



ISATECH

Online / Hybrid

INTERNATIONAL SYMPOSIUM ON AIRCRAFT TECHNOLOGY, MRO & OPERATIONS

AGENDA

August 27-29, 2024

**Venue: Room A.101 – Room A.201 – Room A.301
(Vietnam Aviation Academy – 104 Nguyen Van Troi Street, Ward 8, Phu Nhuan District,
Ho Chi Minh City)**

DAY 1 – AUGUST 27, 2024

INTERNATIONAL SYMPOSIUM ON AIRCRAFT TECHNOLOGY, MRO & OPERATIONS

Tuesday, August 27 (Vietnam time)

Venue: Room A.201 – Room A.301

Morning Session

(9:00 – 14:00)

Room A.201

9:00 – 9:30

Reception & Registration – Morning Coffee

9:30 – 10:00

Opening Ceremony

Opening Session

10:00 – 10:30

Dr. Nguyen Thi Hai Hang

Honorary Chair of ISATECH'24, President of Vietnam Aviation Academy, Vietnam

Opening Keynote Session

10:30 – 11:00

Prof. Dr. Max Platzer

Honorary President of SARES, University of California Davis, USA



11:00 – 11:30

Prof. Dr. T. Hikmet Karakoç

President of SARES, Eskisehir Technical University

11:30 – 14:00

Lunch

Afternoon Session

14:00 – 17:00

Parallel Session

1. Keynote/ Invited Session (Room A.201)

2. Technical Session (Room A.301)

14:00 – 14:30

1. Keynote/ Invited Session

Room A.201

Assoc. Prof. Kwon Hee Choon (on site)

14:00 – 14:30

2. Technical Session

Room A.301

Dr. Preetwant Singh (on site)

14:30 – 15:00

1. Keynote/ Invited Session

Room A.201

Prof. Luo Feng E- CAFUC (online)

14:30 – 15:00

2. Technical Session

Room A.301

Dr. Hirofumi Hisakawa – Nippon Koei Japan (online)

15:00 – 15:30

1. Keynote/ Invited Session

Room A.201

Assoc. Prof. Sek Tan-SIT (onsite)

15:00 – 15:30

2. Technical Session

Room A.301

Dr. Pham Minh Vuong - Digitalization Application in Aircraft Engine Maintenance (onsite)

15:30 – 16:00

Tea break (Room A.101)



16:00 – 16:30

1. Keynote/ Invited Session
Room A.201

Assoc. Prof. Jelena Svorcan – Serbia (online)

16:00 – 16:30

2. Technical Session
Room A.301

**Ms. Judy Yeung – Talents for MRO industry
Manager, Corporate Development
Hong Kong Aircraft Engineering Company Limited (HAECO)**

16:30 – 17:00

1. Keynote/ Invited Session
Room A.201

Prof. Konstantinos Stamoulis- Netherland (online)

16:30 – 17:00

2. Technical Session
Room A.301

Dr. Brian Mark Arett – Pacific Airlines (on site)

17:00 – 17:30

2. Technical Session
Room A. 301

Dr. Asteris Apostolidis (Online)

17:30 – 18:00

2. Technical Session
Room A. 301

Okan Özkan (Online)



DAY 2 – AUGUST 28, 2024

INTERNATIONAL SYMPOSIUM ON AIRCRAFT TECHNOLOGY, MRO & OPERATIONS

Wednesday, August 28 (Vietnam time)

8:30 – 10:00

Parallel Session 1

Session 1A

CFD-FEM

Session Chair: Nguyen Dinh Dung

9:00 – 10:00

Room: A.201

Investigate The Influence of The Front Sight Position on Gun Barrel Vibration When Firing

Van Ngoc Nguyen (Le Quy Don Technical University); Van Dung Nguyen (Le Quy Don Technical University); Van Hung Nguyen (Le Quy Don Technical University); Van An Mai (Weapon Institute, Department of Artillery)

Selecting The Parameters for Creating Tollmien-Schlichting Waves Using the Linear Stability Theory Method

Hoang Quan Dinh (Le Quy Don Technical University); Dinh Dung Nguyen (Le Quy Don Technical University)

Session 1B

Unmanned aerial vehicles

Session Chair: Ngo Khanh Hieu

8:30 – 10:00

Room: A.301

Enhancing Uav Control and Management Performance Through Internet Platform

M. Hung Duong (Le Quy Don Technical University); D. Dung Nguyen (Le Quy Don Technical University); H. Tien Nguyen (Le Quy Don Technical University)

Analysis And Design of Remotely Operated Underwater Vehicle: Hydrodynamics

Van Ton Huynh (Ho Chi Minh City University of Technology); Tien Anh Tran (Ho Chi Minh City University of Technology); De Tai Duong (Tran Dai Nghia University)

Real-World Evaluation of Uav Application in Traffic Control in Thu Duc City (Ho Chi Minh City, Vietnam)

T. Trinh Duc (Vietnam Aviation Academy); L. Nguyen Son (Ho Chi Minh City University of Technology); G. Nguyen Van (Ho Chi Minh City University of Technology); Y. Tran Hoang (The Inspectorate of the Department of Construction of Ho Chi Minh City); D. Nguyen Thanh (Vietnam Aviation Academy)

10:00 – 10:30

Tea break (Room A.101)



10:30 – 12:00

Parallel Session 2

Session 2A

CFD-FEM

Session Chair: Luu Van Thuan

10:30 – 12:00

Room: A.201

Calculating The Dynamic Parameters of The Aircraft Using Direct Numerical Method

Duc Dong Nguyen (Le Quy Don University); Hoang Quan Dinh (Le Quy Don University); Dinh Dung Nguyen (Le Quy Don University)

Effects Of a Slat and A Flap on The Aerodynamic Performance of An Airfoil Near a Wavy Ground

Nhu Khang Luu (Vietnam Aviation Academy); Van Quang Anh Vo (Vietnam Aviation Academy); Thi Lan Anh Nguyen (Vietnam Aviation Academy); Dinh Thang Nguyen (Vietnam Aviation Academy); Ho Chi Minh City University of Technology); Van Luc Nguyen (Vietnam Aviation Academy)

Session 2B

Unmanned aerial vehicles

Session Chair: Ngo Khanh Hieu

10:30 – 12:00

Room: A.301

Mini-Drone Photogrammetry For 3d Modelization of Aircraft: A Case Study at Vietnam Aviation Academy

Nguyễn Xuân Công (Vietnam Aviation Academy); Nguyễn Hồ Nguyên Khang (Ho Chi Minh City University of Technology); Ngô Khánh Hiếu (Ho Chi Minh City University of Technology)

Autonomous Flight Programming for Drone

Hieu Tran (Vietnam Aviation Academy); Son Vo (Vietnam Aviation Academy)

Autonomous Precise Payload Delivery with Drone: An Approach Using UWB Technology and Smart Triangle Algorithms

Huu Chan Thanh Nguyen (Vietnam Aviation Academy), Quoc Khai Tran (Vietnam Aviation Academy), and Cong Thanh Pham (Vietnam Aviation Academy)

12:00 – 13:30

Lunch

13:30 – 15:30

Parallel Session 3

Session 3A

Flight mechanics

Session Chair: Nguyen Phuc Khanh

13:30 – 15:30



Room: A.201

An Improved Pid Controller for Aircraft Pitch Movement Control

Le Thanh Tung (Hanoi University of Science and Technology)

Building Flight Simulation Program with Auxiliary Custom Aircraft Design Integration Module

Nghi V. Trang (Ho Chi Minh City University of Technology); Long V. D. Thien (Ho Chi Minh City University of Technology); Hung G. Long (Ho Chi Minh City University of Technology); Hieu T. Le (Ho Chi Minh City University of Technology); Anh H. Ly (Ho Chi Minh City University of Technology)

Low Speed Wind Tunnel: Design and Manufacture

Van Thuan Luu (Vietnam Aviation Academy); Ngoc Anh Nguyen (Vietnam Aviation Academy); Minh Hung Tran (Vietnam Aviation Academy)

Investigation Of the Influence of Supercooled Water Droplet Geometric Parameters On The Calculation Of The Capture Coefficient In A Two-Phase Flow Field

Tai D. Duong (Tran Dai Nghia University)

Session 3B

Fluid and gas dynamics

Session Chair: Nguyen Van Luc

13:30 – 15:30

Room: A.301

Investigation The Icing Zone for Civil Aircraft Using the Ludluma Limit Assessment Method

Tai D. Duong (Tran Dai Nghia University)

Studying The Effect of Powder Gas Temperature on The Operation of Automatic Machine

Trung Duc Vuong (Le Quy Don Technical University); Van Hung Nguyen (Le Quy Don Technical University)

Performance Investigation of The Two Contra Rotating Propellers by Using Simulation Method

Duc Vo Phan (Ho Chi Minh City University of Technology); Tien Anh Tran (Ho Chi Minh City University of Technology); De Tai Duong (Tran Dai Nghia University)

15:30 – 16:00

Tea break (Room A.101)

16:00 – 18:00

Parallel Session 4

Session 4A

Turbin

Session Chair: Phan Van Quan



16:00 – 18:00

Room: A.201

Determining The Operation Parameters of The Combustion Chamber of Micro Gas Turbines Using Simulation Method

Ha Nguyen Huu (Le Quy Don Technical University), Phuong Pham Xuan (Le Quy Don Technical University), Quan Nguyen Quoc (Le Quy Don Technical University)

Research Of Alternative Aviation Fuels Based on Entransy Phenomena

Onur Yasar (Balıkesir University, Turkiye), Enver Yalcin (Balıkesir University, Turkiye), T. Hikmet Karakoc (Eskişehir Technical University, Turkiye)

Experimental Study of Catalytic Converter Impact on Motorcycle Emissions

Ngo Khanh Hieu (Ho Chi Minh City University of Technology), Le Trong Dat (Ho Chi Minh City University of Technology), and Nguyen Viet Tam (Ho Chi Minh City University of Technology)

Jet Engine Bracket Development by Using Structure Optimization and Design for Additive Manufacturing

Huynh Duc Le (Vietnam Aviation Academy) and Thanh Binh Cao (Vietnam Aviation Academy)

Session 4B

AI in aerospace engineering

Session Chair: Tran Hoang Loc

16:00 – 17:30

Room: A.301

Aircraft Surface Defect Detection System Integrating Yolov8 and Unmanned Aerial Vehicles (Uavs)

Danh Ninh (Vietnam Aviation Academy), Hieu Tran (Vietnam Aviation Academy) and Son Vo (Vietnam Aviation Academy)

Leveraging Computer Vision for Hand Gesture Recognition in Airport Settings

Quoc-Khai Tran (Vietnam Aviation Academy), Huu-Chan-Thanh Nguyen (Vietnam Aviation Academy), Cong-Thanh Pham (Vietnam Aviation Academy)

Novel Sparse PCA Method Via Runge Kutta Numerical Method(S) For Face Recognition

Loc Hoang Tran (Vietnam Aviation Academy), Luong Anh Tuan Nguyen (Vietnam Aviation Academy)

18:00 – 21:00

Gala Dinner



DAY 3 – AUGUST 29, 2024

INTERNATIONAL SYMPOSIUM ON AIRCRAFT TECHNOLOGY, MRO & OPERATIONS

Thursday, August 29 (Vietnam time)

9:00 – 10:00

Parallel Session 5

Session 5A

Navigation, Radar

Session Chair: Le Nhat Binh

9:00 – 10:00

Room: A.201

Application Of the Ros Navigation Stack for Automatic Navigation And Object Avoidance In Autonomous Mobile Robots

Khuong-Duy Truong (Ho Chi Minh City University of Technology and Education), Van-Dong-Hai Nguyen (Ho Chi Minh City University of Technology and Education), Minh-Tai Vo (RMIT University Vietnam), and Son V. T. Dao (RMIT University Vietnam)

Wavelet-Based Noise Reduction in Vor Systems

Binh Le Nhat (Vietnam Aviation Academy), Nguyen Tran Van (Academy of Military Science and Technology), Anh Cao Xuan Kim (Vietnam Aviation Academy)

Session 5B

Civil engineering in aviation

Session Chair: Nguyen Phi Long

9:00 – 10:00

Room: A.301

Review On the Application of Recycled Aggregates and Recycled Aggregates Concrete in Construction

V.T. Ngo (Vietnam Aviation Academy), T. S. Nguyen (University of Transport and Communications Hanoi), T.L. Tran (Vietnam Aviation Academy), T. D. Nguyen and V.Q. Ngo (Vietnam Aviation Academy)

Analysis And Evaluation of The Standard System and Design Guidelines for Civil Aerodrome in Vietnam, With A Comparison to International Documents

Dinh Cuong TRAN (Vietnam Aviation Academy), Van Quan NGO (Vietnam Aviation Academy), Phi Long NGUYEN (Vietnam Aviation Academy), Dang Khai TRAN (Vietnam Aviation Academy)

10:00 – 10:30

Tea break (Room A.101)

10:30 – 12:00

Parallel Session 6



Session 6A

Optimization

Session Chair: Cao Thanh Binh

10:30 – 12:00

Room: A.201

Optimizing Re-Planning Airplane's Roster Strategy in Case of Disruptions – The Case of An Airline in Vietnam

Thao Nguyen Kim (Royal Melbourne Institute of Technology), Hoang Nguyen The (Singapore Institute of Technology and Vietnam Aviation Academy), Hang Nguyen Hai (Vietnam Aviation Academy)

Optimize The Airway Network in Ho Chi Minh Flight Information Region Using The A-Star Algorithm

Nguyen Ngoc Hoang Quan (Vietnam Aviation Academy), Vu Thi Hoai An (Vietnam Aviation Academy), Le Hoang Mai (Vietnam Aviation Academy), Nguyen Mai Phuong (Vietnam Aviation Academy), Le Thi Thu Tra (Vietnam Aviation Academy), Nguyen Thi Thuy Trang (Vietnam Aviation Academy), Nguyen Ngoc Nhu Y (Vietnam Aviation Academy)

Optimizing The Airspace Capacity in The Ho Chi Minh Flight Information Region Based on The WOTN Model

Nguyen Ngoc Hoang Quan (Vietnam Aviation Academy), Le Minh Hoang (Vietnam Aviation Academy), Dinh Trinh Binh (Vietnam Aviation Academy), Nguyen Phuc Ky (Can Tho University), Nguyen Thu Thao (Vietnam Aviation Academy), Le Toan Think (Vietnam Aviation Academy), Nguyen Van Tien Son (Vietnam Aviation Academy), Nguyen Hoang Vu (Vietnam Aviation Academy)

Session 6B

Civil engineering in aviation

Session Chair: Nguyen Phi Long

10:30 – 12:00

Room: A.301

Numerical Study the Mitigation of Thermal Effect on Reinforced Concrete Beam Exposed to Elevated Temperature Situations

Trung-Hieu NGUYEN (Ho Chi Minh City University of Transport, Vietnam and Claude Bernard Lyon 1 University, France), Phi-Long NGUYEN (Vietnam Aviation Academy), Xuan-Hong VU (Claude Bernard Lyon 1 University, France), Xuan Dung VU (Ho Chi Minh City University of Technology)

A Review of Criteria for Green Airports

Dang Khai Tran (Vietnam Aviation Academy), Thien Luu Tran (Vietnam Aviation Academy), and Dinh Cuong Tran (Vietnam Aviation Academy)

Application Of Bi-Material Topology Optimization for Footing in Nonlinear Ground

Duy Nguyen (Ho Chi Minh city university of Transport), Thi Thu Tra Nguyen (Vietnam Aviation Academy)



12:00 – 13:30

Lunch

13:30 – 15:30

Parallel Session 7

Session 7A

Session Electric Air Vehicles

Session Chair: Pham Cong Thanh – Nguyen Thi Thu Tra

13:30 – 15:30

Room: A.201

Thermal Behavior and Performance Analysis of Lfp Batteries Under Different Current Rates

Fatma Nur DEMİR (Eskisehir Osmangazi University, Turkey), Hüseyin YALÇIN (Eskisehir Osmangazi University, Turkey), Khusanzhon ABDURAKHMONZODA (Eskisehir Osmangazi University, Turkey), Ozge YETIK (Eskisehir Osmangazi University, Turkey), Tahir Hikmet Karakoc (Eskisehir Osmangazi University, Turkey)

Improvement Of Nh3 Gas Sensitive Performance of Organic Semiconductor Sensors Using Silver Nano Wire as Electronic Conductor Circuit

Minh Long Lam (Vietnam Aviation Academy)

A Bibliometric Analysis on The Concept of More Electric Aircraft

Erdi BOZKIR (Kocaeli University)

A Feedforward–Proportional–Integral Control for The Speed of Five-Phase Permanent Magnet Synchronous Motor for Propulsion System of Two-Seat Pure Electric Training Aircraft

Cong-Thanh Pham (Vietnam Aviation Academy), Chan Thanh Nguyen Huu (Vietnam Aviation Academy), Quoc Khai Tran (Vietnam Aviation Academy), Tan Luy Nguyen (Ho Chi Minh City University of Technology), Van Trung Trieu (Vietnam Aviation Academy)

Session 7B

Aviation Management

Session Chair: Adam Voak

14:00 – 15:30

Room: A.301

Navigating The Loyalty Landscape: A Moderated Mediation Analysis of Perceived Value, Ewom, And Airline Brand Image in Vietnam’s Low-Cost Airline Market

Nguyen Anh Loi (Vietnam Aviation Academy), Ao Thu Hoai (Vietnam Aviation Academy)

The Interference of Financial Intermediations on The Relation Between Carbon Footprint Actions and Firm Performance- Case of Asian Aviation Firms

Duong Thi Quynh (Vietnam Aviation Academy)



**The Impact of Airport Technology on Tourist Experience and Word-Of-Mouth Intention:
A Case Study at Tan Son Nhat International Airport**

Huynh Diep Tram Anh (Hue University and Vietnam Aviation Academy), Nguyen Thi Hai Hang (Vietnam Aviation Academy), Nguyen Thi Thu Hang (Vietnam Aviation Academy)

15:30 – 16:00

Tea break (Room A.101)

16:00 – 17:30

Parallel Session 8

Session 8A

Composite and Ceramics

Session Chair: Cao Thanh Binh

16:00 – 17:30

Room: A.201

Radome Applications with Uhmwpe in Aircraft

Selim Gürgen (ESOGU, Eskişehir, Turkey)

Flutter Of Bio-Inspired Laminated Composite Panel

Van Quang Duong (Le Quy Don Technical University), Quyet Thang Bui (Nguyen Sieu secondary and high school, Hanoi), Dinh Dung Nguyen (Le Quy Don Technical University)

Wear Resistance Coating from Amorphous Material in Aerospace Industry

Duong Vu (Duy Tan University)

Session 8B

Aviation Management

Session Chair: Adam Voak

16:00 – 17:30

Room: A.301

MRO Shared Services Trends in Southeast Asian Countries

Tran Thi Thai Binh (Vietnam Aviation Academy), Ha Minh Hieu (Vietnam Aviation Academy), Nguyen Thi Thu Hang (Vietnam Aviation Academy)

Factors affecting the passenger behavior intention towards the airport self-service technology

Tran Minh Anh (Korea Aerospace University), Prof. Jin Ki Kim (Korea Aerospace University)

Estimating Flight Time Using the Aman System at Tan Son Nhat Airport

Thi Vu Hien Ho (Vietnam Aviation Academy), Thi Yen Nhi Nguyen (Vietnam Aviation Academy), Dinh Khanh Dan Pham (Vietnam Aviation Academy), and Thanh Ngan Pham (Vietnam Aviation Academy)