Book of Abstract Conference Proceeding

IC-SMS

International Conference on Sustainable Mobility and Safety

Theme: "Safe and Sustainable Transportation"

Hybrid Conference,
29-30 November 2022

Book of Abstract Conference Proceeding International Conference on Sustainable Mobility and Safety (IC-SMS)

Theme: "Safe and Sustainable Transportation"

Hybrid Conference
(Politeknik Transportasi Darat, Bali, Indonesia
and Virtual through ZOOM)
November 29-30, 2022

Yayasan Sinergi Riset dan Edukasi

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FOREWORD

Book of Abstract
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https://ic-sms.com
International Conference on Sustainable Mobility and Safety

Politeknik Keselamatan Transportasi Jalan or Polytechnic of Road Transportation Safety (PKTJ) is an official higher education institution organized by the Ministry of Transportation of the Republic of Indonesia. This college was founded on May 14, 1971, Balai Diklat Trans Jaya. PKTJ is located in Tegal City, Central Java, Indonesia.

The Politeknik Keselamatan Transportasi Jalan was first known as the Balai Pendidikan dan Latihan Transportasi Jalan Raya (Balai Diklat Trans Jaya) Tegal, which was established on May 14, 1971, and on September 27, 1971, was opened and inaugurated by the Director General of Land Transportation, Sumpono Bayuaji. The location occupies a former PJKA warehouse (SCS) with an area of approximately 6.5 hectares, located at Jalan Semeru Number 3, Tegal City, Central Java, Indonesia. At the beginning of its establishment, it was better known as Pusdik Perhubungan Darat under the auspices of the Jakarta Land Transportation Education Institute or Lembaga Pendidikan (LEMDIK) Perhubungan Darat Jakarta. With the change in the organizational structure of the Department of Transportation Number KM.415/U/PHB-1975, the name LEMDIK Land Transportation was changed to the Center for Land Transportation Education and Training (Pusdiklat Darat). The Land Transportation Pusdik in Tegal turned into the Land Transportation Education and Training Implementation Unit, and by Decree of the Minister of Transportation Number KM.51/OT/PHB-1978 dated March 8, 1978, changed to the Land Transportation and Highway Education and Training Center (Balai Diklat Trans Jaya) Tegal. Then with the Decree of the Minister of Transportation Number KM.73 of 2002, the name changed again to the Ground Transportation Education and Training Center or Balai Pendidikan dan Pelatihan Transportasi Darat (BPPTD). With the issuance of PM. 15 of 2012, there was a change of name to PKTJ until now. PKTJ has 3 (three) study programs, including the Road Transportation System Engineering Applied Undergraduate Study Program, Applied Bachelor of Automotive Engineering Technology, and Diploma III in Automotive Technology, where all study programs have B accreditation.

Each study program is supported by practical field activities adapted to the world of work intended to produce transportation people ready to synergize, be competitive, and have competence, as well as reliable teaching staff. The Road Transportation Safety Polytechnic is ready to become part of The World Class University.

https://pktj.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 2021, more than 20.000 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 four 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, and Research Synergy Press. 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:

1. International Conferences: It aims to create a "tipping point" of opportunities for participants to disseminate their research globally and have reputable scientific publication output.
2. 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.
3. Workshops: It aims to provide a vibrant learning forum to enhance the author's capability of scientific writing skills and the manuscript's quality.
4. 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.
5. 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.
https://www.researchsynergy.org/

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CONFERENCE CHAIR MESSAGE

We are delighted to welcome you to the **International Conference on Sustainable Mobility and Safety (IC-SMS)** by Politeknik Keselamatan Transportasi Jalan (PKTJ), Indonesia (PKTJ) and Research Synergy Foundation (RSF) that held hybrid on November 29-30, 2022. Onsite conference at the Politeknik Transportasi Darat Bali venue and virtual conference through the ZOOM platform.

This conference not only give you global forum to share and exchange idea, research, and work. But also, provide wider network and research ecosystem for further collaboration and projects. We are glad to share these good opportunities in the scientific community, that will be offered only for all participants who participate in the conference.

It has been our privilege to convene this conference. Our sincere thanks, to the conference organizing committee; to the Program Chairs for their wise advice and brilliant suggestion on organizing the technical program and to the Program Committee for their through and timely reviewing of the papers. Recognition should go to the Local Organizing Committee members who have all worked extremely hard for the details of important aspects of the conference programs and social activities.

We welcome you to this conference and hope that this year's conference will challenge and inspire you, and result in new knowledge, collaborations, and friendships.

Best regards,

Sugianto, A.TD., M.M.
Conference Chair of IC-SMS 2022

CONFERENCE CHAIR WELCOME REMARKS

Assalamualaikum Wr. Wb, Shalom, Salam Sejahtera, Om Swastyastu, Namo Budhaya, Salam Kebajikan, Merdeka!
Good morning from Bali,

Distinguished Participants and Guest, Excellencies, Ladies, and Gentlemen
I am delighted to welcome you to the International Conference on Sustainable Mobility and Safety (IC-SMS), organized by Research Synergy Foundation (RSF), held the hybrid conference on 29 - 30 November 2022. It has been our privilege to convene this conference. Our sincere thanks to:

• the Co-Conference Chair, Dr. Hendrati Dwi Mulyaningsih, and the team from Research Synergy Foundation.
• the Keynote Speaker, Dr.(HC).Ir. Budi Karya Sumadi from Minister of Transportation Indonesia;
• the Keynote Speaker, Dr. Eng. Aam Muharam, M.T. from Head of Research Center for transportation Technology, Indonesia.
• the Speaker, Dr. Gede Pasek Suardika., M.Sc.,QGIA., CGCAE from Head of Transportation Policy Agency MoT, Indonesia;
• the Speaker, Dr. Umar Aris, S.H., M.M., M.H from Head of Greater Jakarta Authority, Indonesia.
• the Speaker, Ts. Zulhaidi Mohd Jawi from Director of Vehicle Safety and Biomechanics Research Centre at Malaysian Institute of Road Safety Research (MIROS), Malaysia.
• the Speaker, Dr. Siti Maimunah, S.Si, M.S.E., M.A. from Head of Education Division at Human Resource Development Center of Land Transportation, Indonesia;
• the Speaker, Dr.-Ing Ali Bawono from The Technical University of Munich (TUM) Asia, Singapore.
• the Speaker, Professor Kerry Brown from Edith Cowan University, Australia.
• the Speaker, Professor Patrick Wheeler from University of Nottingham, United Kingdom.
• the Session Chair, Assoc. Prof. Dr. Mohd Rizaimy Shaharudin from Universiti Teknologi MARA, Malaysia.
• the Session Chair, Assistant Prof. Dr. Leticia V. Marquez from Universidad De Manila, Philippines.

• the Session Chair, Associate Professor Dr. Zainiharyati Mohd Zain from Universiti Teknologi MARA, Malaysia.
• the Session Chair, Dr. Ronielle B. Antonio from City College of Angeles, Philippines.
• the Session Chair, Assoc. Prof. Dr. Rafeah Legino from Universiti Teknologi MARA, Malaysia.
• the Session Chair, Assoc. Prof. Engr. Christopher C. Mira from Polytechnic University of the Philippines, Philippines.
• the Session Chair, Associate Professor Dr. Syed Abdul Mutalib Al Junid from Universiti Teknologi MARA, Malaysia.
• Organizing Committee; to the Program Chairs for their wise advice and brilliant suggestion on managing the technical program and to the Program Committee for their thorough and timely reviewing of the papers.
• Recognition should go to the Local Organizing Committee members who have all worked extremely hard for the details of important aspects of the conference programs.

Today we will hear and learn from scholars presenting their research and work in the area of Transportation Safety, Marine transportation, Transportation Management, Transportation Modelling, Sustainable Transportation, Transportation engineering, Autonomous vehicles, Logistic, Public Transportation, Education and campaign on Transportation Safety, Port Management, Transport Planning and Policy Formulation, Multimodal Transportation.

Moreover, today's conference also participated by scholars from various countries such as Indonesia, Malaysia, Germany, Japan, Australia, Singapore, United Kingdom, Philippines, Pakistan, Tanzania, India, Iraq, Morocco, Nigeria, and more. Thank you to all participants that already registered and joined our conference today. We believe this conference not only gives you a global forum to share and exchange ideas, research, and work. But also provide a wider network and research ecosystem for further collaboration and projects. We are glad to share these good opportunities in the scientific community with all participants in the conference.

Once again, on behalf of the IC-SMS committee, I welcome you to this conference and hope that this year's conference will challenge and inspire you and result in new knowledge, collaborations, and friendships. Thank you and have a great session at our conference today. Stay safe and healthy.

CONFERENCE CHAIR

Sugianto, A.TD., M.M.

Conference Chair of IC-SMS 2022
The 1st Deputy Director of Polytechnic of Road Transportation Safety (PKTJ), Indonesia

Sugianto, A.TD., M.M. is a lecturer at Bali Land Transportation Polytechnic's D-III Road Transport Management and the head of the academic administration and cadets of the Bali Police. He finished his education at the Bekasi Higher School of Land Transportation in the D.III Road Transport Traffic and D.IV Road Transport Traffic Expert programs. At Universitas Kejuangan 45, he then completed his education by enrolling in a management program.

CO-CONFERENCE CHAIR

Dr. Hendrati Dwi Mulyaningsih

Co-Conference Chair IC-SMS 2022
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 15.000 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.

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.

WELCOMING REMARKS

Dr. Ir. Djoko Sasono, M.Sc. (Eng)

Head of Human Resources Development Agency on Transportation, Indonesia

Dr. Joko Sasono finished his undergraduate studies at the Bandung Institute of Technology (ITB) in the Planology Engineering department. The University of Leeds in the United Kingdom awarded him a good degree after he pursued his postgraduate studies with a focus on Transport Planning and Engineering. Additionally, he attended and graduated with honors from the University of Tokyo at Japan's School of Transport Planning and Policy (Urban Engineering).

At the moment, he is the Head of Human Resources Development Agency on Transportation. He has held positions as the Secretary General of the Ministry of Transportation, Expert Staff for Logistics, Multimodal, and Transportation Safety, and Drafter of Planning and Program Documents. Additionally, from 2012 to 2015, he was the director of the development of the urban transportation system. From 2015 to 2016, he was the director general of land transportation.

CLOSING SPEECH

Drs. Nahduddin, M.Sc.

Head of Human Resources Development Center on Land Transportation, Indonesia

Drs. Nahduddin, M.Sc earned a bachelor's degree from Universitas Jendral Soedirman with a specialization in Environmental Biology. He then continued his studies in the field of Generale Maritime Administration & Environment Protection at the World Maritime University- Malmo, Sweden and majored in International Transport and Logistics at the Arab Academy for Science and Technology Transport - Alexandria, Egypt.

Currently he serves as the Head of Human Resources Development Center on Land Transportation, after previously serving as Head of the Manado/Bitung Class I Navigation District, Head of Bilateral and Subregional Relations, Transportation Attaché of the Indonesian Consulate General in Jeddah and Head of Analysis and Evaluation in Ministry of Transportation.

OPENING SPEECH

I Made Suartika, A.TD., M.Eng., Sc.

Director of Polytechnic of Road Transportation Safety (PKTJ), Indonesia

I Made Suartika, ATD, M.Eng. Sc. is the director of the Polytechnic of Road Transportation Safety (PKTJ), Indonesia. Before this, he held the positions of Head of Relations, Head of the Class II Railway Engineering Center for the Southern Sumatra Region, and Head of the Planning and Cooperation Section Head of the Transportation Attaché at the Indonesian Embassy in The Hague, Netherlands.
He received his higher education Diploma III ALLAJR and Diploma IV Land Transportation at STTD Bekasi. He continues his master's degree in transportation in New South Wales, Australia. Additionally, he attended the Foreign Cooperation Session's Workshop on Diplomacy Techniques and Major Events Security Management Seminar to get training.

KEYNOTE SPEAKERS

Dr.(HC).Ir. Budi Karya Sumadi

Minister of Transportation Indonesia

Dr. (HC) Budi Karya Sumadi currently being trusted to hold position of Minister for Transportation Republic of Indonesia. In 1982, He started working for the Jakarta municipal government's business PT Pembangunan Jaya Ancol Tbk as a planning architect after receiving his bachelor's degree from Gadjah Mada University. Over the course of his 22 years there, he advanced through the organization's levels and by 2004 had been become CEO. Later, he started a new job, joining PT Jakarta Propertindo, another Jakarta-owned business, where he served as CEO until 2015. During his tenure with the company, he participated in several housing and infrastructure development projects in Jakarta, including the development of the Bintaro Jaya neighbourhood and the building of affordable tenements. He moved to Angkasa Pura II, an organization run by the central government that was responsible for managing airports in western Indonesia, in 2015. One of his prestigious achievements is when he handled the development of Terminal 3 at Soekarno-Hatta International Airport while serving as CEO of AP II.

Dr. Eng. Aam Muharam, M.T.

Head of Research Center for transportation Technology, Indonesia

Dr. Aam Muharam is an Associate Expert Researcher at the Transportation Technology Research Centre, the National Research, and Innovation Agency (BRIN). Dr Aam completed his undergraduate studies at the Department of Electrical Engineering from the Bandung National Institute of Technology, Indonesia. He then continued his master's degree at the School of Electrical and Informatics Engineering, Bandung Institute of Technology. He earned his doctoral degree at the Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, Japan.
He is also engaged in the academic world, having written several well-known publications, and serving as a journal reviewer. He presently works at MEV Journal LIPI as an Associate Editor (SINTA 1). He serves as a reviewer for several publications, including the IEEE Journal of Emerging and Selected Topics in Power, the IEEE Transactions on Industrial Electronics, the MDPI Energies (Q2), the Electronics (Q2) Reviewer, and the MEV Journal LIPI (SINTA 1).

INVITED SPEAKERS

Dr. Gede Pasek Suardika., M.Sc.,QGIA., CGCAE

Head of Transportation Policy Agency MoT, Indonesia

Dr. Gede Pasek Suardika currently serves as Head of Transportation Policy Agency. He began his career at the Directorate of Land Transportation as Head of Program Development Sub-Division, Head of Information Systems Sub-division, Head of Planning Sub-Division, Head of Safety Management Sub-Directorate, Head of Safety Audit, and Inspection Sub-Directorate and served as Director of Land Transportation Safety in 2014. Then in 2015, He was the Director of Perum Damri until 2017 before he became Head of the Planning Bureau. In Mid-2019 he was appointed as Expert Staff for Economics, Regions and Transportation Partnership before finally joining the Inspectorate General at the end of January 2020 as Inspector General of the Ministry of Transportation.

He gained his Diploma III/Bachelor's Degree (1988), Master's degree at the University of Leeds England (1992) and completed his doctoral degree at Tarumanegara University (2013). The awards he has received are Satya Lancana Karya Satya 10 Years (2000), Satya Lancana Karya Satya 20 Years (2009).

Dr. Umar Aris, S.H., M.M., M.H

Head of Greater Jakarta Authority, Indonesia

Dr. Umar Aris currently hold position as **the Head of Greater Jakarta Authority.** From 2017 to 2022, he is a Commissioner of PT. Angkutan Sungai Danau Penyeberangan (ASDP) Indonesia Ferry (Persero). He currently works as a teacher at the Education and Training Agency for the Transportation Human Resources Development Agency (BPSDMP) of the Indonesian Ministry of Transportation as well as a post-graduate lecturer in law at several private universities.

Along with participation in bilateral, multilateral, and ASEAN international conferences like the IMO (International Maritime Organization) and ICAO (International Civil Aviation Organization), he is also actively involved in developing legislation and regulations in the sector of transportation. In addition to that, he has actively participated in discussions over the OMNIBUS LAW's provisions ever since the draft bill, RPP, and RPM, and he has actively represented the government in the CONSTITUTIONAL COURT (MK).

INVITED SPEAKERS

Ts. Zulhaidi Mohd Jawi

Director of Vehicle Safety and Biomechanics Research Centre at Malaysian Institute of
Road Safety Research (MIROS), Malaysia

Zulhaidi started his career at MIROS in February 2007 upon his graduation from Case Western Reserve University (CWRU), Cleveland, Ohio, USA, majoring in Systems & Control Engineering. He later obtained his Master of Science from Universiti Kebangsaan Malaysia (UKM) in 2018. He is currently pursuing his PhD program at Universiti Pertahanan Nasional Malaysia (UPNM).

Other than being a Senior Research Officer at MIROS' Vehicle Safety & Biomechanics Research Centre (VSB), he had previously served as Communications Manager for the newly established New Car Assessment Program for ASEAN or ASEAN NCAP (2012-2014). He was also served as the Head of Commercial Vehicle Unit (CVU) at VSB for a year (2019-2020). He is currently appointed as the Director of Vehicle Safety and Biomechanics Research Centre (VSB) at MIROS, as well as Technical Research Coordinator for ASEAN NCAP.

As one of the pioneers at MIROS, he has the privilege to involve in many roads' safety projects and activities, as well as the fundamental research works. He is part of the team for the Development of NCAP for Malaysia, which later became ASEAN NCAP. This development includes the soft-landing approach so called the Malaysian Vehicle Assessment Program (MyVAP) and the development of the Southeast Asia's first crash lab for cars known as MIROS PC3. He also involved in the inception of MIROS real-world crash investigation team with more than 50 cases attended and involved in 5 national-inquiry cases. His other projects involved surveys, evaluations, policy making and systems thinking research, i.e., the (1) Malaysia's automotive ecosystem; (2) roadworthiness/crashworthiness study; (3) curriculum enhancement for driver's licensing (Kurikulum Pendidikan Pemandu - KPP); (4) Automated Enforcement System (AES); and (5) weather-related road accident. He also contributes to road safety advocacy programs through road safety talks, trainings and exhibitions throughout the country and the Southeast Asian region.

INVITED SPEAKERS

Dr. Siti Maimunah, S.Si, M.S.E., M.A.

Head of Education Division at Human Resource Development Center of Land Transportation, Indonesia

Dr. Siti Maimunah, S.Sc., M.S.E., M.A gains her bachelor's degree from the Statistics study program from Bogor Agriculture University. He continued his master's education and received a double degree from the Graduate School for Economic Science, University of Indonesia and Master of Arts/MA Environmental Economic Laboratory (Development Policy) Graduate School for International Development and Cooperation (IDEC), Hiroshima University Japan. She received her Doctor of Philosophy from Environmental Economic Laboratory (Development Policy), Graduate School for International Development and Cooperation (IDEC) Hiroshima University Japan

She is an expert in Transport Economics, Environmental Economics, Transportation Infrastructure Development (Public Private Partnership), Urban Transportation Planning, and Regional Economic Development. He is also active in writing scientific papers which are published in various reputable journals and takes part in the Inter-Higher Education Transportation Study Forum and is a Member of the Indonesian Transportation Society (MTI). He received various awards such as the best of Reform Leadership Training from the Ministry of Transportation and the 4th rank of Leadership Training Level III, Ministry of Transportation.

INVITED SPEAKERS

Dr.-Ing Ali Bawono

The Technical University of Munich (TUM) Asia, Singapore

Dr.-Ing Ali Bawono is a Senior Research Fellow / Lecturer and a faculty member of Rail, Transport, and Logistics at the Technical University of Munich (TUM) based in Asia Singapore campus. He has more than 12 years of experience in industry and academia with strong exposure in civil engineering, urban and transport system design and planning, sustainable and resilient infrastructure, and renewable energy. He is the author of a book titled Engineering Cementitious Composites for Electrified Roadways in Megacities. He holds patent and technology disclosures. He published numerous journal papers and actively gave talks at conferences and seminars. He was awarded by Springer for outstanding research. His research interest includes electromobility, electrified roadway, sustainable material, adaptive and resilient infrastructure, urban and transport development, building information modelling, renewable energy, project management, and multi-criteria design analysis.

SUMMARY OF SPEECH

Topic: Planning Sustainable Electromobility

With a share of almost 20 percent, the global transport sector is the third-largest contributor to CO2 emissions after electricity generation and industry. Despite vast improvements in the energy efficiency of vehicles, greenhouse gas (GHG) emissions in the sector have more than doubled since 1970. Along with other measurements, such as cycling and walking, electromobility, which is fuelled by green energy, is seen, and projected to become one of the key enablers in achieving a sustainable living environment.

Yet, implementing electromobility requires a strategic plan. What measurements can be done to accelerate the adoption of electric vehicles (EVs)? Will the price of EVs go down and become more affordable? How to optimize the energy supply to meet the demand from the electromobility? When it comes to market development, many parties are having doubt, or what can be described as the “chicken-and-egg” problem, about the nature of electric vehicles (EVs) deployment and charging station installation: Whether a higher availability of charging infrastructure will lead to more EVs on the roads, or more EVs will lead to a further expansion of charging stations infrastructure?

A strategic plan derived into a framework addressing different stakeholders is crucial in achieving sustainable electromobility. In this session, such issues will be discussed. The study case of Singapore is addressed.

INVITED SPEAKERS

Professor Kerry Brown

Professor of Employment and Industry,
Edith Cowan University, Perth, Western Australia

Kerry Brown is the Professor of Employment and Industry in the School of Business and Law and ECU Research Theme Leader, Natural and Built Environments at Edith Cowan University. Kerry Brown is President of the Australian and New Zealand Academy of Management (ANZAM) and has been an ANZAM Board Member since 2016. She is the Program Leader for the Governance and Organisational Planning Program of the Asset Institute. Prof Brown is a member of the Business at OECD Committee on Technology and Innovation, a Committee Member, Institute of Public Works Engineers Australasia, and Board Member, Planning and Transport Research Centre.

As an Executive Board Member and Founding Fellow of the International Society for Engineering Asset Management (ISEAM) since 2007; member, Standards Australia Mirror Committee MB019 Asset Management (since 2009) and, member of International Standards Organisation ISO TC251 to develop an International Standard (ISO 55000) for physical assets and asset systems, has extensive expertise in Management.

Professor Brown's research covers diverse areas of management: organisational management; Industrial Relations and HRM, collaboration, networks, and business clusters; capability, strategy, management, and policy for infrastructure asset management; public management and policy including regional development and, gender equity. She has published extensively in these areas with over 130 publications in books and journals.

Web:
www.ecu.edu.au/schools/business-and-law/staff/profiles/professor/professor-kerry-brown

INVITED SPEAKERS

Professor Patrick Wheeler

University of Nottingham, United Kingdom

Prof Pat Wheeler received his BEng [Hons] degree in 1990 from the University of Bristol, UK. He received his PhD degree in Electrical Engineering for his work on Matrix Converters from the University of Bristol, UK in 1994. In 1993 he moved to the University of Nottingham and worked as a research assistant in the Department of Electrical and Electronic Engineering. In 1996 he became a Lecturer in the Power Electronics, Machines and Control Group at the University of Nottingham, UK. Since January 2008 he has been a Full Professor in the same research group.

He is currently the Global Engagement Director for the Faculty of Engineering, the Head of the Power Electronics, Machines and Control Research Group and the Director of the University of Nottingham's Institute of Aerosapce Technology He was Head of the Department of Electrical and Electronic Engineering at the University of Nottingham from 2015 to 2018. He is a member of the IEEE PELs AdCom and is currently IEEE PELS Vice-President for Technical Operations. He has published over 850 academic publications in leading international conferences and journals.

FIEEE (#41335414), FIET
https://orcid.org/0000-0003-0307-581X

SESSION CHAIRS

Assoc. Prof. Dr. Mohd Rizaimy Shaharudin

Universiti Teknologi MARA, Malaysia

Mohd Rizaimy Shaharudin is an Associate Professor with the Faculty of Business and Management at the Universiti Teknologi MARA (UiTM), Malaysia. He currently serves as the Deputy Director of Logistics and Transportation for Research Nexus of UiTM (ReNeU). He holds a PhD in Supply Chain Management from Universiti Sains Malaysia. He served 12 years in the manufacturing industry, specifically in the automotive industry. He has been appointed as a Visiting Professor at Suan Sunandha Rajabhat University, Bangkok, Thailand, until the end of 2022. He was appointed as a National Design Centre (NDC) member and Associate Fellow at the Smart Manufacturing Research Institute (SMRI). Mohd Rizaimy is a Certified Trainer awarded by the Department of Skills Development, Ministry of Human Resources. He has over 100 scientific publications in articles, conference proceedings, and book chapters. He has served as a referee for several top journals in the related field. He is also a member of the editorial board for several journals and the technical committee for international conferences.

Assistant Prof. Dr. Leticia V. Marquez

Universidad De Manila, Philippines

Dr. Leticia V Marquez, presently connected with the College of Engineering and Technology of Universidad de Manila, Philippines. Have been teaching for 23 years handling subjects in Engineering Sciences, Statistics and Mathematics. Designated as Dean of the College of Engineering and Technology (CET) in (2005-2010). Finished the Master of Education in Educational Measurement and Evaluation at the Philippine Normal University and Doctor of Education in Columban College, Inc. Teaching is not an easy profession because it is a continuous learning process. Research involvement is a very important aspect of being a teacher and attending seminars and conferences is a must. Presentation and publication of research paper has been part of my life.

SESSION CHAIRS

Associate Professor Dr. Zainiharyati Mohd Zain

Universiti Teknologi MARA, Malaysia

Dr. Zainiharyati Mohd Zain currently serves as Associate Professor at School of Chemistry and Environment, Faculty of Applied Sciences, Universiti Teknologi MARA (UiTM) Shah Alam, Selangor Malaysia. She graduated with PhD in Electroanalytical Chemistry), MSc Analytical Chemistry and BSc Industrial Chemistry Minor Management (Hons), Universiti Sains Malaysia. She won many innovations competitions with gold awards and research grants amounted RM 2 million in the past 5 years. Her research interest is DNA Biosensors, implantable microelectrode for neurochemicals monitoring, forensics, and chemical sensors. In the university, she delivered courses namely General Chemistry, Spectroscopy, Advanced Electrochemistry, Electrochemistry and Corrosion Science, Instrumental Analysis, and final year research supervisions. She had awarded the Silver Medal, Malaysia Technology Expo in 2020 and several prestigious award both national and internationally.

Dr. Ronielle B. Antonio

City College of Angeles, Philippines

Ronielle B. Antonio is currently the Program Coordinator of the Computer Science Program at City College of Angeles in Angeles City, Pampanga. He graduated with a degree Bachelor of Science in Computer Science with Area of Specialization in Systems Development in 2011 and a master's in information technology in 2014 from the Holy Angel University. He was formerly connected as faculty member at Christian Charismatic Ecumenical Ministries International (CCEMI) Academy and as a part-time Instructor at Holy Angel University. He handles courses such as Java, Python, and Web Programming as well as Thesis and Capstone Projects.

He has published and presented several research papers locally and internationally. He is a member of Philippine Society for Information Technology Educators – Region III (PSITE RIII), Computing Society of the Philippines (CSP), International Association of Computer Science and Information Technology (IACSIT), International Association of Applied Science and Engineering (IAASE) and Institute for Engineering Research and Publication (IFERP). His research interests include Security, Data Mining, and Analysis and Applications Development.

SESSION CHAIRS

Assoc. Prof. Dr. Rafeah Legino

Universiti Teknologi MARA, Malaysia

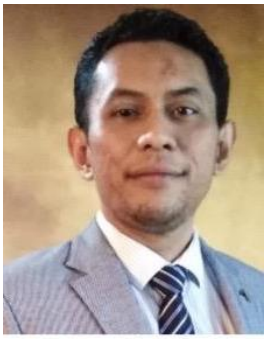
Rafeah Legino is an Associate Professor at the Fine Art Department of the Universiti Teknologi MARA Shah Alam in Selangor, Malaysia's College of Creative Arts. She is also the Coordinator of Logistics and Transportation, which facilitates any prospective collaboration between UiTM and its many potential partners. She enthusiastically anticipates fine art logistics within the existing state of the art and has identified knowledge gaps for future research in this new field to be more influential. She also creates artwork utilizing primarily printmaking techniques, such as collagraph, monoprints, and other innovative technological approach. She received a Bachelor of Fine Art and a Master of Art & Design from the Faculty of Art & Design, UiTM, Malaysia. In a research project, she received her PhD in Fine Art—Visual Art and Culture Management—from the School of Art at RMIT University in Melbourne, Australia. She Her key areas of interest include Malaysian and Asian Visual Arts, such as crafts, visual art heritage, and potential transdisciplinary practice-based or artistic research. She is currently a Visiting Professor at Universitas Andalas (UNAND)in Padang, Indonesia.

Assoc. Prof. Engr. Christopher C. Mira

Polytechnic University of the Philippines, Philippines

Engr. Mira is a graduate of B.S. Industrial Engineering and has been a master's in industrial engineering and Management. He has been with the university as a fulltime assistant professor since November 2006 initially handling major Industrial Engineering subjects. Later in 2017, he has been given subjects in Quality Management for BS Accountancy and BS Business Administration Major in Human Resource Management. His involvement in research has been commended during his being a member of the University Research Group for Engineering, Architecture and Technology Colleges. He has presented various research papers in the local and international settings, likewise, invited as panellist and session chair in various research presentations. He is also regularly invited by some business establishments reference to their quality and performance evaluation. He is presently the adviser of the Phil. Inst. of Ind'l. Engineers (PIIE) PUP Binan Chapter and former adviser of the Manila Innovators and Dev't. Society (MINDS). Engr. Mira is a member of several groups involving research peer evaluation, scholarly research.

SESSION CHAIRS



Associate Professor Dr. Syed Abdul Mutalib Al Junid

Research Nexus UiTM, Universiti Teknologi MARA, Shah Alam, Malaysia

Dr. Syed Abdul Mutalib Al Junid is an Associate Professor at the School of Electrical Engineering, College of Engineering and Deputy Director of Cybertechnology at the Research Nexus UiTM, UiTM. In addition, he has been appointed as an associate research fellow for the Integrative Pharmacogenomics Institute (iPROMISE), UiTM and researcher at the Electronic Architecture and Applications Research Group (EArA). He also has been awarded as a Professional Engineer (PEng) by the Board of Engineers Malaysia (BEM), Professional Technologist (PTech) by Malaysia Board of Technology, and senior member by the Institute of Electrical Electronic Engineers (IEEE). His research focuses on embedded systems and computational intelligent systems, which have wide range of applications in transportation, microelectronics, health technology, engineering systems, energy, and consumers.

MINI WORKSHOP'S TRAINER

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

Founder & Director of Global Network Operation
Research 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 receiving her Master of Science Management (focusing on Entrepreneurship and Technology Management) from Bandung Institute of Technology (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 Bandung Institute of Technology (ITB). 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 Open Access Advisor Taylor & Francis Group. She has already been an editor of two published books (both published by Routledge, Taylor & Francis), a reviewer in several reputable international journals, an author and co-authored multiple research articles and book chapters. Santi also serves as the Managing Editor for five international journals: Journal of Social Entrepreneurship Theory and Practice (JSETP), International Journal of Research in STEM Education (IJRSE), Journal of Entrepreneurship, Business and Creative Economy (IJEBCE), International Journal of Emerging Issues in Islamic Studies (IJEIIS), International Journal of Entrepreneurship and Sustainability Studies (IJEASS).

She has a strong passion for understanding how entrepreneurship can be a source of sustainable economic development for communities. She has a strong conceptual mind and can astutely understand how to apply theory to understand complex patterns of data. Outside her research experience, she also has substantial working experience in multi-national automotive industries for seven years.

Tuesday | November 29th, 2022

https://ic-sms.com/				Host: Co-Host:
CONFERENCE PROGRAM International Conference on Sustainable Mobility and Safety (IC-SMS) VIRTUAL CONFERENCE: 29-30 November 2022				
DAY 1 - Tuesday, 29 November 2022				
Bali Time (UTC+8)			***Dur'***	***Activity***
Main Room: *Please note that ALL conference TIME is in Bali Time/ WITA/ UTC+8. Please check your time zone.				**Link zoom: https://bit.ly/IC-SMS2022-DAY1**
8:00	-	9:00	1:00	**Registration for ONSITE Participant at Bali Venue - start at 8:00 - 9:00 AM, Bali time Virtual Conference Participant Login and Join Virtual Conference by ZOOM - start at 8:50 - 9:00 AM, UTC+8**
9:00	-	9:10	0:10	Welcoming and Conference Agenda announcement by MC
9:10	-	9:15	0:05	Singing of National Anthem "Indonesia Raya"
9:15	-	9:20	0:05	Singing of Hymne Perhubungan

9:20	-	9:30	0:10	**Opening Speech of IC-SMS Day 1** **I Made Suartika, A.TD., M.Eng., Sc.** Director of Polytechnic of Road Transportation Safety (PKTJ), Indonesia
9:30	-	9:45	0:15	**Welcoming Remarks of IC-SMS Day 1** **Dr. Ir. Djoko Sasono, M.Sc. (Eng)** Head of Human Resources Development Agency on Transportation, Indonesia
9:45	-	10:05	0:20	**Keynote Speaker 1:** **Dr.(HC).Ir. Budi Karya Sumadi** Minister of Transportation Indonesia
10:05	-	10:20	0:15	**Keynote Speaker 2:** **Dr. Eng. Aam Muharam, M.T.** Head of Research Center for transportation Technology, Indonesia
10:20	-	10:30	0:10	**Global Research Ecosystem Introduction** **Dr. Hendrati Dwi Mulyaningsih** **Co-Conference Chair of IC-SMS** **Founder & Chairperson of Research Synergy Foundation**
10:30	-	10:35	0:05	**E-Group Photo**
10:35	-	10:45	0:10	**Introduction to Panel Session of Invited Speakers - Session 1**
10:45	-	11:00	0:15	**Speaker 1:** **Dr. Gede Pasek Suardika., M.Sc.,QGIA., CGCAE** Head of Transportation Policy Agency MoT, Indonesia **Topic: “Indonesia's Transportation Policy in The Digital Era”**
11:00	-	11:15	0:15	**Speaker 2:** **Dr. Umar Aris, S.H., M.M., M.H** Head of Greater Jakarta Authority, Indonesia **Topic: “Transit Oriented Development (TOD) and Urban Transportation Integration in The Digital Era”**

11:15	-	11:35	0:20	**Speaker 3:** **Ts. Zulhaidi Mohd Jawi** Director of Vehicle Safety and Biomechanics Research Centre at Malaysian Institute of Road Safety Research (MIROS), Malaysia **Topic: "New Era of Black Box for Vehicles"**
11:35	-	12:15	0:40	**Discussion Session**
12:15	-	12:25	0:10	**Token of Appreciation for All Speakers**
12:25	-	13:35	1:10	**Break** (Video played: University Profile, and Program of PKTJ; Research Synergy Foundation Profile; IC-SMS Agenda & Sessions)
13:35	-	13:45	0:10	**Introduction to Panel Session of Invited Speakers - Session 2**
13:45	-	14:00	0:15	**Speaker 4:** **Dr. Siti Maimunah, S.Si, M.S.E., M.A.** Head of Education Division at Human Resource Development Center of Land Transportation, Indonesia **Topic: "Multimodal Transportation"**
14:00	-	14:20	0:20	**Speaker 5:** **Dr.-Ing Ali Bawono** The Technical University of Munich (TUM) Asia, Singapore **Topic: "Planning Sustainable Electromobility"**
14:20	-	14:40	0:20	**Speaker 6:** **Professor Kerry Brown** Edith Cowan University, Australia
14:40	-	15:00	0:20	**Speaker 7:** **Professor Patrick Wheeler** University of Nottingham, United Kingdom **Topic: "Sustainable Transport - Electric Vehicle"**
15:00	-	15:30	0:30	**Discussion Session**

15:30	-	15:35	0:05	**Token of Appreciation for Speaker**
15:35	-	15:45	0:10	**Closing Speech of IC-SMS DAY 1** **Drs. Nahduddin, M.Sc.** Head of Human Resources Development Center on Land Transportation, Indonesia
15:45	-	16:00	0:15	Preparation for Mini Workshop
16:00	-	17:30	1:30	**Mini Workshop of "Preparing Research Article for F1000research (Scopus Q1) and Cogent OA journals (Scopus Q1/Q2) Publication"** **Trainers: Dr. Hendrati Dwi Mulyaningsih & Santi Rahmawati, MSM.** F1000 Gateway Advisor, Taylor & Francis Open Access Advisor.

Wednesday | November 30th, 2022

https://ic-sms.com/				Host: Co-Host:
CONFERENCE PROGRAM International Conference on Sustainable Mobility and Safety (IC-SMS) VIRTUAL CONFERENCE: 29-30 November 2022				
DAY 2 - Wednesday, 30 November 2022				
Bali Time (UTC+8)			***Dur'***	***Activity***
Main Room: *Please note that ALL conference TIME is in Bali Time/ WITA/ UTC+8. Please check your time zone.				**Link Zoom for IC-SMS https://bit.ly/IC-SMS2022-DAY2 Meeting ID: 847 0792 0372 Passcode: ic-sms**
8:50	-	9:00	0:10	**Participant Login and Join Virtual Conference by ZOOM**
9:00	-	9:15	0:15	Welcome Address and Conference Publication Announcement by MC
9:15	-	9:25	0:10	**Welcome Remarks of IC-SMS Day 2 I Made Suartika, A.TD., M.Eng., Sc.** Director of Polytechnic of Road Transportation Safety (PKTJ), Indonesia
9:25	-	9:30	0:05	**E-Group Photo**
9:30	-	9:35	0:05	**Announcement and preparation of Online Parallel Presentation Session**

Breakout Room				
9:35	-	9:45	0:10	**Session Chairs Introduction of Online Presentation Day 2 - Session 1:** **Breakout room 1:** Assoc. Prof. Dr. Mohd Rizaimy Shaharudin - Universiti Teknologi MARA, Malaysia Assistant Prof. Dr. Leticia V. Marquez - Universidad De Manila, Philippines **Breakout Room 2:** Associate Professor Dr. Zainiharyati Mohd Zain - Universiti Teknologi MARA, Malaysia Dr. Ronielle B. Antonio - City College of Angeles, Philippines
9:45	-	12:15	2:30	**Online Presentation Day 2 Session 1 - maximal 10 presenters** **15 minutes/presenter**
12:15	-	12:25	0:10	Awarding Certificate of Presentation, Testimonial, and Post-conference information announcement
12:25	-	13:30	1:05	**Break** (Video played: University Profile, and Program of PKTJ; Research Synergy Foundation Profile; IC-SMS Agenda & Sessions)
13:30	-	13:40	0:10	**Session Chairs Introduction of Online Presentation Day 2 - Session 2:** **Breakout room 1:** Assoc. Prof. Dr. Rafeah Legino - Universiti Teknologi MARA, Malaysia Assoc. Prof. Engr. Christopher C. Mira - Polytechnic University of the Philippines, Philippines **Breakout Room 2:** Associate Professor Dr. Syed Abdul Mutalib Al Junid - Universiti Teknologi MARA, Malaysia Dr. Ronielle B. Antonio - City College of Angeles, Philippines
13:30	-	16:00	2:30	**Online Presentation Day 2 Session 2 - maximal 10 presenters** **15 minutes/presenter**
16:00	-	16:10	0:10	Awarding Certificate of Presentation, Testimonial, and Post-conference information announcement

16:10	-	16:25	0:15	Short Break, score recapitulation Best Presenters, and back to Main Room for IC-SMS Day 2 Closing Ceremony
Main Room				
16:25	-	16:40	0:15	**Awarding Ceremony:** **Best Presentations** **Best Paper** **Session Chair Recognition**
16:40	-	16:45	0:05	**Closing Speech of IC-SMS DAY 2** **Sugianto, A.TD., M.M.** Conference Chair IC-SMS 2022 The 1st Deputy Director of Polytechnic of Road Transportation Safety (PKTJ), Indonesia

List of Presenters (Breakout Room 1 – Session 1)

Wednesday, November 30, 2022		
IC-SMS DAY 2		
Link Zoom for IC-SMS https://bit.ly/IC-SMS2022-DAY2 Meeting ID: 847 0792 0372 Passcode: ic-sms		
Session 1 - Breakout Room 1		
Time: 09:35 - 12:25 (UTC+8)		
Please note that ALL conference TIME is in Bali Time/ WITA/ UTC+8. Please check your time zone.		
Session Chair: Assoc. Prof. Dr. Mohd Rizaimy Shaharudin & Assistant Prof. Dr. Leticia V. Marquez		
Track Transportation Safety		
Paper ID	**Presenter**	**Paper Title**
SMS22105	Putu Dika Irvayana	Analysis of Runways Surface Conditions Using Pavement Condition Index Method (Case Study: I Gusti Ngurah Rai International Airports)
SMS22125	Kean Sheng Tan	Head Injuries in Rollover of Military Armoured Vehicle
SMS22126	Moch Aziz Kurniawan	Characterization of Brake Pads by Variation in Composition of Teak Wood Powder and Rice Husk Ash
SMS22106	Subaryata	The Urgency of the Improved Intensity of Traffic Usage Safety Education by Students
SMS22118	Apid Rustandi	Investigation of Unexpected Crossing-Lane Activity on Curving Road Using Digital Human Modelling Analysis
SMS22138	Yogi Oktopianto	Analysis of The Road Markings Reflectivity Service Life on Highways to Improve Safety
SMS22134	Kornelius Jepriadi	Analysis of Speed Management in Accident Prone Areas (Case Study: Marunda Access Road, Cilincing, North Jakarta)
SMS22133	Arief Novianto	Impact of Adjusting Brake Lining Gap and Brake Drum Temperature on Brake Efficiency of Motor Vehicles
Track Transportation Management		
Paper ID	**Presenter**	**Paper Title**
SMS22137	Reza Yoga Anidita	Traffic Signalizing Application at Unsignalized Intersection Applying Vissim Software Microsimulation
SMS22135	Aat Eska Fahmadi	Traffic Safety Management to Reduce Foreigner Accidents

List of Presenters (Breakout Room 2 – Session 1)

Wednesday, November 30, 2022		
IC-SMS DAY 2		
Link Zoom for IC-SMS https://bit.ly/IC-SMS2022-DAY2 Meeting ID: 847 0792 0372 Passcode: ic-sms		
Session 1 - Breakout Room 2		
Time: 09:35 - 12:25 (UTC+8)		
Please note that ALL conference TIME is in Bali Time/ WITA/ UTC+8. Please check your time zone.		
Session Chair: Associate Professor Dr. Zainiharyati Mohd Zain & Dr. Ronielle B. Antonio		
Track Transportation Safety		
Paper ID	**Presenter**	**Paper Title**
SMS22120	Siti Shofiah	Highway Driving Speed Limiting System with Wi-Fi Module Based on Nodemcu Esp8266
SMS22117	Rukman Tea	Design and Development of Carbon Monoxide Gas Leak Detector in Vehicle Cabin
SMS22116	Bellatrix Anya Aramita	Evaluation of Driver Behavior when Crossing Unsignalized Intersection from Minor Road to Major Road
SMS22115	Rukman	Risk Journey Management on Travel Routes in Indonesia
SMS22114	Anton Budiharjo	Operational Data Analytics of Over Dimensional and Overloaded Truck in Indonesia
Track Education and campaign on Transportation Safety		
Paper ID	**Presenter**	**Paper Title**
SMS22129	Tri Susila HIdayati	Effectiveness of Early Traffic Awareness Socialization Program (Salud) Through Technical Guidance
Track Transportation Safety		
Paper ID	**Presenter**	**Paper Title**
SMS22132	Rizki Hardimansyah	Accident Prone Area Database Analysis in Yogyakarta City
SMS22110	Raka Pratindy	Vehicle Accident Detection Monitoring System with Web Server and Telegram
SMS22109	Destria Rahmita Rahmita	Determining the Priority Element in Safety Management System of Public Transport with Analytic Hierarchy Process (AHP)

List of Presenters (Breakout Room 1 – Session 2)

Wednesday, November 30, 2022		
IC-SMS DAY 2		
Link Zoom for IC-SMS https://bit.ly/IC-SMS2022-DAY2 Meeting ID: 847 0792 0372 Passcode: ic-sms		
Session 2 - Breakout Room 1		
Time: 13:30 - 16:10 (UTC+8)		
Please note that ALL conference TIME is in Bali Time/ WITA/ UTC+8. Please check your time zone.		
Session Chair: Assoc. Prof. Dr. Rafeah Legino & Assoc. Prof. Engr. Christopher C. Mira		
Track Marine transportation		
Paper ID	**Presenter**	**Paper Title**
SMS22124	Herma Juniati	Analysis of the Fulfilment of Sailing Safety Equipment on Traditional Ships
5387	Febriansyah	Evaluation Factors of Boat Accidents in The Musi River Waters, Indonesia
Track Sustainable Transportation		
Paper ID	**Presenter**	**Paper Title**
SMS22131	Ala Zuheir Keblawi	Performance Level of The Public Transportation in The West Bank
SMS22127	Kornelius Jepriadi	A Brief Review: Variable Comparation for Determining the Design of Pedestrian Crossing Facilities
Track Public Transportation		
Paper ID	**Presenter**	**Paper Title**
SMS22128	Siti Maimunah	The Influence of COVID-19 Pandemic on Mode Choice Preference in Jakarta
SMS22119	Dewa Ayu Putri Maha Dewi	The Area Coverage and People Walkability to Public Minivan Stop in Jembrana
Track Multimodal Transportation		
Paper ID	**Presenter**	**Paper Title**
SMS22108	Taha Hatcha	Is the multimodality related to urban mobility changes during the pandemic?
Track Port Management		
Paper ID	**Presenter**	**Paper Title**

SMS22111	Rutma Pujiwat	Evaluation of Feeder Port Benefits Using Analytic Hierarchy Process Method with Quantitative and Qualitative Criteria: Case Study of Sapudi Port - Indonesia

Track Autonomous vehicles

Paper ID	Presenter	Paper Title
5445	Rifano	Design and Construction of CO and HC Gas Detectors in Car Cabin Based on Arduino Through Telegram

List of Presenters (Breakout Room 2 – Session 2)

Wednesday, November 30, 2022		
IC-SMS DAY 2		
Link Zoom for IC-SMS https://bit.ly/IC-SMS2022-DAY2 Meeting ID: 847 0792 0372 Passcode: ic-sms		
Session 2 - Breakout Room 2		
Time: 13:30 - 16:10 (UTC+8)		
Please note that ALL conference TIME is in Bali Time/ WITA/ UTC+8. Please check your time zone.		
Session Chair: Associate Professor Dr. Syed Abdul Mutalib Al Junid & Dr. Ronielle B. Antonio		
Track Transportation engineering		
Paper ID	**Presenter**	**Paper Title**
SMS22107	Ocky Soelistyo Pribadi	Optimization of Firefighting Posts in Tabanan District
SMS22122	Rizal Aprianto	Light Intensity Meter and Rear Position Lamp Height: Addition to Indonesian Road Safety Regulations
SMS22113	Abdul Rokhim	Automatic Speed BUMP (ASeB) to Reduce the Rate of Traffic Accident
SMS22112	Helmi - Wibowo	Robotic Based Bottom Vehicle Inspection in Indonesian
Track Transportation Modelling		
Paper ID	**Presenter**	**Paper Title**
SMS22121	Langgeng Asmoro	Analyzed of Convection Heat Transfer in Cabin Car Equiped with Air Conditioner (AC) Using a Simple Method Assisted by Microsoft Excel
5348	Haris Ilman Fiqih	Modeling Vehicle Emissions Distribution in Tegal City Road
SMS22139	I Made Suraharta	Optimization Modeling of Urban Freight Transportation Network by Using a Metaheuristic Approach, Genetic Local Search Procedure
Track Logistic		
Paper ID	**Presenter**	**Paper Title**
SMS22136	Ocky Soelistyo Pribadi	Analysis of Airport Optimal Location in Papua Province as a Support for Logistics Center Distribution Development
Track Transport Planning and Policy Formulation		
Paper ID	**Presenter**	**Paper Title**
SMS22130	Dwi Phalita Upahita	The Influence of Trip Purpose on the Mode Choice Between High Speed Train and Airplane: Leisure Vs Non-Leisure Trip

Track: Transportation Safety

Book of Abstract
Conference Proceeding
IC-SMS
Hybrid Conference,
29-30 November 2022
https://ic-sms.com
International Conference on Sustainable Mobility and Safety

Analysis of Runways Surface Conditions Using Pavement Condition Index Method (Case Study: I Gusti Ngurah Rai International Airports)

| Putu Dika Irvayana[1], Yackob Astor[2], Atmy Verani Rouly Sihombing[3], Asep Sundara[4]

[1,2,3,4]Politeknik Negeri Bandung

Abstract

The growth of aircraft and passenger movements every year requires the runway pavement structure to go above and beyond to accept dynamic loads caused by each type of operating aircraft. As a result of the significant growth value, it often causes the runway pavement structure to fail prematurely. Early failure of the runway pavement structure can be detected through the distress that occurs on the asphalt surface of the runway flexible pavement. In this study, an analysis was carried out on the surface runway at I Gusti Ngurah Rai International Airport to determine the value of the runway pavement condition due to the soaring movement of aircraft and passengers at I Gusti Ngurah Rai International Airport after the loosening of government regulations on the Covid-19 pandemic situation in Indonesia. To obtain the value of the runway pavement conditions at I Gusti Ngurah Rai International Airport, it was analyzed using the Pavement Condition Index (PCI) method by conducting a visual inspection of the runway at I Gusti Ngurah Rai International Airport which is divided into 30 segments with an area of each segment is about 4500 m2. The results of the analysis using the Pavement Condition Index (PCI) method are obtained that the runway at I Gusti Ngurah Rai International Airport has an average PCI value of 86.83 which is included in the very good category, the runway at I Gusti Ngurah Rai International Airport is considered to have disintegration and loss of skid resistance, with the most dominant types of damage in the form of patching, jet blast erosion and bleeding

Keywords : Runway, Pavement Condition Index, Flexible Pavement, I Gusti Ngurah Rai International Airport

Head Injuries in Rollover of Military Armoured Vehicle

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[1]National Defence University of Malaysia, [2]Malaysian Institute of Road Safety Research

Abstract

Rollover crashes in vehicles are disproportionately more dangerous and posed a relatively higher risk of severe injuries and fatality rates compared to other configurations such as frontal and side crashes. To date, there is no study being conducted on injury outcomes of rollover accidents involving military armoured vehicles. This study was conducted to examine the driver's response in rollover of SIBMAS 6X6 and with the aim to evaluate severity of head injury in the incident using finite element simulation. Hybrid III 50th percentile male dummy was incorporated to represent a driver and was thus configured to simulate a typical seated driving posture. Rollover intensity, in terms of initial kinetic energy, which capable of producing two quarter-turns of rolling with vehicle roof landing was imposed via initial angular velocity that applied to the whole vehicle. The dummy's head was observed to make three significant impacts with hull interior structures from the initiation of rollover and until the roof landed on the ground. Head injury severity was evaluated based on resultant acceleration of head centre of gravity and 15 ms duration Head Injury Criteria (HIC15). The maximum values of these two criteria were 531g and 9098g, respectively. Evaluation of these severity values with respect to the associated injury risks and fatality rates as classified in Abbreviated Injury Scale (AIS) clearly indicated that the head injuries sustained by the driver were mostly fatal.

Keywords : rollover crashes, rollover injuries, rollover simulations, armoured vehicles, SIBMAS 6X6

Characterization of Brake Pads by Variation in Composition of Teak Wood Powder and Rice Husk Ash

| Moch Aziz Kurniawan[1]

[1]PKTJ Tegal

Abstract

Motorcycle in Indonesia increase. So, part of motorcycle increases specially for brake pads. Asbestos brake pads are prohibited because they have the potential to cause lung cancer. Therefore, alternative brake pads materials are needed that are more environmentally friendly. Teak wood powder and rice husk ash are underutilized waste so that they can be used as alternative materials for making brake pads. This research to determine characteristics of the mechanical properties of composite materials made from rice husk ash and teak wood powder. The research method used is experimental. The manufacture of brake pads includes mixing materials, pressing, and heating processes. Brake pads are subjected to hardness testing, heat resistance testing, density testing, wear testing and braking distance testing. The results of this study get the highest hardness test value of 5.821 HV, the highest density of 1.32 gr/cm3, the results of the braking distance test are 4.12 m with a retarding value of 3.67 m/s2 and the wear test results are 2.22 X 10 -6 mm2/kg. Special heat resistance test that meets the SAE J7661 standard with a heat resistance of 3600C for 1 hour.

Keywords : Brake pads, teak wood powder, rice husk ash, Motorcycle

The Urgency of the Improved Intensity of Traffic Usage Safety Education by Students

| Subaryata[1], Mutharuddin[2], Novi Irawati[3], Sinung Nugroho[4], Ludfi Pratiwi Bowo[5], Apid Rustandi[6], Tetty Sulastry Mardiana[7], Hastiya Annisa Fitri[8], Siti Hidayanti Mutiara Kurnia[9], Feronika Sekar Puriningsih[10], Nurul Aldha Mauliddina Siregar[11], Ahmad Muhtadi[12]

[1,2,3,4,5,6,7,8,9,10,11,12]BRIN

Abstract

Motorcycle is the most owned transportation mode by most Indonesian citizens due to its affordable price and size which makes them suitable for road shapes in Indonesian residential area. In recent times, student motorcyclists have increased in number, although the use of motorcycles by people who are younger than 17 years old violates Law of Traffic Usage and Road Transportation and might be penalized. Motorcycles are the type of vehicle that has accident-prone characteristics. Many student motorcyclists have been in traffic accidents resulting injuries, physical disabilities even deaths. Traffic usage safety has been conducted in various types of media, written or electronic. It has been done in school counselling as well. Most students have not taken the session regularly. The material and methods of education/socialization delivery of traffic have been rated well. The primary data is obtained by sharing questionnaires using google form by junior and senior high school students in Bekasi Regency. The data analysis uses Crosstab and Chi-Square tests. Based on the analysis result, there is a connection between gender, age, school level, traveling time, and traffic usage education intensity with traffic accidents that have been experienced. The more intense taking education/socialization on traffic safety, the more decreased percentage of the accident will be. Theoretically, student motorcyclists' understanding of traffic safety is rated well, although the application consistency has not been seen yet. Therefore, there has to be an improvement of the education/ socialization intensity of traffic that enables every student to receive the educational material.

Keywords : Student Motorcyclist, Traffic Usage Safety, Traffic Usage Education Intensity

Investigation of Unexpected Crossing-Lane Activity on Curving Road Using Digital Human Modelling Analysis

| Apid Rustandi[1,] Sinung Nugroho[2]

[1,2]Badan Riset Dan Inovasi Nastional

Abstract

This study investigates the truck driving posture, vision safety, and perception time safety for truck drivers adjusting their velocity at the curving road due to crossing lane activity. The investigation method starts defining the road contour of the target using Geospatial Information System software (QBase). After the road elevation projection was made, the line was drawn to the surface in CAD software. After that, Digital Human Modelling (DHM) was created on the Japanese population with Indonesian anthropometry properties of 50%ile. The environment scenario was assembled based on 3D model road surface and 3D vehicle models and DHM in series. The objective scenario used vision analysis and driver perception response analysis. The result shows that even if the truck and SUV blockage has not appeared, the truck driver will not see the motorcycle on the corner. After that, pillar-A also contributes to the blockage of the truck driver's vision. Since it contributes to construction safety, the trade-off cannot be negotiated. A speed trap shall be applied before the curving zone to increase safety. The speed trap could instantly reduce the truck and other vehicles' speed in both lanes.

Keywords : curving road accident, truck driving posture, truck driver visual impairment

Analysis of The Road Markings Reflectivity Service Life on Highways to Improve Safety

| Yogi Oktopianto[1], Rukman[2]

[1,2]Politeknik Keselamatan Transportasi Jalan

Abstract

Road markings can function for two years after installation. The maintenance and replacement program for highway markings aims to meet the established performance standards. Good visibility of the markings will help reduce the chances of traffic accidents. The problems that occur are found faded road markings along the segment during the service period. The research was conducted to investigate the change in reflectivity over time and to find a pattern of decreasing reflectivity in the service life during the design life. The research was conducted experimentally by making test objects. The reflectivity test at the existing location using a reflectometer is carried out periodically every 2 months. The results showed a pattern of decreasing the reflectivity of road markings during the 2-month service period by 2%, 4 months 3%, 6 months 6%, 8 months 16% and the pattern of declining marker reflectivity stops between 10 and 12 months. The maximum decrease occurred at the service period of 8 months by 16%. The age of markings on highway cannot last for a service period of 2 years under actual conditions in the field. At the end of year 1 the average value was 242 mcd/m2/lux, this value is below the minimum required reflectivity of 250 mcd/m2/lux.

Keywords : Road Markings, Thermoplastic, Reflective, Degradation

Analysis of Speed Management in Accident Prone Areas (Case Study: Marunda Access Road, Cilincing, North Jakarta)

| Kornelius Jepriadi[1], Farih Amril Haq[2,] Brasie Pradana Sela B.R.A[3], Pipit Rusmandani[4]

[1,2,3,4]Politeknik Keselamatan Transportasi Jalan

Abstract

Marunda Access Road is a national road with primary arterial function and road conditions are unsafe and dangerous for road users due to damaged and potholes. The purpose of this study is to analyze the level of traffic accidents, vehicle speed before and after the simulation of the installation of speed management devices, and provide recommendations for the best speed management devices on the Marunda Access Road section. This study uses a simulation method of installing speed management devices to compare vehicle speeds before and after simulating the installation of speed management devices. As well as conducting a field survey to calculate vehicle speed when implementing a speed management device simulation. Analysis of vehicle speed data used the 85th percentile method. The results of the 85th percentile analysis were compared with the percentage of speed reduction. Comparison test using Independent Sample T – Test with JASP Software. The results of the comparison test show that the best recommendation for speed management on the Marunda Access Road section, which is using signs and rumble strip, has a greater percentage of speed reduction, namely 25-45% and p value <0.05, which means there is a significant difference in speed between vehicle speeds. existing by simulating signs and rumble strip.

Keywords : Speed Management, 85th Percentile, Independent Sample T – Test

Impact of Adjusting Brake Lining Gap and Brake Drum Temperature on Brake Efficiency of Motor Vehicles

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Abstract

In motor vehicle systems, brakes are one of the important components that have a major role in reducing the risk of accidents on the highway. In the brake system, especially drum brakes, improper component adjustment can cause the brakes to not work optimally. This research was conducted to determine the impact of large variations in the brake lining gap and brake drum temperature on brake efficiency in motorized vehicles, This study uses an experimental method with variations in the adjustment of the size of the brake lining gap and the temperature of the drum brake. The main brake efficiency was tested using a brake tester from these several variations. The variations of the brake lining gap used are 0.3 mm, 1 mm, and 1.7 mm. Meanwhile, the brake drum temperature is set at 30, 90, and 150 degrees Celsius. The result of this research is that the wider the brake lining gap, the smaller the brake efficiency. The greater the temperature on the drum brake also affects the smaller the efficiency of the brake. Meanwhile, the variable brake lining gap and temperature simultaneously (together) affect the level of brake efficiency. The larger gap between the lining and the temperature of the drum brake, the lower the efficiency of the brake obtained.

Keywords : adjustment, brake lining gap, temperature, brake efficiency

Highway Driving Speed Limiting System With Wi-Fi Module Based on Nodemcu Esp8266

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[1,2,3]Politeknik Keselamatan Transportasi Jalan

Abstract

High speed while driving is a factor that causes increased fatalities when traffic accidents occur, accidents due to exceeding the speed limit often occur on freeways or toll roads and often cause fatalities. In order to prevent speed limit violations and reduce fatality rates in the event of an accident, in this research, a device that can limit the speed when driving on the toll road is made by relying on Wi-Fi and the NodeMCU ESP8266 microcontroller. The research method used is the Research and Development (RnD) method. The product trial determines the success rate of the designed tool, this study carried out 3 stages of testing, namely, initial trial, first implementation test and second implementation test, for implementation test carried out using dyno test as a simulation of driving speed on toll roads and using 2 variables laying. The results of this study, the speed limiter can be implemented on the vehicle and can function to limit the speed of ± 90 km / h when placed on the APP sensor. The tool can read the sensor voltage signal and send a voltage signal to the ECU according to the programming concept that has been designed.

Keywords : speed limiting, NodeMCU ESP8266, Wi-Fi, Research and Development, Dyno Test

Evaluation of Driver Behavior when Crossing Unsignalized Intersection from Minor Road to Major Road

| Bellatrix Anya Aramita[1], Siti Maimunah[2], Edi Purwanto[3], Frans Tohom[4]

[1,4]Politeknik Keselamatan Transportasi Jalan, [2]Pusat Pengembangan Sumber Daya Manusia Perhubungan, [3]Politeknik Transportasi Darat Indonesia

Abstract

The driver who immediately commits a violation when passing through an unsignalized intersection is an example of aggressive driving behavior. Aggressive driving behavior may endanger other road users. Numerous studies have demonstrated that lowering aggressive driving behavior should lower the number of fatal and serious traffic accidents. Therefore, it is crucial to concentrate on the significance of driver behavior, especially at unsignalized intersections. The purpose of this study was to investigate drivers' understanding of appropriate behavior when crossing an unsignalized intersection from a minor road to a major road, to investigate the reasons for driver violations at such intersections, and to determine the relationship between cognitive and affective factors and drivers' behavior at such intersections. In this study, observation, questionnaires, and interviews were the primary data-gathering methods. While the findings of the interviews were processed using Milles Huberman's theory, the questionnaire data were examined using multiple linear regression. The study's findings suggest that most drivers understand what is appropriate behavior while maneuvering from a minor to a major road, however observational data reveals that 46.38% of drivers do not act on their understanding. Additionally, the driver's actions, such as feeling safe and being too indolent to stop the car, contributed to the infraction. The analysis's results also show that cognitive and affective elements have a favorable influence on drivers' decisions at unsignalized intersections.

Keywords : driver behavior, unsignalized intersection, crossing, minor road, major road

Risk Journey Management on Travel Routes in Indonesia

| Rukman[1], Yogi Oktapianto[2], Iqbal Maulana[3], Anton Budiharjo[4], Sutarjo[5]

[1,2,3,4,5]Politeknik Keselamatan Transportasi Jalan

Abstract

Abstract In the last three years (2018 – 2020), on the tourist route of the Subang - Lembang road section, West Java, there have been 193 traffic accidents that caused the death toll of 28 people. The geographical condition of the Subang - Lembang road section is mountainous and gorge so that there are many climbs, descents and bends. The purpose of this study is 1) to find out accident-prone points (blackspots), 2) to know the safety defescence of road infrastructure and road equipment, 3) to know the characteristics of vehicles involved in traffic accidents. This study used the method of several parameters of the number (rate) of accidents with data representing the condition, potential, characteristics of accidents, road geometrics and harmonization of road equipment. The results showed that there were three (3) points prone to traffic accidents (blackspots), namely on the Tangkuban Perahu - Cicenang, Ciater and Cijambe - Gunungtua road segments. The highest infrastructure safety deficiency in the Ciater and Tangkuban Perahu – Cicenang segments (climbs and derivatives of emen) gradient conditions exceed the technical standard of 70%-100% with a gradient measurement result of 15.48% with a risk value of 500 and a Very Dangerous Risk (SB) category. Bend radius aspect with a measuring result of 19.45% with a risk value of 180 risk categories Quite Dangerous (CB). Meanwhile, other aspects are curve visibility, lane width and shoulder of the road, warning and prohibition signs and inadequate guardrails or road user safety fences so that they have the potential for traffic accidents at these road points with a risk value of 320 and are in the Hazard category (B). Vehicles involved in traffic accidents are heavy and common types of vehicles.

Keywords : Safety, Blackspot , Road and Road Equipment

Operational Data Analytics of Over Dimensional and Overloaded Truck in Indonesia

| Anton Budiharjo[1]

[1]Politeknik Keselamatan Transportasi Jalan

Abstract

Over Dimension and Over Load (ODOL) vehicles are one of the factors that cause road conditions to be easily damaged and potholes, and can cause the risk of traffic accidents. ODOL vehicles are considered very detrimental to road infrastructure and increase the risk of accidents, as well as inefficiency due to damaged road conditions and increase air pollution due to excess exhaust gases. Road damage due to ODOL also triggered an increase in the budget for the maintenance of national roads, toll roads, and provincial roads with an average of Rp 43.45 T per year. Based on data from the National Police Corps from the Integrated Road Safety Management System (IRSMS) regarding accidents in 2018, ODOL trucks are one of the biggest contributors to traffic accidents. The purpose of this study is to determine the causes of vehicle overload and overdimension. The method used is to use the triangulation method. Triangulation of techniques means that researchers use different data collection techniques to obtain data from the same source. The results showed that there was a relationship between vehicle modification and ODOL violations which were proven using Chi-square analysis. The chi-square value is 55,259 with a p-value of 0.000 at a significance level of 1 % (P-value < α=1. This shows that there is a significant relationship between vehicle modification and overdimension and overload (ODOL) vehicle violations.

Keywords : Infrastructure damage, traffic accidents, ODOL, Road Safety

Accident Prone Area Database Analysis in Yogyakarta City

| Rizki Hardimansyah[1], Hanendyo Putro[2]

[1,2]Politeknik Keselamatan Transportasi Jalan

Abstract

The need for transportation in Indonesia is increasing day by day. This is due to the high population growth, the rapid number of motorized vehicle ownership, as well as the construction of new settlements which resulted in the need for transportation facilities to always increase. Transportation problems occur as traffic density increases, one of which is traffic accidents. As a first step in reducing the number of accidents, it is necessary to identify accident-prone areas. it is needed to compile a GIS-based traffic accident database that is informative. In this research, two methods of analysis are generally carried out, including analysis of traffic accident-prone areas and analysis in compiling a database based on geographic information systems. In this study, results were obtained regarding the characteristics of traffic accidents in the city of Yogyakarta which included the number of victims of traffic accidents during the period 2016 - 2020 as many as 3,530 people, with the type of vehicle involved in the most accidents being motorcycles, namely 3,671 vehicles. The type of front-rear collision is the most common type of accident and the age most often involved in accidents is in the age range of 20-29 years. Then based on the results of the analysis using 3 methods of determining DRK, including the equivalent accident number (EAN) method, the frequency method, and the z-score method, obtained 5 roads that are categorized as accident-prone areas, namely Jenderal Sudirman, Brigjend Katamso, HOS Cokroaminoto, Kusumanegara and Magelang.

Keywords : traffic accident, database, geographic information system

Design and Development of Carbon Monoxide Gas Leak Detector in Vehicle Cabin

| M. Kukuh Amrullah[1], Rukman Tea[2], M. Iman Nur Hakim[3], Langgeng Asmoro[4], Faris Humami[5]

[1,2,3,4,5]Polytechnic of Road Transportation Safety

Abstract

Vehicles are very important in transportation that is widely used by humans in carrying out their activities, including one of them is a passenger car. Safety and security factors in traveling are the most important aspects of traveling. The condition that often occurs in passenger cars is the frequent leakage of carbon monoxide gas in the vehicle cabin. Usually CO gas leaks occur in the AC hose. So, this research aims to design an Arduino-based carbon monoxide gas leak detector. This research is a research with research and development approach method or Research and Development (R&D). This research make which aims to produce a carbon monoxide detector design to detect carbon monoxide gas leaks in the vehicle cabin automatically based on Arduino Uno. The design performance of this CO gas leak detector can be obtained from the CO gas content of the MQ7 sensor, then the buzzer will make a sound, while the LCD display will display the status "Safe/Alert/Very Dangerous" as a warning to passenger car drivers. DC motor will move the power window if the CO gas content exceeds the threshold more than 25 ppm.

Keywords : Carbon monoxide gas leak, Research and Development, Arduino Uno, MQ7 Sensor

Track: Marine Transportation

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Analysis of the Fulfilment of Sailing Safety Equipment on Traditional Ships

| Feronika Sekar Puriningsih[1], Nurul Aldha Mauliddina Siregar[2]

[1,2]National Research and Innovation Agency

Abstract

The motorboat on Lake Towuti is the main transportation for the people in the village Tokalimbo, Bantilang, Lengkobale, Loeha to Timampu Harbour as the centre of destination main. The purpose of this study is to analyse the fulfilment of safety equipment and to find out the user community's perception of the current safety condition and which is expected. Based on the Importance Performance Analysis, it was found that four out of ten indicators are in Quadrant IV, which means that these aspects/attributes are very need to get attention to improve its performance, namely the existence of a life jacket, firefighters, life rafts, and information on the whereabouts of equipment facilities safety. Of the four indicators, the existence of a life jacket is essential and mandatory for every sailor to wear a life jacket to minimize the risk of death from sink.

Keywords : Towuti, South Sulawesi, traditional ships, shipping safety, life jacket

Track: Transportation Management

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Traffic Signalizing Application at Unsignalized Intersection Applying Vissim Software Microsimulation

| Reza Yoga Anidita[1], Yogi Oktopianto[2]

[1,2]Politeknik Keselamatan Transportasi Jalan

Abstract

Intersection is a meeting point of several road sections that have potential traffic conflict. Each of which may become the intersection of opposite traffic flows. Therefore, it is critical to have the best traffic control to avoid potential collision among vehicles. Simpang Jembatan 5 Kalimalang is unsignalized-intersection with four legs—one of which is a bridge. The absence of traffic control in the intersection may lead to many traffic conflicts. This present study aims to find out the best traffic control to increase safety in Simpang Jembatan 5 Kalimalang. It was a case study with micro simulation method of analysis. The data were analyzed using VISSIM and SSAM. VISSIM was used to analyze the performance of existing condition of intersection in Simpang Jembatan 5 as well as to analyze counter condition for recommendation. Meanwhile, SSAM was employed to analyze traffic conflict in the intersection. The result of the study revealed that the alternative counter condition of intersection in term of replenishment of two-phased-APPIL with 106 second of cycle time was effective to reduce 24% of traffic conflict; in addition, the delay value was 12.4 indicating that the intersection service level was down to B level. The reduction of traffic conflict and intersection service implied that the safety level in Simpang Jembatan 5 Kalimalang increased.

Keywords : Intersection, Conflict, Vissim, SSAM, and APILL

Traffic Safety Management to Reduce Foreigner Accidents

| Aat Eska Fahmadi[1]

[1]PKTJ Kemenhub

Abstract

The high number of accidents involving foreigner in Bali needs to be the concern of the relevant parties. The individual factor of the driver is suspected to be one of the causes of the accident. For this reason, this study aims to obtain a description of the characteristics of traffic accidents involving foreigner and to find out appropriate safety management in order to reduce traffic accidents involving foreigner. This study uses a quantitative descriptive approach. The sampling method used in this research is simple random sampling with 90 respondents. Data collection methods used were questionnaires and in- depth interviews. The results show that the characteristics of traffic accidents involving foreign nationals are generally caused by drunken conditions, driving more than the speed limit, infrastructure , violating red lights and driving a motorized vehicle when it rains so that the road conditions are slippery. The three approaches to traffic accident management involving foreign nationals are seen from the percentage respondents who answered that the highest were traffic engineering (42%), education and training (30%), and law enforcement (28%).

Keywords : Traffic Accident, Foreigner, Characteristics, Management

Track: Transportation Modelling

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Optimization Modeling of Urban Freight Transportation Network by Using a Metaheuristic Approach, Genetic Local Search Procedure

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[1,2]Polytechnic of Land Transport Safety, Indonesia, [3,4]Institute Technology of Bandung, Indonesia

Abstract

Creating a transportation network that reduces the cost of urban freight is highly challenging. Therefore, selecting a group of routes as the journey of the commodities is a realistic alternative to minimizing costs. The problem of route selection is one of combinatorial optimization. The challenge is to narrow down the pool of action options to a set of recommended actions. Due to vehicle characteristics and traffic flow, route selection takes careful consideration of vehicle behavior. A two-level mathematical model that was created by formulating route options served as the framework for the research. Using a genetic algorithm, the combination of chosen routes is maximized.. The model is examined via its application to a fictitious network. As a result, a model with a genetic local search technique that can search more effectively in the city's freight network's ideal path is created.

Keywords : Route choice, urban freight transport network, multiuser class, bi-level programming, genetic local search

Analyzed of Convection Heat Transfer in Cabin Car Equiped with Air Conditioner (AC) Using a Simple Method Assisted by Microsoft Excel

| Langgeng Asmoro[1], Faris Humami[2], M Iman Nur Hakim[3]

[1,2,3]Politeknik Keselamatan Transportasi Jalan

Abstract

Visualization of heat flow often uses complex and difficult programs such as matlab, fluent ansys with expensive licenses, besides that the operation is also difficult. This study aims to demonstrate the phenomenon of convection heat transfer in a simple way. The phenomenon of convection is a fairly difficult and heat transfer process can cause misconceptions in students. An appropriate and easy-to-use method is needed in preparing for classroom learning. This study was conducted to review the air condition in the car cabin which is influenced by airflow from the air conditioner and visualize it. This visualization can be used to explain the phenomenon of heat transfer by convection to students, especially during the process of cooling the air conditioner in the car. This research was conducted using a car model with three rows of seats where the air conditioner is only on the front cabin dashboard. On the dashboard, the AC flows are located on the left, right and center. The calculation is carried out by applying the Black Principle where the particle temperature is influenced by other particles around it. Microsoft excel is used to perform mathematical operations and visualize the results to graphs. It is successfully deliver 2D image shows the distribution of heat in the car cabin space. Visualization of this convection phenomenon can be used as a medium to provide an overview of the convection flow phenomenon. So, this method is very easy to operate and apply by teachers in preparing lessons on the phenomenon of temperature convection.

Keywords : Convection, heat,car, cabin, excel

Modeling Vehicle Emissions Distribution in Tegal City Road

| Yan El Rizal Unzilatirrizqi[1], I Bambang Istiyanto[2], Haris Ilman Fiqih[3], Riska Arsita Harnawati[4]

[1]Muhadi Setiabudi University, [2]Polytechnic of Road Transport Safety, [3]Mercu Buana University, [4]Polytechnic of Harapan Bersama

Abstract

The problem of CO2 emissions in several cities in Indonesia is getting higher and requires more focused handling. The city of Tegal, one of the cities in Indonesia that is located on the Pantura route, certainly has a significant impact on the distribution of CO2 emissions. This research was conducted by modeling and mapping the amount of emissions on several roads in Tegal City based on the results of transportation activities. Arc-GIS is used for analysis and modeling, with an approach to calculating emissions based on the number of vehicles, emission factors, and fuel consumption. The results showed that gasoline-fueled cars and other motorized vehicles based on the mapping model became the CO2 suppliers on every road section. The highest emission distribution was observed on the Tegal City pantura road, which is used as a national transportation route. Keywords: CO2 Emissions, Fuel, Vehicles, Tegal City

Keywords : CO2 Emissions, Fuel, Vehicles, Tegal City

Track: Sustainable Transportation

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Performance Level of The Public Transportation in The West Bank

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Abstract

Developed countries pay great attention to Public transport (PT), their development and evaluation as it is one of the bases of success for that nation. In the West Bank (WB), the PT is generally neglected and worn out. There is no periodic study about the quality of the services provided and the passengers' satisfaction and their needs. Despite of the relatively large number of daily passengers, only 19% of them use buses because of their lack of confidence in the service. This study aims to investigate passengers' satisfaction in the PT to identify strengths and weaknesses and evaluating their Level of Service (LOS), which consists of reliability and performance. Required data were collected through field surveys in the WB governorates, from the relevant official authorities or previous studies, interviews with service providers, and a questionnaire to measure the satisfaction of passengers for all intercity bus lines (22 lines). Generally, the PT system in Palestine is inefficient and non-productive. There is an imbalance between demand and supply, imbalance between number of buses and shared taxis, poor infrastructure, low LOS, non-efficient management, and number of ridership is low; therefore, the productivity is low. Passenger trust in buses should be revamped by modernizing the fleet, adopting a regular schedule, providing a smart service system, and providing services at all times where demand is available. It is also essential to carry out periodic studies for this sector and collect statistical information.

Keywords : Public transportation, Performance level, Productivity level, Efficiency, West Bank

A Brief Review: Variable Comparation for Determining the Design of Pedestrian Crossing Facilities

| Pipit Rusmandani[1] Kornelius Jepriadi[2]

[1,2]Politeknik Keselamatan Transportasi Jalan

Abstract

Pedestrian facilities are an important role in encouraging walking ability, which can help improve the quality of life of our citizens and livability in urban areas. Pedestrian safety needs to be an important concern because pedestrians are vulnerable road users in traffic spaces. Variables in determining pedestrian crossing facilities have been determined in each country, but whether it can accommodate pedestrian safety needs. This study aims to inventory the variables used to determine pedestrian crossing facilities. The results obtained are that in addition to pedestrian traffic and vehicular traffic, it is necessary to consider the type of road, pedestrian speed and speed of passing vehicles in determining recommendations for crossing facilities and in future research it is necessary to include them in the equation to determine these recommendations.

Keywords : Pedestrian Facilities, Pedestrian Safety, Road Type, Pedestrian Speed, Vehicle Speed

Track: Transportation Engineering

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Optimization of Firefighting Posts in Tabanan District

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[1]Politeknik Perkeretaapian Indonesia, [2]Politeknik Keselamatan Transportasi Jalan, Indonesia

Abstract

Tabanan is one of the districts in Bali which has ten sub-districts. The size of site in Tabanan will affect the handling of fire incidents in each area in Tabanan district. This handling relates to the response time of fire brigade, who must be able to arrive at the location after 15 minutes from received fire report. Travel time from existing fire station to other remote districts will take more than 15 minutes. This is considered to result in delays in handling fire disasters—the impact of adding new fire fighting posts in other sub-districts outside Tabanan District. However, setting up a fire station in every sub-district in Tabanan district will impact the number of costs that need to be incurred for constructing fire station. Therefore, to overcome these problems, a location optimization method is required to provide aspects of effectiveness of planning the establishment of a new fire station. The set covering problem can overcome this problem, providing the optimal number of fire stations by considering the distance travelled. This method will give results in the form of the optimal number of fire stations so can cover all areas with a response time of 15 minutes. This study uses two-speed data obtained from interviews with Tabanan districts Fire Department and speed data obtained from google maps. This study also uses the support of the QGIS application to determine the distance between sub-districts and uses the centroid point as the midpoint utilized to draw the line between the sub-districts.

Keywords : Fire station, optimization, set covering problem, excel solver, QGIS

Light Intensity Meter and Rear Position Lamp Height: Addition to Indonesian Road Safety Regulations

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[1,2]Politeknik Keselamatan Transportasi Jalan, [3]UPUBKB Kabupaten Bogor

Abstract

Forty-six percent of traffic accidents in Indonesia occur on the toll road and 86 percent of road accidents are due to human error. The number of accidents on the toll road involving heavy vehicles is 33 percent, with the cause of the accident being hit by a vehicle from behind. This incident was caused by the driver's loss of visual perception of the presence of the vehicle in front of him, namely the driver was unable to estimate its existence with the distance of the vehicle in front, one of the reasons was that the driver did not clearly see the light emitted by the vehicle in front of him. Vehicle inspection to the vehicle class must be tested, necessary to do, which is to find out whether the vehicle is suitable for operation or not. Indonesia hasn't set rules that limit the light intensity and height of rear-light vehicles. From these problems, research was conducted on the design of measuring devices for measuring light intensity and height of the rear light for road safety regulations in Indonesia. The R&D method is used in this study, this research is a development of previous research in the form of designing a measuring device. Based on the results of the design, manufacture, and testing, this device can function according to the program design. The device design has been tested and validated, hope that it can be in govt policy and be applied to Vehicle Inspection Stations (UPUBKB) throughout Indonesia.

Keywords : light intensity, the height of rear-light vehicles, vehicle inspection stations/UPUBKB

Automatic Speed BUMP (ASeB) to Reduce The Rate of Traffic Accident

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Abstract

The number of traffic accidents on the road are being a complicated problem that has never been separated from the government's attention since, the national development began to be implemented, especially in the transportation sector. From the three categories of road, sea, air, and rail traffic, road traffic does have the greatest risk of accident rates compared to others. By this case, it needs for the development system including the manufacture of designing Automatic Speed Bump known as ASeB prototype that can detect the speed of the vehicles which passed beyond to the maximum speed limits. Road users are expected to provide a psychological effect for the road users to reduce their vehicles' speed. This tool can detect vehicle speeds by using ultrasonic sensors and directly give an announcement or warning in the form of sound, and running text so, subsequently it runs the automatic speed bump as the vehicles' speed reducer. By using this system, it is expected that the road user can reduce the speed of their vehicles when passing on the road so, that it significantly reduces the number of traffic accidents.

Keywords : ASeB, speed, arduino, safety, traffic accident

Vehicle Accident Detection Monitoring System with Web Server and Telegram

| Raka Pratindy[1]

[1]Politeknik Keselamatan Transportasi Jalan

Abstract

Every year the number of vehicles in Indonesia is increasing in number, this is also directly proportional to the accidents that occur. With the increasing number of victims of vehicle accidents, serious handling is needed. The average number of accident victims who die in Indonesia is 3 people every hour due to road accidents. Therefore, serious and fast post-accident handling is needed to reduce the number of fatalities due to accidents. The purpose of the tool is to maximize post-accident handling, so research is carried out in making an internet-based vehicle accident information tool. The tool that is made is able to detect the location of the accident to speed up post-accident handling using the internet with the latest location information sent and photos of the driver's last condition after the accident. The research method used in this research is Research and Development (R&D) in designing internet-based vehicle accident information tools. As a communication medium for sending data, telegram social media applications, and web servers are used as vehicle monitoring simulations. The accident information system is designed to use a vibration sensor as a trigger and an accelerometer sensor to detect the degree of vehicle tilt. Tests were carried out on tools made and applied directly to vehicles by changing the slope of the vehicle as an accident simulation. The information tool created can send the location and photos of the driver's current condition after the accident simulation is detected both to telegram and to the web server.

Keywords : accident, telegram, internet of things, web server, crash location

Robotic Based Bottom Vehicle Inspection in Indonesian

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[1,2]Politeknik Keselamatan Transportasi Jalan

Abstract

1. In the field of Motor Vehicle Testing, Bottom Vehicle Inspection is still done manually, by means of the inspector entering the test box to see the Bottom Vehicle, to ensure that the Bottom Vehicle is in good condition. Weaknesses of Manual Bottom Vehicle Inspection, making vehicle owners unable to directly see the condition of the Bottom Vehicle, if there is a problem at the bottom of the vehicle, the vehicle inspector instructs the vehicle owner to go down under the test so that it takes up a lot of time and there is a long queue. However, with current technological developments, it is possible for vehicle owners and vehicle inspectors to directly see the condition under the vehicle so as to create transparent public services by means of a robotic-based bottom vehicle. The purpose of this research is to create a transparent public service between the vehicle inspector and the vehicle owner. This research method makes design and build Robot bottom vehicle controlled by Arduino Nano and Raspbery, Arduino Nano is equipped with a stick used to control the movement of the robot's wheel and robot arm, Raspbery is equipped with a camera to display the condition of the bottom vehicle components, communication between systems using local area networks. The results showed that the bottom vehicle can be seen directly and clearly so that if there is damage to the bottom vehicle component, the vehicle owner can know firsthand the condition of the bottom of the vehicle.

Keywords : Vehichle Inspector, Bottom Vehicle Inspection , Robotic

Track: Autonomous Vehicles

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Design and Construction of CO and HC Gas Detectors in Car Cabin Based on Arduino Through Telegram

| Rifano[1]

[1]Politeknik Keselamatan Transportasi Jalan

Abstract

Motorized vehicle is any vehicle that is driven by mechanical equipment in the form of a machine other than a vehicle that runs on rails. In recent years, there have been several cases of leakage of the exhaust air in the car cabin to contain toxic gases that could cause death for the passengers in the car cabin. Carbon monoxide (CO) adn Hydrocarbons (HC) gases can also occur when the exhaust system is not function properly. The purpose of this research is to be able to design CO and HC gas detectors in arduino-based car cabins via telegram and determine the placement of CO and HC detectors on arduino based car cabins via telegram. The design and manufacture of the tool is carried out in 2 stages, namely the design and manufacture of software, and the design and manufacture of hardware. The performance of this CO and HC gas detector design can be obtained from the CO and HC gas level from the MQ7 and MQ2 sensors, then it will send information via telegram, if the CO gas level is high and the HC gas status is dangerous, the buzzer will sound, and the DC motor rotates as drop simulation of power windows

Keywords : CO and HC gas leaked, MQ7 Sensor, MQ2 sensor, Arduino

Track: Logistic

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Analysis of Airport Optimal Location in Papua Province as a Support for Logistics Center Distribution Development

| Ocky Soelistyo Pribadi[1], I Made Suartika[2], Bambang Istiyanto[3], Kornelius Jepriadi[4]

[1]Politeknik Perkeretaapian Indonesia, [2,3,4]Politeknik Keselamatan Transportasi Jalan, Indonesia

Abstract

Papua is the largest province in Indonesia. It covers an area of 316,552.6 km2. Papua Province consists of 28 regencies and 1 city, with a population of 4.03 million in 2020. the main mode of transportation as a link between regions in this province is air transportation, in addition to the development of sea transportation through the Sea Toll program and land transportation with the construction of the Trans Papua Road. This study takes the point of view of the transportation network, especially for the air transportation as the mode of choice backbone of the logistics distribution in the Papua area. Considering these conditions, this study considers that the airport is a logistics node, so it is necessary to make an inventory of the number of airports in Papua Province. The method of this study is the shortest path which is includes in a network model for determining the shortest and various route, it analyzes the answer to questions such as which one will be the shortest, fastest or cheapest route to go to a location and determining of locations for logistics facilities, such as distribution centers and warehouses. The results of this study are object of this research is the airport listed on the website; Analysis of the shortest route between airports in the Instrument Flight Rules (IFR) Route Papua area network produces a distance matrix between airports; Results four scenarios of the number of airports and their respective service areas.

Keywords : Air transportation, Logistic, Airport Location, Instrument Flight Rules

Track: Public Transportation

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The Influence of COVID-19 Pandemic on Mode Choice Preference in Jakarta

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[1]Kementerian Perhubungan, [2]PKTJ

Abstract

The COVID-19 pandemic has had an enormous global impact in only a few months. It coerces the government in any country to impose some strict policies to stop COVID-19 from spreading, i.e. stay-at-home requirements or household lockdowns. Travel behaviours are essentially impacted due to such measures. This study focuses on changes in travel behaviour caused by the COVID-19 outbreak in Jakarta. The data was taken through an online survey of 1138 respondents. The questionnaire in this study includes questions about the mode choice containing the purpose of the trip, frequency, travel distance, and several other supporting attribute factors in the pre-pandemic period until the early months of the pandemic. Results clarified that people's travel behaviour was considerably contrastive between those two different times, i.e., the frequency of being outside, transport apps used, and Eid and Christmas Homecoming Tradition. Moreover, the top destinations are grocery stores indicated for primary movement only. In this case, it can be seen that there is a shifting mode for people's daily movement, from what was previously public to private vehicles. Distance, activities, driving license and vehicle ownership were essential considerations for mode choice throughout the covid outbreak. The findings of this study may be helpful in transportation planning and establishing policies in the future.

Keywords : Mode Choice Preference, Travel Behaviour, Covid-19 Pandemic

The Area Coverage and People Walkability to Public Minivan Stop in Jembrana

| I Made Suraharta[1], Ocky Soelistyo Pribadi[2], Dewa Ayu Putri Maha Dewi[3]

[1]Politeknik Keselamatan Transportasi Jalan, [2]Politeknik Transportasi Darat Bali, [3]Politeknik Transportasi Darat Indonesia - STTD

Abstract

Public minivans are now still available in Jembrana. However, it is undeniable that as the number of private vehicles escalates and the nodes of transportation do not properly function have led to the decrease of the use of public minivans. Therefore, it is essential to conduct research on the area coverage of passenger bags (the potential area of concentrated passengers) to figure out the level of minivan scope based on people walkability. The present research aims to figure out the factors as well as the distance that may influence people walkability (as ground to determine an area coverage). There were some methods of analyzing the data. To find out potential factors, structural equation modelling (SEM) was employed. The factors, then, became the basis of the analysis in which biner logistic regression was applied to determine the walking-distance as well as the scenario to increase people walkability. Circular buffer was implemented to decide public minivan stops in terms of passenger bags based on the walking-distance. The result of the research revealed that there were some factors influencing people to walk; they were distance, pedestrian facility including sidewalk, crossing facility, plantation along the pavement, and economy including work and wages. The walking-distance was 109 meters. Finally, from the analysis of the walking-distance using the area of circle, it was found out that the area coverage was 37.340,3 m2.

Keywords : Area coverage, walkability, factor, distance

Track: Education and Campaign on Transportation Safety

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Effectiveness of Early Traffic Awareness Socialization Program (Salud) Through Technical Guidance

| Tri Susila HIdayati[1]

[1]Politeknik Keselamatan Transportasi Jalan

Abstract

The safety of the road must be grown by each transportation actor in the form of a form of honesty or willingness to further form awareness or awareness of the safety of road transport traffic. Di need a counselling method that can change the mind set and instil with strong roots the mind-set of the traffic safety culture from an early age. aware of traffic at an early age (SALUD) utilizing the "golden age" period has been implemented in many regions. The type of research used is quantitative descriptive research. The research sampling technique uses purposive samples, namely the technique of determining samples with certain considerations which in this case is a consideration of the location of affordable provinces (West Java Province, Central Java Province and Lampung Province) and the latest implementation. Primary data collection using questionnaires, observations, and documentation. Data collection was carried out by surveying the intermediate targets, namely PAUD teachers who are alumni of SALUD technical guidance. The measurement results are as follows: (1) the implementation of the SALUD technical guidance in Bandung Regency, Semarang and Lampung Province shows an increase in understanding, (2) the planning level of SALUD Bandung Regency is high, Semarang is medium and Lampung Province is still low, (3) the dissemination rate of SALUD Bandung Regency is very high, Semarang is very high and Lampung Province is still very low, (4) the implementation level of SALUD Regency Bandung and Semarang are very high, Lampung Province is high.

Keywords : SALUD, Guidance, Technical, Implementation, Dissemination

Track: Port Management

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Evaluation of Feeder Port Benefits Using Analytic Hierarchy Process Method with Quantitative and Qualitative Criteria: Case Study of Sapudi Port – Indonesia

| Rutma Pujiwat[1], Sucipto[2], Dwi Phalita Upahita[3], Djoko Prijo Utomo[4], Maharani Almira Salsabila[5]

[1,2,3,4]National Research and Innovation Agency (BRIN)

Abstract

Class III/feeder ports are built with the aim of being able to drive the economic growth of the hinterland area. This study will focus on the evaluation of Port benefits during operation using the analytical hierarchy process (AHP) method with quantitative and qualitative criteria arranged in the form of a criteria tree. This study took the case of the Port of Sapudi-Sumenep regency - East Java Province-Indonesia. The results show that the value of the benefits is quite high. Therefore, this study suggests that the feeder port is significant to be maintained as a driver of community economic activity.

Keywords : analytic hierarchy process, qualitative criteria, quantitative criteria, criteria tree, value of benefits

Track: Transport Planning and Policy Formulation

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The Influence of Trip Purpose on the Mode Choice Between High Speed Train and Airplane: Leisure Vs Non-Leisure Trip

| Dwi Phalita Upahita[1], Maharani Almira Salsabila[2], Meiyanne Lestari[3], Sucipto[4], Djoko Prijo Utomo[5]

[1,2,3,4,5]National Research and Innovation Agency (BRIN)

Abstract

Jakarta – Surabaya Corridor plays an important role in connecting two major metropolitan cities in Java Island on each end and other cities in between the corridors. The corridor is currently served by highway, conventional rail network and air transport mode. However, due to high trip demand, this corridor almost reaches its capacity. The development of high-speed train network between Jakarta – Surabaya is one of the priority programs as stated in the National Railway Masterplan (RIPNAS). The Jakarta – Surabaya high-speed train will be a competitor to the existing air transportation services, as both modes have competitive travel time and pricing. Previous studies have shown that operation HSR could have adverse effect on the demand of airplane passengers. Passenger mode choice can be influenced by several factors, including the trip purpose. This study aims to understand the differences between leisure and non-leisure trip maker in choosing their mode. Specifically, this study focuses on the competition between high-speed train and existing air transport service on Jakarta – Surabaya Corridor. Stated preference survey was used to collect data on passenger mode choice. Logit binomial model was used to model the mode choice, with time differences and cost differences as the quantitative independent variables and trip purpose as the qualitative variable. In this study, dummy variable was used to represent the different trip purpose, leisure, and non-leisure. The result found the odds ratio is 0.646, which indicated that passengers on leisure trip are less likely to move to HST from airplane. This result is useful for the planner as it can be an indication of the potential passenger demographic and to come up with services that suit their needs.

Keywords : mode choice, logit model, trip purpose, dummy variable, high speed train

Track: Multimodal Transportation

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Is the multimodality related to urban mobility changes during the pandemic?

| Taha Hatcha[1]

[1]HafenCity University

Abstract

COVID introduced new considerations and changed the urban mobility ecosystem and perception. During the pandemic, mobility patterns change according to several factors. Few studies have investigated the impact of the mobility system features on the dynamic of people during the pandemic. This research attempts to understand the relationship between the urban mobility system advancement and the behaviour of people throughout different stages of the pandemic. This study uses big data for day-to-day mobility in different regions in Germany and employs the correlation coefficient matrix to analyse the impact of the smart mobility indices on the trends of mobility and the number of contacts between people. The study covers the whole pandemic period, as of 2019 till the mid of 2022, to derive a pandemic crisis travel mobility patterns for each wave. Overall, a negative correlation between developed mobility systems and mobility trends, means that the smarter mobility system cities and regions have, the fewer people tend to travel, the second wave marks the greatest decline of mobility in correlation with more advanced mobility systems. While sophisticated and advanced mobility systems are often cited as having more attractiveness and a positive effect on the traveller's satisfaction, our findings suggest that no clear and discernible impacts during the pandemic were observed. On the contrary, more multimodal trips, sharing options, and smarter mobility, in general, were associated with less mobility of people, yet it does not interfere with the contact between people, during the different stages of COVID in Germany.

Keywords : Urban mobility, Multimodality, COVID 19, Mobility trends, Smart mobility index

CONFERENCE CHAIR CLOSING REMARKS

Excellencies, Presenter,
Attendees,
Ladies and Gentlemen,

I am very honoured and delighted to deliver the concluding remarks on the last day of the International Conference on Sustainable Mobility and Safety (IC-SMS) organized by Politeknik Keselamatan Transportasi Jalan (PKTJ) and Research Synergy Foundation (RSF); Supported by: Scholarvein, Reviewertrack, ResearchSynergy Institute, ResearchSynergy Press, F1000research, Cogent Journals, and Taylor & Francis Group. The committee successfully hosted the event, breakout sessions and all presentations were delivered with minimum technical issues. I believe that during those two days, we have all had insightful, interactive discussions and great chance to share the outcomes of our research.

I would like to thank all participants, keynote speakers, invited speakers, presenters, attendees, and session chairs from various countries who have already given their best contribution to this IC-SMS conference. Next, my sincere gratitude and thank you, finally, to all the committee members for their hard work. Therefore, let me wish all of us a lot of energy, enthusiasm, shared trust and resolve on our way towards achieving a better future for all.

To conclude, thank you for the great contribution and hope that the knowledge and thoughts shared in this conference, new networks, and new friendships will be fruitful for all of us and could increase our professional development in the future.

See you at our upcoming event.
Keep in touch and thank you very much for your attention. Stay safe and healthy.

Best regards,

Sugianto, A.TD., M.M.
Conference Chair of IC-SMS 2022

FUTURE EVENTS

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JICRISD

Jakarta International Conference on Research Innovation and Sustainable Development
https://jicrisd.com/
Virtual Conference, December 5, 2022

IHSATEC

The International Halal Science and Technology Conference 2022 (IHSATEC): 15th Halal Science Industry and Business (HASIB)
https://www.ihsatec.com/
Chulalongkorn University – Bangkok, Thailand, December 15-16, 2022

2nd ICMRSI

2nd International Conference on Multidisciplinary Research for Sustainable Innovation
https://icmrsi.com/
Virtual Conference, February 14-15, 2023

IRHC

International Respati Health Conference
https://irhcunriyo.com/
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