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2ND ICANEAT

Hybrid Conference:
22 November 2024

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2nd International Conference on Artificial Intelligence, Navigation, Engineering, and Aviation Technology

Theme: "Revolutionizing the Skies:
Smart Transformations in Global Aviation"

Venue:
API Banyuwangi Campus,
Banyuwangi, Indonesia

Book of Abstract Conference Proceeding

The 2nd International Conference on Artificial Intelligence, Navigation, Engineering, and Aviation Technology (2nd ICANEAT)

Theme: “Revolutionizing the Skies: Smart Transformations in Global Aviation”

Hybrid International Conference
API Banyuwangi Campus, Indonesia
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The 2nd International Conference on Artificial Intelligence, Navigation, Engineering, and Aviation Technology (2nd ICANEAT)

Theme: "Revolutionizing the Skies: Smart Transformations in Global Aviation"

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Office Address:
Komplek Sinergi Antapani
Jl. Nyaman 31, RT01 RW23, Bandung 40291, Indonesia
Contact: (+62) 811227479 / (+62) 8112331733
Email: contact@researchsynergy.org
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FOREWORD

Akademi Penerbang Indonesia Banyuwangi fulfills the need for the availability of human resources for aviators who have competence in accordance with technological developments and meet international standards. Starting from the name Loka Pendidikan dan Pelatihan Penerbang Banyuwangi which is then abbreviated as LP3 Banyuwangi, is a Technical Implementation Unit within the Ministry of Transportation which is under the responsibility of the Head of the Transportation Human Resources Development Agency and is technically supervised by the Head of the Air Transportation Human Resources Development Center as stipulated by Regulation of the Minister of Transportation of the Republic of Indonesia Number PM 73 of 2013 concerning Organization and Work Procedures of Loka Pendidikan dan Pelatihan Penerbang Banyuwangi dated September 04, 2013.

Akademi Penerbang Indonesia Banyuwangi has 2 programs with a very diverse selection of competence target according to the interests of prospective students, Including:

1. Diploma 3 Aircraft Operations, with competence targets of Flight Operation Officer, Dangerous Goods, Aviation Security, Apron Movement Control, and Aircraft Marshaling.
2. Diploma 3 Fixed Wing Aviator, with competence targets of Private Pilot License (PPL), Commercial Pilot License (CPL), Instrument Rating (IR), Multi Engine Rating (MER), and Managerial Skills

Objective:
To produce graduates who have competence and knowledge in the field of aviation that is excellent, professional, and ethical as well as developing and disseminating science and technology in the field of aviation.

Vision:
To become a superior and professional aviator education and training institution that is highly competitive in the Asia Pacific region.
Mission:

1. Organizing education and training of professional aviators and flight operations personnel according to international standards;
2. Organizing education and training to produce human resources in the field of aviation that are excellent and useful for the welfare of society;
3. Organizing research for the development of science and technology in the field of aviation and community service;
4. Developing cooperation with domestic and foreign institutions;
5. Improve institutional governance that is independent, transparent, accountable, effective, and efficient;
6. Developing the curriculum and syllabus of the aviator study program; and
7. Producing aviator graduates who have competitiveness and are ready to work in the national and international aviation industry.

https://icpa-banyuwangi.ac.id

Research Synergy Foundation is a digital social enterprise platform that focuses on developing the Global Research Ecosystem towards outstanding global scholars. We build collaborative networks among researchers, lecturers, scholars, and practitioners globally for the realization of knowledge acceleration and to contribute more to society and humanity. As a social enterprise, our aim is to provide a good research ecosystem and platform for researchers to share, discuss, and disseminate their ideas. In addition, it helps you to improve your research and contribute to the knowledge. Therefore, creating social value and impact is our priority.

From 2017 to 2023, more than 30.000 scholars have participated in our programs from Asia, Australia, Africa, America, and Europe continents. With the average of the increasing number of members by more than 5.000 each year, we continuously strengthen the global research ecosystem by having five support systems that are ready to help members from across the world.

There are various agendas (work and program) that we have already done since 2017 up to present. The agendas are coming from all the support systems in the Global Research Ecosystem, named: Scholarvein, ReviewerTrack, Research Synergy Institute, Research Synergy Press, and Global Research Community. Research and publication cannot be seen as a separate part. Otherwise, we should take both as a comprehensive program. Moreover, the quality of the paper is the biggest concern for publication. To achieve the Organization/University/ Institution goal, we provide some agendas that can support you in research and publication enhancement. Some of the prominent agendas are:

a. International Conferences: It aims to create a "tipping point" of opportunities for participants to disseminate their research globally and have reputable scientific publication output.
b. Scientific and Academic Writing Coaching Clinics: It aims to provide a targeted and intensive learning strategy for publishing papers in high-impact Scopus/ WOS international journals.
c. Workshops: It aims to provide a vibrant learning forum to enhance the author's capability of scientific writing skills and the manuscript's quality.
d. Learning and Knowledge Sharing Programs: It aims to provide the best practice and guide from the experts, editors, and publishers' perspectives in research and publication enhancement.
e. Social Programs: It aims to empower and encourage society to share the value of creating an impactful program with us.

Research Synergy Foundation welcome all individuals, organizations/institutions (universities, governments, and private sectors) to be part of our Global Research Ecosystem.

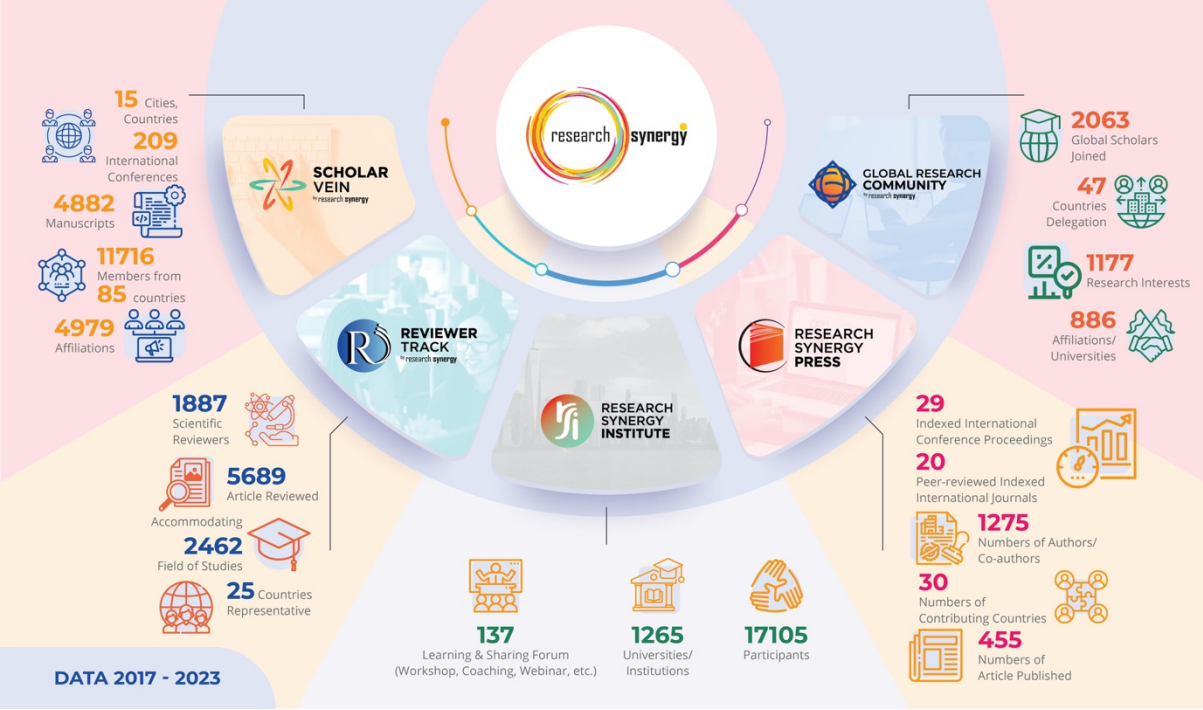

Figure: Global Research Ecosystem owned by Research Synergy Foundation (data from 2017 – 2023)

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- https://www.instagram.com/researchsynergyfoundation/

https://www.youtube.com/@researchsynergyfoundation8675

TABLE OF CONTENTS

ORGANIZING COMMITTEE

General Chair
Dr. Capt. Daniel D. Rumani, M.M., M.A.
Akademi Penerbang Indonesia Banyuwangi, Indonesia

Conference Chair
Dr. Prasetyo Iswahyudi, S.T., M.M.
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CONFERENCE CHAIR MESSAGE

Excellencies, distinguished presenters,

Esteemed attendees, ladies and gentlemen,

It is my distinct honor and privilege to warmly welcome you all to the 2nd International Conference on Artificial Intelligence, Navigation, Engineering, and Aviation Technology (2nd ICANEAT), organized by Akademi Penerbang Indonesia Banyuwangi in collaboration with the Research Synergy Foundation. This event is made possible with the generous support of our academic and research partners, including Scholarvein, Reviewer Track, Research Synergy Institute, Research Synergy Press, Global Research Community, and F1000 Research.

Today marks a remarkable gathering of scholars, professionals, and thought leaders from across the globe, united by a shared commitment to advancing the fields of artificial intelligence, navigation, engineering, and aviation technology. As we convene for this significant conference, we are here to exchange knowledge, collaborate, innovate, and shape the future of these disciplines, ensuring they continue to evolve and meet the demands of our rapidly changing world.

This 2nd ICANEAT is the second annual international conference and marks the excitement and eagerness of researchers to be in a platform that supports the ever-evolving world of research. Over the course of this conference, we will have numerous presenters from various countries, joining us here in Banyuwangi, Indonesia, and virtually. In this conference, prepare to engage in multidisciplinary discussions spanning various fields of study.

Throughout this conference, we will explore cutting-edge research, engage in dynamic discussions, and share invaluable insights into how these critical fields intersect and drive advancements that address both local and global challenges. This event offers a rare opportunity to connect with like-minded professionals, build collaborative networks, and discover the latest trends, technologies, and methodologies transforming artificial intelligence, navigation, engineering, and aviation technology.

I would like to express my deepest appreciation to all of you—our participants, keynote speakers, presenters, reviewers, session chairs, and attendees—for your dedication and contribution to this conference. Your commitment to sharing your research and expertise will undoubtedly enrich our discussions and inspire new ideas and collaborations for the future.

As we embark on this journey together, I encourage you all to take full advantage of the opportunities before you. Engage in the sessions, ask questions, and connect with fellow participants. I am confident that the connections we make, the knowledge we share, and the insights we gain during this conference will pave the way for future advancements and professional growth.

Once again, welcome to the 2nd ICANEAT, and I look forward to a fruitful and inspiring conference.

Best regards,

Dr. Prasetyo Iswahyudi, S.T., M.M.
Conference Chair of 2nd ICANEAT

GENERAL CHAIR

Dr. Capt. Daniel Dewantoro Rumani, S.E., S.SiT., M.M., M.A.

General Chair of 2nd ICANEAT
Director of API Banyuwangi, Indonesia

Dr. Daniel Dewantoro Rumani is a distinguished aviation and management professional with extensive experience in the Indonesian transportation sector. He holds a Doctorate in Economics from Universitas Trisakti (2024) and a Master's degree in Management (MM) along with a range of qualifications in aviation and flight operations. With a career that spans over two decades, Dr. Rumani has held prominent roles including Director of the Indonesian Academy of Aviation in Banyuwangi and Head of Academic Administration at the School of Aviation.

Dr. Rumani has risen through the ranks in the Ministry of Transportation, achieving the rank of Pembina Utama Muda (IV/c) in 2022, recognizing his dedication and expertise. His vast training portfolio includes advanced certifications in flight safety, aviation operations, and management, further complemented by multiple international experiences, including courses in Japan, Australia, and France.

In addition to his professional achievements, Dr. Rumani has been honored with the Satya Lencana Karya Satya for 20 and 30 years of service, acknowledging his long-standing commitment to public service in Indonesia. He is also active in various professional organizations and has contributed to the development of aviation policies and training programs.

CONFERENCE CHAIR

Dr. Prasetyo Iswahyudi, S.T., M.M.

Conference Chair of 2nd ICANEAT
Akademi Penerbang Indonesia Banyuwangi, Indonesia

Dr. Prasetyo Iswahyudi is a highly accomplished professional with a strong background in management, electrical engineering, and aviation. He holds a Ph.D. in Educational Management from Universitas Negeri Surabaya (2020), a Master's in Management from Sekolah Tinggi Ilmu Ekonomi Mahardika (2009), and a Bachelor's degree in Electrical Engineering from Universitas PGRI Adi Buana (2005).

Throughout his career, Dr. Iswahyudi has held various leadership positions in Indonesia's Ministry of Transportation, most notably as the Deputy Director of BPSDMP (2022–2024) and as the Head of Subdivision at the Ministry of Transportation (2021). He has also worked as a lecturer, sharing his expertise in human resource management and education. Dr. Iswahyudi's career trajectory reflects his commitment to public service, and he has consistently risen through the ranks, achieving a current rank of Pembina IV/a.

In addition to his significant leadership roles, Dr. Iswahyudi has completed various training programs, including an Advanced Leadership Program (2020) and several technical and emergency management courses. He is also the recipient of the Satya Lencana Karya Satya for 10 years of service (2011) and was recognized as the Best Participant in the Wajib Diklat Angkatan XX (2008).

His career is further distinguished by his contributions to the development of human resource management within Indonesia's transportation sector. Dr. Iswahyudi has also shown a deep interest in professional and academic development through his active participation in numerous training and courses.

CO-CONFERENCE CHAIR

Dr. Hendrati Dwi Mulyaningsi, S.E., M.M.

Founder & Chairperson of Research Synergy Foundation

Dr. Hendrati Dwi Mulyaningsih is the chairperson and founder of Research Synergy Foundation that has shown great commitment on creating Global Network and Research Ecosystem. This GNR ecosystem has been developing since 2017 up to the present and having increasing numbers of the member up to more than 30.000 from all around the globe. Her passion in how to create impact and co creation value among all the stake holder of RSF has made her focus on upholding integrity in the scientific process through enhancement of RSF's support-support system as like Reviewer track, Scholarvein, Research Synergy Institute and Research Synergy Press. Thus, her work in this area has made her as the Nominee of Impactful Leadership Awards from Tallberg Foundation Sweden 2019 and 2024

As lecturer, she has been working in the University since 2008 – at present in Indonesia as assistant professor and she hold her Doctoral Science of Management graduated from School of Business and Management Institute of Technology Bandung (SBM-ITB) and she has strong interest to her research project as well as her research field in Social Entrepreneurship, Social Innovation and Knowledge Management.

As researcher, her work studies and research on this research field made her be invited as reviewer in many reputable Scopus and WOS indexed journals and as keynote speaker in many International Conferences in Philippines, Thailand, Malaysia, Indonesia, Australia, Japan, and US. She also has shown her great passion on writing her research study into some books chapter, papers and contemporary scientific articles that has already been published in Springer, Emerald, Taylor and Francis and in many reputable international publishers. The terrific association between her professional experiences as researcher, lecturer, the certified Trainer & Coach combined with her wider horizon on networking in the research area made her establish the strong commitment on having global learning platform to accelerate knowledge through many workshops and research coaching in Research Synergy Institute as one of RSF's support system.

OPENING SPEAKER

Dr. Achmad Setiyo Prabowo, S.T., M.T.

Head of Center for Human Resource Development of Air Transportation, Indonesia

Achmad Setiyo Prabowo, currently the Head of the Center for Human Resource Development in Aviation at the Ministry of Transportation, has built a remarkable career marked by strategic leadership and impactful contributions to Indonesia's transportation sector.

He began his journey in 2016 as Head of the Planning Division at the Secretariat of BPSDM Perhubungan, where his strategic vision set the stage for subsequent leadership roles. His tenure as Director of ATKP Medan and ATKP Makassar from 2016 to 2018, and later as Director of Poltekbang Surabaya (2018–2020), highlights his ability to lead and innovate in aviation education and training institutions.

From 2020 to 2021, he served as Head of the Education Division at PPSDM Perhubungan Udara, before advancing to key strategic roles, including Program Division Head at the Planning Bureau of the Secretariat General (2021–2023). In 2023, he was appointed to his current role, where he oversees aviation human resource development.

KEYNOTE SPEAKERS

Assoc. Prof. Dr. Nor Aida Abdul Rahman

Aviation Management / Supply Chain & Strategy, Universiti Kuala Lumpur, Malaysia

Nor Aida Abdul Rahman is an Associate Professor (Supply Chain and Strategy) at Universiti Kuala Lumpur, Malaysian Institute of Aviation Technology (UniKL MIAT) in Subang, Selangor, Malaysia. She has been appointed as a Fellow at UKM-MPOB Endowment Chair, National University of Malaysia. She is also a visiting professor at ITL Trisakti Jakarta, Indonesia.

She has worked as an internal and external trainer in management topics, marketing logistics and supply chain, Halal logistics and postgraduate research. Her research interests are marketing logistics, strategic management, air travel, halal logistics and supply chain, logistics and supply chain performance, logistics branding, aviation management and air travel. Her work has appeared in Industrial Marketing Management, Journal of Islamic Marketing, Journal of Humanitarian Logistics and Supply Chain Management, Journal of Quality and Reliability and Management, and others. She has also published numerous book chapters, books, edited books, refereed conference proceedings, and is part of the editorial team of book projects with Routledge and Springer. She earned PhD degree in Management (supply chain management) from Brunel University, London; Master and Bachelor degree in Business and Administration from National University of Malaysia. She is a panel of WG in MS2400 Halal Supply Chain Standard & TC10 for Halal Supply Chain Standard (SMIIC). She is also serving as an External Academic Advisor in colleges, a chartered member of Chartered Institute of Logistics and Transport Malaysia (CILTM), JAKIM Halal Trainer, HRDF Certified Trainer and Chairman (Academic Committee) for Malaysian Association of Transportation, Logistics and Supply Chain Schools.

KEYNOTE SPEAKERS

Dr. Mohamed Syazwan Ab Talib

Assistant Professor of Logistics Management
Universiti Brunei Darussalam, Brunei

Mohamad Syazwan Ab Talib is a lecturer at Universiti Brunei Darussalam, specializing in logistics and supply chain management, with a focus on halal principles and Islamic distribution. His research explores the impact of halal certification on business performance and supply chain efficiency. He has published extensively on these topics, contributing to journals in logistics and halal management. Dr. Talib actively engages in industry consultation, academic coaching, and research collaboration.

MASTER OF CEREMONY

Santi Rahmawati, S.T., M.S.M.

Founder & Director of Global Network and Operation
Reserch Synergy Foundation

Santi is a Founder and Global Network Operation Director of the Research Synergy Foundation (RSF). She actively engaged with scholars around the world for strengthening the Global Research Ecosystem. As the Director of Scholarvein, she creates, maintains, and develops the integrated system for managing international scientific conference and forum since 2017 up to present and already give benefit to more than 8.448 participants coming from >85 countries. With the combination of engineering and management science educational background, she has built the optimum workflow for scholars to contribute more to the society and humanities.

Santi holds her bachelor's degree of industrial engineering from Universitas Indonesia (UI). Furthermore, she had received her Master of Science Management (focusing on Entrepreneurship and Technology Management) from Institut Teknologi Bandung (ITB) in 2015. Santi worked for several years as a Research Assistant and later as the Associate Director of the Centre for Innovation Entrepreneurship and Leadership at the Institut Teknologi Bandung. In her roles Santi helped lead the centre's Micro-Enterprise Development project, designed to support economic development throughout West Java Indonesia through the provision of entrepreneurship capability development. She also collaborates with ITB and Victoria University of Wellington, New Zealand, on a project that focuses on how Information Technology start-ups acquire finance support in developing economies.

Santi has appointed as a Gateway Advisor in F1000Research (Scopus Q1) and Taylor & Francis Open Access Advisor (Scopus Q1, Q2 & WOS). She has already been an editor of three published books (both published by Routledge, Taylor & Francis), a reviewer in many reputable international journals, an author and co-authored multiple international research articles and book chapters. Santi also serves as the Managing Editor for six international journals https://journals.researchsynergypress.com : IJEBCE, IJEIIS, IJEASS, JSETP, IJMADIC, and JHASIB.

MODERATOR

Safitri Era Globalisasi, S.S., M.Hum.
Akademi Penerbang Indonesia Banyuwangi

Safitri Era Globalisasi is an accomplished academic and professional in the fields of English literature, cultural studies, and education. She earned her Bachelor's degree in English Literature from Universitas Islam 45 Bekasi (2017) and a Master's in Literature Study with a focus on Cultural Studies from Universitas Indonesia (2022). Her research has explored themes such as beauty standards in beauty vlogs and the representation of Indonesian women in transnational marriages through digital media.

In addition to her academic achievements, Safitri has accumulated valuable experience as a lecturer, teaching at Universitas Islam 45 Bekasi and Akademi Penerbang Indonesia, among others. She has also contributed to various educational initiatives, including certification programs in public speaking, aviation security, and curriculum development. Safitri has participated in international conferences, where she presented research on the representation of Indonesian identity in vlogs.

Her skills are further demonstrated by her active role in education through freelance tutoring, as well as her involvement in event management, notably as a liaison officer during the 2018 Asian Games. Safitri's commitment to education and professional development is reflected in her diverse certifications and ongoing contributions to academia.

SESSION CHAIRS

Dr. Emilia Vann Yaroson

The University of Sheffield, United Kingdom

Emilia Vann Yaroson is a lecturer in operations and supply chain management. Her research focuses on how emerging technologies, including artificial intelligence, blockchain technology, cloud computing, and digital twins, can be leveraged to build resilient supply chains and promote sustainability. Her work aligns with the United Nations Sustainable Development Goals (SDGs), particularly those related to sustainable development, poverty reduction, access to healthcare, and environmental protection.

Prof. Virgilio Dolina Jr.

PATTS College of Aeronautics, Philippines

Virgilio Valera Dolina Jr. is a graduate of AB Legal Management from the Pontifical and Royal University of Santo Tomas - Manila and was an intern of the United Nations Information Centre Manila and International Labour Organization - Country Office in Manila.

He has been teaching Social Sciences, Accounting, Business, and Management subjects since 2013 in the Pamantasan ng Lungsod ng Maynila, and National University System (Manila, Baliwag, and Dasmarinas, Asia Pacific College). He has served as a Trustee, Secretary General and Vice President for Internal Affairs of the National Association of Clubs for the United Nations Educational, Scientific, and Cultural Organization (UNESCO Clubs) (2012-2016).

In 2016 he founded ADREM Projects Management and serves as the company's Managing Partner. He has been awarded in 2018 as one of the Outstanding UNESCO Club Young Professionals of the Philippines. Mr. Dolina is also studying Philippine laws under a Juris Doctor program at San Sebastian College of Recoletos - Manila. He is the Discipline Formation Officer of PATTS College of Aeronautics and has been teaching aviation management subjects under the Airline Business Administration Department.

SESSION CHAIRS

Sabarina Binti Abdul Hamid

Universiti Kuala Lumpur Malaysian Institute of Aviation Technology (UniKL MIAT), Malaysia

Sabarina Abdul Hamid is a lecturer and researcher at Universiti Kuala Lumpur Malaysia Institute of Aviation Technology (UniKL MIAT). She has a strong foundation in electronics and telecommunication engineering, holding a degree from Multimedia University (MMU), and a Master's in Electrical Engineering from Universiti Tenaga Nasional (UNITEN).

In addition to her academic qualifications, she has completed the CAR 1988 AME License Pre-Requisite Engineer Exam for Electrical, Instrument, and Radio under the Civil Aviation Safety Authority (CASA), Australia, and earned a Certificate IV in Aeroskills (Avionics) from South Western Sydney Institute Padstow College, Sydney, Australia.

Sabarina has extensive expertise in avionics, having gained hands-on experience with major aircraft systems during her tenure at Malaysia Airlines and Transmile Air Services. Her research focuses on advanced materials and photovoltaic systems, particularly ultrasonic bonding for solar panel interconnections. She has presented her work at prestigious conferences like TENCON and NANOSYM and has published in respected journals, including IEEE Transactions.

A dedicated member of IEEE and BEM, Sabarina combines her passion for cutting-edge technology with a commitment to nurturing future engineers. Her innovative contributions continue to bridge the gap between academic research and practical applications in the aviation and renewable energy industries.

Mr. Anton Albuladora

National University-Manila, Philippines

Prof. Anton H. Albuladora is a licensed teacher who has built a solid career in Education. He is a Secondary Education graduate with a major in History and a minor in English with the honors of Magna Cum Laude. He earned his masters degree in Education major in Administration and Supervision and is presently pursuing his Doctor of Philosophy in Educational Leadership and Management at the De La Salle University-Manila. He teaches full-time under the Social Sciences Department of National University-Manila. His personal goal is to continue teaching and doing leadership and administrative work, which he sees as sustaining his professional growth, energizing his vision, and reinvigorating his personal development.

SESSION CHAIRS

Dr. John Ericson A. Policarpio
Olivarez College, Philippines

Dr. John Ericson A. Policarpio is a University Professor on both Undergraduate and Graduate programs in Business, Tourism, and Hospitality, an Academic Researcher, a Book Author, a PACUCOA Accreditor, a Sales & Marketing Trainer, Business Consultant, Travel Agency Owner, and a Hotelier. He recently finished his Doctor of Business Administration (DBA) degree at Olivarez College where he received the Highest Academic Distinction Award and the Best Corporate Development Research for his dissertation on Luxury Tourism in Asia. He obtained his master's degree in business administration – Top Executive Program at the Pamantasan ng Lungsod ng Maynila (PLM). He finished his Bachelor of Science in Tourism Major in Airline Operations degree at PATTS College of Aeronautics where he topped his class as the batch Cum Laude and Academic Excellence Awardee. He is an Internationally Certified Event Educator, Event Manager, and Event Planner by the Asia Pacific Institute for Events Management (APIEM) in Leeds, United Kingdom. He is also a Certified Tourism Professional (CTP) recipient by the Institute of Tourism and Hospitality Professionals in London, United Kingdom. He is also a Distinguished Program Specialist for the Certification in Hospitality and Tourism Technology Service Professionals. He is also a Distinguished Program Reviewer for Travel & Tourism Supervision microbadge. Dr. Policarpio is also a Certified Amadeus GDS Trainer. He is a Member of the Southeast Asia Research Academy (SEARA) Batch 10.

A Hotelier by profession, Dr.Policarpio held numerous positions in the Accommodation Sector, particularly in the Sales & Marketing Department. He started as a Reservations Associate all the way to become the Head of Sales & Marketing Department for Five years. Currently, Dr. Policarpio is connected with a number of colleges and universities as Professor in the tourism, hospitality, and business administration programs. Among these schools are Olivarez College, University of Perpetual Help System DALTA, St. Scholastica's College Manila, and Trinity University of Asia. Dr. Policarpio was the Former Program Chairperson of Tourism and Hospitality Management (THM) Department of PATTS College of Aeronautics. He was also a former Tourism Professor at Lyceum of the Philippines University-Manila (LPU-Manila), Canadian Tourism and Hospitality Institute (CTHI), and Pamantasan ng Lungsod ng Maynila (PLM).

He is a former member of the Board of Trustees and the Chair of the Membership Committee of the Union of Filipino Tourism Educators (UFTE), Former National Adviser of the Union of Filipino Tourism Students (UFTS), appointed as South Manila Membership Ambassador of Philippine Association of Researchers for Tourism & Hospitality, Inc. (PARTH), and Senior Fellow at the Asia Pacific Institute for Events Management (APIEM). Dr. Policarpio has judged tourism skills competitions and critiqued numerous research papers, business plan proposals, and tourism development plans from different universities and colleges in the Philippines. His research works focus on special topics in Events Management, Tourism Development, Special Topics in Tourism, and Tourism Marketing studies.

SESSION CHAIRS

Dr. Prashant Pawar

SVERI's College of Engineering, Pandharpur, India

Dr. Prashant Pawar is a distinguished professor at SVERI's College of Engineering, Pandharpur, and the Incharge Dean of Science and Technology, PAH, Solapur University. A notable figure in the academic fraternity, he is renowned for his innovative approach to utilizing cutting-edge technologies for societal development and demonstrating their real-world applications in the field. His academic credentials include a Ph.D. from the Indian Institute of Science (IISc), Bangalore, where his pioneering research focused on Structural Health Monitoring of Composite Helicopter Rotor Blades, and an M.Tech. in Structural Engineering from IIT Guwahati.

With over two decades of experience, Dr. Pawar has guided numerous Ph.D. and postgraduate students, fostering research excellence. He has also held a prestigious role as a Research Professor at Konkuk University in South Korea, contributing to advanced helicopter research, and worked as a diagnostics engineer at Eaton Industries Pvt. Ltd., Pune. His research contributions span over 100 publications, 8 authored books (6 published by Springer), and 2 granted patents.

A leader in securing research funding, Dr. Pawar has led major projects supported by the Government of India and Maharashtra, including a ₹33.73 Cr collaboration with IIT Bombay aimed at developing a Drone Ecosystem for Societal Development. His hands-on approach to applying technology for real-world solutions is further exemplified by his leadership in consultancy projects worth over ₹2 Cr, focusing on structural audits and diagnostics.

Dr. Pawar's involvement in institutional development is equally significant. He is a key member of various university committees, playing a critical role in accreditation, research development, and intellectual property initiatives. His numerous awards, including the AICTE-Visvesvaraya Best Teacher Award, underscore his dedication to education and his innovative contributions to teaching, research, and societal advancement.

CONFERENCE PROGRAM

Friday | November 22, 2024

Organized by :

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CONFERENCE PROGRAM

2nd International Conference on Artificial Intelligence, Navigation, Engineering, and Aviation Technology (2nd ICANEAT)

Hybrid International Conference (Venue: API Banyuwangi Campus, Banyuwangi, Indonesia)

https://icaneat-apibanyuwangi.com

Friday, 22 November 2024

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Meeting ID: 861 3147 3370
Passcode: 2ndICANEAT

Time (UTC+7)	*Dur'*	*Activity* **Please note that ALL conference TIME is in Banyuwangi time UTC+7. Please check your time zone.**
		Main Room
8:00 - 8:20	0:20	**Welcome reception and registration at API Banyuwangi Campus. Banyuwangi. Indonesia &** **Online Participant Login and Join Virtual Conference by ZOOM - start at 8.20 AM** **Gandrung Dance**
8:20 - 8:35	0:15	**Welcome Address** and Conference Publication Announcement by MC
8:35 - 8:45	0:10	Indonesia Raya & Hymne Akademi Penerbang Indonesia
8:45 - 8:55	0:10	**Welcome Remarks of 2nd ICANEAT** **Dr. Capt. Daniel Dewantoro Rumani, S.E., S.SiT., M.M., M.A.** General Chair of 2nd ICANEAT Director of API Banyuwangi, Indonesia
8:55 - 9:10	0:15	**Opening Speech of 2nd ICANEAT** **Dr. Achmad Setiyo Prabowo, S.T., M.T.** Head of Center for Human Resource Development of Air Transportation, Indonesia
9:10 - 9:20	0:10	**Global Research Ecosystem Introduction** **Dr. Hendrati Dwi Mulyaningsih** Co-Conference Chair of **2nd ICANEAT** Founder & Chairperson of Research Synergy Foundation
9:20 - 9:25	0:05	**Conference Group Photo Session & Preparation for Keynote Speakers Session**
9:25 - 9:50	0:25	**Keynote Speaker 1** **Dr. Capt. Wisnu Handoko, M.Sc.** Secretariat of Human Resource Development Agency on Transportation, Indonesia
9:50 - 9:55	0:05	Token of Appreciation for Keynote Speaker 1
9:55 - 10:20	0:25	**Keynote Speaker 2** **Assoc. Prof. Dr. Nor Aida Abdul Rahman** Aviation Management / Supply Chain & Strategy, Universiti Kuala Lumpur, Malaysia
10:20 - 10:25	0:05	Token of Appreciation for Keynote Speaker 2
10:25 - 10:50	0:25	**Keynote Speaker 3** **Dr. Mohamed Syazwan Ab Talib** Assistant Professor of Logistics Management Universiti Brunei Darussalam, Brunei
10:50 - 10:55	0:05	Token of Appreciation for Keynote Speaker 3
10:55 - 11:00	0:05	**Signing of the cooperation agreement to:** **Banyuwangi State Polytechnic** **STIKES Banyuwangi**
11:00 - 11:05	0:05	**Announcement and preparation of Academic Online Parallel Presentation Session**
11:05 - 13:00	1:55	**Break** (Video played: University Profile, and Program of Akademi Penerbang Indonesia Banyuwangi; Research Synergy Foundation Profile; 2nd ICANEAT Agenda & Sessions)
Academic Online Parallel Presentation Session **(Main Room and Breakout Room 1, 2, 3, 4, 5)**		

CONFERENCE PROGRAM

Friday | November 22, 2024

13:00 - 13:10	0:10	**Session Chair Introduction at each parallel breakout rooms.** **Main Room: Dr. Emilia Vann Yaroson - The University of Sheffield, United Kingdom** **Breakout Room 1: Prof. Virgilio Dolina Jr. - PATTS College of Aeronautics, Philippines** **Breakout Room 2: Sabarina Binti Abdul Hamid - Universiti Kuala Lumpur Malaysia Institute of Aviation Technology (UniKL MIAT), Malaysia** **Breakout Room 3: Prof. Anton Albuladora - National University-Manila, Philippines** **Breakout Room 4: Dr. John Ericson A. Policarpio - Olivarez College, Philippines** **Breakout Room 5: Dr. Prashant Pawar - SVERI's College of Engineering, Pandharpur, India**
13:10 - 15:10	2:00	**Academic Online Presentation Session: maximum** **8 presenters 15 minutes/presenter**
15:10 - 15:25	0:15	Distributing Certificate of Presentation, Testimonial, and Post-conference information announcement
15:25 - 15:40	0:15	**Short break and back to Main Room for Awarding session and Closing Ceremony**
Main Room		
15:40 - 15:55	0:15	**Awarding Ceremony** **Best Presentations** **Best Papers** **Session Chairs**
15:55 - 16:00	0:05	**Closing Speech of 2nd ICANEAT** **Dr. Prasetyo Iswahyudi, S.T., M.M.** Conference Chair of 2nd ICANEAT Vice Director 1 of API Banyuwangi, Indonesia

LIST OF PRESENTERS

Friday | November 22, 2024

Room: Main Room
Time: 13.00 – 15.25 (UTC+7)
Session Chairs: Dr. Emilia Vann Yaroson - The University of Sheffield, United Kingdom

Track Management		
Paper ID	**Presenter**	**Paper Title**
CAN24117	M. Syahril Kadafi	The Influence of Timeliness, Delivery Costs, and Service Quality on Customer Satisfaction Levels Case Study at PT Citilink Cargo Indonesia
CAN24106	Aden Bayu Alfiansyah	The Effect of Flight Rescheduling on Student Pilot Behavior and Adaptation: The Role of Readiness, Delay Duration, and Management Communication
CAN24122	Armarino Nurjuan Rajasa	Impact of On-Time Performance on the Financial Performance of PT Garuda Indonesia (Persero) TBK for the 2020-2022 Period
CAN24134	Dery Melsandi	The Effect of Providing Compensation to Passengers Experiencing Delays in Passenger Satisfaction
CAN24121	Meryam Kania Defitri	The Influence of Employee Performance and Airline Service Quality on Customer Satisfaction
CAN24132	Armarino Nurjuan Rajasa	Impact of On-Time Performance on the Financial Performance of PT Garuda Indonesia (Persero) TBK for the 2020-2022 Period
Track Artificial intelligence for Aviation Safety		
Paper ID	**Presenter**	**Paper Title**
CAN24131	Daniel Dewantoro Rumani	Prediction of Transportation Connectivity and Economic Impact of Waterbase Development in Remote Areas Based on Artificial Intelligence

Room: Break Room 1
Time: 13.00 – 15.25 (UTC+7)
Session Chairs: Prof. Virgilio Dolina Jr. - PATTS College of Aeronautics, Philippines

Track Air Traffic Services		
Paper ID	**Presenter**	**Paper Title**
CAN24103	Dede Ardian	Air Traffic Management Development: A Bibliometric Analysis
CAN24115	Kevin Hariyanto	The Influence of Service Systems And Service Development Strategies on Satisfaction of Aviation Service Users at Soekarno Hatta Airport
Track Airport Information		
Paper ID	**Presenter**	**Paper Title**
CAN24135	Dava Rahul Syahputra	The Influence of Green Airport Concept and Passenger Experience on Aviation Image: A Case Study of Banyuwangi Airport
CAN24125	Faida Luckyta Islami	The Effect of Operating Location and Aviation Safety Management on the Aviation Safety Level at Banyuwangi Airport
CAN24120	Mochamad Dzikrul Lisani	The Influence of Flight Frequency and Facilities on Passenger Comfort (Case Study of Soekarno-Hatta Airport and Banyuwangi)
CAN24116	Pramesty Putri Ridzky Hutami	The Impact of Flight Schedule Delays and Cancellations (Scheduling) on User Satisfaction of Flight Services at Airport X with Legal Liability Intervening
CAN24133	Rafi Navisa Ahkram	The Influence Of PKP-PK Unit Facilities on Flight Safety
CAN24119	Nisye Maharani	Consumer Trust Behavior on The Influence of The Quality of Emergency Response Facilities in Hospitals: Plane Crash Emergency Situation at Blimbingsari Banyuwangi Airport

Room: Breakout Room 2
Time: 13.00 – 15.25 (UTC+7)
Session Chairs: Sabarina Binti Abdul Hamid - Universiti Kuala Lumpur Malaysia Institute of Aviation Technology (UniKL MIAT), Malaysia

Track Aviation Psychology		
Paper ID	**Presenter**	**Paper Title**
CAN24114	Rochmad Setiawan	The Influence of Social Learning on Flight Operation Officer Competency Mediated by Emotional Intelligence: A Study at the Akademi Penerbang Indonesia Banyuwangi
100741	Hanung Mahendra Aditama	The Effect of Mental Fatigue and Foo Officer Performance on Flight Safety
CAN24129	I Kadek Dodiek Saputra	How the Effect of Work Pressure (Stress) and Performance of Aviation Security Officers on Service Quality (Case Study: I Gusti Ngurah Rai International Airport)
CAN24128	Ida Ayu Dhea Komala Dewi	The Effect of Stress Levels on the Performance of Air Traffic Controllers in Maintaining Aviation Safety
Track Aviation Regulation		
Paper ID	**Presenter**	**Paper Title**
CAN24127	Ahmad Mubarok	Airmanship Evolution in Aviation: A Systematic Review of the Past Decade
156723	Kadek Andra Samudra	Analysis of the Impact of Different Simulators on Pre-Solo Flight Performance in Students of the Indonesian Civil Pilot Academy Banyuwangi
Track Meteorology		
Paper ID	**Presenter**	**Paper Title**
CAN24126	Hesti Heningtiyas	Utilisation of Weather Radar for Aviation Safety (Case Study of Mount Marapi Eruption, West Sumatra)

Room: Breakout Room 3
Time: 13.00 – 15.25 (UTC+7)
Session Chairs: Prof. Anton Albuladora - National University-Manila, Philippines

Track Vocational education		
Paper ID	**Presenter**	**Paper Title**
CAN24113	Rico Darmawan	The Impact of Crew Resource Management Training on Operational Skill of Aircraft Operation Student: A Comparison Between Simulation-Based and Theoretical Learning
CAN24112	Muchammad Yassir Fadhilah	Analysis Runway Excursion in Indonesia (A Case Study Based on Knkt Reports over The Past Decade)
CAN24138	Safitri Era Globalisasi	Identification Simulator Redbird TD2 Training on The Readiness of Students in the Procedure for Instrument Rating Phase of Indonesia Civil Pilot Academy Banyuwangi
CAN24137	Safitri Era Globalisasi	Mapping on The English Language Learning Needs and Its Applications in Indonesia Civil Pilot Academy
CAN24130	Aina suriani Mahmood	Cleared for Takeoff: Teaching Aviation English – Classroom Insights
CAN24118	Syafni Yelvi Siska	Vocational Higher Education under The Ministry of Transportation in Indonesia: Challenges & Solutions
592896	Marudut Bernadtua Simanjuntak	Human Resource Development in Maritime Vocational Education for Industry Sustainability: A Qualitative Analysis

Room: Breakout Room 4
Time: 13.00 – 15.25 (UTC+7)
Session Chairs: Dr. John Ericson A. Policarpio - Olivarez College, Philippines

Track Aviation Security		
Paper ID	**Presenter**	**Paper Title**
CAN24111	Hafidh Kaffa	The Influence of AVSEC Officer Competence on Passenger Security at Soekarno-Hatta Airport
CAN24136	I Made Miarta	The Influence of Aviation Security Officers Attitudes on the Safety and Comfort of Aviation Service Users at Banyuwangi Airport
CAN24109	Gede Marhendra	Optimization of Airport Facilities and Employee Performance on Passenger Service Satisfaction at Banyuwangi Airport
315434	Salva Aurelya Mawardi Putri	The Impact of Passenger Awareness of Dangerous Goods on Flight Safety
478900	Mahmud Badarudin	Analysis of Flight Safety Level Using Decision Tree Algorithm in Indonesia: A Comprehensive Study
Track Innovation Technology		
Paper ID	**Presenter**	**Paper Title**
CAN24104	Asyhari Yasman	Seaplane Trend: A Bibliometric Analysis
CAN24123	Raffel Gilmania Putri	Cessna 172 Aircraft Noise Reduction Technology to Reduce Hearing Loss for Students of the Indonesian Aviation Academy Banyuwangi

Room: Breakout Room 5
Time: 13.00 – 15.40 (UTC+7)
Session Chairs: Dr. Prashant Pawar - SVERI's College of Engineering, Pandharpur, India

Track Electrical Engineering		
Paper ID	**Presenter**	**Paper Title**
CAN24105	Rosnita Rauf	Analysis of the Potential Outflow of Singkarak Hydroelectric Power Plant as a Micro Hydroelectric Renewable Energy Generator
CAN24124	I Komang Krisna Somia Antara	The Effect of Aircraft Maintenance Intensity on Aircraft Performance in API Banyuwangi
Track Control and Navigation		
Paper ID	**Presenter**	**Paper Title**
CAN24102	Fajar Islam	The Influence of Understanding Aeronautical Chart Terminology in IFR Flight on The Performance of Cadets at API Banyuwangi
CAN24108	Giga Zepa	The Effect of Workload and Work Life Balance on Aviation Safety Procedures (Study Case: ATC Soekarno Hatta Airport)
CAN24110	I Putu Pinatih	Analysis of AIRNAV Personnel Opportunities and Challenges Towards Air Navigation System Transformation to Improve Flight Safety
Track Aerodynamics		
Paper ID	**Presenter**	**Paper Title**
CAN24101	Yasyfa' Kawakibi	Cessna 172SP Aircraft Pitch Attitude Recommendations in Steep Turn Maneuvers
CAN24107	Aisyah Citra Lestari	The Impact of Using Cessna 172 as a Training Aircraft on the Efficiency of Flight Training for Prospective Flight Participants
Track Drone		
Paper ID	**Presenter**	**Paper Title**
CAN24139	Atikah Inayah	Drones in the Concept of Modern War Post-Heroic Warfare and Its Relation to International Humanitarian Law

Track: Vocational Education

The Impact of Crew Resource Management Training on Operational Skill of Aircraft Operation Student: A Comparison Between Simulation-Based and Theoretical Learning

| Rico Darmawan[1], Fajar Islam[2], Prasetyo Iswahyudi[3], Kukuh Tri Prasetyo[4]

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – Crew Resource Management (CRM) is a critical training method in aviation, designed to optimize teamwork, communication, risk management and decision-making to reduce human error, which is responsible for major of aviation accidents. While theoretical training provides foundational knowledge, it often lacks the practical application needed to enhance operational skills in real scenarios. Understanding the effectiveness of simulation-based CRM training versus theoretical learning remains key in refining Aircraft Operations students' operational skills.

Purpose – This study aims to compare the impact of CRM training with FLOPS Simulator and theoretical learning on the operational skills of students. This research compare whether simulation-based learning is more effective in improving teamwork, communication skills, decision-making, and risk management among Aircraft Operations students.

Design/methodology/approach – This research uses a mixed-methods approach, combining quantitative and qualitative data. Initial data were gathered from a CRM theory test of 24 students knowledge. Then student participated in first simulation to challenge their CRM skills, followed by observations and interviews to capture their experiences and difficulties. A second simulation evaluated improvements in operational skills after the first simulation. Theory test scores and simulation results were analyzed using descriptive statistics, while interview data provided insights into students perspectives on CRM training effectiveness.

Findings – The results indicate that students trained using the FLOPS Simulator showed significant improvements in operational skills, from team communication, situational awareness, risk management and decision-making, compared to students who received only theoretical training. The simulation provided a deeper learning experience, enabling the application of CRM principles in operational conditions that closely resemble reality.

Research limitations – This study was conducted at a single institution, which may limit the result or findings in other institutions. Future research is recommended to involve more institutions and long-term research to understand the impact of CRM training.

Originality/value – This study addresses a gap in CRM training research by providing comparative insights into simulation-based versus theoretical instruction. Findings suggest that simulation significantly enhances CRM skill acquisition, highlighting its potential value for improving CRM training practices in aviation education.

Keywords: Crew Resource Management, FLOPS Simulator, Simulation-Based Learning, Theoretical Learning

Vocational Higher Education Under the Ministry of Transportation in Indonesia: Challenges & Solutions

| Dede Ardian[1], Budi Riyanto[2], Riki Wanda Putra[3], Syafni Yelvi Siska[4]

[1]Akademi Penerbang Indonesia Banyuwangi, [2,3,4]Politeknik Pelayaran Sumatera Barat

Abstract

Background – This study explores the challenges and solutions for vocational higher education institutions under the Ministry of Transportation in Indonesia. The primary issues include difficulty aligning curricula with industry needs, insufficient infrastructure, a shortage of qualified instructors, funding limitations, and rigid regulatory requirements. These challenges hinder institutions from adequately preparing students with the skills required in the rapidly evolving transportation sector.

Purpose – The study aims to explain main challenges faced by vocational higher education and develop sollutions to address them. The goal is to bridge the gap between educational delivery and industry requirements while enhancing the quality and relevance of vocational education in the transportation sector.

Design/methodology/approach – Using a thorough qualitative systematic literature review technique, the study examines scholarly works from three important scholarly databases: sinta.kemdikbud.go.id, tandfonline.com, and scopus.com. Strict selection criteria are used in this study, which focuses on English-language current literature published between 2020 and 2024 that is relevant to higher education.

Findings – The findings indicate that frequent curriculum updates, improved infrastructure, and enhanced collaboration with industry are essential to meeting industry standards. Furthermore, upskilling instructors through industry placements and training, along with increased funding from both government and private partnerships, were identified as critical for improving teaching quality and access to modern facilities.

Research limitations – The study points out several intricate problems with Indonesia's transportation vocational education system, including The main source of curricular problems is the incapacity to keep up with the rapid changes in the industry and technology. Infrastructure limitations include things like outdated equipment and a lack of facilities for practical training. Deficits in technical expertise and industrial experience are among the problems with the teaching team. Budgetary constraints affect program development and facility upgrades, and regulatory frameworks often make it challenging to swiftly adapt in industry demands.

Originality/value – This study offers fresh perspectives on Indonesia's transportation vocational education system by providing a thorough examination of structural issues, Creating workable, feasible solutions, Establishing a structure for cooperation between industry and education, Offering a blueprint for upgrading transportation vocational education, suggesting policy changes for increased institutional performance, and putting forward creative ideas for infrastructure development.

Keywords: Vocational, vocational education, vocational higher education, Educational Reform, transportation

Analysis Runway Excursion in Indonesia (A Case Study Based on Knkt Reports Over the Past Decade)Analysis Runway Excursion in Indonesia (A Case Study Based on Knkt Reports Over the Past Decade)

| Muchammad Yassir Fadhilah[1], Ahmad Mubarok[2]

[1,2]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – This study was motivated by the high incidence of runway excursions, accounting for 40% of total airport accidents. Runway excursions occur when an aircraft exits the end of the runway or the runway shoulder during take-off or landing. These accidents are categorized as high-risk, and there have been 239 aviation accidents in Indonesia between 2015-2023, with a significant portion occurring in Papua.

Purpose – The study aims to analyze the factors causing runway excursions and to identify preventive actions (recovery actions) to avoid such incidents in the future.

Design/methodology/approach – This study employs a qualitative method, using a case study approach to examine aviation incidents. Data are gathered from the Komite Nasional Kecelakaan Penerbangan (KNKT) reports, with causal factors identified and categorized based on the Flight Safety Foundation's ALAR Brief Note 8.1 guidelines.

Findings – Inadequate airport infrastructure and bad weather are the main causes of runway excursions. The majority of occurrences happened with charter planes flying to Papua, where flying in mountainous terrain calls for a higher level of pilot skill. In 2016, the most runway excursion events took place.

Research limitations – His study relies solely on secondary data from KNKT reports and does not include final investigations. We found 88 runway excursion accidents, but only 40 data points were used for the analysis, and not all runway excursion accidents were covered due to data limitations because status of the process.

Originality/value – This research provides new insights into the main factors contributing to runway excursions in Indonesia, particularly in Papua. It highlights the need for improved pilot competence and airport infrastructure in remote areas, which have not been widely discussed before.

Keywords: runway excursion, incident/accident investigation, safety, risk

Identification Simulator Redbird TD2 Training on The Readiness of Students in the Procedure for Instrument Rating Phase of Indonesia Civil Pilot Academy Banyuwangi

| **Erlangga Dwie Luigie Koesno[1], Safitri Era Globalisasi[2], Arya Yuda Prawira[3]**

[1,2,3]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – This study aims to identify the effectiveness of training using the Redbird TD2 simulator in preparing student pilots for the Instrument Rating phase at the Indonesian Aviation Academy Banyuwangi. The Instrument Rating phase is an important phase in flight training.

Purpose – The purpose of this study was to identify and analyze the effect of training on the Redbird TD2 simulator on student pilots' readiness to master flight procedures at the instrument rating phase.

Design/methodology/approach – This study uses a qualitative method involving a population of student pilots who have had experience training with the Redbird TD2 simulator. Data were collected through interviews and documentation, then analyzed to measure the Redbird TD2 simulator's significant role in the Instrument Rating phase.

Findings – The results showed that training using the Redbird TD2 simulator significantly improved student pilots' understanding of skills and confidence in undergoing the Instrument Rating phase.

Research limitations – The study only focused on analyzing training using the Redbird TD2 Simulator. The research sample was limited to the 3rd batch of Diploma 3 pilot students who had completed the instrument rating phase and flight instructors who had flown students in the instrument rating phase at the Indonesian Flight Academy in Banyuwangi. The variables observed were mainly related to the readiness of flight procedures such as turn procedures, intercept VOR (Inbound-outbound) or intercept ADF (QDM-QDR), and Entry Holding

Originality/value – The research focus on the contextual study relevance related to the Indonesian Aviation Academy Banyuwangi which has a significance contribution on demonstrating how the students utilize simulator technology to improve pilot training.

Keywords: Instrument Rating, Simulator Redbird TD2, Pilot Students

Mapping on The English Language Learning Needs and Its Applications in Indonesia Civil Pilot Academy

| Safitri Era Globalisasi

Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – In the aviation industry, English language skills are one of the basic competencies that every personnel must possess, especially those directly involved in flight operations, such as pilots, Air Traffic Control (ATC) officers, and flight crew. At the Indonesian Aviation Academy Banyuwangi (API Banyuwangi), English language training is a crucial component of the curriculum to prepare cadets for effective communication to fulfill the skills required in the aviation profession.

Purpose – Identifying relevant English language skill needs for cadets in the aviation field and analyzing the right application or implementation of English in the learning process at the academy.

Design/methodology/approach – This research method uses a qualitative approach with a case study design, involving in-depth interviews, classroom observations, literature reviews, and questionnaires to collect data on cadets' needs and levels of English language skills.

Findings – Based on the research results, recommendations for more contextual learning, including simulation methods and project-based learning, are prepared to improve the effectiveness of English learning in the academic environment. This research is expected to be a reference for other aviation institutions in designing relevant English curricula that meet international aviation competency standards.

Research limitations – This study is limited to cadets and the learning environment at API Banyuwangi, so its results may not be fully applicable to other aviation institutions in Indonesia. It only involved cadets, instructors, and English lecturers without involving other professions in the aviation industry, such as ATC or airport management. This study was conducted in a limited time frame, so it may only be unable to explore all aspects of ideal English learning in depth.

Originality/value – This study provides in-depth insights into the gaps in cadets' English proficiency in a very specific context, aviation, which is often not found in similar studies.

Keywords: English Language, Language Learning, Aviation

Taking Flight with Aviation English: How are Malaysian Teachers Preparing the Next Generation?

| **Aina suriani Mahmood[1], Noor Saazai Mat Saad[2], Nurhayati Mohd Nur[3]**

[1,3]Universiti Kuala Lumpur, Malaysian Institute of Aviation Technology (UniKL, MIAT), [2]Universiti Sains Islam Malaysia, (USIM)

Abstract

Background – Aviation English, a specialised language field for areas like aircraft maintenance, involves more complex pedagogy than general English, as it addresses specific learner needs within an aviation context. Teachers in this field must understand aviation-specific content and students' linguistic needs to design courses that meet professional communication demands while adhering to legal and safety standards emphasizing clarity.

Purpose – This study examined Malaysian aviation English teachers' experiences in teaching aviation English and developing tailored courses.

Design/methodology/approach – Using semi-structured interviews with three teachers from aviation schools accredited by the Malaysian Qualifications Agency (MQA) and the Civil Aviation Authority of Malaysia (CAAM), data were transcribed and analysed in ATLAS.ti, with rigor ensured through member checking, prolonged engagement, and external audits.

Findings – Findings revealed three key themes: teachers' understanding of Aviation English, integration of aviation content, and instructional challenges. Participants described an extensive learning process in acquiring aviation knowledge and creatively integrating it into lessons through relevant activities and real-life applications. Challenges included varied student abilities, limited resources, and inadequate institutional support

Research limitations – Limitations include a small sample size and brief data collection period (March to August 2024), restricting generalisability, while the thematic analysis method may limit deeper exploration of nuanced experiences.

Originality/value – The study's originality lies in its focus on how English teachers acquire and apply aviation knowledge and teaching skills, uncovering specific areas for improved training and credentialing.

Keywords: Aviation English, English teachers, Knowledge, Challenges, Pedagogy

Track: Control and Navigation

The Influence of Understanding Aeronautical Chart Terminology in IFR Flight on The Performance of Cadets at API Banyuwangi

Dika Wahyudi Usman[1], Fajar Islam[2], Dimas Hari Cahyo[3], Hari Kurniawanto[4]

[1] Akademi Penerbang Indonesia Banyuwangi, [2]Akademi Penerbang Indonesia Banyuwangi, [3]Akademi Penerbang Indonesia Banyuwangi, [4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – A key component of pilot training is Instrument Flight Rules (IFR) instruction, which necessitates a thorough comprehension of aeronautical charts for efficient navigation. But a pilot's performance might be impacted and the likelihood of an accident during flight can rise if they don't comprehend the terminology used in aeronautical charts.

Purpose – The aim of this study is to assess how API Banyuwangi pilot trainees' performance is affected by their comprehension of aeronautical chart language during IFR flights.

Design/methodology/approach – With a descriptive and verification technique, a quantitative research methodology is employed. In order to gather data for this study, 50 respondents were given questionnaires, and data was obtained through surveys of API Banyuwangi pilot cadets. Regression analysis was used to analyze the data and investigate the association between pilot cadet performance during IFR flights and their comprehension of aeronautical chart terminology.

Findings – This research is expected to provide a better understanding of the importance of understanding aeronautical chart terminology in IFR flights and its impact on pilot performance, particularly for pilot cadets at API Banyuwangi. The findings of this research can also contribute to the development of pilot training curricula and more effective training strategies to improve flight performance and safety.

Research limitations – This research is limited to involving pilot cadets from API Banyuwangi, so the results may not be generalizable to all pilot cadets in Indonesia or even abroad. Variations in educational backgrounds, flying experience, and understanding of aeronautical terminology at other institutions may differ. The performance of pilot cadets in IFR flights may be influenced by many factors besides the understanding of aeronautical chart terminology, such as psychological conditions, training quality, flight experience, instructor instructions, and weather conditions.

Originality/value – This research focuses on the development of critical skills that pilot cadets must possess, namely the ability to read and understand aeronautical charts in IFR flights. Thus, this research has the potential to provide practical value in developing a more effective curriculum to produce more competent pilots who are ready to face real-world aviation challenges. This research was conducted at API Banyuwangi, which is one of the aviation education institutions in Indonesia.

Keywords: Performance, Aeronautical Chart Terminology, IFR Flight, Cadet, Pilot

Analysis of AIRNAV Personnel Opportunities and Challenges Towards Air Navigation System Transformation to Improve Flight Safety

I Putu Pinatih[1], Safitri Era Globalisasi[2], Kukuh Tri Prasetyo[3], Sabam Danny Sulung[4]
[1]Akademi Penerbang Indonesia Banyuwangi, [2]Akademi Penerbang Indonesia Banyuwangi, [3]Akademi Penerbang Indonesia Banyuwangi, [4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – The development of air navigation technology brought the aviation industry into a safer and more efficient era, with more accurate traffic control. This research examined the impact of air navigation transformation on safety, opportunities for personnel to utilize new technology, as well as the implementation challenges and solutions needed.

Purpose – This research aimed to evaluate the impact of the transformation of the air navigation system on the improvement of flight safety. In addition, the study identified opportunities that could be optimized by AirNav personnel. This research also examined various challenges faced and provided recommendations to support the implementation of the air navigation system.

Design/methodology/approach – This study used a literature review approach. The data collection process involved selecting relevant literature published in the last 5 years to ensure that the findings reflected current developments. The study reviewed approximately 30 journal articles and research reports.

Findings – The research results indicated that new technology provided opportunities for AirNav personnel to enhance operational efficiency in monitoring and managing traffic, especially in areas with heavy traffic. However, challenges such as human resource readiness, cybersecurity risks, and resistance to change posed obstacles to the implementation of this technology.

Research limitations – The limitations of this research lay in the approach that only used a literature review. As a literature study, the results obtained depended on the information available in journal articles and reports. The findings of this research could be strengthened with field studies in the future, such as interviews or direct surveys.

Originality/value – This study contributed to the readiness of human resources related to the use of modern navigation technology in Indonesia. With a focus on the challenges and opportunities faced by AirNav personnel, this study was expected to provide strategies to enhance flight safety, especially in this era of transformation.

Keywords: Air Navigation Transformation, Aviation Safety, Opportunities and Challenges, Airnav Personnel

The Effect of Workload and Work Life Balance on Aviation Safety Procedures (Study Case: ATC Soekarno Hatta Airport)

| **Giga Zepa[1], Hari Kurniawanto[2], Dimas Hari Cahyo[3], Daniel Dewantoro Rumani[4]**

[1]Akademi Penerbang Indonesia Banyuwangi, [2]Akademi Penerbang Indonesia Banyuwangi, [3]Akademi Penerbang Indonesia Banyuwangi, [4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – The Air Traffic Controller (ATC) profession at Soekarno-Hatta Airport faces significant challenges due to high work demands. Stress levels and excessive workload can negatively impact flight safety. In this context, work-life balance becomes crucial, especially in relation to modern workers' need for flexibility in working hours that allows harmony between ATC professional duties and personal life.

Purpose – This study aims to explore the influence of workload and work-life balance on the implementation of flight safety procedures by ATC personnel and evaluate the role of working-hour flexibility in supporting their performance

Design/methodology/approach – This study adopted a mixed methods approach with quantitative data collection through questionnaires distributed to 100 ATC personnel to measure the workload level and work-life balance. Meanwhile, qualitative data was obtained through in-depth interviews and direct observation to better understand how the limitations of working hour flexibility affect ATC performance.

Findings - The results of the analysis showed a negative relationship between excessive workload and the effectiveness of implementing flight safety procedures. ATC personnel who successfully maintain a work-life balance, by utilizing flexible working hours, tend to exhibit higher levels of concentration and accuracy in carrying out safety procedures. However, it is important to note that achieving this balance is the responsibility of the individual, given the strict working hour-sharing procedures established for aviation safety.

Research limitations – This study has limitations in that it only covers ATC personnel at Soekarno-Hatta Airport and does not consider other external factors that may affect overall flight safety performance

Originality/value – This research makes a significant contribution to the understanding of the importance of work-life balance in improving flight safety procedures in a high-demand environment and emphasizes the need for effective management of work and rest time to realize the desired flexibility.

Keywords: Workload, Work-life balance, Work flexibility, Flight Safety Procedures, Air Traffic Controller (ATC)

Track: Aviation Regulation

Airmanship Evolution in Aviation: A Systematic Review of the Past Decade

| Ahmad Mubarok

Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – Airmanship, a cornerstone of aviation safety and operational excellence, has evolved significantly in recent years. As technological advancements and industry shifts transform the aviation landscape, the concept of airmanship continues to adapt and expand.

Purpose – This research aims to conduct a systematic review of airmanship evolution in aviation over the last decade. It analyzes significant trends, innovations, and challenges to offer insights for enhancing pilot training and improving aviation safety.

Design/methodology/approach – This research uses a systematic literature review following PRISMA 2020 guidelines. We searched major databases for peer-reviewed articles on airmanship and aviation safety published between 2014 and 2024. Two independent reviewers analyzed 187 selected articles. The 2014–2024 timeframe allows us to focus on recent developments in airmanship, particularly considering technological advancements in aviation. While this may exclude older research, it provides a comprehensive analysis of airmanship evolution in the context of latest technology.

Findings – The research findings reveal that airmanship has evolved to encompass a broader range of skills beyond technical proficiency, including enhanced decision-making abilities, situational awareness, cultural competence, and adaptive expertise, all of which are crucial for navigating the increasingly complex and technologically advanced aviation environment.

Research limitations – This study's primary limitation is its confined 10-year timeframe, which may exclude relevant older research. Additional constraints include the focus on English-language sources and the potential obsolescence of early findings due to rapid technological advancements in aviation. Future research could address these limitations by adopting broader historical perspectives, conducting multilingual reviews, and developing adaptive frameworks.

Originality/value – This review makes a unique contribution to airmanship research by offering a focused analysis of the past decade, integrating perspectives from multiple disciplines, and identifying emerging trends such as cultural competence and adaptive expertise. It provides practical recommendations for training programs and outlines directions for future research, effectively bridging the gap between theory and practice in modern aviation.

Keywords: airmanship, systematic literature review, pilot competency, crew resource management, aviation psychology

Track: Electrical Engineering

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Analysis of the Potential Outflow of Singkarak Hydroelectric Power Plant as a Micro Hydroelectric Renewable Energy Generator

| Rosnita Rauf[1], Merry Thressia[2], I Ketut Budaraga[3]

[1,2,3]Ekasakti University

Abstract

Background – The Singkarak Hydroelectric Power Plant comprises four turbines, each with a maximum capacity of 43.5 MW, an average input of 50 m2/s, and an average outflow of 30 m2/s. A small-scale hydroelectric power plant (Micro Hydro) will be designed to utilize the potential water source from the outflow of the Singkarak Hydroelectric Power Plant, serving as the primary supply and thereby decreasing the company's performance target for self-consumption.

Purpose – Determining the hydropower potential from the outflow of the Singkarak Hydroelectric Power Plant and establishing the appropriate mechanical and electrical specifications for the proposed micro-hydro power plant are the objectives of this research.

Design/methodology/approach – The method used is to recalculate the flow rate and head in the discharge channel of the Singkarak Hydroelectric Power Plant. From the measurements, a design flow rate of 10.618 m^3/second with a head of 4 meters was obtained, resulting in a capacity of 250 KW.

Findings – Based on the turbine efficiency graph, the type of turbine used is the Kaplan turbine, and this electrical system is distributed for self-consumption and the local community. This surplus could be used to enhance regional energy supply efficiency and sustainability, potentially storing excess energy or allocating resources to renewable technologies.

Research limitations – We do not discuss the construction costs because they are outside the scope of this analysis, which is only concerned with calculating the power output that the Singkarak hydroelectric power plant generates from its water discharge.

Originality/value – This study explores the use of wastewater from hydropower plants as a 250 KW micro-hydro power plant, promoting sustainable energy practices and reducing environmental impact.

Keywords: Hydropower, Outflow, Tailrace, self-consumption, Turbine

The Effect Of Aircraft Maintenance Intensity On Aircraft Performance In Api Banyuwangi

| I Komang Krisna Somia Antara[1], Prasetyo Iswahyudi[2], Untung Lestari Nur Wibowo[3], Khoirunnisa Larasati[4]

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – In the aviation education environment such as the Indonesian Civil Pilot Academy (API) Banyuwangi, aircraft maintenance is a critical factor in ensuring optimal operational performance of training aircraft. Given the high standards for safety and efficiency, it is essential to evaluate the impact of maintenance intensity on operational performance. However, research on maintenance intensity in academic settings remains limited.

Purpose – This study aims to analyze the influence of maintenance intensity on the operational performance of training aircraft at API Banyuwangi, focusing specifically on flight duration, safety, and operational reliability.

Design/methodology/approach – This study adopts a case study approach, integrating historical data and surveys. Data collected include maintenance intensity, flight duration, and technical performance data for a specific period. Data management and analysis are conducted using regression methods to understand the relationship between maintenance intensity and aircraft performance indicators. Data validity and reliability are maintained through triangulation validation.

Findings – The results indicate a positive correlation between maintenance intensity and improved aircraft performance, particularly in operational reliability. Aircraft subjected to intensive maintenance exhibit increased operational duration and a significant reduction in technical incidents.

Research limitations – This study is limited to aircraft at API Banyuwangi, specifically training aircraft models such as Piper Seneca, Cessna 172, and Cessna 172 SP seaplanes, thus results may vary for commercial, military, or other types of training aircraft.

Originality/value – This study provides new insights into the relationship between maintenance intensity and aircraft performance in an aviation education institution, which can serve as a foundation for formulating more effective maintenance policies in Indonesia.

Keywords: Indonesian Civil Pilot Academy Banyuwangi, Maintenance intensity, Aircraft maintenance, Aircraft performance

Track: Aviation Psychology

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The Influence of Social Learning on Flight Operation Officer Competency Mediated by Emotional Intelligence: A Study at the Akademi Penerbang Indonesia Banyuwangi

Dede Ardian[1], Rochmad Setiawan [2]

[1,2]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – The aviation industry requires highly competent Flight Operations Officers (FOOs) to ensure safe and efficient flight operations. While various factors that influence competence are well documented, the specific relationships between Social Learning, Emotional Intelligence (EI), and competence in FOOs are less explored. This study investigates these relationships using Social Learning Theory (SLT), which emphasizes the role of observation and practical, and EI, which is essential for performance and teamwork. FOO competencies include technical and non-technical skills, such as judgment and problem solving, which are crucial in high stress aviation environments.

Purpose – This research aims SLT processes and EI levels FOO students at the Akademi Penerbang Indonesia (API) Banyuwangi, evaluate FOO competency levels, determine the influence of Social Learning on EI and competencies, and explore EI's mediating role in these relationships.

Design/methodology/approach – A quantitative approach was used, with structured questionnaires collected from 72 FOO students at API Banyuwangi as a sample, ensuring data validity and reliability. The analysis, using Partial Least Squares Structural Equation Modeling (PLS-SEM),

Findings – Confirmed that Social Learning positively impacted both EI and competencies, with all relationships showing statistical significance ($p < 0.05$). Social Learning provided the basis for understanding how observational and experiential learning contributed to FOO students' skill development, highlighting that EI served as both a direct impact and a mediator of competencies. Results indicated that students with higher EI showed enhanced judgment, problem-solving, and teamwork as key components of FOO competencies.

Research limitations – Focusing on 72 FOO students at API Banyuwangi. It examines specific variables and competencies relevant to FOO roles. The research is confined to the FOO context and the samples consist of 72 students during one academic year.

Originality/value – Findings suggested that training programs for FOOs would benefit from incorporating EI based learning methods, such as simulations, role-playing, and feedback-based practice, to enhance competencies necessary for effective performance in flight operations. By investigating SLT, EI, and competency among FOO students, this research contributes to aviation education, building on Bandura's and Goleman's theories and underscoring how SLT and EI integration in aviation curricula can better prepare students for real scenarios.

Keywords: Social Learning, Emotional Intelligence, Competence, Flight Operations Officer, Flight Dispatcher

How the Effect of Work Pressure (Stress) and Performance of Aviation Security Officers on Service Quality (Case Study: I Gusti Ngurah Rai International Airport)

| I Kadek Dodiek Saputra[1], Dimas Hari Cahyo[2], Prasetyo Iswahyudi[3], Untung Lestari Nur Wibowo[4]

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – Aviation Security (Avsec) officers play an important role in maintaining the safety and comfort of airport passengers. However, the high work pressure of aviation security officers can affect their performance and ultimately reduce the quality of service at I Gusti Ngurah Rai International Airport.

Purpose – This study aims to analyze the influence of work pressure (stress) on the performance of Aviation Security (Avsec) officers and its implications for the quality of service provided to passengers at I Gusti Ngurah Rai International Airport. Specifically, this study explores the stress factors that affect officer performance and how they contribute to services quality.

Design/methodology/approach – This research uses a qualitative approach through observation, in-depth interviews, and direct observation of five respondents to aviation security officers to understand the impact of work stress on the quality of service of aviation security officers. The data was collected during one month of observation to assess working conditions and activity patterns while exploring the officers' experiences of stress, and direct observation to learn their responses to situations in the field.

Findings – This study found that operational uncertainty, great responsibility, and limited resources cause significant work pressure for Avsec officers at I Gusti Ngurah Rai International Airport. These factors increase the risk of fatigue, reduce concentration, and lower productivity, negatively impacting the quality of service provided to passengers.

Research limitations – This study is limited to aviation security staff at I Gusti Ngurah Rai Airport and does not consider another external factor that could influence the overall effectiveness of aviation security.

Originality/value – This study uniquely applies a qualitative approach to reveal the often overlooked psychological and operational dynamics of occupational stress in Avsec officers, offering insights to assist airport management in improving stress management and service qualitys.

Keywords: Work pressure, Officer performance, Aviation Security, Service quality, I Gusti Ngurah Rai International Airport

The Effect of Stress Levels on the Performance of Air Traffic Controllers in Maintaining Aviation Safety

Ida Ayu Dhea Komala Dewi[1], Sabam Danny Sulung[2], Hari Kurniawanto[3], Fajar Islam[4]

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – flight safety is an essential aspect of the aviation industry that involves the restoring safety standards across all elements of air operations. The performance of Air Traffic Controllers (ATC) plays a central role in ensuring flight safety, but the job is also known for its high work demands, which carry a risk of stress that can directly affect their performance in flight safety.

Purpose – This research aims to analyze the impact of stress levels on Air Traffic Controllers (ATC) on flight safety, focusing on how stress affects work performance and decision-making accuracy in air traffic management. Considering the crucial role of Air Traffic Controllers (ATC) in maintaining flight safety, understanding the impact of stress in this operational context becomes important for enhancing overall flight safety.

Design/methodology/approach – This study uses a literature analysis method through the review of various previous studies and journals that measure the stress levels of ATC and their impact on performance and flight safety. Data were taken from previous empirical studies that involved measuring the stress levels of ATC with various indicators, such as workload, response time, and operational error rates.

Findings – The research results indicate that ATCs experiencing high stress tend to have decreased concentration, which can affect decision-making, slow response in emergency situations, and increased safety in communication. Factors causing stress include heavy workloads, significant responsibilities, and intense working conditions. ATCs with high stress levels may make more mistakes and have difficulty communicating with pilots, making stress a major factor threatening flight safety.

Research limitations – This study only involved a number of ATCs from certain airports and did not cover all psychological aspects that might affect their performance. Further studies are expected to encompass a broader population.

Originality/value – This research offers originality through comprehensive mapping that combines the results of previous studies with additional survey data, creating a richer and more specific analysis of the direct relationship between stress and safety in the context of ATC work. This research contributes to the literature by reinforcing the argument regarding the importance of stress management in ATC.

Keywords: Air Traffic Control (ATC), Aviation Safety, ATC Performance, Job Stress

Track: Innovation Technology

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Seaplane Trend: A Bibliometric Analysis

| Dede Ardian[1], Asyhari Yasman[2], Dimas Hari Cahyo[3], Fajar Islam[4]

[1,3,4]Akademi Penerbang Indonesia Banyuwangi, [2]Institut Teknologi Sepuluh Nopember

Abstract

Background – Seaplanes have played a significant role in aviation history and continue to be relevant in various applications today. This study provides a comprehensive overview of seaplane research trends over the past three decades from year 1989 to 2024, addressing the growing interest in this field and its potential impact on sustainable transportation and remote area accessibility.

Purpose – The purpose of this bibliometric analysis is to examine the evolution and current state of seaplane research, identify key contributors and emerging themes, and provide insights for future research directions in this field. Especially for Indonesian Researcher.

Design/methodology/approach – This study employs a bibliometric analysis approach, utilizing data from major scientific databases from Scopus and Sciencedirect. Publication patterns, influential authors, and key research areas were analyzed using various bibliometric tools and visualization techniques.

Findings – The analysis reveals a steady increase in seaplane-related publications, with significant contributions from countries with extensive coastlines and inland water bodies. Emerging research themes include environmental impact assessment, technological advancements in seaplane design, and the role of seaplanes in sustainable transportation. Especially in Indonesia.

Research limitations – This study is limited to publications indexed in major scientific databases from year 1989 to 2024 and may not capture all relevant research, particularly from non-English language sources or unpublished works. Additionally, the analysis focuses on quantitative metrics and may not fully capture the qualitative aspects of research impact.

Originality/value – This comprehensive bibliometric analysis provides a unique overview of seaplane research trends, offering valuable insights for researchers, policymakers, and industry professionals interested in the development and application of seaplane technology from other country.

Keywords: Seaplanes, bibliometric analysis, aviation research, sustainable transportation, technological innovation

Cessna 172 Aircraft Noise Reduction Technology to Reduce Hearing Loss for Students of the Indonesian Aviation Academy Banyuwangi

| Raffel Gilmania Putri[1], Khoirunnisa Larasati[2], Ahmad Mubarok[3], Miko Andi Wardana[4]

[1,3,4]Akademi Penerbang Indonesia Banyuwangi, [2]Institut Teknologi Sepuluh Nopember

Abstract

Background – Noise is a loud sound with excessive frequency that can affect physical conditions related to hearing health. In aviation, noise around airports and flight schools has been a common issue. This noise typically originates from aircraft during take-off and landing. Students in flight schools, where the Cessna 172 operates daily, have also experienced this issue. Consequently, many students were exposed to noise, which led to hearing impairments and reduced their study focus.

Purpose – This study aimed to explore the importance of technology in reducing the noise generated by the Cessna 172 aircraft to protect hearing health and improve students' concentration.

Design/methodology/approach – This research employed a qualitative approach. Data collection was conducted through interviews with relevant stakeholders and a review of published scientific journals. The data collection process lasted for one month, and data analysis was carried out in stages, starting with the transcription of interview results and integrating them with scientific journals related to the research topic

Findings – The findings indicated that the implementation of technologies such as aerodynamic propellers, sound dampers on aircraft engines, and quieter flight procedures successfully reduced noise from the Cessna 172. Additionally, planting shade trees around the school environment helped dampen noise and created a healthier and more comfortable learning atmosphere.

Research limitations – This study was limited by the small sample size, focusing only on a single flight school. Therefore, the findings may not be entirely applicable to other aviation environments.

Originality/value – Nonetheless, this study contributed to the development of practical solutions for mitigating the noise impact of the Cessna 172 at flight schools. The value of this research lies in the application of technology and tree planting to support hearing health and enhance students' learning focus in the flight school environment.

Keywords: Cessna 172, hearing health, noise, noise reduction technology, flight school.

Track: Air Traffic Services

Air Traffic Management Development: A Bibliometric Analysis

| Dede Ardian[1], Miko Andi Wardana[2], Kukuh Tri Prasetyo[3], Ahmad Mubarok[4]

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – Air Traffic Management (ATM) has evolved significantly over the past decades, driven by increasing air traffic volumes, technological advancements, and growing safety concerns. This study provides a comprehensive overview of the research landscape in ATM through bibliometric analysis.

Purpose – The purpose of this study is to analyze publication trends, identify key research themes, and highlight influential works in the field of Air Traffic Management. By doing so, it aims to provide researchers and practitioners with insights into the current state and future directions of ATM research.

Design/methodology/approach – This study employs a bibliometric analysis approach, utilizing data from major scientific databases. The methodology includes data collection, preprocessing, analysis of publication trends, citation patterns, co-authorship networks, and keyword co-occurrence. Various visualization techniques are used to represent the findings.

Findings – The analysis reveals a significant increase in ATM-related publications over time, with a focus on technological advancements, safety improvements, and operational efficiency. Key research themes include AI integration, unmanned aerial vehicle management, and sustainable ATM practices. The study also highlights the importance of international collaboration in addressing global ATM challenges.

Research limitations – Limitations of this study include potential biases in database selection and keyword choices. The analysis may not capture all relevant publications, particularly those in non-English languages or published in non-indexed sources.

Originality/value – This study provides a unique, comprehensive overview of the ATM research landscape using bibliometric analysis. It offers valuable insights for researchers, policymakers, and industry professionals, identifying emerging trends and areas for future investigation in the critical field of Air Traffic Management.

Keywords: Air Traffic Management, Bibliometric Analysis, Aviation Safety, Technological Advancements, Sustainable Aviation

The Influence of Service Systems and Service Development Strategies on Satisfaction of Aviation Service Users at Soekarno Hatta Airport

| Kevin Hariyanto[1], Fajar Islam[2], Hendra Sudarso[3], Dede Ardian[4]

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – As Indonesia's main gateway, Soekarno-Hatta International Airport is experiencing rapid passenger growth. To meet this demand, high-quality, efficient, and technologically advanced services are essential. This requires an effective service management system and innovative strategies to enhance the passenger experience and boost the airport's international competitiveness

Purpose – This study examines how Soekarno-Hatta Airport's service system and development strategies affect passenger satisfaction and user experience. We investigate methods to enhance airport services and boost passenger satisfaction.

Design/methodology/approach – This research employs a quantitative approach through a survey of passengers at Soekarno-Hatta Airport, focusing on their perceptions of service quality and airport development strategies, including technology integration and modern facilities. The questionnaire is based on standard service quality indicators and was distributed to randomly selected respondents to ensure representation. To ensure validity and reliability, the questionnaire underwent initial validity checks and internal consistency testing, including the Cronbach's alpha test, to guarantee accurate data collection. This methodology allows for a comprehensive analysis of how service quality and development initiatives impact passenger satisfaction.

Findings – This research uses a regression model with passenger satisfaction as the dependent variable, while service quality and development initiatives are independent variables. User experience, including ease of access and comfort, acts as a mediating variable to assess its impact on the relationship between service quality, development initiatives, and passenger satisfaction. The hypothesis posits that service quality and development initiatives positively influence passenger satisfaction, with user experience as a mediator.

Research limitations – This study primarily sampled domestic passengers, potentially overlooking international travelers' perspectives. The quantitative survey method may not capture variations in experiences across terminals or times. Researchers should clarify the data collection period and concepts used in data analysis. Future research should include international passengers and use qualitative methods for a more comprehensive understanding user needs.

Originality/value – This study highlights how efficient service systems and technology-based strategies enhance user satisfaction at Soekarno-Hatta Airport, providing insights for airport managers to improve public service quality. To strengthen the research contribution, it is recommended that the author review additional literature and compare it with this study to clarify the uniqueness of the findings.

Keywords: Air Traffic Management, Bibliometric Analysis, Aviation Safety, Technological Advancements, Sustainable Aviation

Track: Aerodynamics

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Cessna 172SP Aircraft Pitch Attitude Recommendations in Steep Turn Maneuvers

| Yasyfa' Kawakibi[1], Gede Adi Putra[2]

[1,2]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – Steep turn maneuvers are critical in aviation and require a deep understanding of aerodynamics, stability, and pilot workload. These maneuvers involve complex interactions of forces, significantly impacting performance and safety. Issues like spatial disorientation and lateral movement are common in steep turns, making precise control vital, especially in aircraft like the Cessna 172SP.

Purpose – The study aims to evaluate and recommend optimal pitch attitude during steep turn maneuvers in the Cessna 172SP. These recommendations are intended to improve pilot training and overall flight safety, particularly for student pilots.

Design/methodology/approach – Data were collected from 63 steep turn maneuvers conducted over 50 flights in September 2024, with real-time analysis performed using CloudAhoy. Metrics such as pitch attitude, power, and precision scores were analyzed to determine the performance characteristics of the maneuvers.

Findings – A significant asymmetry was observed between left and right turns. Right turns required higher pitch (3.5°) and more power compared to left turns (2.5°), and they were executed with less precision, as indicated by lower CloudAhoy scores (88.9 for right turns versus 92.4 for left turns). These findings suggest the need for different control techniques depending on the direction of the turn.

Research limitations – The study is limited to data collected in September 2024 and focuses solely on the Cessna 172SP, which may not account for performance variations in different conditions, aircraft types, or pilot experience levels.

Originality/value – his research provides adaptive pitch attitude recommendations specifically for steep turn maneuvers in the Cessna 172SP. The findings can improve flight training programs, particularly for student pilots, by addressing performance asymmetries and enhancing safety during these critical maneuvers.

Keywords: Steep turn, Cessna 172SP, pitch attitude, flight training, aerodynamic performance.

The Impact of Using Cessna 172 as a Training Aircraft on the Efficiency of Flight Training for Prospective Flight Participants

| Aisyah Citra Lestari[1], Kukuh Tri Prasetyo[2], Sabam Danny Sulung[3], Hari Kurniawanto[4]

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – The Indonesian Aviation Academy Banyuwangi is committed to training high-quality pilots to meet the demands of the aviation industry. One of the main aircraft used in APIB's training program is the Cessna 172 SP, which features a straightforward control system, allowing beginners to learn the fundamentals of flight without excessive technical complexity.

Purpose – This study aims to identify the advantages of the Cessna 172 SP that make it a preferred choice in flight training and to evaluate its role in helping students grasp basic flight techniques.

Design/methodology/approach – This research adopts a qualitative approach, using interviews with flight instructors, students, and staff at API Banyuwangi, alongside observations during training sessions involving the Cessna 172 SP.

Findings – From the analysis of training data involving pilot candidates who have used the Cessna 172, several key factors supporting training efficiency were identified. One of the primary reasons the Cessna 172 is favored is its simplicity. Its sturdy construction and low maintenance requirements make it an ideal choice for flight schools, minimizing downtime and ensuring consistent training schedules. Additionally, the operational costs of the Cessna 172 are relatively lower than other training aircraft. The Cessna 172 can support various training stages, from private pilot licensing to instrument rating and even commercial pilot licensing. Its stability and predictability make it an excellent platform for teaching fundamental maneuvers.

Research limitations – This study focuses solely on the Cessna 172, without comparisons to other training aircraft models, and is limited in geographical scope, which may restrict the generalizability of the results to other flight training institutions.

Originality/value – The findings of this research are expected to help flight training institutions consider efficient and effective aircraft options and provide a basis for decision-making regarding training fleet selection.

Keywords: API Banyuwangi, Cessna 172 SP, Flight Training, Beginner Pilot, Training Effectiveness.

Track: Meteorology (outline)

Utilisation of Weather Radar for Aviation Safety (Case Study of Mount Marapi Eruption, West Sumatra)

| **Hesti Heningtiyas[1], Asep Adang Supriyadi[2]**

[1,2]Defense University of the Republic of Indonesia

Abstract

Background – Volcanic ash can cause damage to aircraft engines and endangers flight safety. Weather radar has the potential to detect the height and direction of eruption cloud distribution and the type of volcanic material. The utilisation of weather radar can provide volcanic activity information that is used to improve flight safety.

Purpose – The research purpose is to close the technology gap in activity observation and height detection of volcanic eruptions using weather radar in the case study of the eruption of Mount Marapi in West Sumatra.

Design/methodology/approach – The method used in this research is to process radar raw data in volume metric (.vol) format to produce weather radar products, namely CMAX and VCUT products, to describe information on the eruption's intensity, pattern characteristics and height. The data used is the BMKG weather radar data of Minangkabau Meteorological Station, West Sumatra. Before data processing, Clutter Identification and Radar Data Quality Control processes were carried out to reduce observation bias from echo ground clutter.

Findings – The analysis of weather radar observation data proved to be able to close the gap in volcano observation technology. The eruptive activity of Mount Marapi from radar imagery depicts both continuous and sporadic eruption with the highest eruption cloud height of 6670 meters, with a longer eruption duration than the VONA report.

Research limitations – The research limitations are the limited number of volcanic eruptions and the location of active volcanoes in the weather radar coverage.

Originality/value – This research's update lies in the clutter identification procedure and Quality Control data, which produce eruption activity information for aviation safety that has not been done in previous studies.

Keywords: weather radar, volcanic activity, eruption height, volcanic ash, flight safety

Track: Drone

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Drones in the Concept of Modern War Post-Heroic Warfare and Its Relation to International Humanitarian Law

| **Asep Adang Supriyadi[1], Atikah Inayah[2]**

[1,2]Defense University of the Republic of Indonesia

Abstract

Background – The rise of drones in modern warfare, especially within the framework of post-heroic warfare, has fundamentally altered military operations. Post-heroic warfare focuses on minimizing human casualties for the acting nation, typically achieved through advanced technologies like unmanned aerial vehicles (UAVs). While drones offer increased precision in combat, they raise significant ethical and legal concerns under International Humanitarian Law (IHL), particularly regarding civilian protection.

Purpose – This research aims to examine the role of drones in post-heroic warfare and evaluate their compliance with core IHL principles, including distinction, proportionality, and accountability. The study explores the legal and ethical challenges posed by drones and assesses how well current IHL frameworks address these issues.

Design/methodology/approach – This study utilizes a qualitative approach, involving a review of academic publications, case studies, and legal documents related to drone warfare and IHL. It analyzes the deployment of drones in conflict zones, assessing their impact on civilian populations and military objectives. The research also includes doctrinal legal analysis to evaluate the compatibility of drone warfare with IHL provisions.

Findings – The findings reveal that that drones, while effective in reducing combatant casualties and improving operational precision, pose significant risks to civilians due to target misidentification and insufficient precautionary measures. Furthermore, a lack of transparency and accountability in drone operations complicates the enforcement of IHL, particularly in non-traditional conflict areas.

Research limitations – The study is limited by restricted access to data on classified drone operations and varying degrees of transparency among countries using drone technology. Focusing on specific case studies, which may not capture all global drone usage.

Originality/value – This research contributes to the existing literature by providing a focused analysis of drones as tools of post-heroic warfare and their interaction with IHL. It uniquely integrates both legal and ethical dimensions which addressing technological developments in 21st-century warfare.

Keywords: drones, post-heroic warfare, International Humanitarian Law, civilian protection, military technology

Track: Aviation Security

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The Influence of AVSEC Officer Competence on Passenger Security at Soekarno-Hatta Airport

| Hafidh Kaffa[1], Dede Ardian[2], Safitri Era Globalisasi[3], Kukuh Tri Prasetyo[4]

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – Aviation Security (AVSEC) is responsible for maintaining the safety and security of airport operations. This role is crucial in the aviation industry, as potential threats can lead to significant material losses and pose dangers to passengers and crew. AVSEC personnel ensure safety through the application of Standard Operating Procedures (SOPs) and security checks for passengers at airports.

Purpose – This study aims to analyze the influence of AVSEC personnel's competency on passenger safety at Soekarno Hatta Airport, Tangerang. The research explores how the skills and certifications of AVSEC personnel contribute to enhanced aviation security.

Design/methodology/approach – The research was conducted in August 2025 using observational methods, interviews, and direct observations. It assesses the competencies of AVSEC personnel, focusing on whether they possess the required licenses, such as the "Surat Tanda Kecakapan Petugas" (STKP).

Findings – The study findings reveal that all AVSEC personnel at Soekarno Hatta Airport have achieved the necessary competencies and hold valid STKP licenses. Passenger feedback indicates that the competency of AVSEC personnel significantly impacts their sense of safety and security.

Research limitations – The research is limited to Soekarno Hatta Airport and does not extend to other airports or contexts. Future research could involve multiple airports to validate the generalizability of the findings.

Originality/value – This study provides evidence that high competency levels among AVSEC personnel positively influence aviation security. The findings underscore the need for regular training and certification to maintain and improve safety standards in the aviation sector.

Keywords: Aviation Security, Competency, Passenger Safety, Soekarno-Hatta Airport, Standard Operating Procedure (SOP)

Optimization of Airport Facilities and Employee Performance on Passenger Service Satisfaction at Banyuwangi Airport

| Gede Marhendra[1], Ahmad Mubarok[2], Miko Andi Wardana[3], Andung Luwihono[4]

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – Passenger satisfaction in air transportation is critical in the globalization era, impacting mobility, economic growth, and national competitiveness. It is a key success indicator, particularly in the digital age, as demands for speed, security, and comfort rise. Optimal service requires quality facilities, efficient management technology, and trained staff. Adequate facilities, on-time performance (OTP), and effective employee performance are essential for a positive passenger experience, thus enhancing the airport's public image.

Purpose – This study aims to analyze the impact of optimizing airport facilities and employee performance on passenger satisfaction at Banyuwangi Airport. As passenger needs continue to grow, this research is expected to provide strategic recommendations to enhance public service quality, strengthen the aviation sector, and support Indonesia's international competitiveness.

Design/methodology/approach – The study uses a qualitative approach with a case study at Banyuwangi Airport to explore passenger satisfaction regarding facilities and employee performance. Data were collected through interviews, observations, and airport reports. Semi-structured interviews provided insights into passengers' perceptions of comfort, safety, and employee service, with thematic analysis used to identify patterns and inform service improvement recommendations.

Findings – The findings indicate that optimizing airport facilities and enhancing employee performance at Banyuwangi Airport significantly impact passenger satisfaction. Comfortable and comprehensive facilities and timely flights enhance passenger comfort and positive perceptions. Additionally, employee friendliness and efficiency play a key role in a satisfying service experience. Improvements in these areas can elevate Banyuwangi Airport's image and competitiveness, contributing to Indonesia's aviation sector and global standing.

Research limitations – This study is limited in scope and data access due to the author's institutional location, restricting direct interviews at Banyuwangi Airport and reducing participant numbers. Limited access also affected observational data, which was collected within a constrained timeframe. Focusing on a single case may limit the generalizability of findings to other airports.

Originality/value – The originality of this research lies in its focused analysis of passenger satisfaction at Banyuwangi Airport, emphasizing the role of air transport services in globalization. This qualitative case study provides new insights into how optimizing facilities and employee performance shapes passenger experience, offering practical recommendations to enhance services in line with evolving expectations.

Keywords: Passenger Satisfication, Airport Facilities Optimazion, Employee Performance, Aviation Sector Competitiveness, Qualitative Case Study

The Influence of Aviation Security Officers Attitudes on the Safety and Comfort of Aviation Service Users at Banyuwangi Airport

| I Made Miarta[1], Hari Kurniawanto[2], Fajar Islam[3], Hendra Sudarso[5]

[1,2,3,4,5]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – Security and comfort are top priorities for airports in managing the flight process in Indonesia. Previous research shows that at Banyuwangi Airport, passenger satisfaction can be seen from the number of comments on Google Maps, where many passengers stated that the attitude of aviation security officers greatly affected their level of satisfaction. However, there are still few journals that examine this topic, even though the attitude of an aviation security officer plays an important role in creating comfort and safety during flight.

Purpose – This research aims to highlight the importance of the attitude of security personnel in ensuring passenger comfort. In addition, aviation security should comply with ICAO and ANNEX regulations to increase passenger confidence in security. During screening, officers should ask passengers for permission before conducting body searches to avoid inconvenience and conflict.

Design/methodology/approach – This research uses a quantitative approach by collecting data from journals written by previous researchers. The author uses these journals as sources in the literature review, where the data obtained comes from relevant journals. In addition, the author created a questionnaire to measure passenger satisfaction that was completed by 30 or more respondents. The author sought the help of several passengers who have used the services at Banyuwangi Airport to complete the provided questionnaire. The data collected is expected to help improve the quality of air safety in the future.

Findings - The analysis shows that passengers at Banyuwangi Airport perceive a positive relationship between the attitude of aviation security officers and their level of safety and comfort. The results of this study underscore the importance of security officers' adherence to standards that respect passengers' rights, which in turn can increase passengers' confidence in airport security.

Research limitations – This study has limitations related to data availability and sample size. For future research, it is recommended that the sample size be increased to increase the reliability and generalizability of the data obtained.

Originality/value – This research provides new insights into aviation security that underscore the importance of maintaining an attitude of security and control around the airport in maintaining flight comfort and safety for air travelers.

Keywords: Airport, Attitude, Aviation Security, Comfort, Passenger

Track: Management

The Influence of Timeliness, Delivery Costs, and Service Quality on Customer Satisfaction Levels Case Study at PT Citilink Cargo Indonesia

| M. Syahril Kadafi[1], Hari Kurniawanto[2], Fajar Islam[3], Miko Andi Wardana[4]

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – In recent years, air traffic growth has developed very rapidly. This is reflected in the expansion of air transportation and the addition of goods transportation terminals. One of the air accommodation companies in Indonesia since 2011 which has been operating in the field of goods transportation is PT Citilink Kargo Indonesia.

Purpose – Providing good quality service can be a benchmark for customer satisfaction and supports sustainable growth in the cargo industry. This research aims to analyze whether there is an influence on timeliness, delivery costs and service quality on the level of customer satisfaction by conducting a case study at PT Citilink Kargo Indonesia.

Design/methodology/approach – This research uses an explanatory quantitative approach with primary data sources collected through online questionnaires using a 1-5 Likert scale to measure customer perceptions of timeliness, delivery costs and service quality. Data were analyzed using validity and reliability tests with Cronbach's Alpha to ensure instrument consistency. Multiple linear regression analysis was carried out to test the influence of independent variables on customer satisfaction, using SPSS version 25 as an analysis tool. The significant criteria were set at a significance level of 5%.

Findings - Service quality does not have a significant influence on the five dimensions of overall customer satisfaction, but timeliness is the main factor that increases customer attraction.

Research limitations – This study has limitations in its relatively small sample size, which may not fully represent the population of service users. Future research is recommended to involve larger and more diverse samples and more in-depth approaches, such as direct interviews, in order to gain more comprehensive insights from cargo service users.

Originality/value – This research provides important insights for companies in developing strategies and concrete steps for implementing regulations for developed service models to increase satisfaction and effectiveness to support the national logistics system.

Keywords: Accuracy; Cargo; Quality; Satisfaction; Service; Shipping Costs; Time.

The Effect of Flight Rescheduling on Student Pilot Behavior and Adaptation: The Role of Readiness, Delay Duration, and Management Communication

| Aden Bayu Alfiansyah[1], Daniel Dewantoro Rumani[2], Untung Lestari Nur Wibowo[3], Khoirunnisa Larasati[4]

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – Rescheduling is an unavoidable part of aviation operations management, especially when situations and conditions do not allow the execution of flights according to the original schedule. However, for student pilots, this schedule change can be a significant challenge in shaping their behavior and adaptation. Mental readiness, delay duration, and effective management communication are key in dealing with such changes.

Purpose – This study aims to analyze the effect of flight rescheduling on student pilot behavior and adaptation and examine the role of preparedness, delay duration, and management communication in minimizing the negative impact of flight rescheduling.

Design/methodology/approach – This study uses a quantitative approach with a survey method of student pilots who experience flight rescheduling. Data were collected through a questionnaire that had been tested for validity and reliability. The research involved 8 respondents, all of whom are student pilots, to provide firsthand insights and data. Data analysis was conducted using multiple linear regression to determine the effect of independent variables on the dependent variable.

Findings - The results showed that flight rescheduling significantly influences student pilot behavior and adaptation. Good preparedness and effective management communication can reduce the negative impact of rescheduling, while long delays tend to worsen the situation. Behaviors resulting from schedule changes include increased levels of anxiety and stress, but quick adaptation and strong mental preparedness can help student pilots better manage change.

Research limitations – This study was limited to student pilots at one aviation academy, so the results may not be generalizable to other academies. In addition, the influence of different external factors such as social environmental pressure was not analyzed in depth.

Originality/value – This study offers new insights into the role of preparedness, delay duration, and management communication in dealing with flight rescheduling. The findings can be valuable input for flight academy managers to improve the scheduling and support system for student pilots.

Keywords: flight rescheduling, behavior, adaptation, student pilot, management communication.

Impact of On-Time Performance on the Financial Performance of PT Garuda Indonesia (Persero) TBK for the 2020-2022 Period

| Armarino Nurjuan Rajasa[1], Kukuh Tri Prasetyo[2], Miko Andi Wardana[3], Hari Kurniawanto[4]

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – On-time performance (OTP), a measure of flight punctuality, is a key indicator of service quality in aviation, impacting customer satisfaction and operational efficiency. However, OTP's direct effect on financial performance is less understood, particularly in economic downturns like the 2020–2022 pandemic. This study investigates OTP's influence on PT Garuda Indonesia (Persero) Tbk's financial performance, focusing on profitability and liquidity during the pandemic.

Purpose – This study assesses how OTP affects PT Garuda Indonesia's financial health, specifically its impact on profitability and liquidity from 2020 to 2022, highlighting operational efficiency's role in financial stability during economic challenges.

Design/methodology/approach – This quantitative study analyzes secondary data on PT Garuda Indonesia's OTP and financial performance over 2020-2022. Financial ratios, including profitability (net profit margin, return on assets) and liquidity (current and quick ratios), were evaluated alongside OTP data. Data was sourced from financial reports on the Indonesia Stock Exchange and OTP statistics from aviation authorities. Statistical analysis, including regression modeling, determined OTP's significance in influencing financial performance, shedding light on operational efficiency in economic downturns.

Findings - Analysis shows that low OTP consistency is linked to declining profitability, with profitability ratios below industry standards. High operational delays also increased costs, affecting liquidity ratios and straining financial conditions amid pandemic challenges.

Research limitations – The study relies on secondary data, limited to 2020-2022 financial statements and OTP, without long-term or primary data analysis. Additionally, focusing solely on PT Garuda Indonesia limits the generalizability to airlines with different operating structures. Future studies could include primary data and comparative analyses.

Originality/value – This study uniquely examines OTP's relationship with PT Garuda Indonesia's financial performance during the pandemic. While prior research focused on profitability and liquidity declines due to reduced demand, this study explores OTP as an operational factor potentially impacting financial stability, offering insights into operational efficiency's role in managing financial stress during crises.

Keywords: on-time performance, financial performance, garuda indonesia, aviation, economic

The Impact of Compensation Given to Passengers Experiencing Delays on Passenger Satisfaction

| Dery Melsandi[1], Miko Andi Wardana[2], Andung Luwihono[3], Dimas Hari Cahyo[4]

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – Flight delays are a persistent issue for airlines in Indonesia, particularly for Lion Air, which frequently receives complaints from passengers. These delays disrupt passengers' schedules, reduce comfort, and ultimately decrease overall satisfaction levels. Compensation is a crucial tool to address these grievances. Although provisions for compensation are stipulated in Law No. 8 of 1999 on Consumer Protection and Minister of Transportation Regulation No. 89 of 2015 regarding Flight Delay Management, the actual implementation of these compensations often fails to meet regulatory standards and remains suboptimal.

Purpose – This study aims to examine the legal framework governing airline responsibilities to compensate passengers for flight delays. Specifically, it analyzes the implementation of these laws and regulations and their effects on consumer protection and passenger satisfaction.

Design/methodology/approach – This research utilizes a literature review to collect, filter, and select relevant data on flight compensation regulations and their impact on passenger satisfaction. Data is sourced from legal texts and relevant research studies, using carefully chosen keywords.

Findings - The study identifies several obstacles to the effective implementation of compensation regulations. Despite clear legal guidelines, enforcement faces various challenges. Key findings highlight weaknesses in the legal framework, including deficiencies in legal structure, substance, and culture. Factors such as limited effectiveness of law enforcement bodies, absence of strict penalties for airlines, and low public awareness of passenger rights contribute to passengers often failing to claim rightful compensation. The study further suggests that consistent application of these regulations, along with increased public awareness of consumer rights, could significantly improve passenger satisfaction.

Research limitations – This study is limited to an analysis of existing literature and does not include direct data collection from the field. Future research would benefit from conducting passenger surveys to validate and expand upon these findings.

Originality/value – This research contributes to the discourse on consumer protection in Indonesia's aviation industry by evaluating the effectiveness of existing compensation regulations and identifying structural and cultural weaknesses within the current legal framework.

Keywords: Flight Delays, Compensation, Passenger Satisfaction.

The Influence of Employee Performance and Airline Service Quality on Customer Satisfaction

| **Meryam Kania Defitri[1], Andung Luwihono, Fajar Islam[2], Prasetyo Iswahyudi[3]**

[1,2,3]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – Employee performance and service Quality are important factors in the aviation industry, which directly influence customer satisfaction. Smooth flights and quality service can increase customer loyalty, while failure in performance and service often lead to complaints and reduced satisfaction. Previous research shows that effective service recovery procedures reduce the negative impact of service failures on customer satisfaction. Service recovery is also very important in maintaining employee commitment to the integrity values of an airline. Service recovery has a big impact in responding to complaints such as flight delays by taking action to improve the situation faced by airline customers.

Purpose – This research aims to analyzer the influence of employee performance and airline service quality on customer satisfaction levels. This research also identifies the role of service recovery in improving customer satisfaction after service failure.

Design/methodology/approach – This research uses a quantitative approach with the method of collecting airline customer satisfaction survey results. Data was collected through studying previous research documents which prove that employee performance is measured through efficiency, effectiveness responsibility and quality of service, research based on timeliness and responsiveness in meeting customer needs.

Findings - Research findings show that employee performance and airline service have a big influence on airline customers. In addition, effective and satisfying service can increase airline loyalty to maintain the best service quality for customers.

Research limitations – This research is limited in data collection, researchers cannot conduct direct surveys with airline customers due to access and time factors that make it is impossible to collect primary data directly. Therefore, secondary data was obtained from previous studies as the main source of information for analyzing airline customer satisfaction.

Originality/value – By analyzing connection from client complacency, service quality, staff performance within aviation sector and highlighting the importance of service recovery as calculated measures to increase customer satisfaction build trust and comfort.

Keywords: Customer Satisfaction, Employee Performance, Service Quality

Impact of On-Time Performance on the Financial Performance of PT Garuda Indonesia (Persero) TBK for the 2020-2022 Period

| Armarino Nurjuan Rajasa[1], Kukuh Tri Prasetyo[2], Miko Andi Wardana[3], Hari Kurniawanto[4]

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – This study investigates the influence of OTP on Garuda Indonesia financial performance, focusing on profitability and liquidity during the pandemic

Purpose – The study aims to assess how OTP affects the financial health of Garuda Indonesia, specifically examining its impact on profitability and liquidity during 2020-2022

Design/methodology/approach – Secondary data on Garuda Indonesia's financial performance and OTP from 2020 to 2022 are analyzed in this quantitative analysis. Alongside OTP data, financial indicators were examined to assess correlations and effects, including profitability measures and liquidity ratios. The Indonesia Stock Exchange and airline authorities' OTP statistics provided the data. Regression modeling and other statistical analysis were used to ascertain the relevance of OTP and its impact on financial performance, offering insights into the function of operational efficiency in times of economic depression

Findings - OTP has a significant influence on the financial performance of Garuda Indonesia during the 2020-2022 Covid-19 pandemic period. Data analysis shows that low levels of OTP are consistently associated with reduced profitability, indicated by profitability ratios such as Net Profit Margin and Return on Assets which are below industry standards. In addition, the high level of operational delays causes an increase in operational costs, including compensation and fleet management costs, which has an impact on reducing liquidity ratios (Current Ratio and Quick Ratio), worsening the airline's financial condition amidst the challenges of the Covid-19 pandemic. These findings indicate that low operational efficiency, reflected in less than optimal OTP, has a negative impact on a company's financial stability, emphasizing the importance of improving operational time management to mitigate financial stress during times of crisis

Research limitations – This study relies on secondary data, limited to financial statements and OTP data from 2020-2022, lacking primary data and long-term analysis. The focus on Garuda Indonesia means results may not fully apply to other airlines with different operating conditions. Future research could include primary data from management, customers and comparative analysis with other airlines

Originality/value – Explores OTP's relationship with the financial performance of Garuda Indonesia during the pandemic. While past research primarily analyzed profitability and liquidity declines due to reduced demand, this study examines OTP as an operational factor potentially affecting financial stability.

Keywords: On-Time Performance; Financial Performance; Garuda Indonesia; service quality; economic

Track: Airport Information

The Influence of Green Airport Concept and Passenger Experience On Aviation Image: A Case Study of Banyuwangi Airport

| **Dava Rahul Syahputra[1], Prasetyo Iswahyudi[2], Kukuh Tri Prasetyo[3], Untung Lestari Nur Wibowo[4]**

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – Background - The green airport concept aimed to improve service quality through the implementation of sustainable aviation practices. However, the effect of implementing this concept on passenger experience remained under-researched.

Purpose – This study aimed to analyze the influence of energy-saving technologies in green airports on passenger comfort and its impact on the aviation image, with a focus on Banyuwangi Airport.

Design/methodology/approach – This study used a quantitative approach, collecting data through surveys of 5 respondents who were passengers at Banyuwangi Airport. The sampling technique employed was non-probability sampling with a purposive sampling method, targeting passengers who had experienced the airport's green practices.

Findings - The results showed that green airport practices significantly improved passenger experience, which in turn had a positive impact on the aviation image. Aspects such as service quality and passenger interaction with airport facilities were important factors that shaped passenger perceptions.

Research limitations – This study had limitations in terms of the small sample size, so it could not represent the general passenger population. Future research was recommended to use a larger and more diverse sample.

Originality/value – This research provided insights for airport and airline managers in improving sustainable services. The results of this study could also serve as a basis for developing environmentally friendly transportation policies.

Keywords: Green Airport, Passenger Experience, Sustainable aviation practices, Energy-saving technologies, Aviation image.

The Effect of Operating Location and Aviation Safety Management on the Aviation Safety Level at Banyuwangi Airport

| Faida Luckyta Islami[1], Daniel D. Rumani[2], Dede Ardian[3], Ahmad Mubarok[4]

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – Aviation safety is greatly influenced by safety management and the airport operating environment. The operating environment refers to weather and airport conditions. Aviation safety management refers to certain conditions to ensure that aircraft is able to fly properly without harming the safety of the crew, passengers, the aircraft itself, as well as the population and facilities on the ground. Banyuwangi Airport as the entrance to the East Java region faces special challenges in managing safety, especially in the face of extreme weather and the increasing role of airport operations

Purpose – This study was conducted to analyze the extent to which environmental factors and safety management at Banyuwangi Airport affect aviation safety, which was expected to be the basis for developing better safety policies in the area.

Design/methodology/approach – This study applied qualitative methods by reviewing secondary data from aviation safety reports and literature studies. The impact of Banyuwangi Airport's environmental and meteorological conditions on flight safety was analyzed.

Findings - The results of previous studies showed that weather variables had a significant positive correlation with aviation safety management. Extreme weather factors such as strong winds and heavy rain affected take-off and landing operations. The geographical location of Banyuwangi Airport provided challenges to aviation safety. Then, aviation safety management uses the system, namely the Safety Management System (SMS). As a result of previous research, SMS implementation has a significant positive contribution to the high and low level of flight safety. SMS plays a role in detecting and correcting flight safety problems.

Research limitations – This study focuses on Banyuwangi Airport and does not include other airports for comparison. In addition, data access is an issue as most aviation safety data is sensitive or confidential and not publicly available or easily accessible. Data collection was carried out for two weeks starting from November 1, 2024.

Originality/value – This study provides new insights into aviation safety in a region that is geographically vulnerable to weather changes and contributes by examining the relationship between Banyuwangi Airport's geographical location and aviation safety management. The resulting recommendations can serve as a basis for improving airport safety policies in tropical Indonesia.

Keywords: Safety management, Banyuwangi Airport, flight safety

The Influence of Flight Frequency and Facilities on Passenger Comfort (Case Study of Soekarno-Hatta Airport and Banyuwangi)

| **Mochamad Dzikrul Lisani[1], Prasetyo Iswahyudi[2], Fajar Islam[3], Hendra Sudarso[4]**

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – Airports serve as gateways to domestic and international economic activities as well as transit hubs। The main components, including airport managers, airline operators, and service users, interact in their operations। This conceptual development looks at the increasing frequency of flights and the use of different aircraft types. As a result, airport facilities need to be reliable to support flight safety and provide airport users with a sense of security and comfort

Purpose – The purpose of this background is to emphasize the importance of improving the reliability of airport facilities to support safety, security and comfort amidst the increasing frequency of flights. With airports as the main gateway to the economy and transportation transfer points, facility development is needed to make operations more efficient and services for users and stakeholders can be improved.

Design/methodology/approach – This research applies the data source triangulation method by collecting various sources at different times and objects of literature to obtain diverse points of view. This approach is very useful in qualitative research, because it helps increase the validity and trustworthiness of the research results by considering various perspectives.

Findings - Increasing flights and passengers at Soekarno Hatta and Banyuwangi Airports demand more reliable facilities to maintain comfort, safety and operational efficiency. Higher service standards require improvements to ground and air infrastructure to prevent delays and congestion. Therefore, evaluating and improving facilities at these two airports is important as a policy basis for improving service quality amidst air traffic growth.

Research limitations – This research is only limited to analyzing previous literature, and only includes 2 airports as a comparison so that it is not fully relevant to be applied at other airports. In addition, the limited data collection time of approximately 1 month causes limitations on the data sources obtained.

Originality/value – This research evaluates Soekarno Hatta and Banyuwangi Airport facilities to improve user comfort and safety as passengers increase. Based on the data, this research provides recommendations for infrastructure management and development that are in line with global trends on safety and comfort, as well as locally relevant to improve the quality of airport operations in Indonesia.

Keywords: Soekarno Hatta Airport, Banyuwangi Airport, Facility improvements, Flight comfort, Flight frequency

The Impact of Flight Schedule Delays and Cancellations (Scheduling) on User Satisfaction of Flight Services at Airport X with Legal Liability Intervening

| Pramesty Putri Ridzky Hutami[1], Andung Luwihono[2], Dimas hari Cahyo[3], Prasetyo Iswahyudi[4]

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – In the implementation of flight activities, it is possible that force majeure will occur, which will impact the schedule that has been previously scheduled by the airline. Whether it is in the form of delays or cancellation of flight schedules that will harm users of flight services.

Purpose – This research was conducted with the aim of providing the public with an understanding of the proper legal procedures to be carried out when they experience delays in schedules or flight cancellations. Based on Act Number 8 Year 1999, it is explained that consumers can claim compensation from the airline through non-litigation and litigation procedure.

Design/methodology/approach – This research was conducted using normative legal research that puts forward the concept of statute approach which is carried out by examining or analyzing laws and regulations related to legal issues raised as the main topic of research.Legal sources taken from regulation of minister of transportation Number 77 Year 2011, Act Number 1 Year 2009, and Act Number 8 Year 1999, as well as district court decision number 176/Pdt.G/2019/PN Ptk.

Findings - Act Number 8 Year 1999 stated that there rights and obligations between the two parties so that when consumers experience losses, the service provider has the right to receive compensation or damages in accordance with the principle of legal certainty. Legal efforts that can be taken by consumers when there is a cancellation or delay in the flight schedule can be carried out through litigation and non-litigation.

Research limitations – This research is only limited to the form of legal settlement in cases that span the cancellation of flight schedules or delays. So that if there are other cases that are still within the scope of the world of aviation, then the legal settlement of the law used as a reference will be different.

Originality/value – This research focuses heavily on the role of law as a solution to problems that occur. In this case, flight delays or cancellations. With legal knowledge, it's hoped that the community and stakeholders can comply with all existing regulations and carry them out according to applicable legal procedures.

Keywords: consumer satisfaction, legal liability, flight delays

The Influence of PKP-PK Unit Facilities on Flight Safety

| Rafi Navisa Ahkram[1], Hendra Sudarso[2], Dede Ardian[3], Safitri Era Globalisasi[4]

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – Safety is a top priority in aviation, considering this mode of transportation has the greatest risk compared to other modes of transportation. One element that plays an important role in maintaining flight safety is the Aviation Accident Rescue and Fire Fighting (PKP-PK) facility. PKP-PK facilities are expected to overcome emergencies quickly and effectively, so as to minimize incidents that occur. However, the extent of the influence of PKP-PK facilities on aviation safety is still not considered.

Purpose – This research aims to study the level of influence of PKP-PK facilities on flight safety at the airport. By examining aspects of the availability, readiness, and effectiveness of PKP-PK facilities.

Design/methodology/approach – This research method uses Systematic Literature Review (SLR) to collect, analyze, and synthesize relevant research on PKP-PK facilities and their impact on aviation safety. This research uses a database of 30 articles from national and international indexed journals published in the last five years to ensure the validity of this research.

Findings - The results of this study show the main factors that influence the effectiveness of PKP-PK facilities in maintaining aviation safety. Based on the literature analysis, some of the key variables were speed of response, equipment and professional training. These factors were found to play an important role in improving the readiness and responsiveness of PKP-PK facilities in dealing with incidents.

Research limitations – The limitation of this study is that the data collection only focused on literature from airports with different PKP-PK facility capacities, so the results may not be generalizable to airports with different facilities.

Originality/value – This research focuses on the important role of PKP-PK facilities in maintaining flight safety, providing insights for airport managers on the importance of improving these facilities to ensure the safety of passengers and flight personnel.

Keywords: Airport, Aviation Safety, PKP-PK Unit, PKP-PK Unit Facilities

Consumer Trust Behavior on The Influence of The Quality of Emergency Response Facilities in Hospitals: Plane Crash Emergency Situation at Blimbingsari Banyuwangi Airport

| Nisye Maharani[1], Hari Kurniawanto[2], Ahmad Mubarok[3], Dimas Hari Cahyo[4]

[1,2,3,4]Akademi Penerbang Indonesia Banyuwangi

Abstract

Background – This study examines the relationship between hospital proximity to an accident site and the quality of medical services provided, with a focus on hospitals' preparedness to handle emergencies. Using the case of a plane crash at Blimbingsari Banyuwangi Airport, it highlights the complexities of emergency management, emphasizing the importance of rapid response, operational readiness, and effective inter-agency coordination.

Purpose – The primary goal is to assess how hospital distance influences the speed and quality of medical services, while also evaluating the role of hospital operational preparedness—particularly the readiness of facilities and medical personnel—as a moderating factor.

Design/methodology/approach – This study employs a qualitative approach centered on the plane crash incident at Blimbingsari Banyuwangi Airport. Data were collected through a review of previous journal studies, complemented by document analysis. Sources were purposefully selected based on relevance to emergency response to ensure valuable insights, and data credibility was strengthened through triangulation. A thematic analysis examined how hospital proximity influences service quality.

Findings - The study found that increased distance between the hospital and accident site significantly impedes the delivery of optimal medical care. However, the readiness of emergency facilities and the implementation of strong emergency protocols can mitigate the adverse effects of distance. Effective coordination with aviation authorities was also found to be essential for efficient evacuation processes.

Research limitations – This study focuses on a specific plane crash at Blimbingsari Banyuwangi Airport, with data collected over six months post-incident, which may limit broader applicability. Reliance on questionnaires and reports may introduce biases. The analysis centers on emergency response efficiency and hospital preparedness, key to understanding how proximity affects service quality.

Originality/value – This research offers valuable insights by exploring a seldom-discussed context—aviation emergencies at Blimbingsari Banyuwangi Airport—and underscores the importance of hospital distance and preparedness. It addresses a gap in the literature by examining the interaction between distance and hospital readiness during critical moments, known as the "golden hour," which is crucial for ensuring the safety of accident victims.

Keywords: Hospital Proximity, Emergency Preparedness, Quality of Medical Services, Inter-Agency Coordination, Disaster Risk Management

Track: Artificial Intelligence for Aviation Safety

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Prediction of Transportation Connectivity and Economic Impact of Waterbase Development in Remote Areas Based on Artificial Intelligence

| Daniel Dewantoro Rumani[1], Darmeli Nasution[2]

[1]Akademi Penerbang Indonesia Banyuwangi, [2] Universitas Pembangunan Pancabudi Medan

Abstract

Background – The construction of 1000 waterbases in Indonesia is a strategic effort to strengthen connectivity between regions and drive economic growth, especially in remote areas that are difficult to reach. Waterbases, as a cheaper air transportation infrastructure compared to conventional airports, have great potential in expanding accessibility, reducing travel costs, and supporting Indonesia's tourism, fisheries, and mining sectors.

Purpose – This research aims to evaluate and predict the impact of developing a water transport base in remote areas on transportation connectivity and local economic growth by utilizing artificial intelligence (AI) technology. This study is expected to provide insights into more effective infrastructure planning to enhance accessibility and the economy in remote regions.

Design/methodology/approach – This research uses a quantitative approach with an AI model. Data is collected from various sources, including historical transportation data, geographical maps, and local economic data. The AI model is used to analyze transportation connectivity patterns and estimate the economic impact of developing a water transportation hub. Simulation techniques and predictive analysis are applied to generate relevant projections.

Findings - The research results show that the development of water-based transportation in remote areas can significantly improve regional connectivity, contributing to the increase in local economic activity. The AI model is capable of identifying patterns of relationships between transportation improvements and economic growth, with simulation results showing that investment in water infrastructure can increase local gross domestic product (GDP) and accelerate the movement of goods and services.

Research limitations – The limitations of this research include the availability of high-quality data from remote areas, which is often difficult to obtain, as well as the challenges in modeling external variables that affect transportation connectivity and economic impact, such as extreme weather conditions or fluctuating government policies.

Originality/value – This research is unique in combining artificial intelligence approaches with studies on transportation connectivity and economic impact in remote areas, which are still rarely discussed in the literature. The results of this research are expected to serve as a new reference in the development of transportation policies and development strategies in hard-to-reach regions.

Keywords: Waterbase, Economic Development, Artificial Intelligence

CLOSING SPEECH

Excellencies, distinguished presenters, esteemed attendees, ladies, and gentlemen,

As we come to the conclusion of the 2nd International Conference on Artificial Intelligence, Navigation, Engineering, and Aviation Technology (2nd ICANEAT), it is with immense pride and gratitude that I stand before you to reflect on what has been a truly remarkable and enriching experience.

Over the course of this conference, we have witnessed insightful presentations, engaging discussions, and innovative ideas that have reinforced the importance of collaboration and knowledge sharing in advancing our disciplines. Scholars, professionals, and thought leaders from across the globe have come together to address critical issues and explore the opportunities presented by artificial intelligence, navigation, engineering, and aviation technology. This synergy of minds and expertise is what makes events like this so valuable.

I extend my heartfelt appreciation to all the keynote speakers, presenters, reviewers, and session chairs for their invaluable contributions. Your dedication to advancing research and innovation has been evident throughout this event. To our participants and attendees, your active engagement and curiosity have enriched our discussions and inspired new perspectives.

Let us carry forward the momentum of this conference as we return to our respective fields. The ideas and connections we have fostered here have the potential to shape the future of our disciplines and address global challenges.

I would also like to express my sincere gratitude to the organizing committee, our academic and research partners, and all those who have worked tirelessly behind the scenes to make this event a success. Your efforts have been instrumental in creating this platform for collaboration and growth.

As we bid farewell to the 2nd ICANEAT, let us look ahead with renewed determination and optimism. I am confident that the knowledge shared and the relationships built here will pave the way for transformative advancements in the years to come.

Thank you, and I wish you all continued success in your endeavors. Safe travels, and I look forward to seeing you at future conferences. Best regards,

Dr. Prasetyo Iswahyudi, S.T., M.M.
Conference Chair of 2nd ICANEAT
Vice Director 1 of API Banyuwangi, Indonesia

Future Events

https://bit.ly/UpcomingConference-RSF

2nd ICANEAT

2nd International Conference on Artificial Intelligence, Navigation, Engineering, and Aviation Technology
https://icaneat-apibanyuwangi.com
Hybrid conference (Banyuwangi, Indonesia) – November 22, 2024

UINACEB

UIN Annual Conference on Economics and Business
https://uinaceb.com
Virtual conference – November 29, 2024

JICRISD 2024

Jakarta International Conference on Research Innovation and Sustainable Development 2024
https://jicrisd.com
Hybrid conference (Jakarta, Indonesia) – December 5, 2024

5th MESS

The 5th International Conference on Management, Education, and Social Science
https://messconference.com
Virtual conference - December 10, 2024

IHSATEC

The International Halal Science and Technology Conference 2024: 17th Halal Science Industry and Business (HASIB)
https://www.ihsatec.com
Hybrid conference (Bangkok, Thailand) - December 19 - 20, 2024

10th RESBUS

10th International Conference on Interdisciplinary Research on Education, Economic Studies, Business and Social Science (10th RESBUS)
https://www.ihsatec.com
Virtual Conference – February 18, 2025

9th ESBEM

9th International Conference on Entrepreneurship Studies, Business, Economy, and Management Science (9th ESBEM)
https://esbem.com
Virtual Conference – March 11, 2025

11th BEMSS

11th International Conference on Business, Economy, Management and Social Studies Towards Sustainable Economy (11th BEMSS)
https://www.bemssconference.com
Virtual Conference – April 22, 2025

9th IBEMS

The 9th International Conference on Interdisciplinary Business, Economy, Management, and Social Studies (9th IBEMS)
https://www.ibemsconference.com
Hybrid conference (Perth, Australia) – July 3, 2025