



INTERNATIONAL SYMPOSIUM ON AIRCRAFT TECHNOLOGY, MRO & OPERATIONS

24-26 August 2023,
Le Quy Don Technical University,
Hanoi, Vietnam



International Symposium On Aircraft Technology, MRO & Operations



ISATECH

24th-26th
AUGUST
2023

Online / Hybrid



24-26 August 2023 | Hanoi, VIETNAM | Le Quy Don Technical University

ORGANIZER



**International Sustainable Aviation and Energy
Research Society**

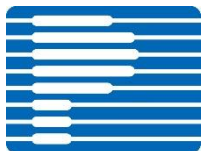


Le Quy Don Technical University



Eskisehir Technical University

SPONSORS & SUPPORTERS



PERITEC

PERITEC



Electro Solution Company Limited



myTECHNIC aircraft MRO Services



UPVIET CO., LTD

Upviet Co., LTD

THE ORGANIZING COMMITTEES

Honorary Chair

Nguyen Lac Hong – President of Vietnam National Space Science and Technology Program, Hanoi, Vietnam

Symposium Founding Chair

T. Hikmet Karakoç - President of SARES, Eskişehir Technical University, Türkiye

Symposium Chair

Mai Quang Huy – Le Quy Don Technical University, Hanoi, Vietnam

Dinh Cong Truong - Hanoi University of Science and Technology, Vietnam

Organizing Committee

Tang Quoc Nam – Le Quy Don Technical University, Hanoi, Vietnam

Pham Dinh Tung – Le Quy Don Technical University, Hanoi, Vietnam

Tran Ngoc Doan – Le Quy Don Technical University, Hanoi, Vietnam

Dinh Hoang Quan – Le Quy Don Technical University, Hanoi, Vietnam

Nguyen The Dung – Le Quy Don Technical University, Hanoi, Vietnam

Tran The Hung – Le Quy Don Technical University, Hanoi, Vietnam

Symposium Secretary

Nguyen Dinh Dung – Le Quy Don Technical University, Hanoi, Vietnam

Head of Symposium Technical Chairs

Ali Haydar Ercan - Eskişehir Technical University, Türkiye

Symposium Technical Chairs

Ali Tatlı - Eskişehir Technical University, Türkiye

Alper Dalkıran - Süleyman Demirel University, Türkiye

Elif Koruyucu - Eskişehir Technical University, Türkiye

Emre Özbek - Eskişehir Technical University, Türkiye

Murat Ayar - Eskişehir Technical University, Türkiye
 Nguyen Anh Tuan – Le Quy Don Technical University, Hanoi, Vietnam
 Nguyen Dinh Dung – Le Quy Don Technical University, Hanoi, Vietnam
 Pham Thanh Dong – Le Quy Don Technical University, Hanoi, Vietnam
 Utku Kale - Budapest University of Technology and Economics, Hungary
 Vu Dinh Quy - Hanoi University of Science and Technology, Vietnam
 Yavuz Dal - Eskişehir Technical University, Türkiye

Symposium Assistants

Ayşe Cansu - Eskişehir Technical University, Türkiye
 Benginur Kaplan - Eskişehir Technical University, Türkiye
 Burak Tarhan - Eskişehir Technical University, Türkiye
 Chu Hoang Quan – Le Quy Don Technical University, Hanoi, Vietnam
 Dam Viet Phuong – Le Quy Don Technical University, Hanoi, Vietnam
 Dilara Patatur - Eskişehir Technical University, Türkiye
 Duong Manh Hung – Le Quy Don Technical University, Hanoi, Vietnam
 Duong Van Quang – Le Quy Don Technical University, Hanoi, Vietnam
 Elif Karakılıç - Eskişehir Technical University, Türkiye
 Enes Günaltılı - Eskişehir Technical University, Türkiye
 Kemal Keleş - Eskişehir Technical University, Türkiye
 Le Quang Quyen – Le Quy Don Technical University, Hanoi, Vietnam
 Le Vu Dan Thanh – Le Quy Don Technical University, Hanoi, Vietnam
 Münevver Uğur - Eskişehir Technical University, Türkiye
 Mustafa Azer - Eskişehir Technical University, Türkiye
 Nguyen Dinh Quang – Le Quy Don Technical University, Hanoi, Vietnam
 Nguyen Le Hung – Le Quy Don Technical University, Hanoi, Vietnam
 Nguyen Trung Dung – Le Quy Don Technical University, Hanoi, Vietnam
 Omar Alharasees - Budapest University of Technology and Economics, Hungary
 Onur Cömert - Eskişehir Technical University, Türkiye
 Pham Chung – Le Quy Don Technical University, Hanoi, Vietnam
 Pham Van Khiem – Le Quy Don Technical University, Hanoi, Vietnam
 Sinem Can - Eskişehir Technical University, Türkiye
 Tran The Hung – Le Quy Don Technical University, Hanoi, Vietnam

ZOOM ID

Isatech2023_room1 (711)

ID 886 9694 9036

Passwords Kdlh&pm@23

Link:

<https://us05web.zoom.us/j/88696949036?pwd=jUJ0Ng16gg04ubPKHtNmONtDlw04MJ.1>

Isatech2023_room2 (709)

ID 935 6852 0160

Passwords 088089

Link:

<https://zoom.us/j/93568520160?pwd=TDNtNlhHMFIVQUVXUjdOOWFNN09wdz09>

Isatech2023_room3 (701)

ID 957 7709 6565

Passwords 019995

Link:

<https://zoom.us/j/95777096565?pwd=Z2YxelB1bmJWN29HZk9mZWZuOUt0QT09>

ISATECH'23 Program

General

Thursday 24 th August				
09:00-10:00 Room 711 Opening Session & Introductory Keynote Session	10:15-11:45 Room 711 Keynote Session 1	13:30-16:30 Room 711 Industrial Session	13:30-15:00 Room 709 S1: Aircraft Design and Problems 1	13:30-16:00 Room 701 S3: Manufacturing 1
			15:30-17:00 Room 709 S2: Aircraft Design and Problems 2	16:15-17:30 Room 701 S4: Manufacturing 2
Friday 25 th August				
9:00-11:45 Room 711 Keynote Session 2		13:30-15:00 Room 711 S5: UAV and Small Airplane 1	13:30-15:45 Room 709 S7: Engine, Thermal and Fluid Flow	13:30-14:45 Room 701 S9: Aerodynamics and CFD 1
		15:15-17:15 Room 711 S6: UAV and Small Airplane 2	16:00-17:30 Room 709 S8: Composite Structures and Material	15:00-16:15 Room 701 S10: Aerodynamics and CFD 2
Saturday 26 th August				
	10:30-11:00 Room 917 Closing Session		9:00-10:15 Room 709 S11: Flight Dynamics 1	9:00-10:00 Room 701 S12: Flight Dynamics 2

Precise

Hanoi time	Morning, Thursday 24 August, Room 711 Zoom: Isatech2023_room1
08:00-09:00	Registration
Opening Session	
09:00-09:20	Prof. Mai Quang Huy , Symposium chair of ISATECH'23 Le Quy Don Technical University, Vietnam
	Prof. Adnan ÖZCAN , Rector of Eskisehir Technical University, Türkiye
Introductory Keynote Session	
09:20-10:00	Prof. Max Platzer , Lifetime Honorary President of SARES, University of California Davis, USA
	Prof. T. Hikmet Karakoç , Founding Chair of SARES Symposiums - Eskisehir Technical University, Türkiye
10:00 – 10: 15 Short break	
10:15-11:45 Keynote Session 1	
Session Chair: Hikmet Karakoç	
10:15-10:45	Prediction of Process-Induced Distortion of Braided CFRP Composites Based on Effective Material Property and Cure Modeling Prof. Sang-Woo Kim <i>Korea Aerospace University</i>
10:45-11:15	Modeling and Simulation of Heavy-Lift Tethered Multicopter Considering Mechanical Properties of Electric Power Cable Prof. Dong-Kyu Lee <i>Korea National University of Transportation, South Korea</i>
11:15-11:45 (Online)	Composite materials in the aerospace industry: some opportunities and challenges Dr. Federica DAGHIA <i>École Normale Supérieure Paris-Saclay, France</i>

Afternoon, Thursday 24th August Room 711	
Zoom: Isatech2023_room1	
13:30-16:30 Industrial Session	
Session Chair: Dr. Nguyen Anh Tuan	
13:30-14:00	Lee Kar Heng <i>Electro Solution Company Limited, Vietnam</i>
14:00-14:30	Pham Quoc Hung <i>PERITEC, Vietnam</i>
14:30-15:00	Preetwant Singh, Nguyen The Hoang <i>Pegasus AC Aviation, Singapore</i>
15:00 – 15:30	Short break
15:30-16:00	Nguyen Ngoc Anh <i>Upviet Co., Vietnam</i>
16:00-16:30 (Online)	Okan Ozkan <i>myTECHNIC aircraft MRO Services, Turkey</i>

Afternoon, Thursday 24th August Room 709
Isatech2023_room2

13:30 – 15:00 Session 1: Aircraft Design and Problems 1

Session Chair: Prof. Sang-Woo Kim Secretary: Nguyen Dinh Quang

13:30-13:45	007 (Online)	Application of laser distance meters for non-contact determination of aircraft weight and center of gravity Afig Hasanov , Islam Isgandarov, Elgun Aghayev <i>Faculty of Physics and Technology, National Aviation Academy, Azerbaijan</i>
13:45-14:00	020 (Online)	Open-source tool for rotorcraft design José Pedro Teles , Filipe Szolnoky Cunha <i>Instituto Superior Técnico, Universidade de Lisboa, Lisbon, Portugal</i>
14:00-14:15	052 (Online)	Attitude at Altitude: Ethics and Flight Safety I. K. Lekea , D. G. Stamatelos, G.-E. I. Nikolakopoulos <i>Hellenic Air Force Academy, Department of Aeronautical Sciences, Attica, Greece</i>
14:15-14:30	017 (Online)	NOTAR Helicopter preliminary design app Pedro Mendes , Filipe S. Cunha <i>Instituto Superior Técnico, Universidade de Lisboa, Lisbon, Portugal</i>
14:30-14:45	065 (Online)	Energy and comfort in virtual aircraft passenger cabin section – Part I: Design of the Cabin and Hydrothermal Manikins Eusébio Z. E. Conceição , Margarida I. L. Conceição, M ^a Inês L. Conceição, and M ^a Manuela J. R. Lúcio <i>FCT-Universidade do Algarve, Faro, Portugal</i>

14:45-15:00	066 (Online)	Energy and comfort in virtual aircraft passenger cabin section – Part II: Three-dimensional airflow around hydrothermal manikins Eusébio Z. E. Conceição , Margarida I. L. Conceição, M ^a Inês L. Conceição, and M ^a Manuela J. R. Lúcio <i>FCT-Universidade do Algarve, 8005-139, Faro, Portugal</i>
15:00 – 15:30 Short break		
15:30 – 17:00 Session 2: Aircraft Design and Problems 2		
Session Chair: Prof. Vu Dinh Quy Secretary: Dr. Dinh Hoang Quan		
15:30-15:45	015	Using CFD studies effect of an air circulating tank on hydrodynamic performance of a hull Ngo Van He , Ngo Van Hien, and Nguyen The Mich <i>Hanoi University of Science and Technology, School of Mechanical Engineering, Vietnam</i>
15:45-16:00	079	Power Generation Sustainability in Aviation Ground-Based Maintenance, Rectification, Overhaul, Testing Operations K. H. Lee , W. H. Leong <i>TBSS Center for Electrical and Electrical Engineering, Director, Singapore</i>
16:00-16:15	105 (Online)	Revolutionizing Aviation MRO Training: Exploring the Impact of Digitalization Omar Alharasees and Utku Kale <i>Department of Aeronautics and Naval Architecture, Budapest University of Technology and Economics, Budapest, Hungary</i>
16:15-16:30	067 (Online)	Energy and comfort in virtual aircraft passenger cabin section – Part III: Binaural mannequins Eusébio Z. E. Conceição , Margarida I. L. Conceição, M ^a Inês L. Conceição, and M ^a Manuela J. R. Lúcio <i>FCT-Universidade do Algarve, 8005-139, Faro, Portugal</i>

16:30-16:45	081 (Online)	Process structure proposal for the automation of aircraft maintenance planning Sally Ichou, Árpád Veress <i>Budapest University of Technology and Economics, Faculty of Transportation Engineering and Vehicle Engineering, Hungary</i>
16:45-17:00	082 (Online)	Navigating the winds of change: case studies of the latest high-level research in the MRO industry Sally Ichou, Árpád Veress <i>Budapest University of Technology and Economics, Faculty of Transportation Engineering and Vehicle Engineering, Hungary</i>

Afternoon, Thursday 24th August Room 701

Zoom: Isatech2023_room3

13:30 – 16:00 Session 3: Manufacturing 1

Session Chair: Prof. Ngo Van Hien Secretary: Dr. Nguyen Hai Nam

13:30-14:00	Invited Speaker	Aircraft maintenance practices using virtual reality Nguyen The Hoang <i>Vietnam Aviation Academy, 104 Nguyen Van Troi, Ho Chi Minh City, Vietnam</i>
14:00-14:15	004	The new solution of air plasma spray for hardfacing Duong Vu <i>School of Engineering Technology/ Duy Tan University, Danang, Vietnam</i>
14:15-14:30	010	Longitudinal motion control of a fully submerged hydrofoil craft using neural network Le Thanh Tung <i>Hanoi University of Science and Technology, Hanoi, Vietnam</i>
14:30-14:45	029	Research and development airboats for rescue works Tuan Phan Anh <i>Hanoi University of Science and Technology, Institute of Heat Engineering and Refrigeration, Hanoi, Vietnam</i>
14:45-15:00 Short Break		
15:00-15:15	008	Numerical study on bubble growth and collapse near a solid wall with a gas entrapping hole Trong Nguyen Duy, Van Tu Nguyen, Thanh Hoang Phan, Xuan Bach Nguyen, Quang Minh Ngo, and Warn Gyu Park <i>Scholl of Mechanical Engineering, Pusan National University, Busan, South Korea</i>

15:15-15:30	030	A study on propeller for airboats Tuan Phan Anh, Dong Nguyen , Huong Pham Thi Thanh <i>Hanoi University of Science and Technology, School of Mechanical Engineering, Hanoi, Vietnam.</i>
15:30-15:45	002 (Online)	Mixing process effect in shear stiffening gels for aircraft Selim Gürgen <i>Department of Aeronautical Engineering, ESOGU, Eskişehir, Turkey</i>
15:45-16:00	106 (Online)	The Importance of periodic measurement of vibration values to prevent CNC spindle tool runout in the aviation industry Mehmet Kubilay Askerden , Enes Gunaltili, Selcuk Ekici, ve Tahir Hikmet Karakoc <i>Bursa Uludag University, Faculty of Engineering, Bursa, Türkiye</i>
16:00 – 16:15 Short break		
16:15 – 17:30 Session 4: Manufacturing 2		
Session Chair: Dr. Tran Anh Vang Secretary: Ta Duc Hai		
16:15-16:30	068	A comparative study of the force of shot for 5.56mm assault rifles with different barrel lengths Van Hung Nguyen <i>Le Quy Don Technical University, Hanoi, Vietnam</i>
16:30-16:45	069	Study the influence of the presence of air in the hydraulic brake on its operation Van Tan Tran, Van Hung Nguyen <i>Le Quy Don Technical University, Hanoi, Vietnam</i>
16:45-17:00	059	Fire detection in surveillance camera systems using a deep-learning-based approach Quang Thi Nguyen , Minh Kha Pham, Khanh Toan Vu, Huu Hung Nguyen and Hien Ha Thi <i>Institute of System Integration, Le Quy Don Technical University, Vietnam</i>

17:00-17:15	096	Optimization of acoustic performance of double-layer absorbers based on cellular foams Van-Hai Trinh <i>Institute of Vehicle and Energy Engineering, Le Quy Don Technical University, Hanoi, Vietnam</i>
17:15-17:30	102 (Online)	Performance of a micro wind turbine retrofitted with a prototype flow acceleration system at a typical Urban Site of Dhaka, Bangladesh S. M. Mahfuzul Hasan, Tamanna Mahzabin Moumita, and A.B.M. Toufique Hasan <i>Bangladesh University of Engineering and Technology (BUET), Department of Mechanical Engineering, Bangladesh</i>

Morning, Friday 25th August Room 711	
Zoom: Isatech2023_room1	
09:00-11:00 Keynote Session 2	
Session Chair: Dr. Dinh Cong Truong	
09:00-09:30 (Online)	Prof. Max Platzer , Lifetime Honorary President of SARES, University of California Davis, USA
09:30-10:00	Active noise control technology for Advanced Air Mobility applications Prof. Joong-Kwan Kim <i>Hanseo University, Korea</i>
10:00 – 10:30 (Online)	Visualization on Supercritical/Transcritical CO2 Jet and Boundary Flow Prof. Lin Chen <i>Chinese Academy of Sciences, China</i>
10:30 – 10:45	Short break
10:45-11:15 (Online)	Nanocolloids: from basic experiment to applications Prof. Habil. Alina Adriana MINEA <i>Gheorghe Asachi Technical University of Iasi, Romania</i>
11:15-11:45 (Online)	Hungarian Drone Coalition: introduction to the Hungarian drone ecosystem and development strategy Dr. Daniel ROHACS <i>Budapest University of Technology and Economics, Hungary</i>

Afternoon, Friday 25th August Room 711

Zoom: Isatech2023_room1

13:30 – 15:00 Session 5: UAV and Small Airplanes 1

Session Chair: Prof. Dong-Kyu Lee Secretary: Duong Van Quang

13:30-13:45	014	A model-driven approach to develop controllers for quadrotor UAVs Ngo Van Hien , Ngo Van He, and Nguyen The Mich <i>Hanoi University of Science and Technology, School of Mechanical Engineering, Vietnam</i>
13:45-14:00	026	A UAF-Driven point of view to implement UAV controllers Ngo Van Hien, and Ngo Van He <i>Hanoi University of Science and Technology, School of Mechanical Engineering, Vietnam</i>
14:00-14:15	034	Design and manufacturing a virtual reality parachute training simulation system Trung Kien Nguyen , Anh Le, Anh Tuan Nguyen <i>Le Quy Don Technical University</i>
14:15-14:30	055	Radar design techniques deployed in anti-drone and counter UAV K. H. Lee , J.Y. Wang <i>TBSS Center for Electrical and Electrical Engineering, Director, Singapore</i>
14:30-14:45	084	An automatic control system for the takeoff and landing of a quadrotor H. Tien Nguyen , D. Dung Nguyen, M. Hung Duong, H. Son Tran, A. Trung Vuong, Q. Khai Phung, and V. Tai Nguyen <i>Air Defense – Air Force Academy, Faculty of Aviation Technical, Hanoi, Vietnam</i>
14:45-15:00	064 (Online)	Aerodynamic effect of different drone blade tip shapes Carlos Vasconcelos , Filipe Szolnoky Cunha <i>Instituto Superior Técnico, Lisbon, Portugal</i>

15:00 – 15:15 Short break

15:15– 17:00 Session 6: UAV and Small Airplanes 2

Session Chair: Prof. Vu Quoc Tru

Secretary: Chu Hoang Quan

15:15-15:30	003	Modal analysis of a body-spring system modeling an insect flapping-wing structure Vu Dan Thanh Le , Anh Tuan Nguyen, Ngoc Thanh Dang <i>Faculty of Aerospace Engineering, Le Quy Don Technical University, Hanoi, Vietnam</i>
15:30-15:45	087	Research and design the wing structure separation for HALE UAV Dinh Tan Hung, Than Quang Cuong, Le Thi Tuyet Nhung <i>Hanoi University of Science and Technology, Hanoi, Viet Nam</i>
15:45-16:00	103	Research of kinematics and solutions to overcome the delay caused by the steering control unit in the automatic system of controlling the angle stability of the aircraft Quang Khai Phung , Van Tuan Tran, Anh Trung Vuong, Minh Dong Pham, Dinh Dung Nguyen <i>Air Defense - Air Force Academy, Faculty of Aviation Technical, Hanoi, Vietnam</i>
16:00-16:15	111	Study on rotor interactional effects on aerodynamic noise characteristics of quadrotor unmanned aerial vehicle Quang Quyen Le , Thanh Dong Pham, Quoc Tru Vu, Anh Tuan Nguyen <i>Le Quy Don Technical University, Hanoi, Vietnam</i>
16:15-16:30	086	PID controller system for hexacopter using angular rate correction block Le Thi Tuyet Nhung , Vu Dinh Quy, Pham Xuan Tung, Nguyen Van Minh <i>Hanoi University of Science and Technology, Hanoi, Viet Nam</i>
16:30-16:45	098 (Online)	Exploring the efficacy of VR/Haptic technologies in elevating aviation training and simulation Omar Alharasees and Utku Kale <i>Department of Aeronautics and Naval Architecture, Budapest University of Technology and Economics, Budapest, Hungary</i>

16:45-17:00	093 (Online)	Impact of AI on sustainable procurement: revolutionizing aviation maintenance operations Ozan Turkmen , Enes Gunaltili, Selcuk Ekici, and Tahir Hikmet Karakoc <i>Anadolu University, Faculty of Aeronautics and Astronautics, Eskisehir, Türkiye</i>
17:00-17:15	112 (Online)	Exploring the Sustainability Effects of High-Altitude UAV Components using Multicriteria Decision Analysis Murat AYAR , Umut Durak, T. Hikmet KARAKOÇ <i>Faculty of Aeronautics and Astronautics, Eskisehir Technical University, Eskisehir, Türkiye</i>

Afternoon, Friday 25^h August Room 709

Zoom: Isatech2023_room2

13:30 – 15:45 Session 7: Engine, Thermal and Fluid flow

Session Chair: Prof. Ngo Khanh Hieu Secretary: Dr. Pham Thanh Dong

13:30-13:45	095	<p>Numerical optimization of aerodynamic noise reduction in a micro turbojet engine using nozzle chevrons</p> <p>Thi-Mai-Linh Tran, Vu-Hoang-Long Nguyen, Hoang-Quan Chu, Trung-Kien Nguyen, Dung-Viet Vu, Thai-Son Vu, Dang-Quoc Tran and Cong-Truong Dinh</p> <p><i>Hanoi University of Science and Technology, Hanoi, Vietnam</i></p>
13:45-14:00	035	<p>An experimental investigation of the effect of biodiesel on the emission characteristics of diesel engines</p> <p>Vu Van Phong, Luong Dinh Thi</p> <p><i>Le Quy Don University, Institute of Dynamic Mechanics, Ha Noi, Viet Nam</i></p>
14:00-14:15	057	<p>Combustion Characteristics of Jet Fuel Surrogates</p> <p>Wei-Cheng Wang, Jhe-Kai Lin, Rusdan Aditya Aji Nugroho, Huynh Thanh Cong, Thong Duc Hong</p> <p><i>Department of Aeronautics and Astronautics, National Cheng Kung University, Tainan, Taiwan</i></p>
14:15-14:30	089	<p>Evaluation of the Heat-Resistant Properties of an EPDM-based Insulator in Solid Rocket Motors</p> <p>Pham Quang Hieu, Pham Kim Dao, Pham Thanh Dong, A.N. Gaidadin</p> <p><i>Institute of Propellant and Explosives, Hanoi, Vietnam</i></p>
14:30-15:45 Short Break		
14:45-15:00	097	<p>Study to determine the blast wave pressure of simultaneous explosions in the aquatic environment</p> <p>Phan Van Hung, Pham Thanh Dong, Pham Quang Hieu, Mai Quang Huy</p> <p><i>Naval Technical Institute, 9 Mac Quayet, Anh Dung, Duong Kinh, Hai Phong, Viet Nam</i></p>

15:00-15:15	018	Thermal conduction analysis of a common bulkhead propellant tank under eccentricity variations Gyeong-Han Lee , Dong-Kuk Choi, Sang-Woo Kim and Soo-Yong Lee <i>Korea Aerospace University, Department of Aerospace and Mechanical Engineering, Korea</i>
15:15-15:30	024	CFD simulation for thermal results on Honda Wave Alpha 110cc motorcycle exhaust wall Ba Loc Le , Le Quang Dang, and Khanh Hieu Ngo <i>Faculty of Transportation Engineering, Ho Chi Minh City University of Technology, Vietnam</i>
15:30-15:45	108 (Online)	A technique to speed up solving linear algebraic equations in the finite element method Van Thuan Hoang , Quang Quyen Le, Thanh Dong Pham, The Hung Nguyen <i>The University of Adelaide, South Australia, Australia</i>
15:45 – 16:00 Short break		
16:00 – 17:30 Session 8: Composite Structure and Material		
Session Chair: Prof. Tran Ngoc Doan Secretary: Le Vu Dan Thanh		
16:00-16:15	001 (Online)	Energy attenuation in intelligent aircraft structures Selim Gürgen <i>Department of Aeronautical Engineering, ESOGU, Eskişehir, Turkey</i>
16:15-16:30	016	Stress investigation of FG-CNTRC cylinder shell in thermal environment Van Quang Duong , Ngoc Doan Tran, and Trac Luat Doan <i>Faculty of Aerospace Engineering, Le Quy Don Technical University, Hanoi City, Vietnam</i>
16:30-16:45	019	Effects of loading rate and crack length on interlaminar fracture toughness for CYCOM 977-3/IM7 Ji-Yoon Yang , Sang-Woo Kim and Soo-Yong Lee <i>Korea Aerospace University, Department of Aerospace and Mechanical Engineering, Korea</i>
16:45-17:00	031	Concurrent design of composite pressure vessels

		<p>Hoang Minh Dang, Hai Nam Nguyen, Van Binh Phung <i>Industrial University of Ho Chi Minh City, Ho Chi Minh City, Vietnam</i></p>
17:00-17:15	107	<p>An analytical method for solving the problem of stationary motion of a shell segment under the influence of a harmonic cylindrical wave in an acoustic medium Nguyen Duong Phung, Lokteva N.A, Nguyen Le Hung <i>Institute of Technology, Duc Thang, Ha Noi, Viet Nam</i></p>
17:15-17:30	109 (Online)	<p>Composite materials for space radiation shielding: a review Muhammed Yasin Peker, Mehmet Emin Çetin <i>Eskisehir Osmangazi University, Faculty of Engineering and Architecture, Aeronautical Engineering Department, Eskisehir, Turkey</i></p>

Afternoon, Friday 25th August Room 701

Zoom: Isatech2023_room3

13:30 – 14:45 Session 9: Aerodynamics and CFD 1

Session Chair: Dr. Dinh Cong Truong Secretary: Dr. Pham Van Khiem

13:30-14:00	Invited Speaker	Aerodynamic performances of an axial transonic compressor using passive control systems Dinh Cong Truong <i>Hanoi University of Science and Technology, Hanoi, Vietnam</i>
14:00-14:15	099	Effect of geometric parameters of cross-flow wind turbine on the generator power for moving road vehicles Ha Minh Tuan , Do Ha Gia Khanh, Nguyen Van Hoang, Chu Hoang Quan, Dinh Cong Truong <i>Hanoi University of Science and Technology, Hanoi 11615, Vietnam</i>
14:15-14:30	048 (Online)	CFD analysis of aircraft wheel washing machine Ibrahim Akdag, Gokay Gozuyilmaz, Ozge Yetik , Murathan Pekacar, Murat Ayar, Benginur Kaplan, Duran Çalışır, Alper Dalkiran, Selcuk Ekici, Okan Ozkan, and Tahir Hikmet Karakoc <i>Eskisehir Osmangazi University, Turkey</i>
14:30-14:45	037	Experimental data analysis: effects of the convective mach number on mixing layer turbulence Trung Dung Nguyen , Van Khiem Pham, Anh Tuan Nguyen, and The Hung Tran <i>Le Quy Don Technical University, Faculty of Aerospace Engineering, Hanoi, Vietnam</i>
14:45 – 15:00 Short break		
15:00 – 16:15 Session 10: Aerodynamics and CFD 2		
Session Chair: Prof. Joong-Kwan Kim Secretary: Dr. Pham Van Khiem		
15:00-15:15	009	Investigated the effect of grid patterns to the grid fins aerodynamic characteristics Van-Sang Pham , Van-Son Dinh <i>School of Mechanical Engineering, Hanoi University of Science and Technology, Vietnam</i>

15:15-15:30	078	<p>Development of Markov chains for random vertical wind profiles Van Khiem Pham, Anh Tuan Nguyen, Huu The Nguyen, Ngoc Linh Nguyen <i>Le Quy Don Technical University, Faculty of Aerospace Engineering, Hanoi, Vietnam</i></p>
15:30-15:45	094	<p>An optimization technique for horizontal axis wind turbines' airfoils using XFOIL and genetic algorithm Thi Tuyet Nhung Le, Vu Dinh Quy, Anh Duy Truong <i>Hanoi University of Science and Technology, School of Engineering, Vietnam</i></p>
15:45-16:00	100	<p>Aerodynamic and aeroacoustic characteristics of toroidal propeller using CFD approach Vu Xuan Duc, Nguyen Anh Tuan, Nha Tuong Linh, Chu Hoang Quan, and Dinh CongTruong <i>Hanoi University of Science and Technology, Hanoi 11615, Vietnam</i></p>
16:00-16:15	101 (Online)	<p>A Computational Investigation on Underexpanded Supersonic Free Jet with Imposed Pressure Perturbation Mantaka Taimullah and A.B.M. Toufique Hasan <i>Bangladesh University of Engineering and Technology, Faculty of Department of Mechanical engineering, Dhaka-1000, Bangladesh</i></p>

Morning, Saturday 26th August Room 709

Zoom: Isatech2023_room2

9:00 – 10:15 Session 11: Flight Dynamics 1

Session Chair: Prof. Vu Van Truong Secretary: Nguyen Van Thang

9:00-9:30	Invited Speaker	The freezing process of water drops – a numerical investigation Assoc. Prof. Vu Van Truong <i>Phenikaa University, Hanoi, Vietnam</i>
9:30-9:45	054	Computational model for the aerodynamic characteristics of sounding rockets Nguyen Van Thang , Nguyen Anh Tuan, Vu Quoc Tru, Nguyen Ngoc Hoa <i>Le Quy Don Technical University, Hanoi, Vietnam</i>
9:45-10:00	063 (online)	Design the flight trajectory of a cruise missile to avoid threats Bui Van Long, Doan The Tuan, Nguyen Thanh Tung, Nguyen Ngoc Dien, Nguyen Minh Tu <i>Le Quy Don Technical University, Hanoi, Vietnam</i>
10:00-10:15	113 (online)	Application of drones for road condition assessment Emre Ozbek , Murat Ayar, Dávid Szilágyi, Dávid Szirczák, Utku Kale, Hikmet Karakoc <i>Eskisehir Technical University, Eskisehir, Türkiye</i>
10:15-10:30 Short Break		

Morning, Saturday 26th August Room 701**Zoom: Isatech2023_room3****9:00 – 10:00 Session 12: Flight Dynamics 2****Session Chair: Prof. Dang Ngoc Thanh Secretary: Le Quang Quyen**

9:00-9:15	022 (Online)	Flight Simulation – Part 1-Algorithm and calculation module Huu Dong Thanh Nguyen, Hung Anh Ly , Thi Minh Nghia Le, and Dang Long Tran <i>Department of Aerospace Engineering, Faculty of Transportation Engineering, Ho Chi Minh City University of Technology (HCMUT), Vietnam</i>
9:15-9:30	023 (Online)	Flight Simulation – Part 2 – Kinematics of a flight simulator system Cong Quoc Khanh Nguyen, Di Thai Tran, Dang Long Tran , Thi Minh Nghia Le, and Hung Anh Ly <i>Department of Aerospace Engineering, Faculty of Transportation Engineering, Ho Chi Minh City University of Technology (HCMUT), Vietnam</i>
9:30-9:45	104	Methods of trajectory correction employing the pulse steering array and global navigation satellite (GNSS) Nguyen Van Khoi , Nguyen Van Tue, Nguyen Ngoc Dien, Nguyen Sy Long and Nguyen Quang Anh <i>Academy of science and military technology, Ha Noi City, Vietnam</i>
9:45-10:00	045 (Online)	Flight simulator to investigate the impact of different types of actuators on the piloting Andrew Sarmento , Basile Salembier, Emilia Villani <i>Aeronautical Institute of Technology, São José dos Campos - SP, Brazil</i>
10:00-10:30 Short Break		

Morning, Saturday 26th August Room 917

Isatech2023_room1

Closing Session

10:30-11:00

Dr. Dinh Cong Truong, Symposium co-chair of ISATECH'23 -
Hanoi University of Science and Technology, Vietnam

Prof. T. Hikmet Karakoç, Founding Chair of SARES Symposiums -
Eskisehir University, Türkiye