

International Symposium on Sustainable Aviation



26th-28th July 2023 |
National Cheng Kung University, Tainan City, TAIWAN



Symposium Link: <https://nckucc.webex.com/meet/z10808025>

ISSA'23 Program - DAY 1 (26 July 2023)

Taiwan Time (GMT +8)		Symposium Link: https://nckucc.webex.com/meet/z10808025
12:00 - 12:30		Welcoming Reception & Registration
12:30 - 12:50	Opening Session	Shau-Shiun Jan , Chair Person, Department of Aeronautics and Astronautics, National Cheng Kung University, Taiwan Chih-Yung Wu , Deputy Chair, Department of Aeronautics and Astronautics, National Cheng Kung University, Taiwan
12:50 - 13:30	Introductory Keynote Session	Max Platzer , Lifetime Honorary President of SARES, University of California Davis, USA T. Hikmet Karakoç , Founding Chair of SARES Symposiums, Director of Research and Application Centre of Civil Aviation, Eskişehir Technical University, Türkiye
13:30 - 15:00	Keynote Speaker Session I	Session Chair: Chih-Yung Wu
		<i>Applications of CFD on the analysis of aerodynamic characteristics of modern aircrafts</i> Wen-Lih Chen , National Cheng Kung University, Taiwan
		<i>Hydrogen and Hydrogen Blending Fuels</i> Mustafa İlbaş , University of Gazi, Ankara, Türkiye.
		<i>Dynamics by Design: Evolutionary Design of Irregular Multiscale Metamaterial Systems</i> Raj Das , RMIT University, Australia
15:00 - 15:20 Coffee Break		
15:20 - 16:20	Invited Speaker Session I	Session Chair: Hikmet Karakoç <i>Simulating Fluid and Particles Behaviour in the Centrifuge for Platelet-Rich Plasma Process in Silico</i> Dean Chou , National Cheng Kung University, Taiwan <i>Bioenergy for Sustainable Development</i> Chi Yi Kai , Tainan University, Taiwan
16:20 - 16:45 Coffee Break		
16:45 - 18:30	Technical Session I	Session Chair: Ali Haydar Ercan <i>Strength Prediction of T-joint Composite Laminates Using Continuum Damage Modeling Methodology.</i> Jui-Pu Hsia , Yu-Jui Liang <i>Ranking of Indian Airlines</i> Mayank , T. Bangar Raju <i>A Brief Assessment of Aircraft Fuel Consumption and Pollutant Emissions for Departure Operations.</i> Ramazan Kursat Cecen , Kadir Dönmez <i>Shear Thickening Fluid Based Triboelectric Nanogenerators</i> Selim Gürgen <i>A Short Review of Aircraft Noise Effects on Children's Learning in Auditory, Non-auditory, and Cognitive Development</i> Korawit Fakkhong, Sophita Sa-Ngobkai , Supansa Yamee, Tipavinee Suwanwong Rodbundith, Nattaphon Rangsaritvorakarn <i>Gaining of Conductivity in Shear Thickening Fluids</i> Selim Gürgen <i>High Impact Resistance with Aerogel-Based Composites</i> Selim Gürgen

DAY ONE

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ISSA'23 Program - DAY 2 (27 July 2023)

Taiwan Time (GMT +8)		Symposium Link: https://nckucc.webex.com/meet/z10808025
11:30 - 12:00		Welcoming Reception & Registration
12:00 - 13:00	Keynote Speaker Session II	Session Chair: Raj Das <i>The Energy Ship: A Proposal for Large-Scale Renewable Energy from Wind over Water</i> Max Platzer , Lifetime Honorary President of SARES, University of California Davis, USA <i>Electric propulsion for Cube Satellite</i> Yueh-Heng Li , National Cheng Kung University, Taiwan
13:00 - 14:30	Invited Speaker Session II	Session Chair: Ali Haydar Ercan <i>Exploring Sustainable Development Potential of Spent Coffee Grounds</i> Lee Kuan-Ting , National Cheng Kung University, Taiwan <i>Design, modeling, and testing of a Tilt-rotor Tricopter VTOL UAV</i> Hong-Hieu Le , Ho Chi Minh City University of Technology, Vietnam <i>On-board Standalone Stereo Vision Assisted Landing System Development for Fixed-Wing UAVs</i> Chao-Chung Peng , National Cheng Kung University, Taiwan
14:30-15:30 Lunch Break		
15:30 - 17:00	Technical Session II	Session Chair: Xiang-Xin Chen <i>Theoretical Performance Analysis of High Entropy Alloys in Hybrid Rocket Motors</i> Muhammad Hanafi Azami, Muhammad Ezamuddin Ezzad Sabri , Norhuda Hidayah Nordin <i>Selection of Sustainable Aviation Fuels: An Expert-Based Comparative Approach</i> Omar Alharasees , Utku Kale <i>Optimization of Vortex Generators for a Subsonic Aircraft Wing using Taguchi Method</i> An-Jui Hsu , Wen-lh Chen, Ming-shi Hu, Yi-chung Liu <i>Airline Technological Services and Airline Passengers' Purchase Intention: An Investigation</i> Gamze Özdemir , Fikri İlgöz, Ibrahim Abdi Mohamed , Alper Dalkiran <i>The Effect of Air-blast Injector Design on Swirl Number and Spray</i> Yu-Ta Chen , Tony Yuan, Shih-Tu Wu, and Chun-Hsiang Liao <i>Properties and Specifications of Sustainable Aviation Fuels and Conventional Aviation Fuels</i> Mhd Bashar Al Kazzaz , Beneda Károly
17:00 - 18:00	INDUSTRIAL SPECIAL SESSION	Session Chair: M. Ziya Söğüt <i>The Introduction of Aerospace Technology of GEOSAT</i> Yung-Lan Yeh , Geosat Aerospace & Technology, Taiwan <i>Sensor Applications in Aerospace Industry</i> Luigi Yang , Micro-Epsilon Taiwan Co. Ltd., Taiwan

DAY TWO

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ISSA'23 Program - DAY 2 (27 July 2023)

Taiwan Time (GMT +8)		Symposium Link: https://nckucc.webex.com/meet/z11102009
14:30-15:30 Lunch Break		
15:30 - 17:15	Technical Session IV	Session Chair: Utku Kale <i>Progress on PEM Fuel Cell Powered Unmanned Aerial Vehicle Research</i> Mustafa Azer , Can Özgür Çolpan, T. Hikmet Karakoç <i>The Importance of Exergy for Sustainability Aviation</i> Cengizhan Gök , Umut Çiçek <i>Operation of new generation aircraft in the emergency response service</i> Dávid Szilágyi , Dávid Sziroczák <i>The impact of SAF on reducing NOx, SO2, and non-CO2 emissions</i> Mhd Bashar Al Kazzaz , Beneda Károly <i>Evaluation of an UAS based service business model for road surface monitoring</i> Dávid Szilágyi , Dávid Sziroczák, Utku Kale, Emre Özbe, Murat Ayar, Hikmet Karakoç

DAY TWO

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ISSA'23 Program - DAY 3 (28 July 2023)

DAY THREE

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Taiwan Time (GMT +8)		Symposium Link: https://nckucc.webex.com/meet/z10808025
11:00 - 11:30		Welcoming Reception & Registration
11:30 - 13:00	Invited Speaker Session III	Session Chair: Ali Haydar Ercan
		<i>Bio-based Hierarchical Porous Carbon Application in Energy Storage</i>
		Hsieh, Tzu-Hsien , Green Technology Research Institute, Chinese Petroleum Corporation, Taiwan
		<i>The development of Sustainable Aviation Fuel (SAF): Production, Engine Combustion, and Evaluation</i>
		Wei-Chen Wang , National Cheng Kung University, Taiwan
		<i>The Practical Examples of Aerospace Technology Applications</i>
		Yung-Lan Yeh , Geosat Aerospace & Technology, Taiwan
13:00 - 14:00	Keynote Speaker Session III	Session Chair: Chih-Yung Wu
		<i>Aircraft noise monitoring systems for greening the airports</i>
		Oleksander Zaporozhets , Łukasiewicz Research Network – Institute of Aviation, Poland
		<i>Experience and prospects of SAF use in Ukraine</i>
		Sergii Boichenko , Chemmotologists Association, Ukraine
14:00-15:00 Lunch Break		
15:00 - 16:00	Technical Session III	Session Chair: Utku Kale
		<i>Energy Minimization in CO2 Capture in a Natural Gas Power Plant</i>
		Rukiye Öztekin , Delia Teresa Sponza
		<i>Kinetic Modelling of Styrene-Butadiene Rubber (SBR) Pyrolytic Oil</i>
		Hiew Mun Poon , Jia Jun Chong, Hoon Kiat Ng, Suyin Gan, Gianfranco Scribano, Wei-Cheng Wang
		<i>Air Traffic Management Principles: A Case Study on How to Create a Sustainable System.</i>
		Eva Maleviti
		<i>The Impact of COVID-19 on Air Cargo Transportation in Turkey</i>
		Melike Peynircier, Ali Emre Sarılgan
16:00 SARES Awards Ceremony and Closing Remarks		