero-Engine Emission Calculation Method and its Limitation Analysis</i></p> <p>Sanmai SU, Kaiheng Liang, Rongzhang Xie</p> <p><i>Examining Thermo-Economic and Environmental Performance of Piston Engine Considering LNG Fuel Transition of Aircraft</i></p> <p>Mehmet Ziya Söğüt</p> |
| 19:15 - 19:30 | | Short Break |
| 19:30 - 20:45 | 7th Technical Session - General Aviation Topics | <p>Session Chair: Nadir Yilmaz</p> <p><i>Design of PI Controller for Longitudinal Stability of Fixed-Wing UAVs</i></p> <p>Wilailak Wanna, Veena Phunpeng, Thongchart Kerdphol</p> <p><i>Sustainable Materials used by Additive Manufacturing for Aerospace Industry</i></p> <p>Alperen Doğru, Mehmet Özgür Seydibeyoğlu</p> <p><i>Software Assessment For Particle Image Velocimetry For Aviation Industry</i></p> <p>Onur Yaşar, Selcuk Ekici, Enver Yalcin, Hikmet Karakoc</p> <p><i>Evaluation of Nanostructured Materials: PEM Fuel Cell Applications</i></p> <p>Murat Ayar, Öze Yetik, Hikmet KARAKOÇ</p> <p><i>Overview of Hydrogen-Powered Air Transportation</i></p> <p>Hursit Degirmenci, Alper Uludag, Selcuk Ekici, T. Hikmet Karakoc</p> |

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| | | Eskişehir Hall - Zoom Link: Join Zoom Meeting https://zoom.us/j/93340292967 |
| 15th Technical Session - Aviation Management | | <p>Session Chair: Liliia Skrypnyk</p> <p><i>APC E-Rostering System</i></p> <p>Titapong Chureeganon</p> <p><i>An Approach to Optimizing Aircraft Maintenance</i></p> <p>Onyedikachi Chioma Okoro, Maksym Zaliskyi, Serhii Dmytriev</p> <p><i>Application of a Virtual Chamber Used as Aircraft Passenger Cabin in the Evaluation of Comfort</i></p> <p>Eusébio Z.E. Conceição</p> <p><i>Green Practices Adoption Among Leading Green Airlines</i></p> <p>Teeris Thepchalerom, Phutawan Ho</p> |
| 16th Technical Session - Aviation Management | | <p>Session Chair: Alper Dalkiran</p> <p><i>Beyond Technology: Digital Transformation in Aerospace and Aviation</i></p> <p>Pasit Suebsuwong</p> <p><i>Safety Culture and Safety Management System in Aviation</i></p> <p>Emre Nalçacıgil, Betul Kaçar</p> <p><i>Decision-making Modelling in Flight Emergencies</i></p> <p>Tetiana Shmelova, Maxim Yatsko, Yuliya Sikirda, Eizhena Protsenko</p> <p><i>An Examination of the Usage Areas of Big Data Technology in Civil Aviation</i></p> <p>Betul Kaçar, Emre Nalçacıgil</p> |
| 17th Technical Session | | <p>Session Chair: Siripong Atipan</p> <p><i>Free Vibration Characteristics of Variable-Span Morphing Wings</i></p> <p>Damla Durmuş</p> <p><i>Airline service quality attributes</i></p> <p>Araya Sakburanapech, Narinisa Thongpa, Prawit Otanalai</p> <p><i>Design of ASTINSAT-1 and Structural Analysis, Use of Generative Design</i></p> <p>Alper Şanlı, Alim Rüstem Aslan</p> <p><i>Investigation of Turbofan Engine Emissions at Different Cruise Conditions for Greener Flights</i></p> <p>Ali Dinc, Ibrahim Elbadawy, Mohamed Fayed, Kaushik Nag, Rani Taher, Yousef Gharbia</p> |
| 18th Technical Session | | <p>Session Chair: Vis Sripawadkul</p> <p><i>Effect of phase change material dimension on maximum temperature of a lithium-ion battery</i></p> <p>Uğur Morali</p> <p><i>Fuel Consumption Analysis of Gradual Climb Procedure with Varied Climb Angle and Airspeed</i></p> <p>Siripong Atipan, Pawarej Chomdej</p> <p><i>Effects of Strategic Alliance Membership on the Environmental Performance of Airlines</i></p> <p>Serap Gursel, Gamze Orhan</p> <p><i>Flight Testing and Simulation of High Altitude Reflector Components</i></p> <p>Narayanan Komerath, Ravi Deepak, Adarsh Deepak</p> <p><i>Safety Factor Analysis in Ramp Operation with AHP Approach</i></p> <p>Ilker Inan, Ilkay Orhan</p> |

| (GMT+7) | 27 November 2021 - Zoom ID:977 6315 0579 & Passcode:749194 | |
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| Bangkok Time | Bangkok Hall - Zoom Link: https://zoom.us/j/97763150579?pwd=WXBuaXhDaE1Hai9Fa2pSZyt5NTR5dz09 | |
| 13:30-14:00 | 4th Keynote Session | <p>Session Chair: T. Hikmet Karakoc</p> <p><i>Aviation Industry in the Post Pandemic Covid-19: Resetting the Landscape</i></p> <p>Abd Rahim Abu Talib - Universiti Putra Malaysia, Malaysia</p> |
| 14:00 - 15:20 | 2nd Invited Speaker Session | <p>Session Chair: Sutthiphong Srigrarom</p> <p><i>Operators (Pilots, ATCOs)' Load Monitoring and Management</i></p> <p>Utku Kale University Of Technology And Economics (BME), Hungary</p> <p><i>Spring-back prediction through numerical simulation for composite manufacturing using autoclave process.</i></p> <p>Laurent Patrick Mezeix-Varagnat - Composite Structures and Manufacturing, Burapha University, Thailand</p> <p><i>Air Passenger Protection: Before and After Covid-19</i></p> <p>Lalin Kovudhikulrungsri - Faculty of Law, Thammasat University, Thailand</p> <p><i>Thailand's Aerospace Manufacturing Industry: An Evolution from Automotive, Aircraft through Spacecraft</i></p> <p>Natthawat Hongkarnjanakul - Director of Space Technology Development Office, GISTDA (Geo-informatics and Space Technology Development Agency), Thailand</p> |
| 15:20 - 15:30 | Short Break | |
| 15:30 - 16:30 | 8th Technical Session - Sustainable Airports and Policies | <p>Session Chair: Ethirajan Rathakrishnan</p> <p><i>Seamless Passenger Experience for the Airport Environment: Research at DARTeC</i></p> <p>Fatma Gul AMIL</p> <p><i>Noise Contour Map Around Tan Son Nhat International Airport for Approach Phase by Numerical Method</i></p> <p>Ninh The Truong, La Tuan Kiet</p> <p><i>Critiques and Challenges of Air Transport Liberalisation Policy in Thailand</i></p> <p>Navatasn Kongsamutr</p> <p><i>In Search of Environmental Protection Element in the Thai Aviation Law: A Result from CORSIA</i></p> <p>Lalin Kovudhikulrungsri</p> |
| 16:30-17:30 | 9th Technical Session - Aircraft Design | <p>Session Chair: M. Ziya Söğüt</p> <p><i>Numerical Validation Study of a Helicopter Rotor in Hover by Using SU2 CFD Solver</i></p> <p>Yunus Emre Sunay, Nilay Sezer Uzol</p> <p><i>Aerodynamic Performance Predictions of Martian Helicopter Co-Axial Rotor in Hover by using Unsteady CFD Simulations</i></p> <p>Onur Küçükoğlu, Sergen Sakaoğlu, Nilay Sezer Uzol</p> <p><i>Investigation of Flow Structure of Rotary Oscillating Cylinder with PIV Measurement Technique</i></p> <p>Mustafa Soyler, Cemre Polat, Dogan Burak Saydam, Coskun Ozalp</p> <p><i>An Evaluation of Particle Image Velocimetry in Terms of Correlation for Aviation</i></p> <p>Onur Yaşar, Selcuk Ekici, Enver Yalcin, Hikmet Karakoc</p> |
| 17:30-17:45 | Short Break | |
| 17:45 - 18:45 | 10th Technical Session - More Electric - All Electric Aircraft | <p>Session Chair: Tetiana Shmelova</p> <p><i>Transient Behavior of a Hybrid Electric Air-taxi</i></p> <p>Teresa Donateo, Ludovica Spada Chiodo, Antonio Ficarella</p> <p><i>A More Electric Aircraft Application: Starter/Generator</i></p> <p>Ufuk Kaya, Eyyüp Öksüztepe</p> <p><i>Numerical Study of Porous Metal Foam Effect on Phase Transition Process in a Latent Heat Thermal Energy Storage Device</i></p> <p>Riheb Moktar Mabrouk</p> <p><i>Moving Towards a Greener Aviation: Electrification of Aircraft</i></p> <p>Halime Hizarci, Uğur Arifoğlu</p> |
| 18:45 - 19:30 | 11th Technical Session - Aviation Management | <p>Session Chair: Mary E. Johnson / Benjamin</p> <p><i>Effect of Work Shift Rotating on Fatigue Levels of Aircraft Mechanics in Line Maintenance</i></p> <p>Monchai Suraratchai</p> <p><i>Integration of Sustainability and Digitalization in Air Logistics: Current Trends and Future Agenda</i></p> <p>Volkan Yavas, Yeşim Deniz Özkan Özen</p> <p><i>Digitalization in the way of Aviation Sustainability</i></p> <p>Rafet Demir, Serap Gürsel, Hakan Rodoplu</p> |
| 19:30 - 20:00 | Award Giving & Closing Remarks | |