


JOINT CONFERENCE ICASA-MATRIX 2020, 26 November 2020
INTERNATIONAL JOINT CONFERENCE ON AEROSPACE AND AVIATION
MECHANICAL AND ADVANCE MATERIAL RESEARCH EXCHANGE
Complete rundown (updated)

Information: Please click the session that you wish to attend to go the Zoom meeting via hyperlink, or see the next page. Passcode: ITB2020


08:00-08:30 [Opening](#)
[Welcome speech from Dr. Taufiq Mulyanto, Chair of ICASA-MATRIX 2020](#)
[Welcome speech from Prof. Tatacipta Dirgantara, Dean of Faculty of Mechanical and Aerospace Engineering, Bandung Institute of Technology, Indonesia.](#)

PLENARY SESSION I (08:30 - 10:00)

08:30 - 09:15 [Plenary speaker 1: Associate Prof. Koji Shimoyama](#)
[\(Institute of Fluid Science, Tohoku University, Japan\)](#)
["Data-Driven Analysis and Design in Mechanical and Aerospace Engineering"](#)
[Moderator: Pramudita Satria Palar \(Bandung Institute of Technology\)](#)



09:15 - 10:00 [Plenary speaker 2: Prof. Tatacipta Dirgantara](#)
[\(Faculty of Mechanical and Aerospace Engineering, Bandung Institute of Technology, Indonesia\)](#)
["Revitalizing Triple-helix in Building Indonesian Aerospace and Aviation Industry"](#)
[Moderator: Pramudita Satria Palar \(Bandung Institute of Technology\)](#)




10:00 - 10:10 **BREAK**

PARALLEL SESSION I	Room 1: Aerodynamics and Computational Fluid Dynamics I Chairman: Agoes Moelyadi	Room 2: Structural analysis and optimization I Chairman: Mahesa Akbar	ROOM 3: Control, Design, and Performance Analysis I Chairman: Toto Indriyanto	ROOM 4: MATRIX Chairman: Irza Sukmana
10:10 - 10:30	Aprilia Sakti Kusumalestari, Santoso Soekirno, Harry Sudibyo and Muhammad Suryanegara Clean Wing Airframe Noise Prediction Model by FWH Equation in OpenFOAM Application	Lies Banowati, Permata Sari and Bambang Kismono Hadi Comparison Analysis of Abaca Fiber/Polyester and Hybrid Abaca-E-Glass/Polyester Composites to Impact Strength and Its Application to Ballistic	Mochammad Agoes Moelyadi, Muhammad Amin Sulthoni, Muhammad Fikri Zulkarnain, Muhamad Falih Akbar and Balkan Khilmi Assakandari High Altitude Long Endurance UAV ITB Solar Panel Conceptual Design	Romie Oktavianus Bura and Januar Arief Martharaha Analysis of Telecommunication Backbone Signaling Quality at High Altitude Platform System (HAPS)
10:30 - 10:50	Marco Wijaya, Fahmi Abdullah Sambodo, Willy Wahyanto, Ony Arifanto, Ghifari Hanif Mustofa and Muhammad Fikri Al-Fattah Irsinanto Additional Drag Prediction on VTOL System Installation to Hybrid VTOL UAV Based on Computational Fluid Dynamics	Muhammad Kusni, Martina Widiramdhani and Bambang Hadi Sensitivity Study and Structural Optimization of an Aircraft Wing with Maximum-Stress and Flutter Constraints	Toto Indriyanto, Hafidz Azhar Jakaria Take off Simulation and Analysis of Aircraft with Twin Floats	Sri Anita and Dr. Albarda Classification Cherry's Coffee using k-Nearest Neighbor (KNN) and Artificial Neural Network (ANN)
10:50 - 11:10	Arifin Rasyadi Soemaryanto, Muhammad Fajar, Kurnia Hidayat, Teuku Mohd Ichwanul Hakim and Sinung Tirtha Pinindriya Identification of Aero-Induced Noise Sources on High-Lift Devices of Commuter Aircraft	Muhammad Rizki Mahalik, Annisa Jusuf, Tatacipta Dirgantara and Leonardo Gunawan Topology Optimisation and Damage Tolerance Analysis of a Small Passenger Aircraft MLG Fitting under Constant-Amplitude Loading	Wisnu Dewangga and Rianto adhy Sasongko Missile Threat Assessment System using Naive Bayes Classifier Approach	Atika Ahab, Dessy Tafuli, Since Baunsele, Nina Siti Aminah and Mitra Jamal Comparative Study of Mechanical, Physical, and Chemical Properties of Three Species of Timor Sea Stony Coral
11:10 - 11:30	Arfie Armelia Erissonia, Reo Yudhono and Indra Permana Aerodynamic Analysis of Folded-Flat Plate Airfoils Constructed from Low Reynolds Number Airfoils	Dhimaz Galang Hastungkorjati, Annisa Jusuf, Pramudita Satria Palar, Andi Kuswoyo and Kemas Zakaria Numerical Simulation and Optimization of Thin-Walled Prismatic Columns Subjected to Axial Impact Loading	Chandra Luswanto and Yazdi Ibrahim Jenie Modelling and design of flight control for quadrotor in ballistic airdrop mission under wind perturbation	Putra Adnan Fadiah, Febriyan Prayoga and M. Triprabowo M. Development of Local Lung Ventilator Component for COVID-19 Patient Treatment
11:30 - 11:50	Febrian Akhmad Baehaqi, Lavi Zuhail and Pramudita Palar Coupling between Inviscid Panel Method and Integral Boundary Layer Equations and Its Application in Optimizing Airfoil Shape	Pramudita Palar, Ghifari Adam Faza, Kemas Zakaria and Lavi Zuhail KADAL: A Python-based Kriging / Gaussian Process Software for Analysis, Design Optimization, and Exploration in Engineering	Valeria Hagar Al Aviev and Rianto Adhy Sasongko Maneuverability Analysis on Flying Vehicle with Thrust Vectoring System	Anne Sukmawati and Wulan Septiani Oils and Water Absorption Behavior of Natural Hollow Fibers
11:50 - 12:10	No presentation	Ali Aziz, Annisa Jusuf, Hery Setiawan and Ichsan Setya Putra Damage Tolerance Analysis of Aircraft Structure: Case Study of Multiple Site-Damage on Hercules C-130H Center Wing Box Structure	Seno Sahisnu Rawikara and Rianto Sasongko Dynamic Obstacle Avoidance System for Autonomous Air Vehicle	Rupesh Mahore A review on PZT based MEMS Micropumps for Space application


12:10 - 13:00 **LUNCH BREAK**

PLENARY SESSION II (13:00 - 14:30)

13:00 - 13:45 [Plenary speaker 3: Prof. Bambang Kismono Hadi](#)
[\(Faculty of Mechanical and Aerospace Engineering, Bandung Institute of Technology, Indonesia\)](#)
["Challenges and Opportunities of Aerospace Composite Structures"](#)
[Moderator: Annisa Jusuf \(Bandung Institute of Technology\)](#)



13:45 - 14:30 [Plenary speaker 4: Prof. Erry YT Adesta](#)
[\(International Islamic University of Malaysia, Malaysia\)](#)
["Industry 4.0 and Beyond: Opportunities, Challenges, and Way Forward"](#)
[Moderator: Annisa Jusuf \(Bandung Institute of Technology\)](#)



14:30 - 14:40 **BREAK**

PARALLEL SESSION II	ROOM 1: Aircraft Design and Tools Chairman: Taufiq Mulyanto	Room 2: Structural analysis and optimization II Chairman: Mahesa Akbar	ROOM 3: Control, Design, and Performance Analysis II Chairman: Rianto Adhy Sasongko	ROOM 4: Aviation and Maintenance I Chairman: Muhammad Luthfi Nurhakim
14:40 - 15:00	Mochammad Agoes Moelyadi, Ema Amalia, Livia Maharani Septiani, Albert Duke Tanton, Rizqy Agung and Ariflan Sandovic Perdana Preliminary Design of Bionic Flapping Wing Vehicle	Muhammad Kusni, Alief Taufiqurrahman and Leonardo Gunawan V-Tail Flutter Analysis of Wing in Surface Effect (Wise) Aircraft Using Msc Nastran Software	M. Iqbal, Y.K.Asalain, A.A.Arif, R.A.Sasongko Mathematical Modeling and Stability Analysis of a mini Tilt-rotor UAV	Hisar Manongam Pasaribu, Rully Mediando, Javensius Sembiring, Jacky Jusuf, Rizki Oktafianto and Rasyeeda Atiqah Stochastic Modeling of Aircraft Flight Parameters in Terminal Control Area Based on ADS-B Data
15:00 - 15:20	Reo Yudhono, Arfie Armelia Erissonia, Eky Dwi Nugroho and Andrie Adwinata Design of a Flapping Mechanism for Mini Flapping-Wing Unmanned Aerial Vehicle Mimic Dragonfly	Anggit Mardani Flexural Behaviour of Jute, Glass, Carbon Fibre Reinforced Polyester Hybrid Composites	Naufal Muhammad Farras and Yazdi Ibrahim Jenie Development of a One Axis Thrust Vectoring Control System Demonstrator with Electric Ducted Fan	Muhammad Rizki Oktafianto and Khairul Ummah Flights Arrival Delay Prediction Model at Husein Sastranegara Airport Using Machine Learning
15:20 - 15:40	Rbab Hakim, Hamitouché Toufik and Abada Omar NUMERICAL SIMULATION OF FLUIDIC THRUST VECTORING IN THE TIC NOZZLE (TRONCATED IDEAL CONTOUR NOZZLE)	Aldiyandra Hami Seno and M.H. Ferri Allabadi Novel kriging application for passive impact localisation in composite structures	Adam Adila Arif and Rianto Adhy Sasongko Flight Test Evaluation for Tilt Rotor Unmanned Aerial Vehicle Development	A Y Hertanto and Edy Suwondo Effectiveness Evaluation of Maintenance Tasks for the Landing Wheels of the B737-800 Aircraft

15:40 - 15:50 **BREAK**

PARALLEL SESSION III	Room 1: Aerodynamics and Computational Fluid Dynamics II Chairman: Ema Amalia	Room 2: Numerical simulation in aerodynamics and structures Chairman: Mahesa Akbar	ROOM 3: Control, Design, and Performance Analysis III Chairman: Rianto Adhy Sasongko	ROOM 4: Aviation and Maintenance II Chairman: Muhammad Luthfi Nurhakim
15:50 - 16:10	Abada Omar, Abada Aberahim, Kbab Hakim and Abdallah Elhritsi Ahmed Analysis and Design of Plug Shape of an Aerospike Nozzle	Petrus Setyo Prabowo, Stefan Mardikus and Ewaldus Credo Eukharisto 3D Simulation of Parallelogram Vortex Generator on Performance Characteristic of Heat Transfer on Heat Exchanger using Computational Fluid Dynamic	M. Fadhil Dzaki Syamsul and Rianto Adhy Sasongko Dynamic response analysis of aircraft with actuation system failure: open-loop and closed-loop cases	Freddy Franciscus FEASIBILITY ANALYSIS OF DEVELOPMENT OF JET AIRCRAFT TIRE RETREADING FACILITIES IN INDONESIA AND ITS DEVELOPMENT STRATEGY
16:10 - 16:30	Andrea Eka Putri, Mochammad Agoes Moelyadi and Ema Amalia Investigation of Aerodynamics Interactions in Car Racing in Overtaking Maneuver	Arif Rahman Budhanifa, Annisa Jusuf, Leonardo Gunawan and Djarot Widagdo Numerical simulation of a bird-strike on an island-hopping aircraft windshield for various conditions	Nu'Man Amri Maliky, Andrea Eka Putri and Ony Arifanto Design of High Manoeuvrability Unmanned Aerial Vehicle for Target Drone Purposes	Dave Graciola and Edy Suwondo Developing a Non-routine Maintenance Load Forecasting Procedure in MRO XYZ (Case Study: B737NG)
16:30 - 16:50	Taufiq Mulyanto and Muhammad Fikri Zulkarnain Indonesian Glider GL-1 Spoiler Preliminary Design and Computational Fluid Dynamics Analysis using EASA CS-22 Performance Requirements	Muhammad Raihan Firdaus, Annisa Jusuf, Tatacipta Dirgantara, Bambang Kismono Hadi and Leonardo Gunawan Crashworthiness Analysis of Hybrid Steel-Composite Double-Hat Multi-Corner Thin-Walled Column Under Axial Loading	Muhammad Ridho Rosa and Erwin Susanto Distributed Robust Adaptive Output-Feedback Synchronization	Muhammad Khairul Makirin, Leonard Matheus Wastupranata and Alexander Daffa On-Board Drone Detection for Drone Chasing and Collision Avoidance through a Single Mounted Camera
16:50 - 17:10	Romie Oktavianus Bura, Putra Adnan Fadiah and Febriyan Prayoga Effect on Propeller Slipstream Flow to the RPAS Gull Wing Performance	Anggella Levino, Bambang Kismono Hadi and Andi Kuswoyo Numerical Simulation on the Permeability of Non-Crimp Carbon Fiber Epoxy Using Out-of-Autoclave Manufacturing Method	No presentation	No presentation

17:10 - 17:30 **CLOSING: Dr. Taufiq Mulyanto, chairman of ICASA-MATRIX 2020**

Session	ZOOM LINK	Meeting ID
Opening, Closing, All plenary sessions, Parallel Session Room 1	https://zoom.us/j/97607754948	976 0775 4948
Parallel Session Room 2	https://zoom.us/j/95665048711	956 6504 8711
Parallel Session Room 3	https://zoom.us/j/92101168944	921 0116 8944
Parallel Session Room 4	https://zoom.us/j/94763975481	947 6397 5481

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For example: **[FTMD-ITB] - Taufik Ardanto Mulyo Firmansyah**