

ISAE 2021

1st International Seminar on Aeronautics
and Energy 2021

PROGRAMME SCHEDULE

28th August 2021

Johor Bahru, Malaysia

ORGANIZED BY:



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

School of
Mechanical
Engineering

MORNING SESSION (KEYNOTE SPEAKERS)

OPENING REMARKS

8:00 – 8:30 am	Opening Remarks	UTM TNCPI
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Keynote Session 1 (8:30 – 11:00 am)

Link: **bit.ly/isae2021**

Session Chair: Associate Professor Ainulotfi Abdul Latif

Time	Speaker	Topic
8:30 – 9:00	Keynote 1 : Professor George N Barakos	<i>Recent Progress in rotary wing simulation</i>
9:00 – 9:30	Keynote 2 : Professor Anton Adibroto	<i>Past and Future of UTM-LST</i>
9:30 – 10:00	Keynote 3 : Professor Miao, Jiun-Jih	<i>Past and Future research in Experimental Aerodynamics</i>
10:00 -10:30	Keynote 4 : Professor S Thaniagaarasu	<i>Isolator Performance of Scramjet Engine</i>

Keynote session 2 (11:00 am – 12:40 pm)

Link: **bit.ly/isae2021**

Session Chair: Associate Professor Ainulotfi Abdul Latif

Time	Speaker	Topic
11:00 – 11:20 am	Ir. Mohd. Khir Bin Muhammad	<i>Malaysia's First Wind Tunnel : From Dream to Reality</i>
11:20 -11:40 am	Professor Dr. Mohd Nazri Bin Mohd Jaafar	<i>Diversification of Aeronautics Research at Aerolab</i>
11:40 – 12:00 pm	Professor Dr. Ir. Shuhaimi Bin Mansor	<i>Appreciation of wind tunnel design, technology and applications</i>
12:00 12:20 pm	Professor Dr. Ir. Wan Khairuddin bin Wan Ali	<i>Diversifying Aerolab resources for income generation.</i>
12:20 – 12:40 pm	Dr. Ir. Shabudin Bin Mat	<i>UTM Aerolab towards COE & ISO 17025 : Way forward</i>

AFTERNOON SESSION

(TECHNICAL PAPER PRESENTATION)

Room 1 – (2:00 – 4:40 pm)

Link: https://bit.ly/isae_room1

Session Chair: Dr. Iskandar Shah Ishak (+6012 722 5349)

Time:	Paper ID	Topic	Authors
2:00 – 2:20 PM	ISAE PAPER 2	Effects of Transition Strip on Aerodynamic Coefficients of MULDICON Wing for Low-Speed Wind Tunnel Testing	Bilal Haider, Shuhaimi Mansor, Shabudin Mat, Wan Zaidi Wan Omar, Nazri Nasir
2:20 – 2:40 PM	ISAE PAPER 3	Experimental analysis for low-speed aerodynamic characteristics of MULDICON AVT251 UCAV configuration	Bilal Haider, Shuhaimi Mansor, Shabudin Mat, Wan Zaidi Wan Omar, Nazri Nasir
2:40 – 3:00 PM	ISAE PAPER 4	Characterization of Unsteady Aerodynamic Wake for a Generic Helicopter	Nur Nabilla Mohd, Iskandar Shah Ishak, Shabudin Mat, and Airi Ali
3:00 – 3:20 PM	ISAE PAPER 5	Spectroscopic analysis of soybean biodiesel swirl flame	Meng-Choung Chiong & Guo Ren Mong
3:20 – 3:40 PM	ISAE PAPER 8	Experimental and numerical study on the vortical flow of MULDICON configuration	Ibrahim Madan, Jiun-Jih Miao & Shabudin Bin Mat
3:40 – 4:00 PM	ISAE PAPER 18	Amplitude modulation of a Quasi-Unimodal Cavity Tone in a Low-speed Flow	Varun Thangamani
4:00 – 4:20 PM	ISAE PAPER 22	Aerodynamic Characteristics of NACA0012 with Suction and Blowing slots at Various Angles of Attack	Ahmad Hussein Abdul Hamid, Muhammad Azuan Mohd Najib, Rizal Effendy Mohd Nasir
4:20 – 4:40 PM	ISAE PAPER 29	Assessment on Aerodynamic Testing of a civil aircraft in Indonesia Low-Speed Wind Tunnel (ILST) Using Analysis of Variance	Subagyo Subagyo

Room 2 – (2:00 – 4:40 pm)

Link: https://bit.ly/isae_room2

Session Chair: Dr. Muhammad Faruq Foong Bin Mohamad Faiz Foong (+6013 711 9720)

Time:	Paper ID	Topic	Authors
2:00 – 2:20 PM	ISAE PAPER 1	Burning Characteristic of UTM/AP68AL15HTPB17/13 Propellant at 1 Atmospheric, 2 BAR AND 4 BAR	Wan Khairuddin Wan Ali & Muhammad Aiman Talib
2:20 – 2:40 PM	ISAE PAPER 6	Performance of a Blended Wing-Body VTOL Unmanned Aerial Vehicle for Medical Transport Application	Nur S. M. Ikhwan, Rizal E. M. Nasir, W. Mazlina W. Mohamed, Iskandar S. Ishak & Wahyu Kuntjoro
2:40 – 3:00 PM	ISAE PAPER 7	Rotational Speed Analysis on Double Rotating Cylinder for CyFlaP using Numerical Method	Muhammad Syakir Iman Roslan, Hidayatullah Mohammad Ali & Azmin Shakrine Mohd Rafie
3:00 – 3:20 PM	ISAE PAPER 11	Development and Flight Stability Test of an Ambulance UAV	Wan Mazlina Wan Mohamed, Nur Fahimah Mat Salleh, Rizal Effendy Mohd Nasir, Siti Mariam Abdul Rahman, Shafiq Suhaimi
3:20 – 3:40 PM	ISAE PAPER 24	Micro Vortex Generator in Improving Aerodynamic Performance of WIG Aircraft	Zinnyrah M, Syahin AAT, Sulaiman MS, Che Idris A, Rahman MRA and Saad MR
3:40 – 4:00 PM	ISAE PAPER 34	Effect of Pressure Distribution of NREL S809 Airfoil with Rectangular Vortex Generator	Balaji G, Muthuram A, Madhan Raj V
4:00 – 4:20 PM	ISAE PAPER 37	Numerical Analysis on the Effect of Longitudinal Placement of Vortex Generators for Jet Control	Balamani G & Thanigaiarasu S
4:20 – 4:40 PM	ISAE PAPER 40	Preliminary Studies using Numerical Analysis of the Aerodynamic Lift and Drag over SACCON UCAV	Normeelaiva Al-hussien, Nur Amalina Musa & Muhammad Ahmar Zuber

Room 3 – (2:00 – 4:40 pm)

Link: <http://bit.ly/isae2021>

Session Chair: Dr Haris Ahmad Bin Israr Ahmad (+6011 1127 0757)

Time:	Paper ID	Topic	Authors
2:00 – 2:20 PM	ISAE PAPER 9	Investigation of Symmetric Cross-Ply and Angle-Ply Laminate Due to Static Aerodynamic Load on High Aspect Ratio Composite Wing	Matza Gusto Andika, Ilham Akbar Adi Satriya, and Fadilah Hasim
2:20 – 2:40 PM	ISAE PAPER 16	Performance Analysis of a Yellow Oleander Seed Oil Biodiesel Powered Aero Derivative Gas Turbine Engine	A. A. Linus , M. U. Bonnet, W. C. Solomon, M. U. Kaisan, B. G. Ibrahim & N. A. Ismail
2:40 – 3:00 PM	ISAE PAPER 17	Continuous Wavelet Transform for Vibrational Noise Analysis of Manual Drilling Process	Mohd Firdaus Shamsuddin, Muhammad Hanafi Azami, Hasan Firdaus Mohd Zaki and Nur Azam Abdullah
3:00 – 3:20 PM	ISAE PAPER 19	Optimisation of the Combustion Performance when Firing Waste Cooking Oil Biodiesel Blends in a Liquid Fuel Burner	Muhammad Syahiran Abdul Malik, Mohammad Nazri Mohd Jaafar, Norazila Othman, Mohd Shuisma Mohd Ismail, Muhammad Roslan Rahim & Mazlan Said
3:20 – 3:40 PM	ISAE PAER 21	Adhesion Durability of Metal/Epoxy Adhesively Bonded under Tropical Weathering Exposure	Nor Ashiqeen Jamaluddin, Muhammad Airul Amin Md Dani, Mahzan Johar, and Shukur Abu Hassan
3:40 – 4:00 PM	ISAE PAPER 23	CFD Analysis of Rocket Convergent-Divergent Nozzle with Swirl Vanes for Improved Stability	Ahmad Hussein bin Abdul Hamid, Akma Noor Asyikin binti Omar, Zuraidah Salleh, Mohammad Juani Sujana , Mohamad Amirul Muhammad, Mohd Shahar Saad, Mohd Ismail Khamis
4:00 – 4:20 PM	ISAE PAPER 25	Reducing the Fuel Consumption by using Variable Stability Technique	Yaseer Abdallha Mahjob, Ola Mohamed Taha and Monzer KamalAlden Ismail
4:20 – 4:40 PM	ISAE PAPER 27	Preliminary Structural Design of Coreless Spoiler by Topological Optimization	H.A Israr, T.S Chwen, A.A Latif, K.J Wong
4:40 PM – 5:00 PM	ISAE PAPER 42	Preliminary Analysis of a Shooter Stabilization System for Multi-Rotor Drone Weapon System	Muhammad Husainii Zulkifly & Abd. Rahim Abu Talib

Room 4 - (2:00 – 4:40 pm)

Link: https://bit.ly/isae_room4

Session Chair: Dr. Mohd. Nazri Mohd Nasir (+6011 1084 5041)

Time:	Paper ID	Topic	Authors
2:00 – 2:20 PM	ISAE PAPER 12	Simulation Study on the Performance of OTEC using Different Working Fluid	Muhammad Ajwad Bin Wahinuddin, Dr. -ing. Mohd Nazri Bin Mohd Nasir, Norazila Othman, Shabudin Bin Mat
2:20 – 2:40 PM	ISAE PAPER 14	Structural Analysis of Radial Turbine Impeller for OTEC	I.Z. Suhaini, A. Abdul-Latif & Shamsudin. M.F.
2:40 – 3:00 PM	ISAE PAPER 20	Impact of Solidity on Aerodynamic Performance of Vertical Axis Wind Turbine	Kok Hoe Wong, Shern Khai Ung, Yong Hua Tang, Jo Han Ng, and Wen Tong Chong
3:00 – 3:20 PM	ISAE PAPER 26	A Comparative Experimental Study on the Mixing Characteristics of Two Different Twin Jets	A. Muthuram & S.Thanigaarasu
3:20 - 3:40 PM	ISAE PAPER 28	Numerical Analyses for Regression Rate Solid Fuel Doped with High Entropy Alloys in Hybrid Rocket Motor	Siti Nurfaiah binti Asmuni, Izham izzat ismail, Muhammad Hanafi Azami, Nur Azam Abdullah & Norhuda Hidayah Nordin
3:40 – 4:00 PM	ISAE PAPER 33	Performance and Emission Analysis of Neem Oil Bio-Diesel with Pentanol Blend in Diesel Engine	Adamu Sulaiman, Umar Ali Umar, Muhammad Usman Kaisan, Ibrahim Umar Ibrahim, Shitu Abubakar, and Oyedeji Ayodeji Nathaniel.
4:00 –4:20 PM	ISAE PAPER 38	Thermodynamic analysis on a New Revised OTEC cycle using ammonia	Muhammad Aiman Wafi Suruji, Nazri Nasir*, Norazila Othman, Wan Zaidi Wan Omar, Shabudin Mat
4:20 –4:40 PM	ISAE PAPER 39	Effect of Flow Coefficient and Rotor Radius Ratio on Radial Turbine Analysis	A. R. Jasmi, S. Mansor, N. Othman, M. Ab Wahid, N.A.R. Nik Mohd, N. Nasir, M. N. Dahalan,

Room 5 - (2:00 – 4:40 pm)

Link: https://bit.ly/isae_room5

Session Chair: Dr. Mohd Fairuz Bin Shamsudin (+6013 778 8466)

Time:	Paper ID	Topic	Authors
2:00 – 2:20 PM	ISAE PAPER 10	A CFD analysis of Window-to-Wall ratio and opening size on natural ventilation and thermal comfort of an Eco-House	Ihab Jabbar Al Rikabi, Mohamed Ali Abuelnour, Adil A. M. Omara, Najib Aminu Ismail, Farid Nasir Ani, Shabudin Bin Mat
2:20 – 2:40 PM	ISAE PAPER 15	The Influence of Seat Pitch and Body Anthropometry Parameters on Aircraft Passengers' Seating Comfort	Nadia Hanani Ahmad Habibillah, Nur Hidayah Ismail, Fairuz Izzuddin Romli, and Ezanee Gires
2:40 – 3:00 PM	ISAE PAPER 30	Effects of Composite Laminates Towards Flutter Speed	Nurul-Zubaidah Zaki, Afiah Nizar, Shuhaimi Mansor and Ainulotfi Abdul-Latif
3:00 – 3:20 PM	ISAE PAPER 31	Structural Damping Model for Flutter Analysis of Composite Wing	Nurul-Zubaidah Zaki, Zuha Fathullah, Shuhaimi Mansor, and Ainulotfi Abdul-Latif
3:20 – 3:40 PM	ISAE PAPER 32	Design and Implementation of PBS CanSat for Malaysia SiswaSAT 2020 Competition	Norisza Dalila Binti Ismail, Mohamad Khairani Bin Mohamed Amin, Nurul Farhana Binti Mohd Faizul, Nur Eliana Binti Md Zahirul Islam, Nur Aricesa Hairani Binti Hairuddin, Putera Danish Daniaal Bin Jaffry and Joanis Anak Enteri
3:40 – 4:00 PM	ISAE PAPER 35	Computational Fluid Dynamic (CFD) Analysis on Performance of a Rotating Propeller	Leong Chee Hang, Mastura Ab Wahid, Nik Ahmad Ridhwan Nik Mohd, Norazila Othman & Mohd Zarhamdy Md. Zain
4:00 – 4:20 PM	ISAE PAPER 36	Distance Based Calculation for Airport Runway Capacity	Nurul Amirah Binti Muhamad, S.M.B. Abdul Rahman, Wan Mazlina Wan Mohamed
4:20 – 4:40 PM	ISAE PAPER 41	Development of Automated Warehouse Inventory Management System using Drone Technology and RFID System	Mahmoud Gamal Fathalla, Nazri Nasir, Ruzairi Abdul Rahim, Abu Sahmah Supa'at, Mohd Adib Sarijari and Sophan Wahyudi Nawawi