

Organized by:



**Lppm**  
Lembaga Penelitian dan Pengabdian Kepada Masyarakat



*Book of Abstract Conference Proceeding*

<https://jicrisd.com>

# JICRISD 2025

**Jakarta International Conference on Research,  
Innovation, and Sustainable Development 2025**

**Virtual Conference:  
December 2, 2025**

# **Book of Abstract Conference Proceeding**

## **Jakarta International Conference on Research, Innovation, and Sustainable Development 2025 (JICRISD 2025)**

**Virtual International Conference  
December 2, 2025**



**Book of Abstract Conference Proceeding  
The Jakarta International Conference on Research, Innovation,  
and Sustainable Development 2025 (JICRISD 2025)**

**Editorial Board:**

Associate Professor. Dr. Hendrati Dwi Mulyaningsih

Santi Rahmawati, M.S.M.

**Cover and layout:**

Finna Zephyrine

Mochammad Rizal

Donny Maulana Jefrianto

**Publisher:**

Yayasan Sinergi Riset dan Edukasi

**Office Address:**

Komplek Sinergi Antapani

Jl. Nyaman 31, RT01 RW23, Bandung 40291, Indonesia

Contact: (+62) 811227479 / (+62) 8112331733

Email: [contact@researchsynergy.org](mailto:contact@researchsynergy.org)

First publication, December 2025

Copyright © 2025 by Yayasan Sinergi Riset dan Edukasi.

*This book is only published once as a part of the specific international conference.*

All rights reserved. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording or by any information storage and retrieval system, without permission in writing from the publisher.



# FOREWORD



**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 2024, more than 35.000 scholars have participated in our programs from Asia, Australia, Africa, America, and Europe continents. With the average of the increasing number of members by more than 5.000 each year, we continuously strengthen the global research ecosystem by having five support systems that are ready to help members from across the world.

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

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

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

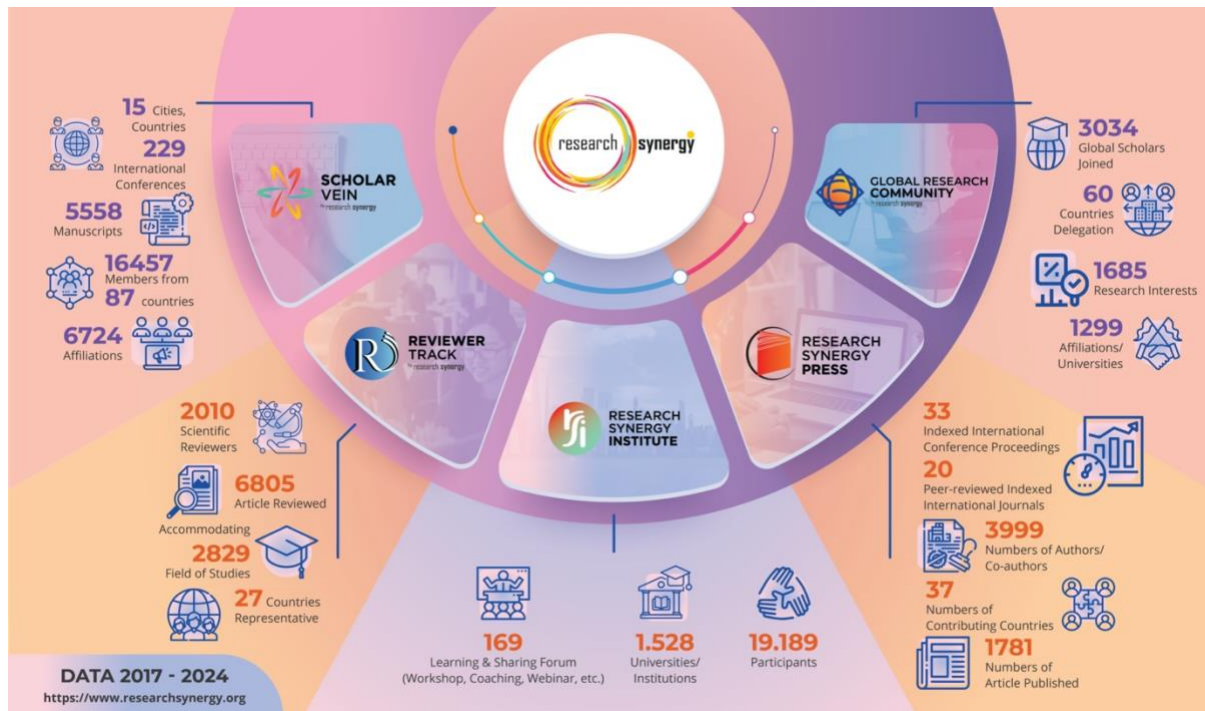


Figure: Global Research Ecosystem owned by Research Synergy Foundation (data from 2017 – 2024)

Please find other important links related to RSF profile:

- <https://www.researchsynergy.org/>
- <http://globalresearchecosystem.com/>
- <https://f1000research.com/rsf>
- <https://journals.researchsynergypress.com>
- <https://proceeding.researchsynergypress.com>
- <https://www.researchsynergysystem.com>
- <https://www.facebook.com/ResearchSynergy/>
- <https://www.instagram.com/researchsynergyfoundation/>
- <https://www.youtube.com/@researchsynergyfoundation8675>

# TABLE OF CONTENTS

<b>FOREWORD.....</b>	<b>4</b>
<b>TABLE OF CONTENTS.....</b>	<b>7</b>
<b>ORGANIZING COMMITTEE.....</b>	<b>9</b>
<b>SCIENTIFIC REVIEWER COMMITTEE.....</b>	<b>10</b>
<b>CONFERENCE CHAIR MESSAGE.....</b>	<b>11</b>
<b>CONFERENCE CHAIR.....</b>	<b>12</b>
<b>CO-CONFERENCE CHAIR.....</b>	<b>13</b>
<b>OPENING SPEECH.....</b>	<b>14</b>
<b>CLOSING SPEECH.....</b>	<b>14</b>
<b>KEYNOTE SPEAKERS.....</b>	<b>15</b>
<b>SESSION CHAIRS.....</b>	<b>18</b>
<b>SPEAKER.....</b>	<b>21</b>
<b>CONFERENCE PROGRAM.....</b>	<b>21</b>
<b>LIST OF PRESENTERS.....</b>	<b>22</b>
<b>Track: Economics.....</b>	<b>25</b>
Determinant Performance of Regional Water Utility Companies (Pdams) in West Java and South Sumatra   Purwanto Widodo <sup>1</sup> , Maria Michelle <sup>2</sup> .....	26
The Role of Local Government in Creating Social Inclusion in Cross-Border Trade between Indonesia and Malaysia in West Kalimantan   Nurfarah Nidatya <sup>1</sup> , Shanti Darmastuti <sup>2</sup> , Dini Putri Saraswati <sup>3</sup> , Andhika Fathir Radjasa <sup>4</sup> , Alfiyah Nur Rahmalia <sup>5</sup> .....	27
The Effect of Economic Growth, Inflation, Exchange Rate Changes and the Djia Index on the Ftse Straits Times Singapore (STI) Index   Purwanto Widodo <sup>1</sup> , Helen Margaretha <sup>2</sup> .....	28
<b>Track: Management.....</b>	<b>29</b>
Creating Safe and Sustainable Work Environments: The Role of HRM Practices in Supporting LGBTQ+ Employee Well-Being   Siti Handayani Maulidina <sup>1</sup> , Muhammad Harri <sup>2</sup> , Iwan Kurniawan Subagja <sup>3</sup> .....	30
<b>Track: Health Sciences.....</b>	<b>33</b>
<b>Track: Medicine.....</b>	<b>40</b>
<b>Track: Social Science.....</b>	<b>42</b>
<b>Track: Gender and Sexuality Studies.....</b>	<b>44</b>
<b>Track: Engineering and Technology.....</b>	<b>46</b>
<b>Track: Computer Science.....</b>	<b>49</b>
<b>Track: Environmental Science.....</b>	<b>52</b>
<b>Track: Sustainability Studies.....</b>	<b>54</b>
<b>Track: Communication Studies.....</b>	<b>57</b>

<b><i>CLOSING REMARKS</i>.....</b>	<b>59</b>
<b><i>Future Events</i>.....</b>	<b>60</b>



# ORGANIZING COMMITTEE

---

## Conference Chair

Dr. Nur Intania Sofianita, S.I.Kom., M.K.M.  
LPPM Universitas Pembangunan Nasional Veteran Jakarta

## Co-Conference Chair

Associate Professor. Dr. Hendrati Dwi Mulyaningsih  
Founder and Chief Executive Officer of Research Synergy Foundation

## Organizing Committee

Santi Rahmawati, S.T., M.S.M.  
*Research Synergy Foundation*

Ani Wahyu Rachmawati, S.Psi., M.S.M.  
*Research Synergy Foundation*

Donny Maulana Jefrianto  
*Research Synergy Foundation*

Finna Zephyrine  
*Research Synergy Foundation*

Mochammad Fachrizal  
*Research Synergy Foundation*

Dr. Maria Selvester  
*LPPM Universitas Pembangunan Nasional  
Veteran Jakarta*

Dr. M. ALif Razi  
*LPPM Universitas Pembangunan Nasional  
Veteran Jakarta*

Dr. Ibnu Malkhan Bakhrul Ilmi  
*LPPM Universitas Pembangunan Nasional  
Veteran Jakarta*

Faizi, Ph.D  
*LPPM Universitas Pembangunan Nasional  
Veteran Jakarta*

Lukman Saleh Waluyo M.Si.  
*LPPM Universitas Pembangunan Nasional  
Veteran Jakarta*

# SCIENTIFIC REVIEWER COMMITTEE

---

**Andri Pramesyanti, Ph.D** - Universitas Pembangunan Nasional Veteran Jakarta

**Dr. Beniharmoni Harefa, S.H., LL.M.** - Universitas Pembangunan Nasional Veteran Jakarta

**Dr. Desmintari, SE. MM** - Universitas Pembangunan Nasional Veteran Jakarta

**Dr. Nanang Alamsyah, S.T., M.T.** - Universitas Pembangunan Nasional Veteran Jakarta

**Dr. OSAMAH IBRAHIM KHALAF** - Al-Nahrain University College of Information Engineering

**Dr. Antonino F. Alejandro** - Philippine Women's University

**Dr. Ranawaka Arachchige Ravin Sachindra De Alwis** - University of Kelaniya

**Dr. Sathaporn Monprapussorn** - Department of Geography, faculty of Social Sciences, Srinakharinwirot University

**Dr. KVD Edirisooriya** - Sabaragamuwa University of Sri Lanka

**Dr. Supachart Iamratanakul** - Kasetsart Business School

**Dr. Robin B. Dimla** - Don Honorio Ventura State University

**Dr. Tan Fee Yean** - Universiti Utara Malaysia

**Dr. Hanilyn Aguilar Hidalgo** - Central Bicol State University of Agriculture

**Dr. Muraina Kamilu Olanrewaju** - Al-Hikmah University Ilorin

**Prof. Dr Sshowkat Maqbool** - Skuast kashmir

**Prof. Dr.Sasikumar Gurumoorthy** - Sree Vidyanikethan Engineering College

**Dr. Mary Anne C. Sedanza** - Leyte Normal University

**Dr. Shumaila Zeb** - Shaheed Zulfikar ALi Bhutto Institute of Science and Technology

**Dr. Jennifer H. Operio** - Holy Angel University

# CONFERENCE CHAIR MESSAGE

---

Distinguished Participants and Guest,  
Excellencies, Ladies, and Gentlemen

Good morning, esteemed guests, respected attendees, and beloved members of our community. It is with great pleasure that I extend a warm welcome to each and every one of you on this special occasion. Today marks a significant milestone in our shared journey as we gather for "The Jakarta International Conference on Research, Innovation, and Sustainable Development 2025 (JICRISD 2025)" organized by the Pusat Studi Gender Saraswati Universitas Pembangunan Nasional "Veteran" Jakarta, Universitas Pembangunan Nasional Veteran Jakarta (UPNVJ) and Research Synergy Foundation. I am deeply honored to address you all as we embark on this remarkable event.

Hosting this conference has been a privilege, and we extend our heartfelt gratitude to our esteemed Keynote Speakers:

- Prof. Popy Rufaidah, S.E., M.B.A., Ph.D.  
Universitas Padjadjaran, Indonesia
- Sri Lestari Wahyuningroem, M.A., Ph.D.  
Universitas Pembangunan Nasional Veteran Jakarta, Indonesia
- Assoc. Prof. Rachael Diprose  
University of Melbourne, Australia

The conference aims to provide a platform for researchers, students, practitioners, policymakers, and other stakeholders to come together and discuss innovative solutions for GEDSI. The conference seeks to generate new insights and solutions to the global community's complex challenges by bringing together diverse perspectives and expertise in the interdisciplinary fields. In today's interconnected world, addressing complex challenges requires a multifaceted approach that draws upon insights from diverse fields.

Furthermore, I encourage each of you to be actively engaged in discussions, share insights, and make the most of the wealth of knowledge that will be imparted during this conference.

I extend heartfelt gratitude to each and every one of you for being with us today, particularly our Keynote Speaker, Session Chairs, Scientific Reviewers, Conference Committee, Presenters, and Attendees from around the globe. Despite gathering virtually, your participation and enthusiasm serve as inspiration to us all. I am hopeful for a smooth and successful conference ahead. Thank you.

Best regards,

***Dr. Nur Intania Sofianita, S.I.Kom., M.K.M.***  
Conference Chair of JICRISD 2025

## CONFERENCE CHAIR

---



***Dr. Nur Intania Sofianita, S.I.Kom., M.K.M.***

**Conference Chair of JICRISD 2025**

**LPPM Universitas Pembangunan Nasional Veteran Jakarta**

**Dr. Nur Intania Sofianita, S.I.Kom., M.K.M.** is a lecturer at the Nutrition Study Program, Universitas Pembangunan Nasional "Veteran" Jakarta, currently serving as the Secretary of the Department of Nutrition, Physiotherapy, and Public Health. She holds a Doctoral degree from IPB University. Her research expertise lies at the intersection of communication and public health, focusing on community nutrition, Social Behavior Change Communication (SBCC), and socio-cultural aspects of nutrition. She has extensive experience working with the Indonesian Ministry of Health as a provincial expert for the Indonesian Nutritional Status Survey (SSGI) and is an active author of books on health communication and nutritional assessment.

## CO-CONFERENCE CHAIR

---



***Associate Professor. Dr. Hendrati Dwi Mulyaningsih***

**Co-Conference Chair of JICRISD 2025**

**Founder and Chief Executive Officer 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 35.000 from all around the globe. Her passion in how to create impact and co creation value among all the stake holder of RSF has made her focus on upholding integrity in the scientific process through enhancement of RSF's support- support system as like Reviewer track, Scholarvein, Research Synergy Institute and Research Synergy Press. Thus, her work in this area has made her as the Nominee of Impactful Leadership Awards from Tallberg Foundation Sweden 2019 and 2024.

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

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

## OPENING SPEECH

---



***Dr. Henry Binsar Hamonangan Sitorus., S.T., M.T.***  
**Vice Rector I, Universitas Pembangunan Nasional Veteran  
Jakarta**

---

## CLOSING SPEECH

---



***Prof. Dr. Erna Hernawati, Ak., CPMA., CA***  
**Universitas Pembangunan Nasional Veteran Jakarta**

---

## KEYNOTE SPEAKERS

---



***Prof. Popy Rufaidah, S.E., M.B.A., Ph.D.***

**Universitas Padjadjaran, Indonesia**

---

**Prof. Popy Rufaidah** is a Professor at the Faculty of Economics and Business, Universitas Padjadjaran (Unpad), with an extensive career in international education and academic leadership. She previously served as the Education and Cultural Attaché at the Embassy of the Republic of Indonesia in Washington, D.C. from 2018 to 2022, where she became the founding President of the Washington Educational & Cultural Attaché Association (WECAA). Her leadership in establishing WECAA earned her the Star of Excellence Award from the America-Eurasia Center.

Prof. Popy holds a Ph.D. from the University of New South Wales, an MBA from Murray State University, and a Bachelor's degree from Unpad. She also serves as Secretary General of the Indonesian Association of Faculties of Economics and Business (AFEBI) and Vice President of the Academy for Global Business Advancement, continuing to advance academic collaboration and global engagement.

## KEYNOTE SPEAKERS

---



***Sri Lestari Wahyuningroem, M.A., Ph.D.***

**Universitas Pembangunan Nasional Veteran Jakarta, Indonesia**

**Dr. Sri Lestari Wahyuningroem** is a political science lecturer at UPN Veteran Jakarta, and a Fellow at Harvard Kennedy School. She is currently the Head of UPNVJ's Institute of Research and Community Service (LPPM). She completed her PhD at the Australian National University. Her dissertation was published by Routledge London, titled: "Transitional Justice from State to Civil Society: Democratization in Indonesia". She earned her Master of Art from Central European University, and Sarjana Ilmu Politik from Universitas Indonesia. She did her post doctoral study at St Antony's College, University of Oxford, UK, and was appointed as associate professor at Osaka School of International Public Policy, Osaka University.



## KEYNOTE SPEAKERS

---



***Assoc. Prof. Rachael Diprose***

**University of Melbourne, Australia**

---

**Rachael Diprose** is the Associate Dean - Partnerships for the Faculty of Arts and an Professor in the School of Social and Political Sciences (SSPS) at the University of Melbourne. She teaches in the Master of Development Studies program and has a long history of collaboration in research, teaching and public engagement with Indonesian universities, government and civil society organisations.

She was previously the Director - International for SSPS and convened the University's Indonesia Forum over multiple years. Formerly of the University of Oxford, Rachael continues to collaborate in research, teaching, publications, public engagement and other initiatives with colleagues in Melbourne, Indonesia, and globally. Her present research focusses on two inter-related streams: 1) the dynamics of rapidly changing contexts and the implications for populations, the environment and climate change, governance, and policy, and 2) international development, especially understanding poverty and inequalities, with a particular focus on inclusion, gender, and empowerment.

## SESSION CHAIRS

---



***Asst. Prof. Ronina R. Caoili-Tayuan, MSCS.***

***University of Santo Tomas, Philippines***

---

**Asst. Prof. Ronina R. Caoili-Tayuan** is a Computer Engineering graduate from Mapua University and teaching in the College of Information and Computing Sciences (CICS)-Information Technology Department at the University of Santo Tomas, where she teaches courses under the Internet of Things (IoT), and Network and Security specializations. She is currently the Coordinator of the International and Relations program of the College. She was once the Education eLearning Specialists of the University. She holds a Master's Degree in Computer Science major in Software Development from Mapua University (formerly Mapua Institute of Technology), and a Microsoft Certified Professional in Systems Administration from Microsoft Corporation. She is currently taking up her Doctorate Degree in Doctor in Information Technology at De La Salle University-Manila specialized in Health Informatics.

She is the author of *Living in the IT Era* (1st edition) book published last 2019 and the 2nd edition to be published this 2024. Another book that was published early in 2021 entitled *IT Application Tools in Business*. She was involved with CHED-RECPE Grant Research entitled "UST-IICS Student Academic Performance Evaluation through Data Mining and Analytics as Suggestive Input to Curriculum Improvement". She has been a Technical Committee Reviewer of International Research funded by Government in Gulf College, Sultanate of Oman, and an International Research Conference for International Association of Computer Science and Information Technology (IACSIT) since 2019 up to present. She also holds a Mendeley Advisor Community position since June 2020, and a lifetime member of an international organizations such as IACSIT, ICSES, IERDC, IAENG, and a local organizations ICpEP.

## SESSION CHAIRS

---



***Dr. Salem Bahmaid***

***Arab Open University, Saudi Arabia***

---

**Dr. Salem Bahmaid** is an Assistant Professor at the Arab Open University, Kingdom of Saudi Arabia. He holds a Ph.D. in Information Technology from Bharathiar University, India, a Master's degree in Information Technology from the same university, and a Bachelor's degree in Computer Applications from the University of Mysore. His research interests include Computer Networking, the Internet of Things (IoT), and Artificial Intelligence (AI).

## SESSION CHAIRS

---



***Dr. Abdul Aziz Lai Bin Mohd Fikri Lai***

***Universiti Teknologi MARA (UiTM), Malaysia***

---

**Abdul Aziz Lai Bin Mohd Fikri Lai** is a senior lecturer from the Faculty of Business and Management – Universiti Teknologi MARA (UiTM) Sabah Branch, Malaysia, specialize in the field of Economics and Finance. He graduated from UiTM Malaysia with a Bachelor Degree of Business Administration (Honors) Business Economics in 2014 before furthered his post-graduate studies by research in Finance and International Trade in the same university in 2015.

He completed his PhD in October 2018 with a thesis entitled “A Segregation Analysis of Malaysia’s International Trade Pattern” and awarded with Graduate on Time (GOT) award. During his post-graduate journey, he published several articles and presented in several international conferences where he was awarded with Best Presenter in ABRM 6th International Trade and Academic Research Conference, London, England and Overall Best Paper Award in 2nd Advances in Business Research International Conference, Langkawi, Malaysia.

He is currently attached to the Department of Research, Industrial Linkages, Community and Alumni Network and he is the Head of Unit for the Industrial Linkages, Community and Alumni of UiTM Sabah Branch, Malaysia.

# CONFERENCE PROGRAM

Tuesday | December 2, 2025

Jakarta Time (UTC+7)		Dur'	Activity	
<b>Main Room:</b> <i>*Please note that ALL conference TIME is in Jakarta Time/ WIB/ UTC+7. Please check your time zone.</i>			Join Zoom Meeting <a href="https://us06web.zoom.us/j/81223779729?pwd=b1eFXIHuKGM3CX9W453l4bs4tuxzDu.1">https://us06web.zoom.us/j/81223779729?pwd=b1eFXIHuKGM3CX9W453l4bs4tuxzDu.1</a> or <a href="https://bit.ly/JICRISD2025">https://bit.ly/JICRISD2025</a>  Meeting ID: 812 2377 9729 Passcode: JICRISD	
8:50	-	9:00	0:10	Participant Login and Join Virtual Conference
9:00	-	9:10	0:10	Welcoming and Conference Agenda announcement by MC
9:10	-	9:20	0:10	Listening to National Anthem "Indonesia Raya" and Mars "Bela Negara"
9:20	-	9:30	0:10	<b>Welcome Remarks of JICRISD 2025</b> <b>Dr. Nur Intania Sofianita, S.I.Kom., M.K.M.</b> <b>Conference Chair of JICRISD 2025</b> LPPM Universitas Pembangunan Nasional Veteran Jakarta
9:30	-	9:35	0:05	<b>Token of Appreciation for Speaker</b>
9:35	-	9:45	0:10	<b>Opening Speech of JICRISD 2025 (tbc)</b> Universitas Pembangunan Nasional Veteran Jakarta
9:45	-	9:50	0:05	<b>Token of Appreciation for Speaker</b>
9:50	-	10:05	0:15	<b>Global Research Ecosystem Introduction</b> <b>Associate Professor. Dr. Hendrati Dwi Mulyaningsih</b> <b>Co-Conference Chair of JICRISD 2025</b> Founder and Chief Executive Officer of Research Synergy Foundation
10:05	-	10:10	0:05	<b>Token of Appreciation for Speaker</b>
10:10	-	10:15	0:05	<b>E-Group Photo</b>
10:15	-	10:20	0:05	<b>Keynote Speaker Introduction</b>
10:20	-	10:45	0:25	<b>Keynote Speaker Session</b> <b>Prof. Popy Rufaidah, S.E., M.B.A., Ph.D.</b> Universitas Padjadjaran, Indonesia
10:45	-	10:50	0:05	<b>Token of Appreciation for Keynote Speaker</b>
10:50	-	10:55	0:05	<b>Keynote Speaker Introduction</b>
10:55	-	11:20	0:25	<b>Keynote Speaker Session</b> <b>Sri Lestari Wahyuningroem, M.A., Ph.D.</b> Universitas Pembangunan Nasional Veteran Jakarta, Indonesia
11:20	-	11:25	0:05	<b>Token of Appreciation for Keynote Speaker</b>
11:25	-	11:30	0:05	<b>Keynote Speaker Introduction</b>
11:30	-	11:55	0:25	<b>Keynote Speaker Session</b> <b>Assoc. Prof. Rachael Diprose</b> University of Melbourne, Australia
11:55	-	12:00	0:05	<b>Token of Appreciation for Keynote Speaker</b>
12:00	-	12:05	0:05	<b>Announcement and preparation of Academic Online Parallel Presentation Session</b>
12:05	-	13:00	0:55	Lunch Break (Video played: JICRISD 2025 Agenda & Sessions); Universitas Pembangunan Nasional Veteran Jakarta (UPNVJ); Research Synergy Foundation Profile.
<b>Academic Online Presentation Session</b>				
13:00	-	13:05	0:05	<b>Session Chair Introduction:</b> <b>Main Room: Dr. Abdul Aziz Lai Bin Mohd Fikri Lai - Universiti Teknologi MARA (UiTM), Malaysia</b> <b>Breakout Room 1: Asst. Prof. Ronina R. Caoili-Tayuan, MSCS. - University of Santo Tomas, Philippines</b> <b>Breakout Room 2: Dr. Salem Bahmaid - Arab Open University, Saudi Arabia</b>
13:05	-	15:05	2:00	<b>Online Presentation Session, maximum 8 presenters</b> <b>15 minutes/presenter</b>
15:05	-	15:15	0:10	Awarding Certificate of Presentation, Testimonial, and Post-conference information announcement
15:15	-	15:25	0:10	Short Break
15:25	-	15:40	0:15	<b>Awarding Ceremony</b> <b>Best Presentation</b> <b>Best Paper</b> <b>Session Chairs Recognition</b>
15:40	-	15:45	0:05	<b>Closing Speech of JICRISD 2025</b>

# LIST OF PRESENTERS

**Tuesday | December 2, 2025**

**Room:** Main Room

**Time:** 13:00 - 15:15 (UTC+7)

**Session Chair:** to be confirmed

Economics		
Paper ID	Presenter	Paper Title
ISD25104	Maria Michelle	Determinant Performance of Regional Water Utility Companies (Pdams) in West Java and South Sumatra
ISD25102	Nurfarah Nidatya	The Role of Local Government in Creating Social Inclusion in Cross-Border Trade between Indonesia and Malaysia in West Kalimantan
138960	Helen Margaretha	The Effect of Economic Growth, Inflation, Exchange Rate Changes and the Djia Index on the Ftse Straits Times Singapore (STI) Index
Management		
Paper ID	Presenter	Paper Title
ISD25107	Siti Handayani Maulidina	Creating Safe and Sustainable Work Environments: The Role of HRM Practices in Supporting LGBTQ+ Employee Well-Being
ISD25108	Amira Khairunissa	Strategic Empowerment of an Indigenous Creative Economy: An SSM and Service Science Model for Tenun Donggala
Business		
Paper ID	Presenter	Paper Title
ISD25114	Christian Gomez	Conjoint Analysis of Consumer Preferred Attributes in E-payment Services
ISD25111	Monique Emilyn Ratunil	The Influence of "The Entrepreneurial Mind" Course on Entrepreneurial Mindset and Career Aspirations of Bachelor of Food Processing and Technology Students
Social Science		
Paper ID	Presenter	Paper Title
692317	Sri Lestari Wahyuningroem	Two Decades of Political and Economic Reform in Indonesia: Women's Labor Participation and Political Representation

# LIST OF PRESENTERS

**Tuesday | December 2, 2025**

**Room:** Breakout Room 1

**Time:** 13:00 - 15:15 (UTC+7)

**Session Chair:** Asst. Prof. Ronina R. Caoili-Tayuan, MSCS. - University of Santo Tomas, Philippines

Health Sciences		
Paper ID	Presenter	Paper Title
ISD25103	Kevin Efrain Tololiu	Attitude of Nursing Students Towards Virtual Reality in Pain Management – A Cross-Sectional Study in Indonesia and Philippines
ISD25110	Primayanti Nurul Ilmi	A Multidimensional Analysis of Pharmacists' Readiness and Attitude towards Telepharmacy and Digital Pharmacy Innovation: Competency and Compliance Perspectives
ISD25106	Nur Fajriah	Beyond the Watch: A Systematic Literature Review of Multimodal Physiological and Situational Awareness Models of Seafarer Fatigue and Maritime Safety
ISD25112	Nur Intania Sofianita	The Support of Physical and Social Environments and the Role of Information Technology on the Implementation of Healthy Lifestyles Among Teachers in Bogor City, Indonesia.
510405	Netti Herawati	Factors Influencing Fetal Stimulation by Pregnant Women (6-8 Months)
342472	Otik Widyastutik	Stunting and Children's Social Skills in West Kalimantan, Indonesia
Medicine		
Paper ID	Presenter	Paper Title
ISD25101	Fransiskus Samuel Renaldi	From Global Evidence to Indonesian Practice: An Integrated Scoping–Systematic Review of Medication Use in Blindness, Barrier–Facilitator Mapping, and Service Implementation Guidance
Gender and Sexuality Studies		
Paper ID	Presenter	Paper Title
ISD25115	Maria Fatima Dolendo	The Lived Experiences of Male Early Childhood Education: Insights from Qualitative Interviews

# LIST OF PRESENTERS

**Tuesday | December 2, 2025**

**Room:** Breakout Room 2

**Time:** 13:00 - 15:15 (UTC+7)

**Session Chair:** Dr. Salem Bahmaid - Arab Open University, Saudi Arabia

Engineering and Technology		
Paper ID	Presenter	Paper Title
ISD25109	Muhammad Syiham Fakhrulradzi bin Abdul Aziz	Human Embryonic Kidney Cell Microscopic Image Segmentation using Multi-Scaling U-Net
329545	Yulizar Widiatama	Data-Driven Prediction of Distillation Machine Failure Time Using Multiple Linear Regression, Random Forest Regression and Long Short-Term Memory
Computer Science		
Paper ID	Presenter	Paper Title
552558	Zakaria El Fakir	Robust Bidirectional Speak–Reply Loops for Code-Switched Darija, MSA, and Amazigh
869314	Oussama Kaich	Comparative Text-to-3D vs. Text-Guided NeRF/3D Gaussian Splatting: When to Choose Which?
Environmental Science		
Paper ID	Presenter	Paper Title
ISD25105	Engr. Alicia S. Pempena	Site Selection and Design Criteria as Inputs for Developing Resilient Core Housing Unit Using Locally Sourced Materials for Hazard Prone Areas in Partido Area
Sustainability Studies		
Paper ID	Presenter	Paper Title
241611	Alvin Morales	Advancing Local Agritourism Program in Achieving New Normal Goals: Sustainable Marketing Strategy Approach From the International Hospitality and Tourism of the University of Baguio
ISD25113	Azizah Efson	Why Financial Models Ignore Biophysical Reality in Peatland Carbon Projects: A Systematic Review
Communication Studies		
Paper ID	Presenter	Paper Title
235373	Halley Marvelin	Power Dynamics and Social Inclusion in Chinese Indonesian Families: How Parental Influence Shapes Youth Voting Preferences





# **Track: Economics**



# Determinant Performance of Regional Water Utility Companies (Pdams) in West Java and South Sumatra

| Purwanto Widodo<sup>1</sup>, Maria Michelle<sup>2</sup>

<sup>1,2</sup>Universitas Pembangunan Nasional "Veteran" Jakarta

---

## Abstract

**Background** – This study aims to analyze and compare the impact of local fiscal capacity, Gross Regional Domestic Product (GRDP) growth, minimum wage, and Financial Coverage Ratio (FCR) on the performance of Regional Water Utility Companies (PDAMs) in West Java and South Sumatra provinces during the 2019-2023 period.

**Purpose** – This research provides valuable insights for local governments, PDAM management, and stakeholders in formulating strategic policies to improve the efficiency and quality of public services in the water sector.

**Design/methodology/approach** – The study employs panel data analysis using the Fixed Effect Model (FEM) and Random Effect Model (REM) regression approaches.

**Findings** – The expected findings suggest a significant difference in the factors determining PDAM performance between the two regions. Specifically, local fiscal capacity and GRDP growth are projected to have a positive influence, while the effect of minimum wage may be negative or insignificant. FCR is predicted to be a key financial health indicator directly impacting overall performance.

**Research limitations** – This research is limited by the time period, which covers only five years of observation.

**Originality/value** – This research compares PDAM performance across two provinces, a rarely explored approach in prior research.

*Keywords: Local Fiscal Capacity, GRDP Growth, Minimum Wage, FCR, PDAM Performance*

---

# The Role of Local Government in Creating Social Inclusion in Cross-Border Trade between Indonesia and Malaysia in West Kalimantan

| Nurfarah Nidatya<sup>1</sup>, Shanti Darmastuti<sup>2</sup>, Dini Putri Saraswati<sup>3</sup>, Andhika Fathir Radjasa<sup>4</sup>,  
Alfiyah Nur Rahmalia<sup>5</sup>

<sup>1,2,3,4,5</sup>Universitas Pembangunan Nasional Veteran Jakarta

---

## Abstract

**Background** – Cross border trade between Indonesia and Malaysia, particularly in West Kalimantan Province, is crucial to the local economy. However, community participation remains limited due to structural and policy-related challenges.

**Purpose** – To analyze the role of local government in promoting inclusive economic participation in cross border trade between Indonesia and Malaysia, focusing on the West Kalimantan border region.

**Design/methodology/approach** – A qualitative approach using the Social Inclusion Framework. Data were collected through in-depth interviews with local officials and community leaders, as well as focus group discussions (FGDs) involving business actors in key border areas, such as Entikong and Aruk.

**Findings** – Local governments act as key facilitators in improving access to markets, infrastructure, and trade opportunities for border communities. However, institutional and coordination challenges remain, especially in aligning policies with national and Malaysian authorities.

**Research limitations** – The study is geographically limited to selected areas (Entikong and Aruk) and relies on qualitative data, which may not capture the full complexity of cross-border economic dynamics.

**Originality/value** – This research offers original insights into how local governments contribute to inclusive economic development in border areas. This aspect is underexplored in the context of ASEAN cross-border trade, especially between Indonesia and Malaysia.

*Keywords: Local Government, social inclusion, cross-border trade, Indonesia-Malaysia*

---

# The Effect of Economic Growth, Inflation, Exchange Rate Changes and the Djia Index on the Ftse Straits Times Singapore (STI) Index

| Purwanto Widodo<sup>1</sup>, Helen Margaretha<sup>2</sup>

<sup>1,2</sup>Fakultas Ekonomi Bisnis Universitas Pembangunan Nasional "Veteran" Jakarta

---

## Abstract

**Background** – The study is motivated by the need to understand the dynamics and relationships between the FTSE Straits Times Singapore (STI) Index and key macroeconomic and financial factors, namely economic growth, inflation, exchange rate changes, and the Dow Jones Industrial Average (DJIA). The research aims to explore these relationships while specifically considering the possibility of asymmetric impacts—meaning that positive shocks (increases) and negative shocks (decreases) in the independent variables might affect the STI differently. The context spans monthly data from January 2010 to December 2023.

**Purpose** – The primary purpose of this study is to analyze the asymmetric impact of economic growth, inflation, exchange rate changes, and the Dow Jones Industrial Average (DJIA) on the FTSE Straits Times Singapore (STI) Index.

**Design/methodology/approach** – 1. Model: The study employs a Nonlinear Autoregressive Distributed Lag (NARDL) model. 2. Data: Monthly data spanning from January 2010 to December 2023 is used. 3. Key Feature: The use of the NARDL model is designed specifically to capture and analyze asymmetric effects of the independent variables on the dependent variable (STI). 4. Preliminary Test: The analysis includes testing for a long-term cointegration relationship among the variables.

**Findings** – The key findings are: 1. Cointegration: There is a significant long-term cointegration relationship among the variables. 2. Asymmetric Effects: Positive inflation shocks (increases in inflation) and Singapore dollar appreciation have asymmetric effects on the STI. 3. Market Integration (DJIA): The DJIA shows a significant positive influence on the STI, indicating market integration. 4. Economic Growth: Economic growth has a positive effect, with its significance varying between the short and long term.

**Research limitations** – 1. Reliance on monthly data frequency, which may not capture high-frequency trading dynamics. 2. The study is limited to the specific set of four independent variables chosen (economic growth, inflation, exchange rate, DJIA). 3. The study is geographically limited to the Singapore market (STI).

**Originality/value** – 1. Methodological Contribution: The application of the Nonlinear Autoregressive Distributed Lag (NARDL) model to analyze the STI, specifically allowing the capture of asymmetric impacts of economic factors. 2. Practical Relevance: The research highlights the importance of considering asymmetry for investors, policymakers, and regulators, suggesting that the magnitude and direction of a shock (positive vs. negative) necessitate different strategies and responses.

*Keywords: FTSE Straits Times Singapore (STI) DJIA Index, Economic Growth, Inflation, Exchange Rate, Nonlinear ARDL (NARDL).*

---



# **Track: Management**



# Creating Safe and Sustainable Work Environments: The Role of HRM Practices in Supporting LGBTQ+ Employee Well-Being

| Siti Handayani Maulidina<sup>1</sup>, Muhammad Harri<sup>2</sup>, Iwan Kurniawan Subagja<sup>3</sup>

<sup>1</sup>Universitas Pembangunan Nasional Veteran Jakarta, <sup>2,3</sup>Universitas Krisnadwipayana

---

## Abstract

**Background** – The growing emphasis on corporate sustainability has broadened the scope of Human Resource Management (HRM) to include social dimensions such as diversity, equity, and inclusion. However, the well-being of LGBTQ+ employees remains an underexplored area within sustainable HRM discourse, particularly in emerging economies.

**Purpose** – This study investigates the role of sustainable HRM practices in fostering psychological safety and overall well-being among LGBTQ+ employees. Grounded in the Job Demands–Resources (JD–R) model and the principles of Positive Organizational Scholarship, the research examines how inclusive HRM policies—such as equitable recruitment, anti-discrimination frameworks, diversity training, and supportive workplace culture—contribute to both individual and organizational sustainability.

**Design/methodology/approach** – Using a quantitative approach, data were collected from 100 LGBTQ+ employees across various organizations in Indonesia and Thailand through a structured questionnaire and analysed using Structural Equation Modelling (SEM).

**Findings** – The findings indicate that sustainable HRM practices have a significant positive impact on employee well-being, mediated by psychological safety and perceptions of inclusion. The study highlights that socially sustainable HRM not only enhances employee satisfaction and mental health but also strengthens organizational reputation and long-term performance.

**Research limitations** – These results suggest that embedding LGBTQ+ inclusion within sustainable HRM is essential for achieving holistic sustainability goals. Recommendations are provided for HR managers and policymakers to institutionalize inclusive practices as a strategic pathway toward equitable and resilient organizations.

**Originality/value** – This study contributes new insights by integrating LGBTQ+ inclusion into the framework of Sustainable Human Resource Management (Sustainable HRM)—an intersection that remains largely underexplored in current management literature. While most sustainability research focuses on environmental and economic dimensions, this paper advances the social sustainability perspective by emphasizing employee psychological safety and well-being as essential HR outcomes.

*Keywords: Sustainable HRM, LGBTQ+ inclusion, employee well-being, organizational sustainability, diversity management*

---

# Conjoint Analysis of Consumer Preferred Attributes in E-payment Services

| Christian Gomez<sup>1</sup>, Joseph G. Refugio<sup>2</sup>, Aldrien D. Catipay<sup>3</sup>, Shiela S. Dalumpines<sup>4</sup>

<sup>1,2,3,4</sup>Saint Vincent's College Incorporated

---

## Abstract

**Background** – E-payment services facilitate digital financial transactions, eliminating paper documents and enabling swift, contactless exchanges. Each platform offers distinct features catering to diverse consumer needs, yet adoption rates vary, reflecting differing attribute valuations. Systematic assessment of these attributes is essential to understanding consumer behavior in Dipolog City, providing insights for service optimization and competitive differentiation.

**Purpose** – This study aims to identify consumer preferences for e-payment attributes—specifically transaction cost, speed, ease of use, security, and rewards—in Dipolog City, Philippines.

**Design/methodology/approach** – Utilizing a non-probability purposive sampling approach, data were collected via structured questionnaires incorporating conjoint profiles and Key Informant Interviews (KIIs). Participants with prior e-payment experience were purposefully selected. Conjoint analysis quantified attribute preferences based on participant responses; Kendall's tau measured the association strength between variables, whereas Pearson's correlation assessed the relationship between observed choices and preference scores.

**Findings** – Results indicated that transaction cost is the most significant attribute, with consumers willing to accept higher fees for enhanced service quality and financial literacy benefits. Ease of use and security are also crucial determinants of consumer choice, overshadowing transaction speed and rewards, which have comparatively lower influence. Some consumers display a preference for higher transaction costs when balanced with factors like transaction speed, security, and comprehensive features, suggesting a trade-off mindset. These findings highlight the importance of designing balanced e-payment services that prioritize quality alongside affordability, aligning offerings with consumer expectations.

**Research limitations** – The study's scope is limited by its cross-sectional design and focus solely on consumer preferences, excluding longitudinal and institutional performance analyses. Future research should incorporate longitudinal studies to assess adoption trajectories, include behavioral dimensions, and explore institutional impacts to comprehensively understand consumer preferences amid ongoing fintech innovations.

**Originality/value** – This study provides novel insights into e-payment preferences by focusing exclusively on consumers in Dipolog City, offering localized data valuable to service providers, financial institutions, and merchants. Unlike prior research that considers diverse populations indiscriminately, this work emphasizes a targeted, consumer-centric approach, disregarding individuals without e-payment experience to enhance data validity. The findings support strategic alignment between providers and consumers, advocating for continuous assessment and innovation to meet evolving expectations and sustain market relevance.

*Keywords: Conjoint Analysis, E-payment services, consumer preference, information and communication technology, e-payment attributes and levels*

---

# The Influence of "The Entrepreneurial Mind" Course on Entrepreneurial Mindset and Career Aspirations of Bachelor of Food Processing and Technology Students

| Monique Emilyn Ratunil

St. Vincent's College Incorporated

---

## Abstract

**Background** – This study examined the impact of "The Entrepreneurial Mind" course on the entrepreneurial mindset and career aspirations of Bachelor of Food Processing and Technology (BFPT) students at the University of Science and Technology of Southern Philippines (USTP) – Oroquieta. Entrepreneurship education cultivates students' knowledge, skills, and mindset to identify opportunities, take initiative, and create value. Outcomes vary depending on course design, pedagogical strategies, and real-world applicability. At USTP-Oroquieta, the course enables students to leverage their technical competencies for innovation and enterprise development.

**Purpose** – The study aimed to examine how the course develops entrepreneurial competencies and shapes students' career aspirations in a rural academic context, and how entrepreneurship education in a non-business program fosters creativity, initiative, and self-efficacy.

**Design/methodology/approach** – A qualitative single-case study design guided by Merriam's (1998) framework was employed. Participants were BFPT students who completed the course during Academic Year 2024–2025, selected through purposive and snowball sampling to ensure diverse, information-rich perspectives. Data were collected via semi-structured interviews, observations, and document analysis for triangulation and analyzed using inductive thematic analysis to identify themes related to entrepreneurial mindset and career development.

**Findings** – The course functioned as a transformative learning experience consistent with Mezirow's (1998) Transformative Learning Theory. Initially, students perceived entrepreneurship as accessible only to the wealthy or inherently talented, limiting self-efficacy. Through experiential tasks, reflection, and collaborative discussions, students reconstructed these perceptions, developing creativity, resilience, and applied knowledge. Several participants applied their learning by initiating small ventures, demonstrating a transition from passive learning to active entrepreneurial engagement.

**Research limitations** – The study's scope was confined to BFPT students at USTP-Oroquieta, which limits the generalizability of its findings. The use of purposive and snowball sampling may have introduced selection bias, while reliance on self-reported data may have affected the accuracy and objectivity of the responses. Future research is recommended to employ longitudinal or comparative designs across programs and campuses to examine the sustained and broader impact of entrepreneurship education.

**Originality/value** – This study demonstrates how entrepreneurship education in non-business programs fosters innovation, self-efficacy, and adaptability among students in rural contexts, highlighting its influence on mindset and career orientation.

*Keywords: Career Aspirations, Entrepreneurial Mindset, Food Processing and Technology, The Entrepreneurial Mind, Transformative Learning*

---



The background of the page features a repeating geometric pattern of overlapping triangles in various shades of blue, creating a modern, architectural look. This pattern is visible at the top and bottom of the page, framing the central white area.

# **Track: Health Sciences**

# Attitude of Nursing Students Towards Virtual Reality in Pain Management – A Cross-Sectional Study in Indonesia and Philippines

| Kevin Efrain Tololiu<sup>1</sup>, Neil Martin<sup>2</sup>, Fadly Syamsuddin<sup>3</sup>, Ferenc Kocsor<sup>4</sup>, Krisztina Csokasi<sup>5</sup>

<sup>1,4,5</sup>University of Pecs, <sup>2</sup>Mindanao State University - Illigan Institute of Technology, <sup>3</sup>Universitas Muhammadiyah Gorontalo

---

## Abstract

**Background** – VR (Virtual reality) has been well known for its varying use in pain education and pain management. However, the application of VR through the lens of nurses were less observed, especially in southeast Asia.

**Purpose** – This study aims to assess the attitude of prospective nurses in Indonesia and Philippines towards virtual reality in pain management

**Design/methodology/approach** – This study applied descriptive-analytical cross-sectional study. From January to May 2025, nursing students were surveyed in Indonesia and Philippines by convenient sampling. Pain Management Attitude Survey and Virtual Reality Attitude questionnaires was collected through Psyc toolkit. Descriptive statistics, Mann U Whitney test, Spearman correlation and Multi linear regression was analysed via jamovi (version 2.6.44) and R (version 4.4.1).

**Findings** – 334 respondents from Indonesia (44.9%) and Philippines (55.1%) were obtained. The average attitude towards VR was 36.9 (SD: 9.61), whereas their pain management attitude was 72.3 (12.6). A significant difference in Indonesia and Philippine was found in age ( $U=4615$ ,  $P<.001$ ), habitation ( $U=9962$ ,  $P<.001$ ), pain management attitude ( $U=1169$ ,  $P=0.003$ ), and virtual reality attitude ( $U=-6.2608$ ,  $P<.001$ ). Significant predictors of virtual reality attitude include age ( $t=-4.66$ ,  $P<.001$ ), habitation ( $t=2.45$ ,  $P=0.015$ ), having family history of chronic conditions ( $t=2.35$ ,  $P=0.019$ ) and VR experience ( $t=2.891$ ,  $p=0.004$ ).

**Research limitations** – Incorporating virtual reality in pain management and digital healthcare curriculum can facilitate exposure to prospectus nurses. In the delivery of materials in southeast Asian region, the demographical differences of nursing students should also be taken into account.

**Originality/value** – To our knowledge, this survey is the first cross-sectional study investigating the attitude of virtual reality in southeast asian countries from prospective healthcare perspectives.

*Keywords: Nursing education, Pain Management, Student Attitude, Virtual Reality*

---

# A Multidimensional Analysis of Pharmacists' Readiness and Attitude towards Telepharmacy and Digital Pharmacy Innovation: Competency and Compliance Perspectives

| Primayanti Nurul Ilmi<sup>1</sup>, Annisa Farida Muti<sup>2</sup>, Via Rifkia<sup>3</sup>

<sup>1,2,3</sup>Universitas Pembangunan Nasional Veteran Jakarta

---

## Abstract

**Background** – Technological disruption influences and changes work patterns, including health and pharmaceutical activities. Healthtech services in Indonesia are diverse, ranging from healthcare telecommunications, integrated service systems, health monitoring systems, and online pharmacy services. With rapid development, pharmacists are required to adapt, understand, and be able to use these digital platforms to comply with the patients' demands and patient safety. Currently, there is a limitation in data regarding pharmacists' perceptions and their ability to cope with this kind of disruptive technology.

**Purpose** – The main purpose of this study is to assess the level of acceptability and readiness among pharmacists toward digital pharmacy. Specifically, it aims to: (1) To identify the pharmacists' perceptions regarding changes in pharmaceutical services in telepharmacy and digital pharmacy; (2) To determine how pharmacists' preparedness to embrace these changes in terms of professionalism, skills, infrastructure, and regulations

**Design/methodology/approach** – A cross-sectional survey was conducted among licensed pharmacists across the community, hospital, and the pharmaceutical industry in Jabodetabek. A structured questionnaire was developed to measure perceptions, attitudes, readiness, and digital literacy among pharmacists. The survey was disseminated through online platforms and professional networks. The collected data were analyzed using multivariate regression analysis and the TAM model.

**Findings** – A total of 50 pharmacists responded to the survey. Most participants reported moderate to high levels of digital literacy. The majority of pharmacists indicated a positive attitude toward digital health, while others expressed readiness to incorporate digital tools into practice. The result shows that a significant predictor of readiness and acceptance in digital pharmacy and telepharmacy is the domain perceived usefulness ( $p < 0.05$ ).

**Research limitations** – This study is unable to represent pharmacists in other regions and cannot be a tool for generalization since the data collected only reflect the conditions, behavior, or perceptions of respondents at the time the survey was conducted.

**Originality/value** – The value of this research is that it provides contextualized data regarding a specific population. This study also verifies the application of the Technology Acceptance Model with several sub-domains: perception, skills, and professionalism. This research provides evidence to support the development of public policy, particularly in ensuring that the implementation of digital pharmacy and tele-pharmacy in access to health services.

*Keywords: Pharmacist, Digital Pharmacy, Telepharmacy, Acceptability, Readiness*

---

# Beyond the Watch: A Systematic Literature Review of Multimodal Physiological and Situational Awareness Models of Seafarer Fatigue and Maritime Safety

| Nur Fajriah<sup>1</sup>, Bambang Suhardi<sup>2</sup>, Ludfi Pratiwi Bowo<sup>3</sup>, Alina Cynthia Dewi<sup>4</sup>

<sup>2</sup>Universitas Negeri Sebelas Maret, <sup>3</sup>Research Center of Transportation Technology, National Research and Innovation Agency, <sup>1,4</sup>Universitas Pembangunan Nasional Veteran Jakarta

---

## Abstract

**Background** – Seafarer fatigue remains a pervasive and multidimensional threat to maritime safety, influencing cognitive performance, decision-making, and situational awareness (SA). Despite regulatory frameworks by the International Maritime Organization (IMO), fatigue-induced incidents continue to occur, underscoring limitations in current monitoring and management systems. Recent advances in physiological sensing and situational modeling offer new avenues for understanding fatigue as a systemic safety factor rather than an individual issue.

**Purpose** – This study systematically reviews multimodal approaches that integrate physiological and situational awareness measures to model seafarer fatigue. The objective is to synthesize empirical and theoretical insights, identify methodological patterns, and highlight gaps that constrain the real-time application of fatigue monitoring in maritime operations.

**Design/methodology/approach** – Following PRISMA guidelines, a systematic literature review was conducted using databases including Scopus, Web of Science, IEEE Xplore, and PubMed from 2000 to 2025. Studies were screened based on inclusion criteria emphasizing empirical, modeling, or theoretical work linking physiological indicators (EEG, HRV, EDA, eye-tracking) with situational or cognitive outcomes in maritime contexts. A thematic synthesis approach was applied to map research evolution, methods, and technologies.

**Findings** – Results reveal a paradigm shift from subjective self-reporting toward multimodal physiological sensing and machine learning-based fatigue modeling. EEG and HRV emerged as the most reliable physiological markers, while SA degradation—especially in perception and projection levels—served as a critical indicator of fatigue-related cognitive decline. Hybrid data fusion methods combining early and late integration demonstrated superior predictive accuracy. However, environmental artifacts, ethical concerns, and limited cross-validation hinder field deployment.

**Research limitations** – Heterogeneity in data collection protocols and inconsistent definitions of fatigue limit the comparability of studies. Moreover, simulator-based results may lack ecological validity relative to real-world maritime operations.

**Originality/value** – This review advances the understanding of fatigue as an integrated human–system phenomenon. It offers a conceptual framework connecting physiological signals with cognitive situational models, laying the foundation for predictive, data-driven fatigue management systems that enhance maritime safety and human reliability.

*Keywords: Seafarer fatigue; Situational awareness; Heart rate variability (HRV); Electroencephalography (EEG); Eye tracking*

---

# The Support of Physical and Social Environments and the Role of Information Technology on the Implementation of Healthy Lifestyles Among Teachers in Bogor City, Indonesia

|| Nur Intania Sofianita<sup>1</sup>, Utami Wahyuningsih<sup>2</sup>, Iin Fatmawati<sup>3</sup>, Avliya Qurratul Marjan<sup>4</sup>, Yessi Crosita Octaria<sup>5</sup>, Firlia Ayu Arini<sup>6</sup>

<sup>1,2,3,4,5,6</sup>Universitas Pembangunan Nasional "Veteran" Jakarta

---

## Abstract

**Background** – School health and nutrition research in Indonesia has largely focused on students, with little attention given to how the physical and social environment supports teachers in maintaining a healthy lifestyle.

**Purpose** – This study explores the impact of physical and social environmental support, as well as the role of information technology, on the nutritional status of teachers in Bogor City, Indonesia.

**Design/methodology/approach** – This study utilized a mixed-method approach, conducted in six schools in Bogor City involving a total of 152 teachers. Data collection was carried out using in-depth interviews, FGDs (Focus Group Discussions), structured questionnaires, SQ FFQ (Semi-Quantitative Food Frequency Questionnaire) forms, and anthropometric measurements to assess nutritional status. Qualitative data were analyzed using thematic analysis, and the Chi-square test was used to measure bivariate relationships with nutritional status.

**Findings** – Nutritional status based on body mass index (BMI) showed that 61.5% of teachers were overweight or obese, and 76.3% of teachers experienced central obesity. All teachers had at least one social media account, and 78.3% followed culinary accounts. Only 15.79% of teachers had access to a healthy canteen or food provider during school hours, and only 25.7% of teachers were exposed to obesity prevention programs at school. Bivariate analysis showed a significant correlation ( $p < 0.05$ ) between waist circumference and BMI with exposure to culinary content. A significant relationship was also found between obesity prevention exposure and BMI. Thematic analysis found that teachers' busy schedules and the lack of specific programs to promote healthy eating were major constraints. However, it was noted that most teachers regularly consumed fruits and vegetables, although often in insufficient quantities. Recommendation: Nutrition programs for teachers are urgently needed.

**Research limitations** – Generalizability of Findings (Location and School Type), Reliance on Self-Report: Data regarding food consumption (using an SQ FFQ), frequency of social media access, and content exposure relied heavily on self-reporting from the teachers (via questionnaires).

**Originality/value** – Research on teachers (Nutrition Goes to Work). This is supported by the finding that school health and nutrition research in Indonesia has largely focused on students, with little attention given to teachers. Therefore, this research can serve as a baseline reference related to program planning for school teachers.

*Keywords: Physical Environment, Social Environment, Teachers, School, Information Technology*

---

# Stunting and Children's Social Skills in West Kalimantan, Indonesia

| Otik Widyastutik<sup>1</sup>, Yuri Nurdiantami<sup>2</sup>, Hilda Meriyandah Agil<sup>3</sup>, Afsari Banu Alpona<sup>4</sup>,  
Tokie Anne<sup>5</sup>

<sup>1</sup>University of Tsukuba, <sup>2,3,4</sup>Graduate School of Comprehensive Human Science, University of Tsukuba, <sup>5</sup>Faculty of Medicine, University of Tsukuba, Tsukuba, Japan

---

## Abstract

**Background** – Globally, stunting affects about 148 million children under five, impairing growth, cognition, and social development (WHO, 2024). In Indonesia, prevalence decreased to 19% in 2024, yet West Kalimantan remains high at 26.8%. Despite extensive research on nutrition, evidence linking stunting and preschoolers' social skills remains limited.

**Purpose** – This study examined the correlation between stunting and social skill development in preschool-aged children in West Kalimantan, Indonesia.

**Design/methodology/approach** – A cross-sectional study was conducted from August to December 2024 among 342 children aged 4–6 years selected through stratified random sampling from 61 kindergartens. Children's nutritional status was assessed using the WHO Anthro software to calculate height-for-age z-scores (HAZ), with stunting defined as  $HAZ < -2$  standard deviations. Trained educators and caregivers evaluated children's social skills using the validated Social Skills Scale (SSS), comprising assertion, self-control, and cooperation subscales (Cronbach's  $\alpha = .91$ ). The data analysis included descriptive statistics and linear regression to assess the relationship between stunting and social skills domains, while accounting for relevant confounding variables.

**Findings** – The findings showed a statistically significant negative relationship between stunting and overall social skills. This is consistent with previous research showing that chronic hunger impacts various aspects of life, including physical growth, neurological development, emotional regulation, and adaptive social behavior. The discussion goes into more detail on the various causes, such as how inadequate nutrition can impair brain development and how insufficient energy and apathy can make it difficult to connect with others. This study underscores the need for integrated interventions—combining nutritional support, early stimulation, and responsive caregiving—to strengthen children's social skills.

**Research limitations** – The cross-sectional design limits causal inference between stunting and social abilities. Although significant links exist, direction remains unclear. Future longitudinal studies and strict sampling criteria are needed to ensure representativeness and reduce selection bias.

**Originality/value** – This first West Kalimantan study contributes new empirical evidence for designing policies that address both stunting reduction and the enhancement of preschoolers' social competence, considering home environment as a confounder.

*Keywords: Indonesia, preschool children, stunting, social skills, West Kalimantan*

---

# Factors Influencing Fetal Stimulation by Pregnant Women (6-8 Months)

| Netti Herawati<sup>1</sup>, Firlia Ayu Arini<sup>2</sup>, Laily Hanifah<sup>3</sup>, Rita Ismail<sup>4</sup>, Mona Oktarina<sup>5</sup>, Kurnia Fe Aulia<sup>6</sup>

<sup>1,2,3,4,5,6</sup>UPN "Veteran" Jakarta, UPN "Veteran" Jakarta

---

## Abstract

**Background** – Human learning modalities are formed in the fetus, so the fetus needs stimulation from the mother. However, prenatal classes held at integrated health posts (Posyandu) do not provide material on fetal stimulation. This impacts the practice and knowledge of prenatal stimulation

**Purpose** – This study aimed to describe fetal stimulation performed by pregnant women in their 6-8th month of pregnancy and the factors influencing it

**Design/methodology/approach** – The study sample consisted of pregnant women in their 6-8th month of pregnancy enrolled in prenatal classes in all sub-districts in Limo District, Depok, West Java. The sample size was 42. Data collected included maternal characteristics, stimulation performed, and knowledge related to stimulation

**Findings** – The results showed that none of the participants give olfactory or gustatory stimulation for their fetal. The percentages of participants stimulated auditory, visual, tactile, and vestibular stimulation were 97.1%, 34.3%, 60%, and 42.9%, respectively. Pearson and Spearman correlations indicated that the factors significantly associated with fetal stimulation were participation in prenatal classes, frequency of attendance in prenatal classes, knowledge of all types of stimulation, knowledge of visual stimulation, and knowledge of the meaning of stimulation. The multiple regression results showed that only the score for knowledge of visual stimulation was significantly positive ( $p = 0.042$ ), while participation in prenatal classes had no significant effect. This is because the educational content in prenatal classes only covered nutrition, health, and mental health. Pregnant women need to receive education about fetal stimulation.

**Research limitations** – The size sample

**Originality/value** – The fetal stimulation by pregnant women in their 6-8th month of pregnancy and the factors influencing it

*Keywords: pregnancy, stimulation, auditory, olfactory, gustatory*

---

The background of the page features a blue geometric pattern consisting of overlapping triangles and trapezoids in various shades of blue, creating a modern, abstract design. This pattern is visible at the top and bottom of the page, framing the central white area.

# **Track: Medicine**



# From Global Evidence to Indonesian Practice: An Integrated Scoping–Systematic Review of Medication Use in Blindness, Barrier–Facilitator Mapping, and Service Implementation Guidance

| Fransiskus Samuel Renaldi<sup>1</sup>, Irianti Bahana Maulida Reyaan<sup>2</sup>

<sup>1</sup>Universitas Pembangunan Nasional Veteran Jakarta, <sup>2</sup>Institut Teknologi Bandung

---

## Abstract

**Background** – Patients with visual impairment face unique barriers throughout the medication use continuum—from reading labels to ensuring long-term adherence—which impact safety.

**Purpose** – To synthesize global evidence on medication use in this population, map barriers and facilitators, evaluate the direction of effects and feasibility of intervention packages, and translate these into realistic implementation recommendations for the Indonesian context.

**Design/methodology/approach** – Systematic literature review with narrative synthesis following PRISMA 2020. Searches of major biomedical databases (MEDLINE/PubMed, Embase, CINAHL, Cochrane CENTRAL, Scopus) were limited to Indonesian/English and age ≥12 years. Selection was performed independently; risk of bias was assessed using standard tools (RoB-2/ROBINS-I/NIH/JBI) and GRADE–CERQual for qualitative findings.

**Findings** – Improved access to information integrated with behavioral support and safe transition protocols form the chain of “Access → Adherence → Safety.” These findings underpin minimum standards at the point of service (accessible format and teach-back), operational behavioral support (reminders/organizers), and transition SOPs (reconciliation + accessible summary + follow-up), with simple quality indicators for continuous monitoring in Indonesia.

**Research limitations** – The findings of the study are limited by heterogeneity in design, population, and outcome metrics; some studies did not report standard effect sizes or adequate follow-up durations, making quantitative synthesis and robust causal inference impossible in some cases. In addition to the potential for publication bias (particularly for technology-based interventions), generalizing to all service contexts in Indonesia requires caution given the variation in resources, digital readiness, and socio-cultural diversity among facilities.

**Originality/value** – This study offers an original contribution by integrating global evidence into the conceptual model of “Access → Adherence → Safety” and a low-cost, operational layered service package (Info-First, Behavior-Support, Safe-Transitions) for the Indonesian context. Its practical value lies in the implementation guidelines and measurable quality indicators, so that the findings can be directly used for service standardization, evaluation, and policy formulation.

*Keywords: visual impairment, medication information access, teach-back, compliance, medication reconciliation*

---

The background of the page features a repeating geometric pattern of overlapping triangles in various shades of blue, creating a modern, abstract design. This pattern is visible at the top and bottom of the page, framing the central white area.

# **Track: Social Science**

# Two Decades of Political and Economic Reform in Indonesia: Women's Labor Participation and Political Representation

| Sri Lestari Wahyuningroem

Universitas Pembangunan Nasional Veteran Jakarta

---

## Abstract

**Background** – After two decades of democratic transition in Indonesia, women have been left behind in both the economic and political sectors. As the cases in many other countries, welfare indicators show that the condition of women has deteriorated due to political and economic reforms that do not favor women. This paper attempts to challenge the thesis on the political and economic reforms leading to market freedom that provide opportunities for women's emancipation and increase political representation. Using process tracing in qualitative approach, this study argues that as a developing democracy with strong socio-cultural traditions, Indonesia presents an interesting case where progress in one domain—economic participation—does not always directly translate into equal gains in political empowerment due to the structural inequality that has not been addresses in the two decades of reform.

**Purpose** – The objective is to analyze the relationship between labor force participation rates and female representation in Indonesia.

**Design/methodology/approach** – Wualitative approceh using process tracing.

**Findings** – As a developing democracy with strong socio-cultural traditions, Indonesia presents an interesting case where progress in one domain—economic participation—does not always directly translate into equal gains in political empowerment. However, there are important interconnections between the two that illuminate the structural and cultural barriers women continue to face, as well as the transformative potential of greater female participation in the workforce.

**Research limitations** – The data collected covers a period of twenty years since the reform, so much of it is no longer accessible and many of the people involved can no longer be found for interviews.

**Originality/value** – There have been no previous studies analyzing this topic.

*Keywords: women labor participation; political and economic reform; wormn representation; Indonesia*

---

The background of the slide features a repeating geometric pattern of overlapping triangles in various shades of blue, creating a modern, abstract design.

# **Track: Gender and Sexuality Studies**

# The Lived Experiences of Male Early Childhood Education: Insights from Qualitative Interviews

| Maria Fatima Dolendo

Philippine Normal University Visayas

---

## Abstract

**Background** – Male educators in early childhood education represent a small but vital demographic. However, their experiences and challenges have mainly been underexplored due to persistent gender stereotypes and the historically female-dominated nature of the field.

**Purpose** – This study aimed to address this gap by exploring the lived experiences of male early childhood educators, shedding light on their professional challenges, contributions, and perspectives.

**Design/methodology/approach** – Employing a phenomenological research design, the study utilized Colaizzi's method to analyze data from in-depth semi-structured interviews with ten (10) purposefully selected male educators, each with a minimum of two years of teaching experience.



**Findings** – The findings revealed three primary themes. First, male educators demonstrated their resilience and adaptability by using a variety of coping mechanisms to navigate professional and societal challenges, including gender biases and parental skepticism. Second, despite these challenges, they conveyed a deep sense of professional fulfillment from their work, emphasizing their passion for fostering young children's holistic development and their commitment to reshaping perceptions of male educators in early childhood settings. Lastly, the results highlighted the increasing interest in male educators as essential father-like figures and positive male role models, reinforcing the need for greater gender inclusivity in early childhood education.

**Research limitations** – The results showed that male educators are as capable of providing excellent learning opportunities and experiences as their female counterparts. Their distinct viewpoints and methods helped create a more varied and stimulating learning environment.

**Originality/value** – This study challenges traditional gender norms and advocates for a more inclusive and equitable early childhood education workforce.

*Keywords: Male Early Childhood Educators, Sex Difference in Early Childhood Education, Positive Male Role Model, Gender Roles and Inclusivity*

---



# **Track: Engineering and Technology**

# Human Embryonic Kidney Cell Microscopic Image Segmentation using Multi-Scaling U-Net

| Muhammad Syiham Fakhrolradzi bin Abdul Aziz<sup>1</sup>, Prof. Ir. Dr. Siti Fauziah Toha<sup>2</sup>,  
Dr. Izyan Mohd Idris<sup>3</sup>, Dr. Muhammad Fauzi Daud<sup>4</sup>, Dr. Azam Ahmad Bakir<sup>5</sup>, Dr.  
Low Siow Yong<sup>6</sup>, Ir. Dr. Ahmad Syahrin Idris<sup>7</sup>

<sup>1,5,6,7</sup>University of Southampton Malaysia, <sup>2</sup>International Islamic University Malaysia, <sup>3</sup>Institute of Medical Research, <sup>4</sup>Universiti Kuala Lumpur

---

## Abstract

**Background** – Human Embryonic Kidney (HEK) cells are widely used in biotechnology research, but maintaining their culture quality requires regular monitoring of cell confluency. Manual assessment is subjective and prone to human bias. Automated cell segmentation using deep learning enables precise and objective confluency measurement by accurately quantifying cell-covered regions.

**Purpose** – This study aims to develop a data-centric deep learning model for HEK cell segmentation to automate accurate and consistent confluency measurement.

**Design/methodology/approach** – A modified convolutional neural network (CNN) architecture, Multi-Scaling U-Net (MSUNet), was implemented to develop a HEK cell segmentation model. The model was trained on laboratory-acquired microscopic HEK cell images using a data-centric approach, focusing on dataset curation and quality improvement. Image preprocessing involves contrast enhancement and noise reduction. Ground truth labelling is refined by incorporating feedback from cell culture experts. Model performance was evaluated using Intersection over Union (IoU), pixel accuracy, and F1 score.

**Findings** – The initial model achieved an IoU score of 0.781, indicating moderate segmentation accuracy. After applying the data-centric approach, which included dataset cleaning and refining ground truth masks based on expert feedback, the model's performance improved to an IoU of 0.898. This 14.98% improvement demonstrates that model performance was significantly influenced by data quality. Enhanced preprocessing and precise labeling enabled the model to effectively distinguish cell regions from background, reducing segmentation noise and improving confluency estimation consistency. These results suggest prioritizing dataset quality is practical to optimize performance in biomedical image segmentation tasks.

**Research limitations** – The study focuses on HEK cell cultures at 10× magnification with a small dataset (40 images). Hardware limitations (4GB GPU memory) restricted batch sizes during training. Further validation using larger datasets, diverse cell types, imaging conditions, and other biomedical applications is recommended to assess generalizability and broader applicability.

**Originality/value** – This research presents a data-centric deep learning framework specifically optimized for automated cell culture monitoring. By combining an advanced CNN architecture with curated datasets, it delivers accurate, consistent and reproducible automated cell analysis in cell research.

*Keywords: Cell Confluency, Deep Learning, Biomedical Image Segmentation, MSUNet Convolutional Neural Network (CNN), Data-Centric AI approach*

---

# Data-Driven Prediction of Distillation Machine Failure Time Using Multiple Linear Regression, Random Forest Regression and Long Short-Term Memory

| Yulizar Widiatama<sup>1</sup>, Nanang Alamsyah<sup>2</sup>, Gamaliel Joseptian Dhio<sup>3</sup>

<sup>1,2,3</sup>Universitas Pembangunan Nasional Veteran Jakarta

---

## Abstract

**Background** – The Industrial Systems Planning and Optimization Laboratory of UPN “Veteran” Jakarta operates a distillation machine that has not been routinely used for approximately two years, resulting in an unscheduled maintenance cycle. This condition can be addressed by predicting the machine’s failure time as a basis for developing a preventive maintenance schedule.

**Purpose** – The prediction of failure time can be improved by increasing both the number of data samples and the independent variables that may influence the machine’s degradation behavior.

**Design/methodology/approach** – This study aims to model and predict the distillation machine’s failure time using three machine learning approaches: Multiple Linear Regression (MLR), Random Forest Regression (RFR), and Long Short-Term Memory (LSTM).

**Findings** – The prediction performance is evaluated using Root Mean Square Error (RMSE) and Mean Absolute Percentage Error (MAPE). The MLR model achieved RMSE and MAPE values of 6.0727 and 11.78%, respectively, without indications of overfitting or underfitting. The RFR model produced RMSE and MAPE values of 8.9238 and 16.27%, showing signs of overfitting. Meanwhile, the LSTM model obtained RMSE and MAPE values of 33.3923 and 27.45%, indicating underfitting.

**Research limitations** – This study is limited by the relatively small number of data samples and restricted variable diversity, which may reduce the ability of complex algorithms like Random Forest and LSTM to capture nonlinear patterns effectively. Additionally, all observations were conducted under controlled laboratory conditions, so the results may not fully represent variations in real industrial environments or large-scale operational settings.

**Originality/value** – Based on these results, Multiple Linear Regression demonstrates the best predictive performance and stability for estimating the failure time of the distillation machine, providing a useful reference for scheduling preventive maintenance.

*Keywords: Machine Learning, Predictive Maintenance, Multiple Linear Regression, Random Forest Regression, Long Short-Term Memory*

---



The image features a blue geometric background pattern consisting of overlapping triangles and quadrilaterals in various shades of blue. This pattern is located at the top and bottom of the page, framing the central white area.

# **Track: Computer Science**

# Robust Bidirectional Speak–Reply Loops for Code-Switched Darija, MSA, and Amazigh

| Zakaria El Fakir<sup>1</sup>, Oussama KAICH<sup>2</sup>, Omar ZAHOUR<sup>3</sup>, Sanaa EL FILALI<sup>4</sup>, El Habib BENLAHMAR<sup>5</sup>

<sup>1,2,3,4,5</sup>Faculty of Science Ben M’Sick/Hassan 2 University

---

## Abstract

**Background** – Everyday speech in the Maghreb blends Moroccan Arabic (Darija), Modern Standard Arabic (MSA), and Amazigh. Off-the-shelf ASR/TTS systems trained on high-resource varieties struggle under rapid code-switching, causing WER spikes, accent loss, and biased user experiences. We target inclusive, real-time “speak–reply” loops that preserve speaker identity and support under-resourced users in classrooms, citizen services, and call-center scenarios.

**Purpose** – We propose a practical design framework and a minimal, license-compliant evaluation recipe for low-latency STT↔TTS under Darija–MSA–Amazigh code-switching. We simulate results with state-of-the-art models to provide deployment guidance for pan-Maghreb use.

**Design/methodology/approach** – The pipeline is streaming ASR → LID-aware routing → text normalization → multi-speaker TTS. ASR baselines include Whisper large-v3 and SeamlessM4T-v2; LID uses a lightweight fastText-style classifier and a small transformer; normalization covers Arabic diacritization, Amazigh Tifinagh↔Latin transliteration, and robust expansion for numbers, dates, and named entities. TTS uses a multilingual model (e.g., XTTS) with optional voice cloning to retain timbre and regional prosody. A ≤20-minute mini-bench mixes balanced Darija/MSA/Amazigh segments and natural code-switches. Metrics: overall/per-language WER/CER, code-switch detection F1, end-to-end latency (mean/P95), MOS or MOS-Net proxy, speaker-embedding cosine similarity, and an accent-retention rubric.

**Findings** – Simulated results indicate LID-aware routing reduces WER on mixed segments by ~10–15% while adding ~150–300 ms latency; fast, text-level LID minimizes overhead. Normalization sharply lowers errors on numerals/dates and stabilizes named entities. Accent-preserving TTS with limited target data achieves MOS ≈4.1–4.3 and strong speaker similarity; slight naturalness trade-offs arise with aggressive voice cloning. Quantization and small models enable on-device operation within ~2–3 GB RAM, suitable for schools and service kiosks.

**Research limitations** – Public Amazigh speech resources remain scarce; our bench is small and partly simulated. MOS relies on limited native raters; no longitudinal user studies are reported. Future work should expand community datasets and human-in-the-loop correction.

**Originality/value** – This is a pan-Maghreb, end-to-end recipe unifying LID, normalization, and accent-aware TTS with actionable deployment checklists. It centers inclusivity for under-resourced speakers and provides a reproducible, low-cost path to robust real-time dialogue.

*Keywords:* Code-switching, Language Identification, Low-Resource ASR/TTS, Arabic Dialects, Amazigh

---

# Comparative Text-to-3D vs. Text-Guided NeRF/3D Gaussian Splatting: When to Choose Which?

| oussama kaich<sup>1</sup>, Zakaria EL FAKIR<sup>2</sup>, Sanaa EL FILALI<sup>3</sup>, Omar ZAHOUR<sup>4</sup>, El Habib BENLAHMAR<sup>5</sup>

<sup>1</sup>faculté des sciences ben msik - univh2c, <sup>2,3,4,5</sup>Faculty of Science Ben M'Sick/Hassan 2 University, Casablanca, Morocco

---

## Abstract

**Background** – Cultural-heritage reconstruction needs 3D methods that balance geometric fidelity, data scarcity, compute cost, and legal/ethical constraints. Two families dominate: (i) diffusion-prior text-to-3D that can start from prompts alone, and (ii) text-guided NeRF/3D Gaussian Splatting (3DGS) that edit or complete models from multi-view images. Practitioners lack a concise, criteria-based guide to select the right approach for specific heritage tasks (façades, rooms, artifacts).

**Purpose** – Provide a practical decision framework and scoring matrix that compare text-to-3D and text-guided NeRF/3DGS on data needs, fidelity, realism, scene complexity, editability, speed, workflow integration, and licensing/ethics—culminating in actionable “when to choose which” guidance for heritage use cases.

**Design/methodology/approach** – Literature-grounded comparative analysis (2022–2025) of representative systems (e.g., DreamFusion/Magic3D/Fantasia3D, Text2NeRF/MVDream, Instruct-NeRF2NeRF, GaussCtrl, GSGEN/GALA3D). Eight criteria (C1–C8) are each scored 0–5. A decision matrix summarizes category-level trade-offs; a second table contrasts ten systems by representation, inputs, runtime, and pros/cons. Two vignettes (temple façade completion; museum interior for VR) show how to apply the framework.

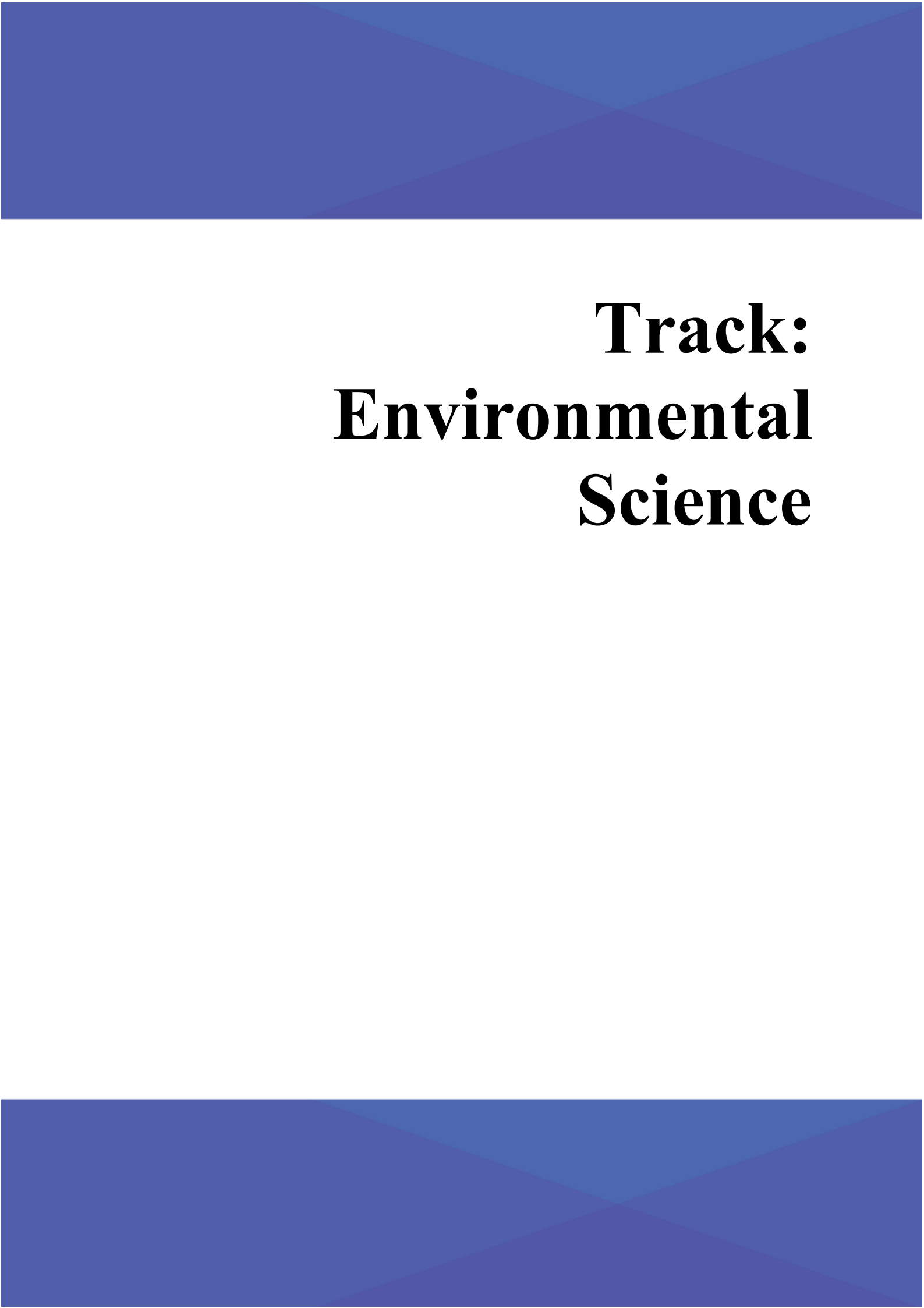
**Findings** – If multi-view imagery exists and high geometric fidelity is required, text-guided NeRF/3DGS is preferred (top accuracy/realism; real-time rendering with 3DGS), at the cost of capture/calibration and heavier training. When only descriptions or a few images are available, text-to-3D excels for rapid ideation and asset bootstrapping but risks approximate geometry, view inconsistency, and longer optimization. Editing methods (e.g., Instruct-NeRF2NeRF, GaussCtrl) provide controlled, multi-view-consistent changes. A hybrid path—generate coarse assets via text-to-3D then refine with NeRF/3DGS when images are collected—offers strong practicality for heritage pipelines.

**Research limitations** – No standardized, heritage-specific benchmarks; scores rely on reported metrics/demos. Limited open datasets for large architectural scenes; compute assumptions vary by hardware. Legal status of training data for some priors remains uncertain.

**Originality/value** – First heritage-focused, criteria-driven decision framework unifying text-to-3D and text-guided NeRF/3DGS. Delivers succinct matrices, worked vignettes, and a reproducible selection recipe that teams can adapt to budgets, data availability, and authenticity requirements.

*Keywords: Text-to-3D, NeRF, 3D Gaussian Splatting, Cultural Heritage, Decision Framework*

---

The background of the page features a repeating geometric pattern of overlapping triangles in various shades of blue, creating a modern, abstract design.

# **Track: Environmental Science**

# Site Selection and Design Criteria as Inputs for Developing Resilient Core Housing Unit Using Locally Sourced Materials for Hazard Prone Areas in Partido Area

| Engr. Alicia S. Pempena, Engr. Marijane A. Iglesia

Partido State University, Partido State University

---

## Abstract

**Background** – The Philippines faces recurrent destruction from typhoons and other natural hazards, disproportionately affecting low-income communities in hazard-prone areas. The demand for sustainable, affordable, and disaster-resilient housing has grown urgent, particularly in the Partido Area of Camarines Sur, which frequently experiences strong winds, flooding, and landslides. Addressing these vulnerabilities requires integrating environmental data, site suitability assessment, and resilient design principles using locally sourced and sustainable materials such as bamboo.

**Purpose** – This study aims to establish scientific criteria for site selection and architectural design as inputs for developing a resilient core housing unit using locally available bamboo materials for hazard-prone communities in the Partido Area.

**Design/methodology/approach** – The study employed a mixed-method approach that included literature review, field surveys, geospatial analysis, and hazard mapping using digital tools such as Google Earth Pro and DOST's Hazard Hunter PH. Mathematical modeling and analytical computation were applied to determine the optimal roof slope for bamboo-based housing under extreme wind conditions reaching up to 300 kph.

**Findings** – Results indicate that a roof slope of 30° experiences the highest suction pressure ( $-200.41 \text{ kg/m}^2$ ), while the minimum suction and pressure occur at 32° ( $-51.26 \text{ kg/m}^2$ ) and 33° ( $22.12 \text{ kg/m}^2$ ), respectively. These findings confirm that hip or pyramidal roof configurations provide better wind-load distribution and structural stability than gable types. Site analysis identified that the study areas—Goa, San Jose, and Lagonoy—are within seismic zone 4 and vary in exposure to hydrometeorological hazards. The study produced a set of site selection and design guidelines aligning with NHA and DENR standards to ensure safety, accessibility, and sustainability.

**Research limitations** – This study is limited to the assessment of site suitability and preliminary structural design modeling (Part 1). Future research will focus on prototype development, material testing, and full-scale performance evaluation.

**Originality/value** – The study provides an evidence-based framework for designing typhoon-resilient housing using bamboo, bridging environmental science, engineering, and sustainability studies. By integrating local material use with hazard-based site assessment, the research contributes to sustainable housing development, climate adaptation, and disaster risk reduction in vulnerable Philippine communities.

*Keywords: resilient housing, bamboo construction, site selection, hazard-prone areas, sustainable design*

---



# **Track: Sustainability Studies**



# Advancing Local Agritourism Program in Achieving New Normal Goals: Sustainable Marketing Strategy Approach from the International Hospitality and Tourism of the University of Baguio

| Alvin Morales

University of Baguio

---

## Abstract

**Background** – This study analyzes sustainable marketing techniques to boost agritourism in Barangay Alapang, aligned with UN SDGs. It finds digital marketing via Facebook and Instagram as vital, though challenges like short-term profit focus and limited use of virtual tours remain. Agritourism supports economic growth, jobs, and infrastructure but needs stronger cultural preservation. Recommendations include integrated marketing, sustainability training, and partnerships, led by the University of Baguio's SIHTM to foster resilient rural tourism post-pandemic

**Purpose** – Barangay Alapang uses diverse marketing strategies including social media, local business collaborations, websites, and festivals to promote agritourism.

**Design/methodology/approach** – This research used a parallel exploratory sequential design combining quantitative surveys of 118 local farmers with qualitative interviews and documentary analysis. Data from local authorities and secondary sources helped triangulate findings, ensuring reliability. The study emphasized ethical research protocols and analyzed data with statistical and content analysis methods to identify marketing strategies, agritourism benefits, challenges, and recommendations.

**Findings** – The study reveals that Barangay Alapang widely employs social media promotion (100%) and collaboration with local businesses (85.8%) as key agritourism marketing strategies, with websites (67.5%) and local events (60%) also playing important roles. However, only 24.2% use tour packages, indicating potential for development. Despite these efforts, 76.7% prioritize short-term financial gains over long-term sustainability. Agritourism significantly supports the local economy by providing additional income, job creation, and infrastructure development, while cultural preservation remains underemphasized. Online sales are the dominant management strategy (70%) adapting to the new normal. Major challenges include limited marketing budgets, infrastructure, and regulatory issues. An action plan promotes integrated marketing, community partnerships, skills training, cultural heritage, and culinary programs to sustain agritourism's growth and community benefits.

**Research limitations** – Parallel exploratory sequential design faces challenges including managing different sample sizes for qualitative and quantitative components, integrating text and numerical data, and resolving conflicting findings that may require additional data collection. It demands significant time, expertise, and careful ethical approvals because it combines two research methods, making it resource-intensive and complex.

**Originality/value** – It sustainable marketing strategies to grow agritourism in Barangay Alapang, supporting SDG 8 focused on economic growth.

*Keywords: Sustainable marketing, agritourism, new normal, digital marketing, farmers*

---

# Why Financial Models Ignore Biophysical Reality in Peatland Carbon Projects: A Systematic Review

| Azizah Efson<sup>1</sup>, Oktofa Yudha Sudrajad<sup>2</sup>

<sup>1,2</sup>Bandung Institute of Technology

---

## Abstract

**Background** – Background Peatland restoration is crucial for climate mitigation due to its capacity to store significant amounts of carbon. However, mobilizing private capital is hampered by valuation challenges. Current financial models often ignore the dynamic biophysical processes and ecological risks that directly impact the carbon stability of peatlands.

**Purpose** – This research aims to bridge this interdisciplinary gap by systematically reviewing and synthesizing the fragmented literature. The objective is to map the current state of research, identify the key variables used in financial and ecological models, and critically analyze the disconnect between these domains. This analysis seeks to provide a foundational understanding of why current valuation methods are insufficient.

**Design/methodology/approach** – A systematic literature review is the core methodology of this study. It evaluates scientific publications collected from Scopus and relevant carbon registry databases, published between 2015 and 2025. The analysis focuses on three key areas: biophysical factors (drought and fire risks), ecohydrological management (water level), and financial feasibility models (NPV, IRR, payback period), to understand how these factors are currently, or are not, integrated.

**Findings** – Systematic literature review confirmed a research gap. The financial literature focuses on static feasibility (NPV/IRR), while the ecological literature provides a more in-depth, mechanistic understanding of ecohydrology (e.g., the impact of groundwater levels on carbon fluxes in peatlands). However, studies quantitatively linking these biophysical risks to a financial valuation framework were lacking.

**Research limitations** – Limitations of this study are inherent to the SLR methodology. Findings are constrained by the selected databases, keywords, and the 2015-2025 date range. Potential publication bias may exist. Furthermore, the significant methodological heterogeneity between the reviewed financial and ecological studies presented challenges for direct comparison and synthesis.

**Originality/value** – Value of this research lies in its systematic and interdisciplinary synthesis of fragmented fields. By rigorously mapping the fragmentation between financial and ecological domains, it provides explicit, evidence-based identification of the research gap. It serves as a foundational reference and provides a clear, consolidated roadmap for future research aimed at developing the integrated valuation models that the field currently lacks.

*Keywords: Peatland Carbon, Carbon Finance, Systematic Literature Review*

---





# **Track: Communication Studies**

# Power Dynamics and Social Inclusion in Chinese Indonesian Families: How Parental Influence Shapes Youth Voting Preferences

| Halley Marvelin<sup>1</sup>, Anang Sujoko<sup>2</sup>, Maulina Pia Wulandari<sup>3</sup>

<sup>1,2,3</sup>Brawijaya University

---

## Abstract

**Background** – Families play a central role in shaping political orientations, especially in collectivist societies where intergenerational ties are embedded in cultural norms. Within Chinese Indonesian households—one of the country’s largest minority groups—communication is influenced by historical marginalization, cultural expectations, and authority structures rooted in filial piety. These factors shape how youth negotiate parental influence, including in political matters. Yet research on how minority youth actively negotiate such influence remains limited. Understanding these dynamics is important because minority political participation is a key indicator of inclusive democratic development in the Global South.

**Purpose** – This study examines how power dynamics in family communication influence youth voting preferences in Chinese Indonesian families, focusing on how parental authority is negotiated and how such interactions relate to broader processes of social inclusion.

**Design/methodology/approach** – Using a constructivist qualitative approach, the study drew on in-depth semi-structured interviews with Chinese Indonesian youth in their twenties. Thematic analysis was used to identify communication patterns, negotiation strategies, and pathways through which political preferences are formed.

**Findings** – Parental influence does not operate unilaterally but is continuously negotiated. Youth employ strategies such as compromise, conflict avoidance, and information-based argumentation to manage parental authority. These strategies foster more dialogic and inclusive power relations, particularly in open-communication families or single-parent households where reciprocity is more evident. Youth political preferences emerge from the interplay between family values—such as cohesion and respect—and personal evaluations shaped by lived experience and exposure to wider sociopolitical environments. The findings illustrate how minority families negotiate power, voice, and political expression, shaping youth political agency and contributing to social inclusion.

**Research limitations** – The study’s small sample and focus on youth in their twenties limit the breadth of perspectives across generations. Self-reported accounts may also introduce recall or desirability bias, limiting generalizability.

**Originality/value** – This study advances understanding of minority political socialization by showing that youth political agency in the Global South emerges through everyday negotiation within family structures. It offers new insight into how communication processes mediate political influence and support social inclusion in minority communities.

*Keywords: Family communication, Chinese Indonesian, power dynamics, voting preferences, social inclusion*

---

## CLOSING REMARKS

---

Excellencies, Presenters, Attendees,  
Ladies and Gentlemen,

As we conclude the Jakarta International Conference on Research, Innovation, and Sustainable Development 2025 (JICRISD 2025), organized by Pusat Studi Gender Saraswati Universitas Pembangunan Nasional “Veteran” Jakarta, Universitas Pembangunan Nasional Veteran Jakarta (UPNVJ) and Research Synergy Foundation and supported by Scholarvein, Reviewer Track, Research Synergy Institute, Research Synergy Press, Global Research Community, and F1000Research, I am honored to deliver the closing remarks. This virtual gathering has been a significant milestone in our collective pursuit of knowledge and innovation.

Over the course of this conference, our discussions have spanned various fields, including Economics, Business, Social Science, Communication Studies, Sustainability Studies, Engineering and Technology, Management, Health Sciences, Medicine, Computer Science, Environmental Science, Entrepreneurship, Gender and Sexuality Studies, and many more. The insights shared have enriched our understanding and opened new avenues for research and collaboration.

I extend my deepest gratitude to all participants, keynote speakers, speakers, reviewers, presenters, attendees, and session chairs from various countries. Your contributions have been invaluable, fostering a vibrant and engaging conference environment. Special thanks to the organizing committee for their dedication and hard work in ensuring the success of this event.

Congratulations to the recipients of the Best Paper and Best Presentation awards. Your exemplary work sets a high standard for us all. The feedback provided by our session chairs has been instrumental in enhancing the quality of discussions, and we look forward to future collaborations.

As we part ways, I encourage you to carry forward the knowledge and connections gained during this conference. May they serve as catalysts for your professional development and contribute to building a more sustainable, equitable, and prosperous future for all.

Thank you for your participation. Stay safe and healthy, and I look forward to seeing you at our upcoming events.

Best regards,

Research Synergy Foundation



# Future Events

**<https://bit.ly/UpcomingConference-RSF>**

***ICRES-ISCLO 2025***

---

International Conference on Research in Emerging Technologies and Strategic Business &

The 10th International Seminar and Conference on Learning Organisation (ICRES-ISCLO)

<https://icres.events>

Virtual Conference – December 11-12, 2025

***IHSATEC 2025***

---

The International Halal Science and

Technology Conference 2025 (IHSATEC):

18th Halal Science Industry and Business (HASIB)

<https://www.ihsatec.com>

Virtual Conference – December 18-19, 2025

***ICISMA***

---

International Conference on the Synergy of Islamic and Multidisciplinary Approaches (ICISMA)

<https://icisma.com/>

Virtual Conference – February 11-12, 2026

***11<sup>th</sup> RESBUS***

---

11<sup>th</sup> International Conference on Interdisciplinary Research on Education, Economic Studies, Business and Social Science (11<sup>th</sup> RESBUS)

<https://resbusconference.com>

Virtual Conference – February 24, 2026

***10<sup>th</sup> ESBEM***

---

10<sup>th</sup> International Conference on Entrepreneurship Studies, Business, Economy, and Management Science (10<sup>th</sup> ESBEM)

<https://esbem.com>

Virtual Conference – March 10, 2026

***12<sup>th</sup> BEMSS***

---

12<sup>th</sup> International Conference on Business, Economy, Management and Social Studies Towards Sustainable Economy (12<sup>th</sup> BEMSS)

<https://www.bemssconference.com>

Virtual Conference – April 22, 2026



Supported by :

