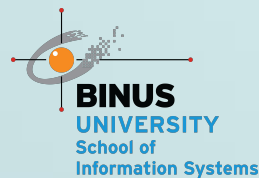# ICIMTech

2024 International Conference on Information Management and Technology (ICIMTech)

28 - 29 August 2024

Indonesia

Conference Book

Organized by:

BINUS UNIVERSITY School of Information Systems

Part of:

BINUS JOINT INTERNATIONAL CONFERENCE

Supported by:

BINUS UNIVERSITY

Technical Co-Sponsored:

IEEE INDONESIA SECTION

Greetings!

Honourable Participants/Researchers/Delegates/Professors,

Distinguish Guests,

Welcome to the 9th edition of the "International Conference on Information Management and Technology (ICIMTech)." It is a great pleasure for me to host you this year at Denpasar, Bali, Indonesia. ICIMTech 2024 is organized by the School of Information Systems and supported by the Research and Technology Transfer Office at BINUS University. The ICIMTech 2024 conference is part of the BINUS Joint International Conference (BJIC). Along with BINUS University, the IEEE Indonesia Section sponsored ICIMTech 2024 with technical guidance on the article structure and context.

The 2024 edition is the eighth consecutive year of the ICIMTech conference. ICIMTech 2024 is held in hybrid mode to increase researchers' inclusiveness in Indonesia. The ICIMTech conference has always been a wonderful place for researchers to share their thoughts on Information Systems and Computer Science. In this edition, **Information Technology in a World Reimagined: Challenges and Opportunities for a Sustainable Future**" has been chosen as the conference theme. By focusing on the intersection of IT and sustainability, this conference theme offers a unique opportunity to explore critical issues, promote interdisciplinary research, and contribute to a more sustainable future.

In this year's edition, ICIMTech 2024 received around 829 articles submissions which were screened, filtered, and reviewed. After the rigorous review process, the technical program committee choose 144 articles for this year's conference. The selected articles are written by authors who originated from Indonesia, People's Republic of China, Bangladesh, India, United States of America, Republic of Austria, United Kingdom of Great Britain, Malaysia, The Kingdom of Norway, Taiwan, Philippines, Thailand, and Vietnam. By participating in the ICIMTech conference, all authors and participants will get an opportunity to exchange ideas in the emerging technology field such as Artificial Intelligence, Blockchain, Cloud, and Data. Last, thank you for IEEE Indonesia Section, all Organizing Committee, and all Technical Program Committee to make this conference happen. And thank you to all of you who participated in the ICIMTech 2024 conference, and I hope you enjoy the conference.

Dr. Natalia Limantara,S.Kom., MMSI.
Chairman of ICIMTech 2024

Greetings!

Welcome to the 9th International Conference on Information Management and Technology (ICIMTech 2024) held from 28-29 August 2024 (hybrid from Bali). This ninth conference was hosted by the School of Information Systems, BINUS University (Bina Nusantara University). ICIMTech has helped many scholars develop their research work over the last nine years by providing constructive interaction with experienced academics. Learning from mature research and stimulating interaction with academics, practitioners, and more experienced researchers at the conference has transformed ICIMTech into a melting pot of multigenerational researchers. We are thrilled to have all participants take part in this fantastic event.

ICIMTech provides a scientific platform for local and international scientists, engineers, and technologists in all information, communication, and technology aspects. Our goal is to provide a premier international venue for scholars and industry practitioners to communicate the most recent essential achievements in the state of the art and practice of information, communication, and technology, discover emergent research areas, and define the future of technology.

We congratulate the authors of papers accepted for publication in the proceedings and IEEE Xplore on a job well done. This year, BJIC is also collaborating with the Indo-Pacific Forum, which is held in Bali. We strongly appreciate our most essential sponsors: BINUS University, Indo Pacific Forum, and IEEE Indonesia Section. As always, we thank all members of the ICIMTech committee for their dedication to making this conference a success. Above all, thank you to all participants for participating in this conference.

Our conference next year is ICIMTech 2025, held in Indonesia. We look forward to seeing you again and hope you enjoy this year's conference.

Sincerely Yours,

Dr. Rudy, S.Kom., M.M.
Dean of School of Information Systems
Bina Nusantara University
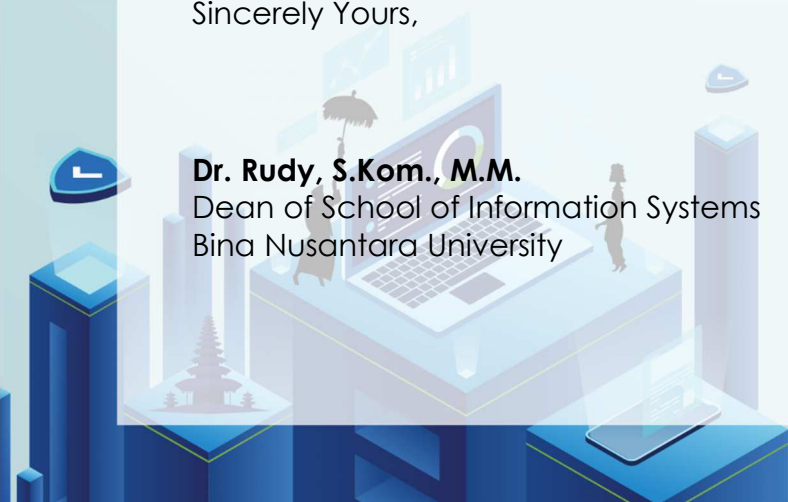
WELCOMING REMARKS Rector of BINUS University

BINUS JOINT INTERNATIONAL CONFERENCE (BJIC)
August 28-29, 2024
Bali, Indonesia

Distinguished keynote speakers,
Fellow professors and presenters,
Ladies and gentlemen,

I am greatly honored to welcome you to the BINUS JOINT INTERNATIONAL CONFERENCE 2024, proudly hosted by BINUS University.

BINUS Joint International Conference (BJIC) is held by BINUS University with the aim of disseminating knowledge from research results. This conference is also part of continuing efforts in creating research and industry partnerships among faculty members, industry representatives and distinguished scholars from all over the world. BJIC consists of 5 international conferences, namely: International Conference on Biospheric Harmony Advanced Research (ICOBAR), International Conference on Information Management and Technology (ICIMTech), International Conference on Computer Science and Computational Intelligence (ICCSCI), International Conference on Business, International Relations and Diplomacy (ICOBIRD), and International Conference on Eco Engineering Development (ICEED).

BINUS University's Vision 2035 highlights the importance of fostering and empowering society to build and serve the nation. We recognize that contributing through research, publications, and the commercialization of research products is crucial to achieving this vision. BINUS University encourages all faculty members to be actively involved in the dissemination of knowledge through scientific publications in order to contribute to the advancement of national and world knowledge.

Ladies and gentlemen,
I enthusiastically recommend making the most of this conference by not only discussing research but also exploring opportunities for joint research, publications, faculty exchanges, and other activities that contribute to a sustainable future.

Finally, I would like to express my highest appreciation to all invited keynote speakers and invited plenary session speakers and all presenters and participants who will make this conference meaningful. I also extend my appreciation to all the chairpersons and committee members of the conference. I wish everyone a successful conference and the opportunity to make new connections.

Thank you.
Denpasar, 28 August 2024
Dr. Nelly, S.Kom., M.M., CSCA
Rector, BINUS University

Greetings!

WELCOMING REMARKS

Vice Rector -

**Research and Technology Transfer
BINUS University**

H.E. Dr. Nelly, S.Kom., M.M., CSCA, Rector, BINUS University
Vice rectors, Directors, Deans, and Professors,

Distinguished keynote speakers,
Fellow professors and presenters,
Ladies and gentlemen,

Let us praise God the Almighty for His merciful blessings as we gather here to attend the BINUS Joint International Conference (BJIC) 2024.

This year, BJIC consist of five international conferences. Those events cover many disciplines ranging from sustainability and development, information management, engineering, technology, computer science, business, international relations, social sciences, and humanities, namely:

1. **International Conference on Biospheric Harmony Advanced Research (ICOBAR 2024)**, chaired by Dr. Noerlina, S.Kom, M.M, is held hybrid in Bali, Indonesia, 28-29 August 2024;
2. **International Conference on Computer Science and Computational Intelligence (ICCSCI 2024)**, chaired by Dr. Hady Pranoto., S.Kom., MTI., is held hybrid in Bali, Indonesia, 28-29 August 2024;
3. **International Conference on Information Management and Technology (ICIMTech 2024)**, chaired by Dr. Natalia Limantara, S.Kom., MMSI, is held hybrid in Bali, Indonesia, 28-29 August 2024;
4. **International Conference of Business, International Relations and Diplomacy (ICOBIRD 2024)**, chaired by Dr. Miranda Paulina Tahalele, S.IP., M.A., is held hybrid in Bali, Indonesia, 28-29 August 2024;
5. **International Conference on Eco Engineering Development (ICEED 2024)**, chaired by Safarudin Gazali Herawan, S.T., M.Eng., PhD, will be held hybrid in Semarang, Indonesia, 6-7 November 2024.

BJIC has been an integrated effort to enhance faculty members' research and publication productivity since September 2018. Starting this year, BJIC encourages the practice of Open Data and Open Contributorship statements

as a manifestation of the Integrity value of BINUS SPIRIT (Striving for excellence, Perseverance, Integrity, Respect, Innovation, and Teamwork). BJIC also makes various efforts to increase the participation of international scientists. This year, ICIMTECH 2024 international authors come from Asia (Malaysia, China, Sri Lanka, Bangladesh, Thailand, Philippines, Taiwan, Vietnam, India, Japan, Qatar), Europe (Austria, Norway, England, Netherlands), and America. BJIC will also enhance cooperation with reputable scientific and professional associations in relevant conference fields.

The 9th ICIMTech aims to bring together researchers and experts in information systems to share their ideas, experiences, and insights on related fields. ICIMTech is organized by the School of Information Systems, Bina Nusantara University, and supported by IEEE Indonesia Section.

ICIMTech 2024 would focus on theme Information Technology in a World Reimagined: Challenges and Opportunities for a Sustainable Future, delivered through keynote speakers and distinguished lecturers.

Distinguished guests, ladies and gentlemen,

This conference is also extraordinary because our keynote speakers are prominent scholars and professionals who contribute to discussing new insights about information systems from their perspectives as academicians, professionals, and experts from different fields. This conference shows the bold commitment of BINUS University as a world-class university in creating high-impact research towards BINUS Vision 2035 and in continuously producing, sharing knowledge, and fostering and empowering society. Therefore, I appreciate their contribution to these conferences.

Last but not least, I would like to thank all the chairpersons of the five conferences and committee members who have worked very hard to make this conference possible. I would also like to thank the presenters, participants, reviewers, and publishers of the papers presented at the conferences and the partners and sponsors of this event. I hope you enjoy the conference!

Thank you very much.
Denpasar, 28 August 2024

Prof. Dr. Juneman Abraham, S.Psi., M.Si.
Vice-Rector – Research & Technology Transfer, BINUS University

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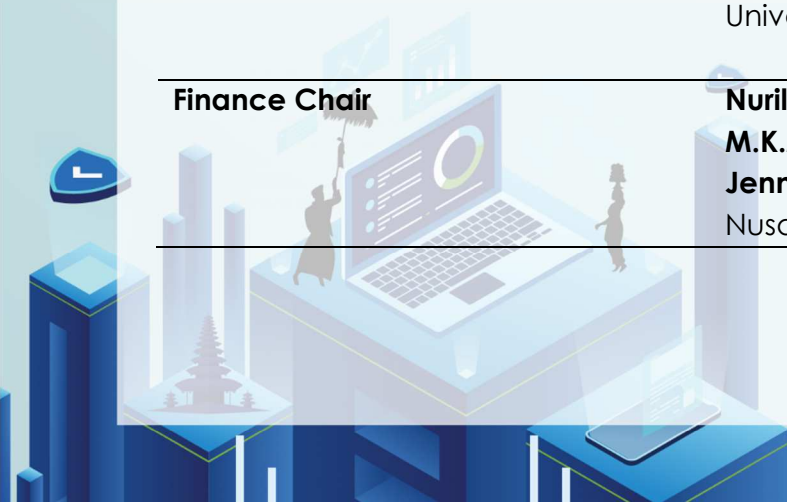
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	Prof. Dr. Meyliana, Bina Nusantara University, Indonesia
	Dr. Richard, S. Kom., M.M., Bina Nusantara University, Indonesia

Keynotes Speakers

Felix Ter Chian Tan
Associate Dean International, UNSW Business School

Keynotes Title: Riding the Wave of Digital Transformation in Asia-Pacific

Dr Felix Tan is the Associate Dean (International) and an Associate Professor of Information Systems at the University of New South Wales (UNSW) Sydney Business School. His research interests include Digital Platforms, Information Systems for Good, Sports Digitalization, E-Commerce, and Enterprise Systems. He actively examines these interests in the context of Digital Transformation for business and social change

Abstract:

Digital transformation is pivotal for a sustainable future, driven by the accelerating adoption of generative AI across Asia. This rapid integration is revolutionizing creative industries, enabling groundbreaking advancements in gaming, webtoons, and content creation. For instance, AI-generated narratives and visuals are enhancing creative processes, fostering innovation, and expanding artistic boundaries. To harness the full potential of this digital revolution, businesses and universities must collaborate, developing new tools and capabilities that empower the next generation of knowledge workers. Such partnerships are essential to ensure that our workforce is equipped with the skills needed to navigate and thrive in this evolving digital landscape, ultimately contributing to a more sustainable and innovative future

Keynotes Speakers

Dr. Manmeet Kaur Mahinderjoit Singh
Assoc. Prof and Senior Lecturer at the School of Computer Science, **Universiti Sains Malaysia**

Dr. Manmeet Kaur Mahinderjoit Singh, a distinguished Senior Lecturer at the School of Computer Sciences, Universiti Sains Malaysia (USM), has built an impressive research portfolio that reflects her dedication and expertise. Her work employs advanced data analytics techniques to address complex issues in various fields. She is especially passionate about leveraging big data and machine learning to improve decision-making processes and increase system efficiencies. Her significant contributions to the field are evident in her numerous publications in high-impact journals and conferences.

Abstract:

The convergence of cybersecurity and sustainability is critical for ASEAN countries as they navigate digital transformation and environmental challenges. This abstract explores the intersection, emphasizing the need for energy-efficient technologies and robust cybersecurity measures. Highlighting a few initiatives and real case studies among some ASEAN countries. The future of ASEAN lies in interdisciplinary collaboration, innovative policies, and sustainable practices that protect digital infrastructures while promoting environmental health, ensuring a secure and sustainable digital future for the region.

Conference Schedule

August 28th – 29th, 2024

https://sis.binus.ac.id/icimtech

ICIMTech

2024 International Conference on
Information Management and Technology
(ICIMTech)

Program at a Glance

Please pay attention to the time zone of the conference location. All schedules follow the *central Indonesian time zone (UTC+08:00)*

- Bali is within WITA, Indonesia Central Time Zone (UTC+08:00) WITA
- Jakarta is within WIB, Indonesia West Time Zone (UTC+07:00) WIB

ICIMTech 2024 runs simultaneously with the BINUS Indo-Pacific Forum. The Bridging Industry and University for Sustainable Future (BINUS) Indo-Pacific Forum represents a pivotal moment in fostering collaboration between industry and academia, a synergy essential for driving sustainable advancements across the Indo-Pacific region. We believe that when industry and universities come together, the fusion of practical insights and academic expertise can lead to innovative solutions and governance that address some of the most pressing challenges of our time.

Date	Onsite Session	Online Session
August 28th, 2024	**Ballroom 2, 3rd floor** **The Stones Hotel – Legian Bali, Autograph Collection** Jl. Raya Pantai Kuta Banjar Legian Kelod Legian Bali, Legian, Kec. Kuta, Kabupaten Badung, Bali 80361 https://maps.app.goo.gl/eZTsxYmDfgqsk6rx5	**Opening & Keynotes Session** *https://www.binus.tv/live-streaming-event/* **Paralel Session** *https://bit.ly/icimtech2024ps* Meeting ID: 969 5110 8964 Passcode: 564319
August 29th, 2024	- For ICIMTech 2024 there will be no presentation sessions taking place onsite. - For ICIMTech participants who choose to attend onsite, you can attend the BINUS INDO-PACIFIC Forum sessions which run onsite. The activity schedule can be seen on the next page.	**Paralel Session** *https://bit.ly/icimtech2024ps* Meeting ID: 969 5110 8964 Passcode: 564319

Day 1 : August 28th, 2024

Time	Activity	Venue
08.30 AM – 09.00 AM (UTC+8)	Participants Registration	Ballroom Area, 3rd Floor
08.30 AM – 05.00 PM (UTC+8)	BINUS Research & Industry Expo	Ballroom 1
08.50 AM – 09.00 AM (UTC +8)	Cultural Performance	
09.00 AM – 09.15 AM (UTC+8)	Welcoming Ceremony of BINUS Indo-Pacific Forum	
09.15 AM – 10.15 AM (UTC+8)	Keynote Speech Session - **Mr. Arsjad Rasjid** Ketua Kamar Dagang dan Industri (KADIN) Indonesia) - **Prof. Tirta Nugraha Mursitama, Ph.D.** Deputi Kerjasama Penanaman Modal, Kementerian Investasi/ Badan Koordinasi Penanaman Modal (BKPM) Republik Indonesia - **H.E. Gina A. Jamoralin, Ph.D., MPA, MBA** Ambassador Extraordinary and Plenipotentiary of the Republic of the Philippines to the Republic of Indonesia - **Prof. Dr. Arif Satria, SP, M.Si.*** Rektor, Institut Pertanian Bogor (IPB University)	Ballroom 2, 3rd Floor
10.15 AM – 11.15 AM (UTC+8)	Keynote Speech Session - **"Riding the Wave of Digital Transformation in Asia-Pacific" Felix Ter Chian Tan** Associate Dean (International) and Associate Professor of Information Systems, University of New South Wales (UNSW), Australia - **"Cybersecurity and Sustainability in ASEAN Countries & Its Future"** **Assoc. Prof. Dr. Manmeet Mahinderjit Singh** Programme Manager Research Ecosystem, Development & Innovation, School of Computer Sciences, Universiti Sains Malaysia (USM), Malaysia - **Mr. Nurul Ichwan** Deputi Bidang Promosi Penanaman Modal, Kementerian Investasi/ Badan Koordinasi Penanaman Modal (BKPM) Republik Indonesia	
11.15 AM – 11.45 AM (UTC+8)	Kuta Pledge for Sustainable Future	
11.45 AM – 11.50 AM (UTC+8)	Closing of Welcoming Ceremony by MC	
11.50 AM – 13.00 PM (UTC+8)	LUNCH BREAK	Ballroom Area, 3rd Floor
01.00 PM – 05.30 PM (UTC+8)	**BJIC 2024: International Conference on Information Management and Technology (ICIMTech) – Session 1 and Session 2** *Paper Presentation Sessions*	Meeting Room 1,2,3, and online
01.00 PM – 05.00 PM (UTC+8)	**BJIC 2024: International Conference on Computer Science and Computational Intelligence (ICCSCI)** *Paper Presentation Sessions*	Junior Ballroom 1
01.00 PM – 05.00 PM (UTC+8)	**BJIC 2024: International Conference on Biospheric Harmony Advanced Research (ICOBAR)** *Paper Presentation Sessions*	Online

Time	Activity	Venue
01.00 PM – 05.00 PM (UTC+8)	**BJIC 2024: International Conference on Business, International Relations and Diplomacy (ICOBIRD)** *Paper Presentation Sessions*	Online
01.00 PM – 02.00 PM (UTC+8)	**Panel Discussion on Sustainable Future [Session One]** • **Prof. Dr. Benjamin Chan Yin Fah** *Dean of Tun Razak Graduate School, Universiti Tun Abdul Razak,* MALAYSIA • **Dr. Atiq Zaman** *Associate Professor, Curtin University,* AUSTRALIA • **Mr. Krishna Worotikan** *Chief Financial Officer, Microsoft Indonesia*	Ballroom 2, 3rd Floor
01.00 PM – 02.00 PM (UTC+8)	**BINUS Indo-Pacific Summit**	Junior Ballroom 2, 3rd Floor
02.00 PM – 03.00 PM (UTC+8)	**Panel Discussion on Sustainable Future [Session Two]** • **Dr. Byung-ik Jung** *Dean of Busan International College, Tongmyong University,* SOUTH KOREA • **Dr. Ni Made Diana Erfiani** *Vice Rector for Academic, Research, and Innovation, Universitas Dhyana Pura,* INDONESIA • **Parinya Nakpathom, Ph.D.** *Assistant Professor, Acting Vice President for Student Affairs, Burapha University International College,* THAILAND • **Mohammad Hafiz Mohd Yusof** *Senior Lecturer and Researcher, Universiti Teknologi Mara,* MALAYSIA	Ballroom 2, 3rd Floor
02.00 PM – 03.00 PM (UTC+8)	**BINUS Youth Ambassador - BINUS Youth Festival Workshop**	Junior Ballroom 2, 3rd Floor
03.00 PM – 03.30 PM (UTC+8)	**COFFEE BREAK**	
03.30 PM – 04.30 PM (UTC+8)	**AppliedHE Special Session** Ms. Mandy Mok, *Founder and CEO,* AppliedHE	Junior Ballroom 2, 3rd Floor
04.30 PM – 05.30 PM (UTC+8)	**Panel Discussion on Sustainable Future [Session Three]** • **Muhammad Makky** *Director, Universitas Andalas,* INDONESIA • **Dr. Jacqueline Tham** *Associate Professor, Management and Science University,* MALAYSIA • **Dr. Nur Haliza Abdul Wahab** *Senior Lecturer, Universiti Teknologi Malaysia,* MALAYSIA	Junior Ballroom 2, 3rd Floor
06.00 PM – 09.00 PM (UTC+8)	**RECEPTION DINNER**	Ballroom 2, 3rd Floor

Day 2 : August 29th, 2024

Time	Activity	Venue
08.30 AM – 09.00 AM (UTC+8)	Participants Registration	Ballroom Area
08.30 AM – 05.00 PM (UTC+8)	BINUS Research & Industry Expo	Ballroom 1
10.00 AM – 12.00 PM (UTC+8)	**BJIC 2024: International Conference on Information Management and Technology (ICIMTech) – Session 3** *Paper Presentation Sessions*	Online
09.00 AM – 04.00 PM (UTC+8)	**BJIC 2024: International Conference on Computer Science and Computational Intelligence (ICCSCI)** *Paper Presentation Sessions*	Junior Ballroom 1
09.00 AM – 04.00 PM (UTC+8)	**BJIC 2024: International Conference on Biospheric Harmony Advanced Research (ICOBAR)** *Paper Presentation Sessions*	Meeting Room 1 and 2
09.00 AM – 04.00 PM (UTC+8)	**BJIC 2024: International Conference on Business, International Relations and Diplomacy (ICOBIRD)** *Paper Presentation Sessions*	Junior Ballroom 2
09.00 AM – 10.00 AM (UTC+8)	**Panel Discussion on Sustainable Future [Session Four]** • **Prof. Y. Budi Widianarko** *Chairman, Nationwide University Network in Indonesia (NUNI),* INDONESIA • **Charles Lau** *Associate Professor - College of Business and Law, RMIT,* AUSTRALIA • **Prof. Dr. Bany Ariffin Amin Noordin** *Dean, Universiti Putra Malaysia,* MALAYSIA • **Dr. Derwin Suhartono** *Dean, School of Computer Science, BINUS University,* INDONESIA	Ballroom 1
09.00 AM – 10.30 AM (UTC+8)	**World Café Session – BINUS Business School** *"ESG Powerplay: Bridging Academics and Businesses in Empowering the Ecosystem"*	Meeting Room 3, 2nd Floor
10.00 AM – 11.00 AM (UTC+8)	**Panel Discussion on Sustainable Future [Session Five]** • **Aza Azlina Md Kasim** *Associate Professor,Management and Science University,* MALAYSIA • **Prof. Ir. Ngakan Putu Gede Suardana, MT, Ph.D., IPU** *Rector, Universitas Udayana,* INDONESIA • **Krittipat Pitchayadejanant** *Associate Dean for Administration and Organization Development, Burapha University International College,* THAILAND	Ballroom 1, 3rd Floor
10.30 AM – 12.00 PM (UTC+8)	**World Café Session – BINUS School of Computer Science** *"Creating Intelligent Urban Ecosystems: Implementation of IoT, AI and Data Science in Smart Cities"*	Meeting Room 3, 2nd Floor
11.00 AM – 12.00 PM (UTC+8)	Panel Discussion on Sustainable Future [Session Six] • **Lily Manoharan** Apple Developer Academy, INDONESIA • **Dr. Thu Phuong Pham*** Associate Professor, School of Accounting, Economics and Finance, Curtin University, AUSTRALIA • **Prof. Dr. Ahmad Farhan Mohd. Sadullah** Vice Chancellor, Universiti Putra Malaysia, MALAYSIA	Ballroom 1

Time	Activity	Venue
12.00 PM – 01.00 PM (UTC+8)	**LUNCH Break**	Ballroom Area
01.00 PM – 02.00 PM (UTC+8)	**Panel Discussion on Sustainable Future [Session Seven]** • **Ashadi Sedana Pratama** *Head of Engineering, DANA*, INDONESIA • **Harfiz Rasul Mohammad** *Country Manager, Universiti Kebangsaan Malaysia,* MALAYSIA • **Fajar Sidik Abdullah Kelana** *Vice Rector for Research and Community Development, Universitas Nahdlatul Ulama (UNU) Yogyakarta*, INDONESIA	Ballroom 1, 3rd Fl
01.00 PM – 02.30 PM (UTC+8)	**World Café Session – BINUS School of Information Systems** *"Computer-Human Interaction and Human Behaviour towards Technology"*	Meeting Room 3, 2nd Floor
02.00 PM – 03.30 PM (UTC+8)	**World Café Session – BINUS Faculty of Engineering** *"Green Energy Access and Reliability in Indo-Pacific"*	Ballroom 1, 3rd Fl
03.30 PM – 04.30 PM	**Closing Ceremony**	Ballroom 1

Presentation Guidelines

Thank you for presenting your research at the conference. To make sure that all sessions run smoothly, we provide the following brief guidelines for all authors to follow:

- Each paper may only be presented by one author's representative.

- Please ensure you have finished creating the PDF eXpress, Copyright Form, and Payment process before the conference day. We will not allow authors to present if one of these requirements has not been fulfilled.

- Please be prepared in the presentation room or online room 15 minutes before the session starts and make sure that your file runs appropriately.

- For onsite participants, presentation files can be shared via Zoom during the presentation or sent to the committee 1 day before the presentation schedule (send your presentation to icimtech@binus.ac.id and mention the paper ID in the email subject).

- The online presentation will run using Zoom and the presentation will run in the Breakout room. Online participants do not need to send their presentation files to the committee.

- For online participants, please make sure your connection is stable, and your camera is on during the presentation. Please use our Virtual Background https://bit.ly/VBGICIMTech2024

- Please kindly note that we will record all the presentations, but won't upload them online for the public.

- Research papers will be scheduled for oral presentations, where each session is allocated 2 hours for 6 – 7 paper presentations.

- Please make sure that you finish your presentation in 15 minutes and leave 5 minutes for Q&A.

- Participants must remain in their respective rooms until all participants have finished their presentations because there will be a group photo session at the end of each session.

- We will send certificates and proceedings to presenters two weeks after the event via the presenter's email.

Parallel Session

Session 1
August 28th, 2024
01.00 PM – 03.00 PM (UTC+8)

Date	Onsite Session	Online Session
August 28th, 2024 **Session 1 :** 01.00 PM – 03.00 PM (UTC+8)	**Ballroom 2, 3rd floor** **The Stones Hotel – Legian Bali,** **Autograph Collection** Jl. Raya Pantai Kuta Banjar Legian Kelod Legian Bali, Legian, Kec. Kuta, Kabupaten Badung, Bali 80361 https://maps.app.goo.gl/eZTsxYmDfgqsk6rx5	**Paralel Session** *https://bit.ly/icimtech2024ps* Meeting ID: 969 5110 8964 Passcode: 564319

2024 International Conference on
Information Management and Technology
(ICIMTech)

Session Chair : Dr. Adele B L Mailangkay, S.T., M.M.S.I.

Paper ID	Paper	Presenter Name
78	Enhancing Customer Loyalty: Evaluating the Influence of Indomaret's Member Card and Mobile Application Loyalty Program Salsabila Amalia Putri; Muhammad Zuhair Yuliansyah; Risky Tri Sandi;	Risky Tri Sandi
124*	Exploring IT Compliance When Artificial Intelligence Is Applied in the Workplace Dewi Tamara; Anita Maharani	Dewi Tamara
157	Digital Competency Influencing Human Capital Competitiveness Pittawat Ueasangkomsate; Theeratchayada Soodsom	Pittawat Ueasangkomsate
220	Early Melanoma Skin Cancer Detection using Artificial Intelligence: A Comparative Review Nazhira Dewi Aqmarina; Lin Dan Christiano; Regina Celine Adiwinata; Gusti Pangestu	Lin Dan Christiano
230	E-Government Interoperability: Provincial-Level Architecture Model to Enable Fast Healthcare Interoperability Resources (FHIR) Diana Wijayanti; Satriawansyah Urbaya; Taufiq Hamzah Sitompul; Verry Adrian	Satriawansyah Urbaya
605	A Systematic Literature Review: The Impact of People, Process, and Technology on InsurTech Jessicania Windari; Yulia Ery; Rhisa Adika Putri	Jessicania Windari

Online Presentation

Session Chair : Marisa Karsen, S.Kom, MM

Paper ID	Paper	Presenter Name
103	National Single Window Focus Area from the Perspective of IT Governance: Case Study in Government Sea Transportation Agency Diana Utomo; Siti Elda Hiererra; Ayu Kharizsa; Nuraini Sari; Carissa Lavinia; Mahaning Indrawaty Wijaya	Diana
160	Elucidating the Mediating Role of E-Trust in Customer Satisfaction Augmentation: An Empirical Analysis of E-Service Quality in Online Marketplaces Veny Megawati; Adi Prasetyo Tedjakusuma; Li-Wei Liu; Andri Dayarana K. ADKS Silalahi; Do thi Thanh Phuonbg	Adi Prasetyo Tedjakusuma
167	Bibliometric Analysis to Explore the Influence of Artificial Intelligence on Consumer Behavior and Marketing Research: A Comprehensive Review and Suggestions for Future Exploration Chung-Jen Fu; Andri Dayarana K. ADKS Silalahi; I-Tung Shih; Do Thi Thanh Phuong; Ixora Javanisa Eunike	Andri Dayarana K. Silalahi
435	How Digital Orientation, Personality Traits, and Network Strategy Affect Bank Digital Transformation Muhammad Daffa Adryanshah; Dicky Hida Syahchari	Dicky Hida Syahchari
701	Enhancing Readiness: A Comprehensive Study on ERP Implementation Readiness Factors Bhre Bramantyo; Evelyn Halim; Salsabila Oktariana Andanti O Arring; Dyah Wahyu Sukmaningsih	Bhre Bramantyo
729	Gen-Z Consumers: E-Commerce Platforms for Sustainable Shopping Experinces Synthia Atas Sari; Justin Bryan Mcfadden; Maulana Azmi Arif Alfayed	Synthia Atas Sari

Session Chair : Devyano Luhukay, S.Kom, MM

Paper ID	Gabungan	Presenter Name
6	Elevating the Learning Agility of Manufacturing Workers by Harnessing the Effects of Digital Workplace and Self-Management Nopriadi Saputra	Nopriadi Saputra
35	Bolstering Effect of Digital Capability on Firm Performance by Fostering Alliance Capability and Supply Chain Agility Nopriadi Saputra	Nopriadi Saputra
274	Optimizing Pneumonia Classification on Pediatric Chest X-ray Images Using ConvNeXt Network Simeon Yuda Prasetyo; Abram Setyo Prabowo; Santy Santy; Patricia Pepita	Patricia Pepita
495	Automated Pulmonary Tuberculosis Detection in Chest Radiographs using Pretrained DCNN Models Simeon Yuda Prasetyo	Simeon Yuda Prasetyo
534	Inventory Management Process Efficiency with Enterprise Resource Planning Customization and Configuration (Case Study: Catering Industry) Diki Ilham Firmansyah; Tien Fabrianti Kusumasari; Taufiq Maulana Firdaus; Prihandoko Prihandoko	Diki Ilham Firmansyah
574	Enhancing Traffic Analysis and Prediction through A Hybrid LSTM-ARIMA Model Le Xiang Lim; Tee Connie; Kah Ong Michael Goh	Associate Professor Dr. Michael Goh

Session Chair : RA Dyah Wahyu Sukmaningsih, S.T., M.Kom

Paper ID	Paper	Presenter Name
29	Royalty Management by using Blockchain Network: A Multiple Case Study Thalea Christy Nathaniela; Elfindah Princes; Gunawan Wang	Elfindah Princes
39	A Comprehensive Exploration of Determinants Shaping Consumer Choices in E-commerce Mobile Applications Adeline Vanessa Sentosa; Kezia Agatha; Rizieq Hentihu; Jennifer Alexandra	Adeline Vanessa Sentosa
175	Missing Person Search Information System with User-Centered Design Ahmad Harori Zaki Ichsan; Muhammad Estuputra Denaya; Naifathiya Langitadiva; Putu Wuri Handayani; Nabila Clydea Harahap	Nabila Clydea Harahap
202	User-Centered Design in AI Applications: A Systematic Literature Review Bryan Wongso; Kevin Nathanael Lienaka; Vincent Firstian; Yulia Magdalena	Bryan Wongso
204	User Experience Analysis for Cinema Application Using Content Analysis From Online Reviews and Usability Testing Eriza Ilzar Zhafira; Alika Anggia; Dyah Wahyu Sukmaningsih	Eriza Ilzar Zhafira
209	MycoAR: Augmented Reality Mobile Application for Mycology Education Salomo Agung Adrianto Rehmina Hutapea; Kristania Yohana Tumilaar; Ady Nugroho; Fairuz Iqbal Maulana	Ady Nugroho

Session Chair : Yakob Utama Chandra, S.E., MMSI

Paper ID	Paper	Presenter Name
63	LIVE Stream Commerce Towards Decision Making: Mediating Role of Trust and Experience GEN-Z Jakarta Joanna Willianto; Aryo Bismo; Dewi Tamara; Neeraj Yadav; Pantri Heriyati; Anita Maharani	Aryo Bismo
172	Evaluation of User Experience on Pelita Air Application Using Design Thinking Method Faqih Dzaki Darojat; Fefa Belladina; Miftah Mufida; Riyan Leandros; Dina Fitria DFM Murad	Riyan Leandros
183	Will the effect of social presence on impulsive buying lead to regret? Annastasya Widjaja; Caroline Almadyta Benjaminsz; Desri Febriyana Susanto; Evelyn Hendriana	Desri Febriyana Susanto
341	Design of an Automatic Price Tag System for Web- Based Retail Business Devina Gunawan; Dr. Suryadiputra Liawatimena	Suryadiputra Liawatimena
540	Driving Satisfaction and Continuous Intention by Leveraging Perceived Value of Digital Banking Mobile-Application's Product Attribute Artha Sejati Ananda; Nisryna Nabyla Putri; Tasya Safira Putri Sadewo	Artha Sejati Ananda
652	H.E.L.P: Handheld Emergency Locator for Protection – A Tool Against Sexual Violence Sherwin B Glorioso; Angel May Tresmanio; Nicky Ritual Ventura; Dicker John Padua; Dreena Mae Esperancilla; Janyl Dane Estabillo	Sherwin B. Glorioso

Session Chair : Nuril Kusumawardhani Soeprapto Putri, S.T., M.K.M.

Paper ID	Paper	Presenter Name
108	Comparison of Training Function, Adaption Learning Function, and Transfer Function of Hidden Layers in Artificial Neural Network in Weather Prediction Adhe Lingga Dewi; Dimas Elang Setyoko; Canggih Gelar Setyo Adhi; Nur Sitha Afrilia	Adhe Lingga Dewi
360	Analysis Implementation of Chatbots to Increase Knowledge of Stunting Prevention in Indonesian Society with Bibliometric Indrajani Sutedja; Lutfi Handayani; Maryuni; Hendry; Mohammad Reza Faisal	Indrajani Sutedja
599	Analyzing Sleep Health From Lifestyle Data Using Lasso Regression Ascendiazorg Riupassa; Putri Ireine Ramb; Muhammad Amien Ibrahim; Renaldy Fredyan	Muhammad Amien Ibrahim
623	Explainable AI for Detecting Rice Leaf Disease: A Smartphone Application Utilizing Deep Transfer Learning Mohammad Naimul Islam Shanto; Arfanul Islam; MD. SOROWAR MAHABUB RABBY; Mohammed Rahman; Md. Ali; Zulkifly Mohd Zaki	Mohammad Naimul Islam Shanto
649	Smart-home System using The Fuzzy Logic Method On The Nodemcu Platform Novianti santi; Maulana hilman; Zidni ilma; Dwi Listriana Kusumastuti; Emny Harna Yossy	Emny Harna Yossy
681	Literature Review: Analysis of Essential Metadata Attributes of Digital Goods for Transaction in The Virtual World Gede Indra Raditya Martha; Harjanto Prabowo; Ford Lumban Gaol; Richard WiPutra	Gede Indra Raditya Martha

Session Chair : Dedy Syamsuar, M.I.T, Ph.D

Paper ID	Paper	Presenter Name
65	Digital Art Technology: Interactive Signage for Sustainable Development of Bajulmati Sea Turtle Conservation Area Christoforus Justine Pranoto; Yudhistya Ayu Kusumawati; Asri Radhitanti; Kukuh Lukiyanto	Christoforus Justine Pranoto
94	Holiday Planner Mobile Apps as an Efficient Scheduling Uzda Nabila UNS Shabiriani; Kevin Harianto; Firsta Rangga Satria Purnama Putra; Lita Rachel Hoo; I Gede Cahya Pradipa; Muhammad Nur Adisetiawan	Uzda Nabila Shabiriani
104	Exploring the Use of GPT Chatbots, in Education: A Comparative Study on User Experiences, in Taiwan and Vietnam Feng-Chia Li; Do Thi Thanh Phuong; Tsung-Yu Chou; Andri Dayarana K. ADKS Silalahi; Lai Thi Hue	Do Thi Thanh Phuong
153	Accounting in the Cloud: Empirical Insights into the Intellectual Structure and Knowledge Evolution Rosaline Tandiono	Rosaline Tandiono
248	Transforming the Shopping Experience: Assessing the Effectiveness of 360-degree Virtual Reality Website in Store Design Puan Ayu Maharani; andi pramono; Kun Sentanawan; Riefky Prabowo	Puan Ayu Maharani
630	Prediction and Analysis of Protein 3D Structures Using Protein Language Model and Streamlit C.S. Srushti; PRATHIBHAVANI P M; Veena A; K.R. Venugopal	C.S.Srushti

Session Chair : Dr. Erwin Halim, SPt., M.M.

Paper ID	Paper	Presenter Name
120	Analysis of Student Interest in Crypto-Asset Investment Egbert Gwino Tumangkeng ; Yohannes Kurniawan; Mohamad Heykal	Egbert Gwino Tumangkeng
565	ChatGPT and VARK Model in Education: A Systematic Literature Review Marvella Gunawan; Marcaelle Maia; Steven Klein; Meyliana Meyliana; Surjandy Surjandy	Steven Klein
674	Using CNN Along with Transfer Learning to Predict Wildfires in Borneo's Topography Richard Limec; Roderick Kangson; Andry Chowanda; Anderies Anderies	Richard Limec
713	Analysis of Artificial Intelligence's Impact on The E-commerce Platform to Increase Purchase Intention Arcelia Ferani; Rendy Vincent Gunawan; Calista Syifa Putri Wardhana; Marisa Karsen	Rendy Vincent Gunawan
741	Decentralized Social Media: A Blockchain Analysis on Technology, Activities, Challenges, And Opportunities Puti Reno Indeswari; Andry Alamsyah	Puti Reno Indeswari
805	Designing Sustainable Comfort through Internet of Things-Based Ventilation Technology for Energy-Efficiency in Tropical Living Spaces Andi Pramono; Mohamad Rizqi Achfi; Ira Audia Agustina	Andi Pramono

Session Chair : Anderes Gui, PhD.

Paper ID	Paper	Presenter Name
66	Fostering Scientific Engagement: Creating a Digital Hub for Student-Authored Research Works Immanuela Puspasari Saputro; Yulius Denny Prabowo; Jullend Gatc	Jullend Gatc
136	Examining the Effectiveness of an AR-Enhanced Waste Sorting Game for Marine Conservation: A UEQ-Based Evaluation Aldo Arista Wijaya P.; Kanz Abdillah Hamada; Fairuz Iqbal Maulana	Aldo Arista Wijaya Pujo Wibowo
139	Welcome to Mobile Legends: Unravel the Effects of Habit, Visual Authority, and Hedonic Motivation on In-Game Purchases Indra Adiputra; Muhammad Iqbal Nurfauzan	Indra Adiputra
236	A Comparative Study of Complex Query Performance on MySQL and Oracle databases for the Oil and Gas Industry Ellyz Yaory; Ida Bagus Kerthyayana Manuaba	Ellyz Yaory
367	Artificial Intelligence Adoption Among Accountants: Empirical Study in Austria Rudolf Gruenbichler; Lianna Wijaya; Cheng Kin Meng; Katharina Greimel; Tiurida Lily Anita; Sylvia Samuel	Rudolf Gruenbichler
523	Predicting Entrepreneurial Spirit: A Machine Learning Approach Dedy Suryadi ; Daniel Kurniawan	Dedy Suryadi

Session Chair : Prof. Dr. Evaristus Didik M, ST., M.Kom., M.T

Paper ID	Paper	Presenter Name
75	Technology Acceptance Readiness Analysis in the Context of Digital Tourism Village using Machine Learning Approach Indra Prawira; Nur Afny Catur Andryani; Ebnu Yufriadi	Indra Prawira
112	Analysis Factors Affecting Student Intention to Use Generative Artificial Intelligence in E-Learning Meilani; Mediana Aryuni; Sevenpri Candra	Meilani
219	Deep Learning Method for Sign Language Recognition : A Systematic Literature Review Sekar Ayu Nadita; Lavender Nathania Adelya; Daniel Hendra Susanto; Gusti Pangestu	Lavender Nathania Adelya
355	Analysis Regarding People's Needs & Desires To Use Healthcare Monitoring Technology On Smartwatch Device Rudy Rudy; Stefany M The; Caturariya Caturariya; Leo Nardi	Leo Nardi
460	Implementation of Chatbots in E-Commerce: Factors Influencing User Adoption Chistina Angellica; Hendy Wijaya; Natalia Limantara	Hendy Wijaya
539	uitPETransMDS: A PE Malware Detection System Using a Hybrid Approach of Transfer Learning and Image Visualization Trinh Gia Huy; Luong Nguyen Thanh Nhan; Nguyen Tan Cam	Trinh Gia Huy

Parallel Session

Session 2
August 28th, 2024
03.30 PM – 05.30 PM (UTC+8)

Date	Onsite Session	Online Session
August 28th, 2024 **Session 2 :** 03.30 PM – 05.30 PM (UTC+8)	**Ballroom 2, 3rd floor** **The Stones Hotel – Legian Bali,** **Autograph Collection** Jl. Raya Pantai Kuta Banjar Legian Kelod Legian Bali, Legian, Kec. Kuta, Kabupaten Badung, Bali 80361 https://maps.app.goo.gl/eZTsxYmDfgqsk6rx5	**Paralel Session** *https://bit.ly/icimtech2024ps* Meeting ID: 969 5110 8964 Passcode: 564319

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Session Chair : Dr. Adele B L Mailangkay, S.T., M.M.S.I.

Paper ID	Paper	Presenter Name
62	Automated Classification: Enhancing Literature Analysis Efficiency in Research Articles through Machine Learning 　　Raphael Reynaldi; Ardelia Shaula Araminta; Nunung Nurul Qomariyah; Cortino Sukotjo	Raphael Reynaldi
85	RESEARCH ON DESIGNING ARCHITECTURE FOR OPEN DATA SYSTEMS BASED ON THEORY IN VIETNAM 　　Mai Phuong Ngo; Truong Tuan Linh; Dang Thi Viet Duc; Nguyen Thi Thanh Huyen	Mai Phuong Ngo
198	Innovative Finance for Sustainability: Exploring The Attitude to Use of Mobile Payment 　　Muhammad Sahlan Manar Fauzan; Doni Purnama	Muhammad Sahlan Manar Fauzan
482	Optimizing Success: Analyzing Key Factors and Improving the Info BMKG Application 　　Jeanette Aurelia Siswanto; Go, Cindy Agustine Sugiarto; Afina Salma; Shanon Graciella Joy Soesilo; Sugiarto Hartono	Shanon Graciella Joy Soesilo
692*	Analysis of News Sentiment and Stock Price Using Web Scraping and Vader Sentiment Analysis 　　Michael Siek; Erik Sebastian Setiadi	Michael Siek
817	User Experience Evaluation on Mobile Application for Indonesian Passport Using Sentiment Analysis and Cognitive Walkthrough 　　Amilia Purnama; Marcelina Lailatul Fitria; Ryandhika Yudhistira Widyaputra; Sunardi	Amilia Purnama

Online Presentation

Session Chair : Marisa Karsen, S.Kom, MM

Paper ID	Paper	Presenter Name
41	Enhanced Insight into Mobile Banking: A Comprehensive Usability Analysis Through User Feedback Kenji Ariya Kennard; Nur Anisa; Rizieq Hentihu	Moh Thaha Rizieq Hentihu
61	Exploring AI-Driven Chatbots for Enhanced Learning Experiences in Dental Education with Deep Learning Ardelia Shaula Araminta; Raphael Reynaldi; Nunung Nurul Qomariyah; Cortino Sukotjo	Ardelia Shaula Araminta
102	Internet of Things System Development and Experimentation Hydroponic Farming Muhammad Wildan; Nur Anisa	Nur Anisa
105	Optimizing Trust in E-Government: Evaluating Social Media Dynamics and Government Protocols Using Fuzzy Sets Qualitative Comparative Analysis Marlan Hutahaean; Andri Dayarana K. ADKS Silalahi; Ixora Javanisa Eunike; Andrean Agaventa Silgirana Silalahi; Do Thi Thanh Phuong	Andri Dayarana K. Silalahi
221	Beyond Chatting an Analysis of the Full Potential Use of Chat Generative AI for University Students in the Greater Jakarta Area Muhammad Rizqy Al Gozali; Devin Revel; - Christian	Muhammad Rizqy Al Gozali
256	Configuring Consumers' (Dis)continuance Intention to Watch Live Streaming on TikTok: Insights from Fuzzy Sets Qualitative Comparative Analysis Andri Dayarana K. ADKS Silalahi; Suwandi Sangadji; Chung-Jen Fu; Do Thi Thang Phuong; Ixora Javanisa Eunike; I-Tung Shih	Andri Dayarana K. Silalahi

Session Chair : Devyano Luhukay, S.Kom, MM

Paper ID	Paper	Presenter Name
23	Underscoring the Mediating Role of Innovative Work Behavior for Cultivating Digital Readiness in the Pre-Digital Organization Nopriadi Saputra	Nopriadi Saputra
206	Factors Hindering the Adoption of Blockchain Technology by Universities Based on University Employees Adam Fahsyah Nurzaman; Muhammad Wildan	Muhammad Wildan
411	Consistency Check for Multimodal Transportation Data: A Case Study of Vision and LiDARA Zhengyu liu; zhenwu chen; xiangmin yang; lei peng;	Lei Peng
423	A Hybrid Deep Learning Techniques using BERT and CNN for Toxic Comments Classification Adelia Jessica; Migel Sastrawan Sugiarto; Jerry Jerry; Said Achmad; Rhio Sutoyo	Adelia Jessica
610	Systematic Literature Review of Blockchain Applications: Insights from India's Case Study Adam Fahsyah Nurzaman; Jessicania Windari; Raihand Sayeed	Jessicania Windari

Session Chair : RA Dyah Wahyu Sukmaningsih, S.T., M.Kom

Paper ID	Paper	Presenter Name
100	Combining DistilBERT and LSTM to Enhanced Detection of Depression in Social Media Text Felix I Kurniadi; Ni Luh Putu Satyaning Pradnya Paramita; Erna Fransisca Angela Sihotang; Maria Susan Anggreainy; Rongfang Zhan	Erna Fransisca Angela
114	Enhancing User Interface and Experience in Skin Type Classification and Skincare Product Recommendation System for Young Adults Felicia Himawan; Vania Paramitha Soerjadi; Yonathan Handoyo; Said Achmad; Jurike V Moniaga	Felicia Himawan
115	Implementation of Gamification to Help Teenagers Prevent Diseases Michael Haryanto; Fabian Putera Djaja; Michael Chrisandy; Said Achmad; Jurike Moniaga	Michael Haryanto
176	Evaluation of Kanban Implementation in An Information Technology Service Provider Mila Shania; Putu Wuri Handayani; Nabila Clydea Harahap	Nabila Clydea Harahap
409	Analyzing Gamification Impact in Diverse Learning Environments Lydiawati Asalla; Marchel Hermanliansyah	Marchel Hermanliansyah
796	Comparing the User Experience of Mobile-Based Microlearning Application Using Heart Metrics and Honeycomb Framework Ilham Wibisono; Angelia Putri Indonesia Br Maringga; Sunardi Sun Sunardi	Sunardi

Session Chair : Yakob Utama Chandra, S.E., MMSI

Paper ID	Paper	Presenter Name
7	Inventory Management Optimalization System Design at XYZ Die and Mold Retail Store Martin Salim Putra; Desman Hidayat; Robertus Atmojo	Martin Salim Putra
125	Finding the Important Elements Linked to Integration Problems in the Use of Enterprise Resource Planning Systems Wahyu Sardjono; Desi Maya Kristin; Dewi Sagita Pranata	Wahyu Sardjono
190	Creating Mathematical Models to Help Formulate Company Strategies for Knowledge Management System Implementation Wahyu Sardjono; Widhilaga Gia Perdana; Dewi Sagita Pranata	Wahyu Sardjono
314	Exploring the Trend of Metaverse Adoption in Formal Education: A Systematic Literature Review Lazuardi Bintang Widyaputra; Lily Janvieka; Deviany; Cadelina Cassandra	Deviany
334	Harnessing Artificial Intelligence for Effective Coastal Flood Disaster Management: A Systematic Literature Review Eileen Anindya Putri Maheswari; firsa anata mernisi; Sidharta Sidharta; Chasandra Puspitasari	Eileen Anindya Putri Maheswari
400	The Effect of Perceived Enjoyment and Technology Acceptance Model (TAM) Towards Continuance Usage of E-wallet Applications Steven Agustianto; Edward Reynaldo; Willy; Ferdianto Ferdianto	Steven Agustianto
728	Beyond Conventional Banking: Gen Z's Adoption of Digital Services in Indonesia Jody Fernand Partono; Ratna Sari; Hery Harjono Muljo	Jody Partono

Session Chair : Nuril Kusumawardhani Soeprapto Putri, S.T., M.K.M.

Paper ID	Paper	Presenter Name
53	How The Knowledge Management Improving The Technological Innovation Capabilities: Indonesia SMEs Context Gogor Arif Handiwibowo, Armanu Thoyib, Ainur Rofiq, Fatchur Rohman,	Gogor Arif Handiwibowo
118	Knowledge Graph-enhanced Semantic Cache for Low-Latency and Cost-Effective Inference in Large Language Models Nicholas Dominic; Bens Pardamean	Nicholas Dominic
155	Deep Learning for Stock Market Prediction: A Review Jenny Ohliati; Yuniarty Yuniarty	Jenny Ohliati
246	The Influence of Digital Economy, Entrepreneurship Education, and Digital Literacy on Digital Entrepreneur Intention among University Students Riza Primahendra; Tri Adi Sumbogo; Christiana Fara Dharmastuti; Reney Aquino Lensun; Teguh Mudjiyono; Sugiyanto Sugiyanto	Tri Adi SUmbogo
472	Navigating the E-Learning Landscape: A Comparative Analysis between ElevateEd LMS and other Learning Management Systems in the Philippine Educational Context Glendora V. Tiu; Rachelle F Marcoso; Angelique D Lacasandile; Adrianne Bleu R. Canivel; Kenneth R. Gunay; Mark James G. Cayabyab	Dr. Glendora V. Tiu
735	The Design Science Research Methodology for Knowledge Sharing System in Consulting Firm Muhamad Firdaus; Erma Suryani; Reny Nadlifatin	Muhamad Firdaus

Session Chair : Dedy Syamsuar, M.I.T, Ph.D

Paper ID	Paper	Presenter Name
60	Case Study: Forecasting Time Consumption Exponential RSA Factorization using Java Program Martin Suhartana; Emny Harna Yossy	Martin Suhartana
67	Predictive Insights into Talent Management: A Random Forest Approach to Assessing Top Talent in State-Owned Enterprises Immanuela Puspasari Saputro; Eko Cahyo Nugroho; Novi Patricia	Eko Cahyo Nugroho
133	Preventing Cyber Adversaries: Examining BlackCat Ransomware's Tactics and Preventive Measures for Enhanced Cybersecurity Eric B Blancaflor; Cailyn Rae Bautista; Bryce Angeles; Donald Oliver Gavino Jr.; Jose Roberto Kam	Eric B. Blancaflor
141	Revolutionizing Industries through Data Mining and Data Warehousing Techniques Across Various Business Areas Mary Jane Samonte; David Anton Alvarez; Lex Anilov Ogaya; Jeremey Joshua Yao	Lex Anilov Ogaya
559	Automated Product Description Generator Using GPT-Neo: Leveraging Transformer-Based Language Models on Amazon Review Dataset Bryan Felix; Alexander Gunawan; Derwin Suhartono	Alexander Agung Santoso Gunawan
651	Enhancing Two-Factor Authentication with Deep Speaker Recognition on Librispeech Dataset Alexander Gunawan; Cindy Natasya; Siti Komsiyah	Alexander Agung Santoso Gunawan

Session Chair : Dr. Erwin Halim, SPt., M.M.

Paper ID	Paper	Presenter Name
84	Blockchain Adoption Model in The Supply Chain of Agricultural Products to Support The Transparency of The Insurance Process Inayatulloh Inayatulloh; Hari Setiabudi Husni; Indra Kusumadi Hartono	Inayatulloh
97	Stock Price Prediction with the Informer Model Risma Yulistiani; Felix I Kurniadi	Risma Yulistiani
251	The Impact Artificial Intelligence on Supply Chain Performance through Supply Chain Dynamism, Adaptive Capabilities, Supply Chain Resiliences Stefanus Rumangkit; Mohammad Hamsal; Arta M Sundjaja; Willy Gunadi	Stefanus Rumangkit
449	Analysis of the Effect of Using Online Trading and Investment Mobile Applications on the Purchase Decision of Indonesian People in Investing in the Indonesian Capital Market Wilsen Stanley; Ratna Sari; Kevin Deniswara	Wilsen Stanley
526	uitSQLid: SQL injection detection using multi deep learning models approach Dong Thi Ngoc Tram; Nguyen Tan Cam	Dong Thi Ngoc Tram
642	The Role of IT Governance in Aligning IT Strategy and Business Strategy for Sustainability in the Era of Disruption Kukuh Lukiyanto; Fahrizal Maulana; Wilson Rangga Anak Anthony Jiram; Elysabet Christy Diandra Selano	Kukuh Lukiyanto

Session Chair : Anderes Gui, PhD.

Paper ID	Paper	Presenter Name
47	Social Gratification and Flow State as a Driven to Purchase Intention Using Live Shopping Feature Ridho Bramulya Ikhsan; Helen Helen; HM Rosariandoko Wijanarko; Reagen Yohanes Sayoga; Hartiwi Prabowo; Hardiyansyah Hardiyansyah	Reagen Yohanes Sayoga
116	AI-Powered Mobile Application for Image-Based Food Ingredient Detection and Recipe Generation Thessalonica Maria Luisse Rosaline; Calvin Anacia Suciawan; William Ng; Said Achmad; Jurike V Moniaga	William Ng
503	Analysis of Factors Influencing Interest in the Use of Digital Banks using UTAUT 2 Model Approach Zalfa Ghina Salsabila; Baiq Arizkayana Kirani; ; Nuraini Sari	Baiq Arizkayana Kirani
567	Implementation of a diabetes status prediction application using a machine learning algorithm approach Zulkifli Zulkifli; Sri Wahyuningsih; Adelia Isni Hendrawan Putri; Tahta Herdian Andika; Panji Bintoro; Mida Pratiwi	Tahta Herdian Andika
653	Factors Influencing the Adoption of Digital Banking Service Super Apps in Indonesia Using Modified UTAUT2 Model Alvita Hari Kusmanto; Stephanie Surja	Alvita Hari Kusmanto
696	Systematic Literature Review: Mobile Payments in Indonesia as an Effective Payment Services Steven Tafianoto; Adrian Sutaman; Michael Nicolas Wijaya; Rudy Rudy	Steven Tafianoto

Session Chair : Prof. Dr. Evaristus Didik M, ST., M.Kom., M.T

Paper ID	Paper	Presenter Name
76	The Impact of Live Streaming on Consumer Engagement and Purchase Intentions towards Fashion Industry on E-Commerce Steven Kartawinata; Marc Tovin; Vincent Christopher Lam; Natalia Limantara	Vincent Christopher Lam
111	IoT Door Locking a Review Yulianto Yulianto; Anita Rahayu	Yulianto
262	Beyond Gameplay: An Insight into In-Game Transaction among Genshin Impact Enthusiasts Satria Permana Wibowo; Alya Fatimatuzzahra; Setiani Putri Hendratno	Satria Permana Wibowo
293	Mapping the Landscape of Social Learning: Integrating Key Success Factors, Challenges, and Digital Platforms Marcel Marcel; Meyliana Meyliana; Harco Leslie Hendric Spits Warnars; Tirta Mursitama Nugraha	Marcel
392	Implementation of Logistics Super App: Impact on Technostress Creators, Employee Engagement, and Generational Roles Michael Christian; Kurnadi Gularso; Henilia Yulita; Oktafalia Marisa Muzammil; Sumarny Manurung; Suryo Wibowo	Oktafalia Marisa Muzammil
586	Evaluating Gamification Needs for Software Developers: Study Case of UX in Project Management Tools Rifqi M Riefard; Darlis Herumurti; Hadziq Fabroyir; Denny Sagita Rusdianto; Laila Ma'rufah; Imam Kuswardayan	Rifqi M Riefard

Parallel Session

Session 3
August 29th, 2024
10.00 AM – 12.00 PM (UTC+8)

Date	Online Session
August 29th, 2024 **Session 3 :** 10.00 AM – 12.00 PM (UTC+8)	**Paralel Session** *https://bit.ly/icimtech2024ps* Meeting ID: 969 5110 8964 Passcode: 564319

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Session Chair : Yulia Ery Kurniawati, S.Kom., M.Eng

Paper ID	Paper	Presenter Name
325	Identifying Abnormal Eating Behavior Patterns with Machine Learning for Early Detection of Eating Disorders: A Systematic Literature Review Kezia Angeline Santoso; Mawar Maharani; Sidharta Sidharta	Mawar Maharani
608	The Implementation of Artificial Intelligence for Online Review: A Systematic Literature Review Dedy Syamsuar; Marcello Marcello	Marcello Marcello
618	Predicting Customer Sentiment in E-commerce: Leveraging Naive Bayes and Support Vector Machine Models using the Twitter API Julio Julio; Valentcia Angelica; Rezki Yunanda; Kristien Margi Suryaningrum	Julio
562	Optimizing Customer Retention in Urban Laundry Services: A Comparative Analysis of Machine Learning Algorithms in Jakarta's MSME Sector Rhisa Adika Putri; Tuga Mauritsius; Bryan Ananda; Riyanto Jayadi	Rhisa Adika Putri
182	Indonesian Tweet Emotion Detection using IndoBERT Nikita Ananda Putri Masaling; Ricky Reynardo Siswanto; Abba Suganda Girsang	Nikita Ananda Putri Masaling
290	Feature Selection using XGBoost on METABRIC Dataset for Survivability Breast Cancer Detection Felix I Kurniadi; Hanis Amalia Saputri	Hanis Amalia Saputri

Session Chair : Yakob Utama Chandra, S.E., MMSI

Paper ID	Paper	Presenter Name
722	Disclosure Privacy Information Social Media TikTok Dedy Syamsuar; Fazri Fahrezi; Ahnaf Favian; Edy Irwansyah; Achmad Fakhri Irawan	Dedy Syamsuar
235	Exploring The Factors that Motivate Individuals to Utilize E-Payment within The FinTech Sector Stevannie Florensia; Agustini Hamid	Stevannie Florensia
455	Software Defect Prediction using Ensemble Technique Pandu Wicaksono; Panji Arisaputra; Rezky Yunanda; Willy Kristian; Almuzhidul Mujhid	Panji Arisaputra
74	Shedding Light on Glowapp: A Usability Test Evaluation for Enhanced User Experience Sergio Sergio; Immanuela Puspasari Saputro; Yulius D Prabowo; Voice Esther Ticoalu; Karunia Agung Mahardini	Voice Esther Ticoalu
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- We will send certificates and proceedings to presenters two weeks after the event via the presenter's email.

ABSTRACT

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Elevating the Learning Agility of Manufacturing Workers by Harnessing the Effects of Digital Workplace and Self-Management

Nopriadi Saputra
Business Management Program, Management Department
BINUS Business School Undergraduate Program
Bina Nusantara University
Jakarta, Indonesia 11480
http://orcid.org/0000-0002-0830-1903

Abstract— **Technological developments not only provide opportunities and threats for businesses and industries but also present a digital generation or natives at the workplace that has different characteristics from previous generations, especially in terms of self-management. Business organizations are carrying out digital transformation by digitizing the workplace in facing dynamic changes. This article is interested in elaborating the impact of the digital workplace and selfmanagement on the learning agility of workers in the manufacturing industry. A survey-based empirical study was conducted to examine the nine developed hypotheses. PLS-SEM and the SmartPLS application were used to structure and analyze the perceptual data from 298 manufacturing workers in the suburban area of Jakarta as respondents. The results conclude that digital workplace and self-management positively affect learning agility. The digital workplace also has a positive effect on self-management. So far, digital workplace development can have an even higher impact on learning agility, especially in the aspects of people agility and result agility.**

Keywords— *learning agility, digital workplace, selfmanagement, digital natives, manufacturing industry*

Inventory Management Optimalization System Design at XYZ Die and Mold Retail Store

Martin Salim Putra
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
martin.putra@binus.ac.id

Desman Hidayat
BINUS Entrepreneurship Center,
Management Department
Bina Nusantara University
Jakarta, Indonesia 11480
d4906@binus.ac.id

Robertus Nugroho Perwiro Atmojo
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
ratmojo@binus.ac.id

Abstract— **Inventory management is a critical challenge faced by XYZ retail stores. To address this challenge, the implementation of an Inventory Management System is essential. This research highlights the pivotal role of technology in overcoming traditional inventory management obstacles, thereby reducing potential losses for XYZ retail stores. The envisioned Inventory Management System aims to streamline operations, minimize losses, and facilitate data-driven decision-making processes. By leveraging the System Development Life Cycle (SDLC) alongside a waterfall approach, the design and implementation of the XYZ retail store Inventory Management System is poised to become more efficient and expedient. This comprehensive solution promises to revolutionize inventory management practices, offering XYZ retail stores a pathway to enhanced operational efficiency and profitability in the competitive retail landscape.**

Keywords— *inventory management, inventory management system, inventory control*

Underscoring the Mediating Role of Innovative Work Behavior for Cultivating Digital Readiness in the Pre-Digital Organization

Nopriadi Saputra
Business Management Program,
Management Department
BINUS Business School Undergraduate Program
Bina Nusantara University
Jakarta, Indonesia 11480
nopriadi.saputra@binus.ac.id

Abstract—**Pre-digital organizations are traditional organizations that have not fully adopted digital technology in their management practices and business governance. Digital readiness assessment plays a strategic role as the first step to ensure the success of digital transformation. This article elaborates on the influence of innovative work behavior as well as the work engagement of digital natives as employees on the digital readiness of pre-digital organizations. A survey involving 469 employees working in private and public companies in Jakarta applying the PLS-SEM approach and employing the SmartPLS version 4.1.0.2 application was employed to test the research model developed. The analysis results underscore the mediating or intervening roles of innovative work behavior in the influence of work engagement of digital natives as employees on the organization's digital readiness in facing digital transformation. For cultivating the digital readiness of predigital organizations, work engagement should be directed to strengthen innovative work behaviors.**

Keywords— *digital readiness, innovative work behavior, employee engagement, pre-digital organization, digital natives*

Game On: Boosting Early Learning Through Fun Educational Games

Karto Iskandar*
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta 11480, Indonesia
karto_i@binus.edu or
https://orcid.org/0009-0006-4041-8147

Ferrari Anca Wijaya
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta 11480, Indonesia
ferrari.wijaya@binus.ac.id

Lalu Faishal Aswin
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta 11480, Indonesia
lalu.aswin@binus.ac.id

Fenny Tasya Zalsabiella
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta 11480, Indonesia
fenny.zalsabiella@binus.ac.id

Maria Grace Herlina
Management Department,
BINUS Business School Undergraduate Program
Bina Nusantara University
Jakarta 11480, Indonesia
herlina01@binus.edu
or https://orcid.org/0000-0001-5119-7761

Abstract—**Along with the technological advancements of the modern era, the ability to obtain an education or study is expanding rapidly alongside the global expansion of the present day. These days, people of all ages enjoy playing mobile apps and websites. As a result of the rapid development of technology, educational games have acquired popularity as an effective tool for supporting the education of young children. Educators and game developers must comprehend the specific types and characteristics of educational games that effectively increase learning motivation. This study aims to categorize various educational games based on their intended use and evaluate their effect on boosting early childhood learning motivation. The findings contribute to a better understanding of how various types of educational games can increase learning motivation in early childhood education. This classification is intended to facilitate the design and selection of educational games aligned with specific learning objectives and individual learner characteristics, fostering a positive and engaging learning environment for children.**

Keywords— educational games, classification, early childhood, learning motivation, specific learning objectives

Bolstering Effect of Digital Capability on Firm Performance by Fostering Alliance Capability and Supply Chain Agility

Nopriadi Saputra
Business Management Program,
Management Department
BINUS Business School Undergraduate Program
Bina Nusantara University
Jakarta, Indonesia 11480
https://orcid.org/0000-0002-0830-1903

Abstract—**Dealing with dynamic business changes, public companies are required to sustain their firm performance. The agility of supply chain which conducts a strategic role in the business, needs to be strengthened continuously. By utilizing socio-technical theory, this article attempts to test the effect of digital capability as a technical aspect and alliance capability as a socio-aspect of organizational capability toward firm performance as well as supply chain agility. This article has surveyed 152 people who are top leaders or senior-level management in public companies - members of the Indonesia Stoch Exchange or IDX. PLS-SEM and SmartPLS applications were employed to analyze six hypotheses that build the research mode. The results explain that digital capability has an indirect effect on firm performance. Digital capabilities must be directed toward strengthening supply chain agility and alliance capabilities simultaneously so that they can sustain firm performance even in the face of burdensome changes. Further study is recommended for other intervening factors such as leadership capability, innovation, knowledge management, or total quality management.**

Keywords—digital capability, alliance capability, supply chain agility, public companies

Automated Classification: Enhancing Literature Analysis Efficiency in Research Articles through Machine Learning

Raphael Reynaldi
Computer Science Department,
School of Computing and Creative Arts
Bina Nusantara University
Jakarta, Indonesia 11480
raphael.reynaldi@binus.ac.id

Ardelia Shaula Araminta
Computer Science Department,
School of Computing and Creative Arts
Bina Nusantara University
Jakarta, Indonesia 11480
ardelia.araminta@binus.ac.id

Nunung Nurul Qomariyah
Computer Science Department,
School of Computing and Creative Arts
Bina Nusantara University
Jakarta, Indonesia 11480
nunung.qomariyah@binus.edu

Cortino Sukotjo
Department of Restorative Dentistry
College of Dentistry
University of Illinois Chicago
Chicago, IL 60612, USA
Jakarta, Indonesia 12550
csukotjo@uic.edu

Abstract—With the advancements in machine learning (ML) and artificial intelligence (AI), tasks such as efficiently locating articles on specific topics have greatly improved. Our study focuses on streamlining literature analysis through an efficient machine-learning approach that automates the classification of articles. We implemented automatic text classification by categorizing articles into included and excluded classes by utilizing content from reputable databases such as Mendeley, Elsevier, and PubMed. Multiple machine learning models, including XGBoost, LSTM, Bi-LSTM, and BERT, were trained on classified datasets, revealing BERT as the top-performing model with an impressive 99% and 98% accuracy for their respective datasets. The XGBoost models also exhibited rapid training, completing in less than a second with commendable accuracies of 85% and 82%. This research introduces a robust automated classification system, significantly enhancing the efficiency and accuracy of literature analysis.

Keywords— Artificial Intelligence, automated screening, Machine Learning, systematic mapping

Fostering Scientific Engagement: Creating a Digital Hub for Student-Authored Research Works

Immanuela Puspasari Saputro
Computer Science Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
immanuela.puspasari@binus.ac.id

Yulius Denny Prabowo
Computer Science Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
yulius.denny@binus.ac.id

Jullend Gatc
Computer Science Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
jullend.gatc@binus.ac.id

Abstract—**This study investigates the needs of users in two areas: sharing content derived from their scientific literature and finding inspiration for writing new scientific literature. To address these needs, a web application was developed. This platform allows students to share desired knowledge and serves as a source of inspiration and ideas for aspiring writers. The application utilizes artificial intelligence (AI) technology from OpenAI to assist users in discovering ideas for their upcoming scientific publications. A user needs survey was conducted as preliminary research to guide the development of the web application. During the final phase, the study evaluated the AI's ability to provide accurate and diverse responses, along with measuring user satisfaction through surveys. The final survey results, obtained from actual program users, indicate high user satisfaction (average of 88.4%). They expressed satisfaction with both the application itself (84.4%) and the idea-generating AI (87.3%). Additionally, AI testing showed that prompts requesting diversity resulted in 80% different replies, while accuracy testing achieved a score of 91.25%. These findings suggest that the online application platform for scientific publications meets the needs of potential users and successfully achieves its main objective**

Keywords— web application, scientific literature, AI, blog, idea

The Impact of Live Streaming on Consumer Engagement and Purchase Intentions towards Fashion Industry on E-Commerce

Steven Kartawinata
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
steven082@binus.ac.id

Marc Tovin
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
marctovin@binus.ac.id

Vincent Christopher Lam
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
Vincent.lam@binus.ac.id

Natalia Limantara
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
nlimantara@binus.edu

Abstract—**This study goal is Investigating how live broadcasting in the e-commerce fashion industry affects purchase intention and customer engagement. To get data from 164 people, the research uses surveys of live streaming users as well as non-users on websites like Tokopedia, Shopee, and TikTok. The study examines the interactions between several model variables, such as constructs and indicators, using the partial least squares–structural equation modeling method. The results show that interactivity significantly influences perceived usefulness, perceived ease of use, social presence, and purchase intention. Additionally, social presence has a positive impact on perceived usefulness, and perceived usefulness contributes to perceived ease of use. Moreover, perceived usefulness, perceived ease of use, and social presence are strong indicators of purchase intention. Overall, the findings aim to enhance our understanding of how live streaming is utilized in e-commerce within the fashion sector and provide insights to help online merchants improve their marketing strategies.**

Keywords —live streaming, purchase intention, e-commerce

Stock Price Prediction with the Informer Model

Risma Yulistiani
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
risma.yulistiani@binus.ac.id

Felix Indra Kurniadi
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
felix.indra@binus.ac.id

Abstract—**The capacity to foresee future stock prices can substantially augment the potential profits of investors; thus, the subject of stock price prediction assumes significance within the investment industry. The present study employs the Informer model for the purpose of predicting stock prices. The results obtained from this research demonstrate that the Informer model's performance is contingent upon the dataset employed, suggesting that its applicability might be limited to particular categories of stock market data. The optimal outcomes were achieved using the BNI dataset, suggesting that although the model exhibits promise, it must be tailored to specific datasets and selected accordingly in order to optimize its performance.**

Keywords—stock price, informer, transformer

Internet of Things System Development and Experimentation Hydroponic Farming

Muhammad Wildan
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
muhammad.wildan@binus.ac.id

Nur Anisa
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
nur.anisa001@binus.ac.id

Abstract—**To ensure alignment with Sustainable Development Goals like Zero Hunger, Affordable and Clean Energy, and Climate Action, the field of modern agriculture, especially hydroponic farming, is called to adopt innovative methodologies. Hydroponics emerge as a key sustainable agricultural practice by negating the need for soil, thus conserving water and aiding clean energy and climate initiatives. Nonetheless, challenges such as upfront costs, the demand for specialized skills, and energy dependence present obstacles. Moreover, the dwindling interest among the youth towards agriculture highlights an urgent need for technological interventions to keep food production viable. Leveraging Internet of Things (IoT) technology within hydroponic systems introduces a paradigm shift towards smarter farming. This integration facilitates the judicious use of resources while endorsing clean energy and climate commitments. Through IoT, farmers can remotely oversee and finely tune critical aspects like nutrient density, pH balance, water distribution, and ambient environmental conditions. This project is centered on crafting an all-encompassing IoT framework designed specifically for hydroponics, with scalability and adaptability for broad application as its core objectives. Such an innovation is poised to markedly bolster food security globally. Embedding IoT within hydroponic agriculture signifies a pivotal step towards fulfilling Sustainable Development Goals, elevating agricultural practices, conserving resources, and fostering the progression of sustainable and clean energy initiatives. It underscores the vital influence of technological advancements in reshaping agriculture into a more effective, sustainable, and inclusive sector.**

Keywords— smart farming, internet of things, hydroponic plant.

A Comprehensive Exploration of Determinants Shaping Consumer Choices in E-commerce Mobile Applications

Adeline Vanessa Sentosa
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
adeline.sentosa@binus.ac.id

Kezia Agatha
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
kezia.agatha@binus.ac.id

Muhammad Thaha Rizieq Hentihu
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
muhammad.hentihu@binus.edu

Jennifer Alexandra
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
jennifer.alexandra@binus.edu

Abstract—**Many people's habits and behaviors have altered as a result of the advancement of information technology. The emergence of E-Commerce has brought very rapid growth and development, especially in Indonesia. People are starting to move from offline stores to online stores in e-commerce. ECommerce is one of the platforms most popular with Indonesian people because its function is to help make it easier for them to shop online. The success of an E-Commerce depends on how they can influence purchasing decisions such as price, product quality, brand, and trust in an E-Commerce platform. Therefore, this study aims to conduct a comprehensive analysis of the factors that influence purchasing decisions in ecommerce, with a special focus on the use of mobile applications. It is hoped that the data and insights generated from this research will help e-commerce companies to better understand consumer behavior and develop more effective strategies in market competition. This result was conducted by using TAM model with 6 variables. Based on the results, found that 1 hypothesis was rejected, and 7 hypotheses were accepted. The rejected hypothesis shows that even though Perceived Ease of Use has a positive effect on Perceived Usefulness, the effect is not significant. From the 98 respondents, we can state that the emergence of E-Commerce has brought very rapid growth and development, especially in Indonesia.**

Keywords— analysis, e-commerce, purchasing decision, mobile applications

Enhanced Insight into Mobile Banking: A Comprehensive Usability Analysis Through User Feedback

Kenji Ariya Kennard
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
kenji.kennard@binus.ac.id

Nur Anisa
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
nur.anisa001@binus.ac.id

Moh Thaha Rizieq Hentihu
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
muhammad.hentihu@binus.edu

Abstract—**Banks have contributed significantly to the economic landscape of society by releasing mobile banking applications. However, some mobile banking has received low ratings from users, accompanied by several complaints related to User Interface/User Experience (UI/UX). Therefore, this study aims to conduct a comprehensive analysis of mobile banking UI and UX design through user feedback. Using a quantitative approach, this study refers to Nielsen's Usability Model and uses Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS Bootstrapping for hypothesis testing and data validation. The results showed that learnability has a significant effect on the usability of the myBANK mobile banking application.**

Keywords— *usability analysis, mobile banking, application, user feedback*

Exploring AI-Driven Chatbots for Enhanced Learning Experiences in Dental Education with Deep Learning

Ardelia Shaula Araminta
Computer Science Department,
School of Computing and Creative Arts
Bina Nusantara University
Jakarta, Indonesia 11480
ardelia.araminta@binus.ac.id

Raphael Reynaldi
Computer Science Department,
School of Computing and Creative Arts
Bina Nusantara University
Jakarta, Indonesia 11480
raphael.reynaldi@binus.ac.id

Nunung Nurul Qomariyah
Computer Science Department,
School of Computing and Creative Arts
Bina Nusantara University
Jakarta, Indonesia 11480
nunung.qomariyah@binus.edu

Cortino Sukotjo
Department of Restorative Dentistry
College of Dentistry,
University of Illinois Chicago
Chicago, IL 60612, USA
csukotjo@uic.edu

Abstract—**The integration of chatbots has been extensively explored across various fields. However, the clinical domain, particularly in medical education, presents a critical need for im- plementing AI-powered chatbots. To address this, we developed Dentbot, a custom AI-driven chatbot tailored for a predoctoral implant program in dental education. This initiative aims to leverage technology to improve learning outcomes and streamline teaching processes for students. The development of Dentbot involved several key stages, including data preprocessing, model training, and model evaluation, ultimately resulting in the creation of the chatbot. User testing was conducted within a dental institution to gather feedback on Dentbot's usability and effectiveness in the educational context. We evaluated three deep learning models, LSTM and BiLSTM, and BERT for chatbot implementation. LSTM and BiLSTM both achieved good accuracy rates of 80% and 89%, respectively. Additionally, our study highlights BERT as the most efficient deep learning algorithm for multiclass intent classification, achieving an im- pressive accuracy rate of 94%. These findings demonstrate that Dentbot's development underscores the growing importance of leveraging AI technologies to address specific educational needs within the healthcare sector by streamlining the teaching process and setting a precedent for innovative solutions in medical training and beyond.**

Keywords—dental education, Automated Machine Learning (AML), Natural Language Processing (NLP), deep learning, word embedding

LIVE Stream Commerce Towards Decision Making: Mediating Role of Trust and Experience GEN-Z Jakarta

Joanna Willianto
Management Department,
BINUS Business School Undergraduate
Program
Bina Nusantara University
Jakarta, Indonesia 11480
joanna.willianto@binus.ac.id

Aryo Bismo
Management Department,
BINUS Business School Undergraduate
Program
Bina Nusantara University
Jakarta, Indonesia 11480
aryo.bismo001@binus.ac.id

Dewi Tamara
Management Department,
BINUS Business School Master Program
Bina Nusantara University
Jakarta, Indonesia 11480
dtamara@binus.edu

Neeraj Yadav
Director and Principal Consultant,
Qualicon Consultancy Co.
Jaipur, India
ny.iitd@gmail.com

Pantri Heriyati
Management Department,
BINUS Business School Doctor of Research in
Management
Bina Nusantara University
Jakarta, Indonesia 11480
dtamara@binus.edu

Anita Maharani
Management Department,
BINUS Business School Master Program
Bina Nusantara University
Jakarta, Indonesia 11480
anita.maharani@binus.edu

Abstract— **Live streaming commerce has emerged as a novel facet of social commerce, characterized by collaborative engagements between companies, hosts, community members, and consumers within real-time chat rooms to facilitate product sales. Despite its increasing popularity, a comprehensive understanding of the determinants of its success remains elusive. Notably, live streaming commerce holds broad appeal, particularly among individuals belonging to Generation Z. However, empirical evidence suggests that the direct impact of live streaming shopping on consumer decisionmaking is insignificant. Instead, factors such as customer trust and experience emerge as significant determinants. Moreover, these factors may act as mediators, bridging the relationship between live streaming shopping and consumer decisionmaking outcomes.**

Keywords— *e-commerce, live streaming shopping, customer trust, customer experience, consumer decision making*

Predictive Insights into Talent Management: A Random Forest Approach to Assessing Top Talent in State-Owned Enterprises

Immanuela Puspasari Saputro
Computer Science Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
immanuela.puspasari@binus.ac.id

Eko Cahyo Nugroho
Computer Science Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
eko.nugroho003@binus.ac.id

Novi Patricia
Computer Science Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
novi.patricia@binus.ac.id

Abstract — **This study examines how talent potential in State Owned Enterprises (Badan Usaha Milik Negara/BUMN) can be evaluated using cloud-based machine learning tools, notably Amazon Web Services (AWS). The study emphasizes the need to recognize employees who have the potential to become future leaders or decision-makers within BUMN. This project aims to assess talent potential using parameters specified in BUMN Ministerial Regulations and to show the viability of doing talent analysis in a cloud environment, particularly AWS, to provide improved flexibility and integration. The study's data is gathered via the AWS cloud platform, allowing users, known as Talent Analysts, to conveniently upload data in CSV format. The data then goes through a thorough process that includes training, modeling, and testing, all carried out using AWS tools and the Python programming language. The Random Forest Algorithm is utilized as a crucial element in the analysis for machine learning. The research yielded good results, with a test data accuracy percentage of 92.1%. Additionally, the results incorporate a visualization feature that helps pinpoint top talent and nominated talent in organizations. This study enhances talent management techniques and highlights the capabilities of cloud-based platforms, like AWS, for undertaking versatile and comprehensive talent evaluations.)**

Keywords—talent management, BUMN, random forest, machine learning, AWS

Shedding Light on Glowapp: A Usability Test Evaluation for Enhanced User Experience

Sergio
Computer Science Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
sergio001@binus.ac.id

Immanuela Puspasari Saputro
Computer Science Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
immanuela.puspasari@binus.ac.id

Yulius Denny Prabowo
Computer Science Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
yulius.denny@binus.ac.id

Voice Esther Ticoalu
Information Systems Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
voice.esther@binus.ac.id

Karunia Agung Mahardini
Industrial Engineering Department,
Faculty of Engineering
Bina Nusantara University
Jakarta, Indonesia 11480
karunia.mahardini@binus.ac.id

Abstract— **Cosmetics is one of the emerging industries in Indonesia. Cosmetology is the practice of using cosmetics and cosmetic products to alter the appearance of the face. When applying makeup, it is essential to tailor it to the occasion and consider the facial structure. Applying appropriate cosmetics may enhance self-assurance. According to the questionnaire findings, women apply makeup more than twice. However, not all of them possess the talent to apply makeup on themselves. They struggle to locate a makeup artist with a style and availability that meets their requirements. Glowapp was developed with booking functionalities. Customers will find it more convenient to schedule an appointment. Blackbox testing was utilized to assess the functionality of the system. The results indicate that the features performed effectively and satisfied user requirements. The usability test is conducted by integrating the eight golden guidelines and ISO-9241-11. The goal is to reduce the time respondents spend filling questionnaires while maintaining usability principles to ensure more accurate answers. Glowapp has a performance score of 93%, with efficiency scoring the highest and effectiveness scoring the lowest.**

Keywords— MUA, usability, cosmetology, efficiency, effectiveness

Technology Acceptance Readiness Analysis in the Context of Digital Tourism Village using Machine Learning Approach

Indra Prawira
Mass Communication Program,
Communication Department,
Faculty of Digital Communication and Hotel &
Tourism
Bina Nusantara University
Jakarta, Indonesia 11480
iprawira@binus.edu

Nur Afny Catur Andryani
Computer Science Department,
BINUS Graduate Program – Doctor of Computer
Science
Bina Nusantara University
Jakarta, Indonesia 11480
nur.andryani@binus.edu

Ebnu Yufriadi Mass
Communication Program,
Communication Department,
Faculty of Digital
Communication and Hotel &
Tourism
Bina Nusantara University
Jakarta, Indonesia 11480
ebnu@binus.ac.id

Abstract— **Digital tourism village potentially accelerates rural development hence improving a country's economy. The Indonesian government has developed hundreds of tourism villages in recent years but has yet to popularize the development of digital villages. Technology design and development are pivotal factors in tourism villages' digitalization. Therefore, the development digital tourism village must consider village readiness by measuring technology adoption readiness or technology acceptance of the corresponding stakeholders. This paper presents the technology acceptance analysis in the context of a digital tourism village. We use a quantitative analysis approach using the TAM-UTAUT model with data collected from a questionnaire of 101 villagers (n=101) in Pasanggrahan Village, West Java, Indonesia. This research uses machine learning with clustering procedures to analyze the level of technology adoption readiness by implementing K-means Clustering algorithm. In addition, to observe the significance of each influencing factor to the technology adoption readiness level, feature importance analysis approach using Extra tree classifier algorithm is employed. The research finds that attitude toward use, perceived ease of use, and facilitating condition—have a considerable impact on the degree of readiness for technology adoption. On the other hand, the perceived utility and social impact are found to have minimal bearing on the preparedness level for technology adoption. Perceived ease of use and facilitating conditions are the most important factors to afford the acceleration of technology adoption readiness. The research contributes to the development of a digital tourism village and the analysis of technology adoption readiness using machine learning.**

Keywords—digital tourism village, extra tree classifier, Indonesian tourism, TAM-UTAUT, technology adoption readiness

Exploring the Use of GPT Chatbots, in Education: A Comparative Study on User Experiences, in Taiwan and Vietnam

Feng-Chia Li
Department of Distribution Management
National Chin-Yi University of Technology
Taiping, Taiwan
lear999@ncut.edu.tw

Do Thi Thanh Phuong
Department of Distribution Management
National Chin-Yi University of Technology
Taiping, Taiwan
phuong.dothanh904@gmail.com

Tsung-Yu Chou
Department of Distribution Management
National Chin-Yi University of Technology
Taiping, Taiwan
arthur@ncut.edu.tw

Andri Dayarana K. Silalahi
Department of Marketing and Logistics Management
Chaoyang University of Technology
Taichung, Taiwan
andridksilalahi@gmail.com

Lai Thi Hue
Department of Distribution Management
National Chin-Yi University of Technology
Taiping, Taiwan
laihue96@gmail.com

Abstract— **The rise of ChatGPT has brought about transformations. There exist hurdles related to its adoption and potential risks. This research explores the reasons, behind individuals opting for ChatGPT based on insights, from the Unified Theory of Acceptance and Use of Technology (UTAUT). It identifies seven factors that impact these decisions. A comparison between users in Taiwan (N=63) and Vietnam (N=136) sheds light on different perspectives. Through the use of PLS 4.0 for structural equation modeling, we assessed the reliability and validity of the relationships among these factors. Our results indicate that aspects like performance expectations, habits and perceived learning value significantly influence user's intentions to embrace ChatGPT across various demographics. However, ease of use, social influence, support conditions and perceived task efficiency do not appear to be strong predictors of adoption intentions. One notable distinction is that Taiwanese users prioritize habits and learning value over performance expectations when opting for ChatGPT, while Vietnamese users consider both performance expectations and habits alongside learning value as important factors. Both groups agree on the significance of perceived learning value in adopting ChatGPT. The findings imply that strategically incorporating ChatGPT as a user centric platform could enhance both effectiveness and efficiency. Nevertheless, further research is needed to investigate the impact of task efficiency on technology adoption.**

*Keywords— **ChatGPT, chatbots, artificial intelligence, higher education, UTAUT***

Interpretability of Machine Learning AgnosticModel on Student Academic Performance Prediction in Case Based Learning (CBL)

Eka Miranda
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
ekamiranda@binus.ac.id

Felix Jonathan
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
felix.jonathan001@binus.ac.id

Wendy Alfando
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
wendy.alfando@binus.ac.id

Figo Nathaniel Gerungan
Information Systems Department,
School of Information Systems Bina
Nusantara University
Jakarta, Indonesia 11480
figo.gerungan@binus.ac.id

Abstract—**Education is an important aspect for the younger generation that will determine their future later, especially in this modern society with technology that keeps developing. Development of technology affects many sectors, including education. This encourages the education sector to keep up with technological developments, especially encouraging the younger generation who easily get information and knowledge with technology. This research suggested a predictive model for predicting student's academic performance in Case Based Learning Method based on Machine Learning. The model was developed by data taken from Bina Nusantara University students that experienced beforehand the learning method. The data was observed by using Machine Learning, particularly using Random Forest, XGBoost, and AdaBoost algorithm to evaluate the data. Around 252 data gathered as dataset. In Prediction model performance XGBoost outperform Random Forest and AdaBoost. While in ROC AUC micro average, Random Forest outperform slightly with XGBoost than the AdaBoost. By constructing the model is hoped to understand the advantages of Case Based Learning, by assessing the academic performance of students that had experienced CBL in the class.**

Keywords—*case based learning, machine learning, academic performance, random forest*

IoT Door Locking a Review

Yulianto
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
yulianto003@binus.ac.id

Anita Rahayu
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
anitarahayu@binus.ac.id

Abstract— **Traditional mechanical locks need a key for locking or unlocking the door, with the fundamental drawback of the possibility of losing the key. Researchers have proposed replacing the mechanical key with electronic one, also equipped with a sensor, in order to improve the fully mechanical system of door locks. The Internet of Things (IoT) scheme was also implemented for better control and monitoring via the cloud network. IoT schemes usually involve several components such as sensors, microcontrollers, and network components. The sensor is used to read the state of the environment. It can also be used to capture the biometric characteristics of the users authorized to access the system. For some types of sensors, it is not possible to connect them directly to a computer to collect the result of the reading of the sensor data. Thus, microcontrollers are needed. However, there are still a few papers that provide a summary of what the main component is and what other authors have proposed in their research. The aim of this study is to briefly summarize which sensor types, microcontrollers and communication protocols have recently been used to improve IoT-based door locks, especially for indoor environments. Whether the use of a single sensor or multiple sensors is also discussed. The types of microcontrollers used in recent research are also discussed.**

Keywords— *smart door, internet of things, sensor, machineto-machine communication*

Analysis Factors Affecting Student Intention to Use Generative Artificial Intelligence in E-Learning

Meilani
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
meilani003@binus.ac.id

Mediana Aryuni
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
mediana.aryuni@binus.ac.id

Sevenpri Candra
Management Department,
BINUS Business School Undergraduate
Program Bina Nusantara University
Jakarta, Indonesia 11480
seven@binus.ac.id

Abstract— **The education sector, particularly e-learning, has experienced the emergence of a variety of AI categories as a result of the advancement of Artificial Intelligence (AI) technology. Today, Generative AI (GAI) is one of the most frequently employed forms of AI due to its ability to facilitate the acquisition of information sources and provide an enjoyable learning experience for students. To be able to facilitate efficient GAI in e-Learning, it is necessary to know the preferences for its adoption. This research aims to analyze what factors can influence the use of GAI to support student elearning. The SEM method is used to process data with the help of SMARTPLS 3 as a tool to process respondent data. Data collection was done with Google Form and 351 respondents were obtained but only 346 valid data. Respondents consisted of students from universities in Indonesia aged 19-24 years old and using GAI in E- Learning. This research uses UTAUT 2 and Perceived Risk research model and Snowball Sampling method. The study's findings indicate that the factors that influence the use of GAI in elearning students are facilitating conditions, habits, and perceived risks. The most dominant factor in determining students' behavioral intention in using AI is Habit. The results obtained from this study are expected to contribute to educational institutions and e-learning service providers to help develop more effective strategies and policies in adopting GAI in e-learning.**

Keywords— e-learning, GAI, perceived risk, UTAUT 2, intention to use

AI-Powered Mobile Application for Image-Based Food Ingredient Detection and Recipe Generation

Thessalonica Maria Luisse Rosaline
Mobile Application & Technology Program,
Computer Science Department School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
thessalonica.rosaline@binus.ac.id

Calvin Anacia Suciawan
Mobile Application & Technology Program,
Computer Science Department School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
calvin.suciawan@binus.ac.id

William Ng
Mobile Application & Technology Program,
Computer Science Department School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
william.ng001@binus.ac.id

Said Achmad
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
said.achmad@binus.edu

Jurike V Moniaga
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
jurike@binus.edu

Abstract— **This research explores the critical impact of dietary habits on health, addressing the lack of awareness regarding nutritional content that leads to issues such as malnutrition. The proposed mobile application utilizes the YOLOv8 algorithm with a deep convolutional neural network (CNN) architecture, deployed on the Roboflow server, a local MySQL database server, and ChatGPT. The architectural framework of this application is integrated through the NodeJs server via an API system embedded within the Android application. Despite this approach, the study highlights the need for further refinement in the accuracy of the ingredients' object detection model. The refined YOLOv8 model, trained on an extensive dataset of 24,583 images across 13 food ingredient classes, outperforms the initial YOLOv8 model trained on 9,867 images. Improvements are notable, particularly in addressing misclassifications of ingredients such as beef, pork, onion, and egg in the initial model. However, the YOLOv8 model can still be improved by introducing more ingredient variations and expanding the training dataset. This application can detect multiple food ingredients from an image and evaluate their nutritional value, specifically in calorie count. It also provides tailored recipes to help users meet their daily nutritional requirements, offering a practical solution for users to achieve their dietary goals. This research connects computer vision and nutrition, providing insights for developing practical solutions in this domain.**

Keywords— YOLOv8, CNN, nutrient detection, ChatGPT

Exploring IT Compliance When Artificial Intelligence is Applied in The Workplace

Dewi Tamara
Management Department,
BINUS Business School Master Program
Bina Nusantara University
Jakarta, Indonesia 11480
dtamara@binus.edu

Anita Maharani
Management Department,
BINUS Business School Master Program
Bina Nusantara University
Jakarta, Indonesia 11480
anita.maharani@binus.edu

Abstract— **This article is intended to explore IT Compliance from an employee's perspective when artificial intelligence is used as a tool in the workplace. This research use Technology, Organizational and Environmental or TOE. This research approach refers to a causal associative approach, with data collected through an online questionnaire using a 5-point Likert scale to measure the relationship between variables. Data analysis linier regression to test indicators, validity, reliability, and hypotheses, with JAMOVI as software. The findings of this study Organization view on technology affect employee's behavior intention on compliance positively is not supported (Pvalues > 0,001), while AI as technology affect employee's behavior intention on compliance positively supported and Environment pressure on technology usage affect employee's behavior intention on compliance positively is supported. The managerial implication of this study is that organizations can encourage the use of artificial intelligence to achieve employee performance which will later have an impact on the organization.**

Keywords— *artificial intelligence, behavioral intention, technology acceptance model, technology organizational environment*

Bibliometric Analysis to Explore the Influence of Artificial Intelligence on Consumer Behavior and Marketing Research: A Comprehensive Review and Suggestions for Future Exploration

Chung-Jen Fu
Department of Business Administration,
Chaoyang University of Technology
Taichung, Taiwan
drfucj@gmail.com

Andri Dayarana K. Silalahi
Department of Marketing and Logistics Management,
Chaoyang University of Technology
Taichung, Taiwan
andridksilalahi@gmail.com

I-Tung Shih
Department of Business Administration,
Chaoyang University of Technology
Taichung, Taiwan
Itungshih99@gmail.com

Do Thi Thanh Phuong
Department of Business Administration,
National Chin-Yi University of Technology
Taiping, Taiwan
phuong.dothanh904@gmail.com

Ixora Javanisa Eunike
Master of Management Program,
University of HKBP Nommensen
Medan, Indonesia
ixorajavanisa1902@gmail.com

Abstract—In the nexus of AI, marketing, and consumer behavior, a systematic consolidation of the theoretical and practical implications remains elusive. Addressing this, our study embarks on a Systematic Literature Review (SLR) with bibliometric analysis, leveraging the PRISMA framework to unearth and integrate findings from existing research. The objective is to map out the scholarly landscape, identifying key themes and gaps within the expansive body of literature on AI's role in shaping marketing strategies and consumer perceptions. Our analysis uncovers a dual impact of AI: operational enhancement and deep-rooted changes in consumer-brand dynamics, highlighting a shift toward more sophisticated theoretical frameworks like the Uses and Gratification Theory and the UTAUT model. The study not only synthesizes these insights but also sets the stage for future research, calling for a broader inclusion of databases to mitigate current limitations and empirical studies to validate and refine theoretical models, ensuring a comprehensive understanding of AI's transformative potential and its ethical implications in the marketing domain.

Keywords—artificial intelligence, chatbots, consumer behavior, marketing, systematic literature review

Blockchain Adoption Model in The Supply Chain of Agricultural Products to Support The Transparency of The Insurance Process

Inayatulloh
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
inay@binus.ac.id

Hari Setiabudi Husni
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
hari.setiabudi@binus.ac.id

Indra Kusumadi Hartono
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
indrakh@binus.ac.id

Abstract— **Extreme weather changes have the potential to threaten agricultural production and will have an impact on the country's food security. The risk of loss and damage when storing and shipping agricultural products has the potential to harm farmers and all parties involved in the supply chain network of agricultural products. Currently, conventional agricultural insurance is a method used by farmers to manage risks related to extreme weather changes and other stakeholders in the supply chain of agricultural products. Stakeholders pay insurance premiums before the planting cycle begins and receive insurance payments whenever they experience losses along the supply chain. Thus, the insurance company bears all the risks insured, and supply chain stakeholders can reduce losses due to the risks that arise. The long stages of agricultural insurance, from agricultural production to customers, require a high level of control and transparency mechanisms. Blockchain offers high levels of transaction transparency and validation features. Thus, the aim of this research is to build a conceptual model of blockchain adoption in the supply chain of agricultural products. The research method uses a qualitative approach by identifying problems in agricultural product insurance and studying the advantages of blockchain technology as an alternative solution. The result of this research is a conceptual model for adopting blockchain technology in the supply chain of agricultural products. The research results are complemented by several diagrams that explain in detail the roles of each party involved in a supply chain based on blockchain technology for agricultural products. At the end of this article, a data simulation with Fabric Hyperledger framework blockchain is presented.**

Keywords— smart farming, blockchain technology, agricultural product insurance

Comparison of Training Function, Adaption Learning Function, and Transfer Function of Hidden Layers in Artificial Neural Network in Weather Prediction

Adhe Lingga Dewi
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
adhe.dewi@binus.ac.id

Dimas Elang Setyoko
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
dimas.elang@binus.ac.id

Canggih Gelar Setyo Adhi
Computer Science Department,
School of Computer Science,
Bina Nusantara University
Jakarta, Indonesia 11480
canggih.gelar@binus.ac.id

Nur Sitha Afrilia
Digital Language Learning Center,
Faculty of Humanity,
Bina Nusantara University
Jakarta, Indonesia 11480
nur.sitha@binus.ac.id

Abstract— **Weather prediction plays an important role in human life, such as agricultural commodities, aquaculture, trade, industry, tourism systems, airport/flight systems, mining industry, etc. This study is to compare the performance of several Training Function, Adaption Learning Function and Transfer Function in Artificial Neural Networks for weather prediction. The data used is historical weather that occurred in Semarang City, Indonesia from January 1, 2012, to December 31, 2022, as training data. Meanwhile, the data used as test data is historical weather data that occurred during the period from January 1, 2023, to December 31, 2023. The weather data consists of average temperature, humidity, and wind speed. Based on the training results, using trainlm, learngdm, and tansig which was trained using 30 hidden layers and 1000 epochs has the lowest MSE value of 5.08. Apart from that, the regression value of the training data also showed good results. That is, 0.99091 for details, 0.99102 for training, 0.98922 for validation, and 0.99263 for testing. The ANN architecture that has been trained using the configuration mentioned is used to make predictions on test data. The test results show that the ANN prediction error for temperature is 1.45% and humidity is 6.68%. Based on the results, it is proven that comparing three key factors of ANN for weather forecasting has a significant impact on the weather prediction ability of Artificial Neural Network.**

Keywords— **weather prediction, artificial neural network, training function, adaption learning function, transfer function**

Enhancing User Interface and Experience in Skin Type Classification and Skincare Product Recommendation System for Young Adults

Felicia Himawan
Mobile Application & Technology Program, Computer Science Department, School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
felicia.himawan@binus.ac.id

Vania Paramitha Soerjadi
Mobile Application & Technology Program, Computer Science Department, School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
vania.soerjadi@binus.ac.id

Yonathan Handoyo
Mobile Application & Technology Program, Computer Science Department, School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
yonathan.handoyo@binus.ac.id

Said Achmad
Computer Science Department, School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
said.achmad@binus.edu

Jurike V Moniaga
Computer Science Department, School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
jurike@binus.edu

Abstract— **The escalating interest of skincare among Indonesian young adults reflects the rising trend in the skincare industry. However, this heightened interest also brings several challenges, like the lack of knowledge and confusion when selecting the right skincare products for our skin type. This underscores the need for an effective and efficient skin type classification and product recommendation system. This paper addresses this challenge by focusing on enhancing a skincare application's user interface and overall experience. This research employed User-Centered Design (UCD), implementing Design Sprint, and Goal-Directed Design (GDD) methodologies to achieve a high value of user satisfaction. The Sprint process is used to create the design prototype efficiently, and the Goal-Directed method is performed to create specific, measurable goals. Our evaluation shows that an iterative design process based on user feedback results in higher user satisfaction. The analysis indicated a significant increase of approximately 25% in both effectiveness and efficiency among users when using the application. Initially, the first iteration reveals a low value of approximately 59% in overall effectiveness and efficiency. However, a substantial boost to around 83.5% was seen after a redesign. This improvement proved that UserCentered Design methodologies highly influence user perception and satisfaction.**

Keywords— UI/UX, skincare, user-centered design, design sprint, goal-directed design

Analysis of Student Interest in Crypto-Asset Investment

Egbert Gwino Tumangkeng
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
egbert.tumangkeng@binus.ac.id

Yohannes Kurniawan*
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
Ykurniawan@binus.edu

Mohamad Heykal
Accounting Department,
School of Accounting
Bina Nusantara University
Jakarta, Indonesia 11480
mheykal@binus.edu

Abstract— **This study investigates the motivations behind Indonesian students' cryptocurrency investments. It reveals that reliable information sources and peer influence play pivotal roles in shaping their decisions. The journal article itself examines the drivers behind student interest in cryptocurrency investment and sustainable practices, utilizing structural equation modeling with SmartPLS. Based on data from 308 university student respondents in Indonesia, 228 meeting study criteria, the study identifies significant relationships between factors like information quality, peer influence, risk tolerance, and system quality, and student interest in cryptocurrency investment and sustainable practices. Findings underscore the pivotal role of high-quality information and user-friendly systems in stimulating student interest, while also recognizing the impact of peer recommendations and risk tolerance. The study provides insights for startups developing investment applications and highlights essential factors for enhancing user engagement and promoting responsible investment behaviors among students. Ultimately, addressing these factors can contribute to the growth and stability of the crypto-asset market.**

Keywords— crypto-asset, student interest, investment

Accounting in the Cloud: Empirical Insights into the Intellectual Structure and Knowledge Evolution

Rosaline Tandiono
Accounting Department,
School of Accounting - Master of Accounting
Bina Nusantara University
Jakarta, Indonesia 11480
rtandiono@binus.edu

Abstract— **This study aims to map the research on cloud accounting, identifying the trend and the potential future research. To achieve the above objective, this study relied on the Scopus.com database to systematically review the data source using VOSviewer. This research found that the earliest study on cloud accounting was in 2011, and there has been a significant increase in cloud accounting research since then. Several prominent journals, papers, and authors were also identified. This study also found the evolution of cloud accounting research, which reflects current technology development. Based on these findings, further implications were discussed. This study is useful for scholars interested in advancing knowledge in cloud accounting.**

Keywords— *cloud accounting, bibliometrics, VOSviewer, intellectual trend, knowledge evolution*

Factors Hindering the Adoption of Blockchain Technology by Universities Based on University Employees

Adam Fahsyah Nurzaman
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
adam.nurzaman@binus.ac.id

Muhammad Wildan
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
muhammad.wildan@binus.ac.id

Abstract— **This research examines barriers to blockchain adoption in higher education institutions. Using a survey-based causal analysis approach, data was collected from 348 respondents in the education industry in large cities in Indonesia. Several factors that can hinder and become problems, namely security, costs, awareness and regulatory support, are analyzed. The results of this study show that although complexity and expertise factors did not show a significant impact, security issues, costs, awareness, and regulatory support were identified as key factors influencing university resistance to blockchain adoption. Strategies to overcome these barriers include enhanced security measures, reduced costs, increased awareness, and supportive regulatory advocacy. This research also makes an important contribution to understanding the challenges faced in implementing blockchain technology in the higher education sector and offers practical insights that can help drive the integration of this technology in the future.**

Keywords— blockchain adoption, higher education, security measures, sustainable technology

Driving Satisfaction and Continuous Intention by Leveraging Perceived Value of Digital Banking Mobile-Application's Product Attribute

Artha Sejati Ananda
Management Department,
BINUS Business School Master Program
Bina Nusantara University
Jakarta, Indonesia 11480
artha.ananda@binus.edu

Nysrina Nabyla Putri
Management Department,
BINUS Business School Master Program
Bina Nusantara University
Jakarta, Indonesia 11480
nisryna.putri@binus.ac.id

Tasya Safira Putri Sadewo
Management Department,
BINUS Business School Master Program
Bina Nusantara University
Jakarta, Indonesia 11480
tasya.sadewo@binus.ac.id

Abstract— **The rapid advancement of technology in the banking industry has spurred a transition from cash-based transactions to online platforms, facilitating various financial services through mobile phones such as payments, savings, transfers, and credit transactions. With the increasing penetration of financial technology and online banking users, digital banking companies must adopt effective acquisition strategies to remain competitive. The research has the purpose to investigate the correlation between product attributes (e- service quality, information design, visual, navigational design, login time, and collaboration design) and perceived value. Also, to study the subsequent relationship between perceived value and consumer satisfaction as well as continuous intention. Conducted through a questionnaire surveying 154 digital banking mobile application users in Indonesia, the study analyzes the data using Partial Least Square Structural Equation Modeling (PLS-SEM). The findings of the study indicate that there are significant relationships between visual design, navigational design, and login time with perceived value. Further, perceived value may positively affect customer satisfaction, which may indirectly affect continuous intention through customer satisfaction as a mediator.**

Keywords— *digital banking, product attributes, perceived value, customer satisfaction, continuous intention, mobile application*

The Impact Artificial Intellegence on Supply Chain Performance throught Supply Chain Dynamism, Adaptive Capabilities, Supply Chain Resiliences

Stefanus Rumangkit*
Management Department,
BINUS Business School Doctor of
Research in Management
Bina Nusantara University
Jakarta, Indonesia 11480
stefanus.rumangkit@binus.ac.id

Mohammad Hamsal
Management Department,
BINUS Business School Doctor of
Research in Management
Bina Nusantara University
Jakarta, Indonesia 11480
mhamsal@binus.edu

Arta Moro Sundjaja
Management Department,
BINUS Business School Doctor of
Research in Management
Bina Nusantara University
Jakarta, Indonesia 11480
asundjaja@binus.edu

Willy Gunady
Management Department,
BINUS Business School Doctor of Research in Management
Bina Nusantara University
Jakarta, Indonesia 11480
willy.gunadi@binus.ac.id

Abstract— **The business field has conducted extensive studies on artificial intelligence. However, research is still needed to explore artificial intelligence in supply chain management. This study explores how artificial intelligence impacts supply chain dynamism, adaptive capabilities, and resilience. Additionally, it will investigate the effect of these factors on supply chain performance. The analysis is grounded in organizational information processing theory and uses a quantitative method with primary data gathered through questionnaires from 100 employees working in supply chain- related divisions. Respondents were selected using purposive techniques, and structural equation modeling was employed for data analysis using SmartPLS 3.0. The findings reveal that artificial intelligence significantly affects supply chain dynamism, adaptive capabilities, and resilience. Additionally, the study highlights the influence of supply chain resilience on supply chain performance. Notably, the study's novelty lies in identifying that supply chain dynamism and adaptive capabilities do not significantly impact supply chain performance.**

Keywords—supply chain performance, adaptive capabilities, supply chain dynamism, supply chain resiliences

The Effect of Perceived Enjoyment and Technology Acceptance Model (TAM) Towards Continuance Usage of E-wallet Applications

Steven Agustianto
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
steven.agustianto@binus.ac.id

Edward Reynaldo
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
edward.reynaldo@binus.ac.id

Willy
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
willy016@binus.ac.id

Ferdianto
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
ferdianto@binus.edu

Abstract— **Based on Juniper Research, e-wallet users will increase by 53% to 5.2 billion people by 2024 globally. Growth of digital transactions with e-wallet in Indonesia is driven by the rapid transformation of information technology and on the spread of pandemic. The objective of this research is to inform us of the important role of perceived usefulness and perceived ease of use in creating satisfaction along with perceived enjoyment for continued usage of e-wallets. This research uses quantitative methods by distributing questionnaires and focuses on e-wallet users as a sample. Adopting TAM (Technology Acceptance Model) as a theoretical framework with five variables to be studied. An amount of 523 respondents completed the questionnaire, and 490 of them were e-wallet users, for a percentage of 93.7%. This study explains that ease of use along with useful indirectly impact on the continuation of e-wallet use through a satisfying experience when making transactions. In addition, providing an enjoyable experience through gamification elements can create enjoyment thus encouraging consistent and continued usage of e-wallets. The study results may provide e-wallet application developers with consideration for adding and assessing gamification features to their products, leading to improvements in their applications.**

Keywords— *e-wallet, technology acceptance model, perceived enjoyment, continuance usage*

Software Defect Prediction using Ensemble Technique

Pandu Wicaksono
Software Engineering Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
pandu.wicaksono005@binus.ac.id

Panji Arisaputra
Software Engineering Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
panji.arisaputra@binus.ac.id

Rezky Yunanda
Software Engineering Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
rezky.yunanda@binus.ac.id

Willy Kristian
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
willy.kristian@binus.ac.id

lmuzhidul Mujhid
Software Engineering Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
almuzhidul.mujhid@binus.ac.id

Abstract— **Software defect prediction is the methodical process of identifying code segments that are likely to have problems. This is done by analyzing software metrics and using categorization algorithms. This work introduces an alternate approach that utilizes ensemble learning techniques to improve the effectiveness of fault detection models. The models utilized in this study are CodeGPT and CodeBERT, both of which are transformer-based deep learning models that can extract code features from source code. The models are trained using the PROMISE dataset, which consists of Java projects that have been labeled with defects. The test results show that using ensemble learning methods can improve the accuracy, precision, recall, and F1 score of a single model by around 1-3%. This study contributes to the progress of software dependability and quality by utilizing advanced software fault prediction algorithms.**

Keywords— codegpt, codebert, ensemble technique, software defect prediction, software engineering

Automated Pulmonary Tuberculosis Detection in Chest Radiographs using Pretrained DCNN Models

Simeon Yuda Prasetyo
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
simeon.prasetyo@binus.ac.id

Abstract— **The problem of pulmonary tuberculosis (PTB) worldwide is still considered to be a significant one, and it is therefore necessary to develop precise and effective diagnostic tools that will make it possible to carry out early interventions and treatment. In this research, the deep convolutional neural network (DCNN) architectures named VGG-16, VGG-19, ResNet-50, ResNet-101, and MobileNet were utilized for the detection of PTB from chest radiographs. By means of transfer learning and fine-tuning approaches it was possible to increase the diagnostic performance. Notably, VGG-16 consistently demonstrated exceptional performance, achieving a remarkable accuracy of 99.524% in both transfer learning and fine-tuning phases. Similarly, MobileNet exhibited strong performance, with an accuracy of 99.524% in transfer learning and 98.095% in fine-tuning. The results obtained show that VGG-16 and MobileNet are very good for the detection of PTB from chest X- ray images. Moreover, the fine-tuning showed the best performance of ResNet models, therefore, it confirmed the effectiveness of the iterative refinement process. In general, the results mainly highlight the significance of transfer learning and fine-tuning in the best model parameter adjustment, with VGG- 16 being the most effective model. Possible future directions will be investigated through ensemble methods, domain-specific knowledge integration, advanced augmentation techniques, and multimodal data sources that will aim to improve PTB detection accuracy and deal with the changing healthcare challenges.**

Keywords— *pulmonary tuberculosis detection, chest x-ray images, deep learning, convolutional neural networks, pretrained model*

Analysis of Factors Influencing Interest in the Use of Digital Banks using UTAUT 2 Model Approach

Zalfa Ghina Salsabila
Accounting Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
zalfa.salsabila@binus.ac.id

Baiq Arizkayana Kirani
Accounting Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
baiq.arizkayana@binus.ac.id

Nuraini Sari
Accounting Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
nsari@binus.ac.id

Abstract— **This study aims to identify and evaluate the indicators that impact the interest in utilizing digital banks in Indonesia, employing the UTAUT 2 model and a probability sampling technique. This quantitative study incorporates effort expectancy, performance expectancy, social influence, hedonic motivation, facilitating conditions, price value, behavioral intention, habit, and usage behavior as key indicators. Data were gathered through surveys completed by 256 users of various digital banks in Indonesia. The analysis employed the Structural Equation Model (SEM) with Partial Least Squares (PLS) methodology. Findings indicate that social influence, hedonic motivation, and habit significantly influence the intention to use digital banks. Additionally, behavioral intention, facilitating conditions, and habit markedly affect the actual use of digital banks in Indonesia. Conversely, performance expectancy, effort expectancy, price value, and facilitating conditions do not show a significant effect on behavioral intention.**

Keywords— *digital bank, behavioral intention, use behavior, technology innovation, UTAUT 2*

Through the Lens: Unveiling the Power and Promise of Google's Visual Search Technology

Devano Hofker Salim
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
devano.salim@binus.ac.id

Jose Juan Susanto
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
jose.susanto002@binus.ac.id

Sonya R. Manalu
Mobile Application & Technology
Program,
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
sonya.manalu@binus.ac.id

Hafizh Ash Shiddiqi
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
hafizh.shiddiqi@binus.ac.id

Abstract— **The digital landscape is undergoing profound changes, with visual search technology like Google Lens emerging as a pivotal force shaping our interaction with information. This research paper delves into Google Lens, a cutting-edge tool redefining how we engage with visual data. We comprehensively examine its functionalities, underlying principles, and real-world applications, particularly in education and library services. Through meticulous analysis, we evaluate its efficacy in addressing practical challenges and assess its accuracy, efficiency, and breadth of capabilities compared to other visual search technologies. By exploring existing research and the intricacies of Google Lens, this paper aims to provide a holistic understanding of this technology and its potential impact on how we access and interact with information in the real world. Finally, we explore the future of technology by contemplating the prospective roles of Google Lens across various industries and its potential for shaping the future of information access.**

Keywords— *visual search technology, google lens, future of technology.*

Unveiling the Psychology of Clicks: How Live-Streaming on Social Commerce Sparks Impulse Buys in the Digital Native Generation

Rusherly Rinlohokyana
International Marketing Program,
Management Department,
BINUS Business School Undergraduate Program
Bina Nusantara University
Jakarta, Indonesia 11480
rusherly.rinlohokyana@binus.ac.id

Aryo Bismo
Management Department,
BINUS Business School Undergraduate Program
Bina Nusantara University
Jakarta, Indonesia 11480
aryo.bismo001@binus.ac.id

Abstract— **With a focus on Centennials, the digital native generations, this journal article aims to examine the phenomenon of online impulse buying behavior within the context of live-streaming social commerce platforms. Based on the Stimulus-Organism-Response theory, the study proposes a framework for studying how social presence, relationship convenience, and the Fear of Missing Out (FOMO) influence impulse buying. It also considers the moderating impacts of time and financial availability on these interactions and the role of customer experience as the mediator. An online survey was conducted among 300 residents of the Jabodetabek area who had little to no experience with live-streaming shopping in the previous six months. The data were analyzed using Structural Equation Modeling-Partial Least Squares (SEM- PLS). The results found that relationship convenience and FOMO are the most significant factors influencing online impulsive buying behavior, especially with the customer experience variable acting as a mediator. In summary, the findings provide valuable theoretical and practical insights that can facilitate the advancement of social commerce in today's society.**

Keywords— s**ocial commerce, live-streaming, impulsive buying, centennials, customer experience**

Evaluation of Kanban Implementation in an Information Technology Service Provider

Mila Shania
Faculty of Computer Science,
Universitas Indonesia
Jakarta, Indonesia
shnmila@gmail.com

Putu Wuri Handayani
Faculty of Computer Science,
Universitas Indonesia
Jakarta, Indonesia
putu.wuri@cs.ui.ac.id

Nabila Cyldea Harahap
Faculty of Computer Science,
Universitas Indonesia
Jakarta, Indonesia
nabila.clydea@ui.ac.id

Abstract— **Software has become a crucial component for organizations, leading many to implement software solutions to enhance their business processes, despite facing resource constraints. Outsourcing has emerged as a popular method for overcoming these challenges in an organization offering software development services and employing the Kanban framework within the Agile methodology. However, despite this approach, project delays have been experienced. The study explores the usage of Kanban in software development at the XYZ organization by employing qualitative methods and CMMI-Dev 1.3 maturity level measurement. Interviews with team leaders (2), project managers (4), and system analysts (4) were conducted, and the data was analyzed. The findings have identified 7 root causes that occurred within the organization during the implementation of Kanban. These have impacted the results of the capability level assessment, with 6 process areas still remaining at level 0. Using the process mapping from the CMMI assessment, 32 recommended actions have been provided to address the existing root causes. The results can serve as guidance for similar organizations facing similar challenges and provide valuable insights for academics to further investigate the suggested corrective actions.**

Keywords—Agile Methodology, Kanban, CMMI-Dev

Optimizing Trust in E-Government: Evaluating Social Media Dynamics and Government Protocols Using Fuzzy Sets Qualitative Comparative Analysis

Marlan Hutahaean
Master of Public Administration University of HKBP Nommensen
Medan, Indonesia
marlan.hutahaean@uhn.ac.id

Andri Dayarana K. Silalahi*
Department of Marketing and Logistics Management
Chaoyang University of Technology
Taichung, Taiwan
andridksilalahi@gmail.com

Ixora Javanisa Eunike
Master of Management University of HKBP Nommensen
Medan, Indonesia
ixorajavanisa1902@gmail.com

Andrean Agaventa Silgirana Silalahi
Master of Management
University of HKBP Nommensen
Medan, Indonesia
andreansilalahi76@gmail.com

Do Thi Thanh Phuong
Department of Distribution Management
Chaoyang University of Technology
Taiping, Taiwan phuong.dothanh904@gmail.com

Abstract— **Anticipating stock market movements is challenging, as hasty prediction risks large financial losses. Stock price prediction is complex due to the high volatility and many influencing external factors. Recurrent Neural Network (RNN) models are made to learn time series data making it ideal for stock prediction based on records. Well-known RNN architectures for forecasting problems are Long-Short Term Memory (LSTM) and Gated Recurrent Unit (GRU). However, past studies only explored standalone models and have not generated convincing performance results. By integrating the efficiency of GRU to effectively handle shorter data sequences with LSTM's ability to capture long-term dependencies, our model aims to improve stock price forecasting accuracy by collaborating the strength between both architectures. The proposed model was used to forecast multivariate stock prices and evaluated using Root Mean Squared Error (RMSE) and Mean Absolute Error (MAE). We found that parallelization of LSTM-GRU offers better prediction, up to 9.1% improvement compared to sequential LSTM-GRU and Bidirectional LSTM (Bi-LSTM).**

Keywords— *LSTM, GRU, stock prices, short-term prediction*

Implementation of Gamification to Help Teenagers Prevent Diseases

Michael Haryanto
Mobile Application & Technology Program,
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
michael.haryanto@binus.ac.id

Fabian Putera Djaja
Mobile Application & Technology Program,
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
fabian.djaja@binus.ac.id

Michael Chrisandy
Mobile Application & Technology Program,
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
michael.chrisandy@binus.ac.id

Said Achmad
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
said.achmad@binus.edu

Jurike V Moniaga
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
jurike@binus.edu

Abstract— **Adolescence is an important part of growing up to become an adult; keeping adolescent physique healthy is very important because poor dietary choices and a sedentary lifestyle will lead to diseases that they shouldn't have experienced yet. That is why teenagers need to be engaged to do more health- promoting behaviors, one way is by implementing gamification. This paper seeks to study which kind of gamification elements can be implemented from past research and whether the results were effective or not to prove whether gamification is a valid and effective strategy. At the same time, we are creating a gamified prototype for the mobile platform. The methodology starts with a systematic review of PubMed, MDPI, and Google Scholar to get a general idea of which gamification elements are the most implemented. Then a prototype will be made with the most used gamified elements from the systematic review. And then participants ranging from 10 - 19 years old will test the prototype and will give their opinions via a survey, From this, it is proven by our own gamified prototype survey results that using gamification as a way to engage teenagers is a fun and engaging way to do more health-promoting behaviors with a mostly positive feedbacks with the average rating of 8.33 out of 10 given from the participants.**

Keywords—gamification, teenagers, prevention, health, digital, wellness, engagement

Digital Competency Influencing Human Capital Competitiveness

Pittawat Ueasangkomsate
Department of Management,
Faculty of Business Administration
Kasetsart University
Bangkok, Thailand
pittawat.u@ku.th

Theeratchayada Soodsom
Division of Corporate Evaluation and Affiliate Management
Department of Policy and Strategy
Provincial Electricity Authority
Bangkok, Thailand
theeratchayada.soo@pea.co.th

Abstract— **The aim of this study is to explore the impact of digital competency on human capital competitiveness. The research involved 385 participants who responded to an online questionnaire distributed among employees in government agencies, state enterprises, and companies within the energy industry in the Bangkok Metropolitan Region. Subsequently, data analysis encompassed the utilization of frequency, percentage, mean, standard deviation, and multiple regression analysis. The findings of this research reveal that digital competency including information and data literacy, safety, problem solving influence human capital competitiveness in the part of talent. In addition, digital competency including communication and collaboration, problem-solving influence human capital competitiveness in the part of flexibility. Besides, digital competency including safety, problem solving influence human capital competitiveness in the part of innovation. Moreover, digital competency including information and data literacy, communication and collaboration, safety, problem solving influence human capital competitiveness in the part of personal service. This study offers valuable insights for organizations in the energy industry, aiding them in formulating strategies to enhance the digital competency of their workforce that can improve the human capital competitiveness in organization.**

Keywords—digital competitiveness, competency, human capital, competitiveness

Transforming the Shopping Experience: Assessing the Effectiveness of 360-degree Virtual Reality Website in Store Design

Puan Ayu Maharani
Entrepreneurship Department,
BINUS Business School Undergraduate
Program
Bina Nusantara University
Jakarta, Indonesia 11480
puan.maharani001@binus.ac.id

Andi Pramono
Interior Design Department,
School of Design
Bina Nusantara University
Jakarta, Indonesia 11480
andi.pramono@binus.ac.id

Kun Sentanawan
Entrepreneurship Department,
BINUS Business School Undergraduate
Program
Bina Nusantara University
Jakarta, Indonesia 11480
kun.sentanawan@binus.ac.id

Riefky Prabowo
Entrepreneurship Department,
BINUS Business School Undergraduate
Program
Bina Nusantara University
Jakarta, Indonesia 11480
riefky.prabowo@binus.ac.id

Abstract— **Transitioning into the 5.0 era of society, characterized by intense rivalry across multiple domains intimately linked to societal demands, is marked by a multitude of commercial entities competing for market share. Technological advancements are essential in the global context and have a significant impact on the survival of businesses in a variety of industries. This phenomenon also increases demand for retail technology such as the Internet of Things (IoT), Artificial Intelligence (AI), Virtual Reality (VR), and Augmented Reality (AR), which can enhance the shopping experience. This study will discuss the shopping experience at a bag shop using virtual reality technology. The research method we use is a single case study, which has the added benefit of using an online questionnaire in this study. This research evaluates the success of using VR 360º in bag stores to attract consumers and influence their purchasing decisions. This research concludes that VR can create a different and new experience compared to shopping on a two-dimensional website; consumers feel as if they are in a physical shop even though it is only virtual, and the use of VR in the bag shop can increase effectiveness due to the detailed information and consumer needs that are in this technology.**

Keywords— *classic modern, prototype, startup, virtual reality 360, website*

Configuring Consumers' (Dis)continuance Intention to Watch Live Streaming on TikTok: Insights from Fuzzy Sets Qualitative Comparative Analysis

Andri Dayarana K. Silalahi
Department of Marketing and Logistics Management
College of Management Chaoyang University of Technology
Taichung, Taiwan
andridksilalahi@gmail.com

Suwandi Sangadji
Faculty of Economics and Business
Universitas Airlangga
Surabaya, Indonesia
suwandinukusangadji@gmail.com

Chung-Jen Fu
Department of Business Administration
College of Management Chaoyang University of Technology
Taichung, Taiwan
drfucj@gmail.com

Do Thi Thanh Phuong
Department of Distribution Management
College of Management National Chin-Yi University of Technology
Taiping, Taiwan
phuong.dothanh904@gmail.com

Ixora Javanisa Eunike
Department of Business Administration
College of Management Chaoyang University of Technology
Taichung, Taiwan
ixorajavanisa1902@gmail.com

I-Tung Shih
Department of Business Administration
College of Management Chaoyang University of Technology
Taichung, Taiwan
itungshih99@gmail.com

Abstract— **TikTok's live streaming feature, as a leading social media platform, has emerged as a critical approach for the strategic promotion of products. Beyond the considerable its potential, there is complexity in generating content that engages consumers and retains their continuous viewership in the future. Addressing this issue, the present study aims to identify and unveil a predictive model for consumer motivation factors (information seeking, entertainment, social interaction, and sense of community) to ascertain the optimal composite for generating positive versus negative continuance watching intentions on TikTok Live streaming. An online survey was administered, garnering responses from 260 Indonesian participants who engage with TikTok live streaming. The study employs fuzzy-set qualitative comparative analysis to determine the model that predicts positive versus negative continuance watching intention. The findings reveal that achieving a positive continuance watching intention requires presence of conditions of information seeking and social interaction, complemented by entertainment. The absence of these three motivational factors results in consumers not sustaining their viewership. This study signifies theoretical implications for consumer behavior literature and social media marketing. This research offers practical implications to forecast consumer continuance watching intention—positive or negative—as a strategy for creating compelling and effective content to promote products.**

Keywords— *continuance watching intention, fuzzy sets qualitative comparative analysis, socio-motivational, TikTok live streaming, uses and gratification theory*

Beyond Gameplay: An Insight into In-Game Transaction among Genshin Impact Enthusiasts

Satria Permana Wibowo
Accounting Department,
School of Accounting
Bina Nusantara University
Jakarta, Indonesia 11480
satria.wibowo@binus.ac.id

Alya Fatimatuzzahra
Accounting Department,
School of Accounting
Bina Nusantara University
Jakarta, Indonesia 11480
alya.fatimatuzzahra@binus.ac.id

Setiani Putri Hendratno
Accounting Department,
School of Accounting
Bina Nusantara University
Jakarta, Indonesia 11480
shendratno@binus.edu

Abstract— **In the fast-paced gaming business driven by smartphones and social media, Genshin Impact's exciting gameplay and in-game transactions attract gamers worldwide. During Lantern Rite 2024, this research examines in-game transactions to find reasons beyond gaming. A quantitative 6-point Likert scale online survey was conducted across platforms to obtain data from 213 respondents. Data will be analyzed using PLS-SEM. Key results show that FOMO, especially among younger players, and Gacha purchase Satisfaction, especially among females, strongly affect purchase intentions. Language Expression did not affect purchasing intentions. Promotions strongly affected purchasing intentions across player groups. Player social interaction and Genshin Impact socio-cultural engagement favourably increased purchasing intentions, highlighting social dynamics and game immersion. These findings provide light on the complicated relationship between psychological, social, and cultural elements in in-game transactions, helping game developers and marketers improve player engagement and monetization in the evolving gaming scene.**

Keywords— *genshin impact, purchase intention, fear of missing out, gacha purchase satisfaction, language expression, promotion, social interaction among players, socio-cultural engagement, lantern rite 2024*

Feature Selection using XGBoost on METABRIC Dataset for Survivability Breast Cancer Detection

Felix Indra Kurniadi
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
felix.indra@binus.ac.id

Hanis Amalia Saputri
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
hanis.saputri@binus.ac.id

Abstract— **Breast cancer is a highly lethal ailment that primar- ily affects women. The investigation of the survivability of breast cancer using different modalities remains an ongoing concern. One such approach involves analyzing the data obtained from The Molecular Taxonomy of Breast Cancer International Con- sortium (METABRIC). Regrettably, employing many modalities in the process results in an abundance of features in the data. We utilized the XGboost algorithm to carry out the process of feature selection by identifying the k-top features. We conducted a comparison of the findings using various machine learning clas- sifiers, including K-Nearest Neighbor, Support Vector Machine, Random Forest, and XGBoost. The results indicate that utilizing XGBoost as a feature selection method enhances the performance of all classifiers. The highest performing classifier is achieved by XGBoost and Random Forest, resulting in an accuracy value of 0.727273.**

Keywords— breast cancer, feature selection, metabric dataset, xgboost, data mining

Exploring the Trend of Metaverse Adoption in Formal Education: A Systematic Literature Review

Lazuardi Bintang Widyaputra
Information Systems Departement,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
lazuardi.widyaputra@binus.ac.id

Lily Janvieka
Information Systems Departement,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
lily.janvieka@binus.ac.id

Deviany
Information Systems Departement,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
deviany@binus.ac.id

Cadelina Cassandra
Information Systems Departement,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
ccassandra@binus.edu

Abstract— **The adoption of the Metaverse in formal education is currently a widely popular and trending subject. The Metaverse has the potential to facilitate interactive learning experiences, but its successful implementation relies on sufficient resources. A Systematic Literature Review analysis was undertaken in this research. The data collected from many sources underwent filtration based on predetermined inclusion criteria and were subsequently examined using the VOSviewer software. The scope of this research study is restricted to the years 2019 to 2024. The findings indicate a growing trend in the adoption of Metaverse in formal education over time. The title and abstract prominently feature the terms "Student," "Intention," "Technology," "Adoption," and "Education," suggesting possibilities for future research, emerging trends, and topics that capture the attention of both the public and researchers. The three main characteristics recognized as significant are Perceived Ease of Use, Perceived Usefulness, and Intention to use the Metaverse. It is crucial to prioritize the enhancement of user interaction to successfully incorporate the metaverse into formal schooling. This study suggests that more investigation into the influence of the Metaverse on schooling is promising.**

Keywords— *metaverse, education, publish or perish, virtual reality, augmented reality, VOSviewer*

Identifying Abnormal Eating Behavior Patterns with Machine Learning for Early Detection of Eating Disorders: A Systematic Literature Review

Kezia Angeline Santoso
Computer Science Department,
School of Computer Science,
Jakarta, Indonesia 11480
kezia.santoso001@binus.ac.id

Mawar Maharani
Computer Science Department, School of
Computer Science,
Jakarta, Indonesia 11480
mawar.maharani@binus.ac.id

Sidharta Sidharta
Computer Science Department,
School of Computer Science,
Jakarta, Indonesia 11480
sidharta@binus.ac.id

Abstract— **In the field of health, there are common diseases that can have adverse effects on the body and last a lifetime, one of which is eating disorders (ED), which is a mental illness with features of varying degrees related to eating behavior and body image. As such, prediction and early detection of eating disorders are critical to a patient's recovery. To date, machine learning has been implemented to predict and identify eating disorders using a variety of different models and datasets such as interviews/surveys, social media posts and observations. This paper is written according to the PRISMA 2020 guidelines, and aims to answer four research questions, which are Whether ML is an effective way to detect eating disorders, What scales and data types are utilized in the ML methods used to analyze the datasets, What factors should be considered in determining the ML method used, and Between social media and interview datasets, which dataset give more accuracy in predicting eating disorders. There are 30 papers that are material for analysis in the literature review. The results of the analysis indicate that the methods used by the researchers are random forest, support vector machine and logistic regression. In addition, the accuracy achieved by machine learning in predicting eating disorders is very promising and effective. This paper also concluded that ML models used on social media and interview/survey datasets have an almost identical accuracy.**

Keywords— machine learning, eating disorder, anorexia nervosa, bulimia nervosa, literature review.

Analysis Factors Affecting Gamer's Intention to Play-to-Earn in Game Applications

Surjandy
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
surjandy@binus.ac.id

Genoveva Audrey Annabella Koo
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
genoveva.koo@binus.ac.id

Abstract— **Microtransaction is a form of commerce that has gained popularity in the digital age, usually conducted between gamers and game platforms or among gamers themselves. Play- to-earn (P2E) games have also attracted numerous gamers over the past couple of years, offering the potential to earn real-world income from digital assets. This study aims to examine the factors influencing gamers' investments in gaming applications, encompassing purchases or sales of virtual products, or participation in play-to-earn games. The research model comprises eight variables: Financial Motivation, Social Influence, Personal Motivation, Entertainment, Enjoyment, Satisfaction, Habit, and Game Investor, along with thirteen hypotheses. This study uses quantitative method with SEM-PLS technique. Data is collected from 491 respondents by snowball sampling method. The research result shows that Financial Motivation, Personal Motivation, Social Influence, and Enjoyment had an influence on Habit. Moreover, Financial Motivation, Satisfaction, and Habit had an influence on Game Investor. Multi-group analysis was also used to explore gender differences in the research model. This research provides a clear picture that gamers are still not aware of the investment potential that can be obtained as a gamer. This research is very important for the development of game applications in the future.**

Keywords— *game investment, financial motivation, social influence, personal motivation, habit*

Artificial Intelligence Adoption Among Accountants: Empirical Study in Austria

Rudolf Gruenbichler
Faculty of Mechanical Engineering and Economic Sciences, Institute of Business Economics and Industrial Sociology Graz University of Technology
Graz, Austria
rudolf.gruenbichler@tugraz.at

Lianna Wijaya
Management Department, BINUS Online Learning Bina Nusantara University
Jakarta, Indonesia 11480
lianna.wijaya@binus.ac.id
ORCID: 0000-0003-1565-6566

Cheng Kin Meng
Department of Game Studies, Faculty of Creative Industries Universiti Tunku Abdul Rahman
Sungai Long, Selangor, Malaysia
chengkm@utar.edu.my ORCID: 0000-0002-9111-3988

Katharina Greimel
Institute of Business Economics and Industrial Sociology Graz University of Technology
Graz, Austria
katharina.greimel@student.tugraz.at

Tiurida Lily Anita
Hotel Management Department, Faculty of Digital Communication and Hotel and Tourism Bina Nusantara University
Jakarta, Indonesia 11480
tiurida.anita@binus.ac.id

Sylvia Samuel
Department of Economics and Business Universitas Pelita Harapan
Tangerang, Indonesia
sylvia.samuel@uph.edu

Abstract— **A growing number of organizations are integrating Artificial Intelligence (AI) into their operations, and into their business to enhance effectiveness and efficiency. Drawing upon the Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB), this study delves into the factors that impact the intention to employ artificial intelligence within this specific group of organizations employing the advanced technique of Smart Partial Least Squares-structural equation modeling (PLS-SEM). An online survey was conducted in Austria to gather a dataset of 103 accounting professionals. Perceived usefulness and ease of use were the most significant factors in forecasting the accountants' perspective towards Artificial Intelligence; the attitude itself, along with perceived usefulness, social norms, and expertise, determinants of the intention to utilize Artificial Intelligence were identified. However, Perceived Ease of Use did not influence the behavioral intention of Artificial Intelligence. This study provides theoretical and practical contributions to the understanding of behavioral intention in the accounting industry. The provision of guidance to management is aimed at facilitating the seamless integration of the TAM and TPB model within organizational operations, to optimize the utilization of Artificial Intelligence (AI) more efficiently and appropriately.**

Keywords— *artificial intelligence, accountants, technology acceptance model, theory planned behavior, experience*

MRI-Based Alzheimer's Disease Multiclass Classification using Transfer Learning with EfficientNet B0 to B3

Alves Renato Sennellius
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
alves.sennellius@binus.ac.id

Fanes Liu
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
fanes.liu@binus.ac.id

Kristien Margi Suryaningrum
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
kristien.margi@binus.ac.id

Abstract— **Alzheimer's Disease (AD) is the most prevalent neurodegenerative disorder leading to dementia, accounting for 60 to 80 percent of its cases. Even though the effect of AD is dev- astating, there still is no cure for AD until this day. Transfer Learning (TL) technique involves leveraging the knowledge gained from previous training on one task and is used to solve related tasks which often achieved quite promising results com- pared to CNN. This study aims to implement EfficientNet B0 to B3 for multiclass AD classification. This study utilized 9,900 MRIs from an open source dataset called alzheimer2 dataset that have been split into training, validation, and testing subset. The MRIs go through several preprocessing steps, including tar- get value distribution, image resizing, and pixel normalization. This study trained the models with epochs of 100 and batch size of 64. The EfficientNet B3 model achieved the highest accuracy of 91.759%, precision of 92.378%, recall of 92.413%, and f1-score of 92.335%. This indicates the potential of EfficientNet B3 in accurately classifying AD based on its severity level.**

Keywords— ***alzheimer's disease, multiclass classification, transfer learning, EfficientNet, MRI***

Implementation of Chatbots in E-Commerce: Factors Influencing User Adoption

Chistina Angellica
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
chistina.angellica@binus.ac.id

Hendy Wijaya
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
hendy.wijaya006@binus.ac.id

Natalia Limantara
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
nlimantara@binus.edu

Abstract— **In the modern era of technology, e-commerce chatbots in Indonesia have been growing quickly. One industry that utilizes this technology is e-commerce, especially chatbot services as a substitute for customer service. Finding every aspect impacting Indonesia's adoption of e-commerce chatbots is the aim of this study. The online shopping industry and users of e- commerce chatbot features in Indonesia will be the newly targeted industry and respondents. Utilizing online data from 261 respondents to analyze the hypothesis using the developed research model. Data analysis was done using the partial lease squares- structural equation modeling (PLS-EM) method. According to this study, perceived usefulness is the variable that has the biggest impact on Indonesian e-commerce chatbot adoption rates, Perceived enjoyment, perceived trust, and information quality are the next most important variables. It also discovered that usage behavior was greatly influenced by user satisfaction. When deploying e-commerce chatbot features in Indonesia, e-commerce chatbot service providers may utilize this result to guide their strategic decisions.**

Keywords— *chatbot, user adoption, e-commerce, user satisfaction*

Literature Review: Analysis of Essential Metadata Attributes of Digital Goods for Transaction in The Virtual World

Gede Indra Raditya Martha
Computer Science Department,
BINUS Graduate Program - Doctor of
Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
gede.martha@binus.ac.id

Harjanto Prabowo
Management Department,
BINUS Business School Undergraduate
Program
Bina Nusantara University
Jakarta, Indonesia 11480
harprabowo@binus.edu

Ford Lumban Gaol
Computer Science Department,
BINUS Graduate Program - Doctor of
Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
fgaol@binus.ac.id

Richard Wiputra
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
richard-slc@binus.edu

Abstract— **In online-based virtual worlds such as Metaverse, Online Games, and other online digital spaces, the virtual/digital goods (digital items / digital assets) are fundamental things that must be available to be able to do business & create an economy in the virtual world through monetization & transactions from these digital goods. This research focuses on summarizing and exploring the attributes used in digital goods in the virtual world by extracting attributes in digital goods from other related studies using the Systematic Literature Review methodology & PRISMA Framework comprehensively so that it can be a reference for developers in designing the properties and functions of digital goods in the virtual world that are being developed, which in this case will be in the form of an NFT in the future. Based on research that has been carried out, 3 essential metadata attributes have the most influence on transactions, number 1 Visual Design / Aesthetic (Representative), number 2 Effect (Utilities), and number 3 Statistics / Performance (Utilities) which must be considered in developing/making digital goods in the form of NFTs in the virtual world so that the value of digital goods can attract users to buy or transact them in the virtual world.**

Keywords— virtual world, digital goods attributes, digital economy, metaverse, NFT

Designing Sustainable Comfort through Internet of Things-Based Ventilation Technology for Energy-Efficiency in Tropical Living Spaces

Andi Pramono
Interior Design Department,
School of Design
Bina Nusantara University
Jakarta, Indonesia 11480
andi.pramono@binus.ac.id

Mohamad Rizqi Achfi
Architecture Department,
Faculty of Engineering
University of Merdeka
Malang, Indonesia 65165
rizqiachfi897@gmail.com

Ira Audia Agustina
Interior Design Department,
School of Design
Bina Nusantara University
Jakarta, Indonesia 11480
ira.agustina@binus.edu

Abstract— **In line with the worldwide movement towards sustainable living, there is a specific requirement for Internet of Things (IoT) technology in environmental management, particularly in tropical regions characterized by high humidity. The overall purpose of this research is to tackle the urgent requirement for energy-efficient comfort in the indoor settings of Malang, Indonesia, where relative humidity frequently exceeds the healthy and comfortable thresholds for individuals. This study aims to develop an Internet of Things (IoT) system that automates exhaust fan operation and controls interior climate, sustainability, and energy efficiency in tropical living spaces. This study employs an interpretive qualitative paradigm and adopts a design thinking perspective. The research was conducted in a three-story boarding home with significantly elevated humidity. Smart IoT-enabled temperature and humidity sensors are fitted in an IoT sensor to monitor the functioning of exhaust fans and regulate environmental factors online. Hence, the data gathered over seven days provided valuable observations regarding the daily variations of two meteorological variables: temperature and humidity. The findings demonstrated a notable disparity in humidity levels between rooms equipped with IoT-enabled exhaust systems and rooms lacking IoT-integrated exhaust systems. Based on the analysis, Room 1.5 consistently maintained the required humidity level with the active IoT system, whereas Room 1.1 had consistently higher humidity levels. Hence, the results of this study demonstrate that IoT-driven ventilation technology can provide substantial assistance in creating more sustainable and comfortable interior settings while effectively reducing humidity.**

Keywords— energy-efficiency, IoT, temperature and humidity, tropical, ventilation

Parallelization of LSTM-GRU Architectures for Multivariate Prediction of Stock Prices

Gabriel Asael Tarigan
Computer Science Department,
BINUS Graduate Program - Master of
Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
gabriel.tarigan@binus.ac.id

Eric Savero Hermawan
Computer Science Department,
BINUS Graduate Program - Master of
Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
eric.savero@binus.ac.id

Abba Suganda Girsang
Computer Science Department,
BINUS Graduate Program - Master of
Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
agirsang@binus.edu

Abstract— **Anticipating stock market movements is challenging, as hasty prediction risks large financial losses. Stock price prediction is complex due to the high volatility and many influencing external factors. Recurrent Neural Network (RNN) models are made to learn time series data making it ideal for stock prediction based on records. Well-known RNN architectures for forecasting problems are Long-Short Term Memory (LSTM) and Gated Recurrent Unit (GRU). However, past studies only explored standalone models and have not generated convincing performance results. By integrating the efficiency of GRU to effectively handle shorter data sequences with LSTM's ability to capture long-term dependencies, our model aims to improve stock price forecasting accuracy by collaborating the strength between both architectures. The proposed model was used to forecast multivariate stock prices and evaluated using Root Mean Squared Error (RMSE) and Mean Absolute Error (MAE). We found that parallelization of LSTM-GRU offers better prediction, up to 9.1% improvement compared to sequential LSTM-GRU and Bidirectional LSTM (Bi-LSTM).**

Keywords— *LSTM, GRU, stock prices, short-term prediction*

Royalty Management by using Blockchain Network: A Multiple Case Study

Thalea Christy Nathaniela
Information Systems Management Department,
BINUS Graduate Program – Master of Information Systems Management
Bina Nusantara University
Jakarta, Indonesia 11480
thalea.nathaniela@binus.ac.id

Elfindah Princes
Information Systems Management Department,
BINUS Graduate Program – Master of Information Systems Management
Bina Nusantara University
Jakarta, Indonesia 11480
elfindah.princes001@binus.ac.id

Gunawan Wang
Information Systems Management Department,
BINUS Graduate Program – Master of Information Systems Management
Bina Nusantara University
Jakarta, Indonesia 11480
gunawan.wang@binus.ac.id

Abstract— **The rise of music streaming services has led to significant challenges in royalty management, particularly affecting independent musicians who face poor royalty payments and a lack of transparency in royalty calculations. This research explores the application of blockchain technology to address these issues, focusing on its potential to revolutionize royalty management within the music industry. The study provides a conceptual framework for understanding music streaming services, digital music piracy, and royalty transparency, analyzing the impact of blockchain on revenue generation in the Indonesian music industry. Utilizing a literature review, case studies, and a theoretical framework, the research investigates the effectiveness of blockchain in enhancing transparency, and fairness in revenue distribution, and rights management. Through purposive sampling and the analysis of BitTorrent as a case study, the results highlight the transformative potential of blockchain in the music industry, particularly in addressing the "value gap" in unallocated royalties and improving revenue generation for musicians. The findings underscore the significant implications of blockchain technology for the future of royalty management and the overall music ecosystem.**

Keywords— royalty management, blockchain, music streaming services.

Enhancing Customer Loyalty: Evaluating the Influence of Indomaret's Member Card and Mobile Application Loyalty Program

Salsabila Amalia Putri
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
salsabila.putri011@binus.ac.id

Muhammad Zuhair Yuliansyah
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
muhammad.yuliansyah@binus.ac.id

Risky Tri Sandi
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
risky.sandi@binus.edu

Abstract— **Within Indonesia's dynamic retail landscape, the advent of Indomaret's Member Card and Mobile Application Loyalty Program seeks to address the complex challenge of enhancing customer loyalty in the context of stiff competition from both brick-and-mortar stores and e-commerce platforms. This research delves into the efficiency of such loyalty programs in cementing customer allegiance, utilizing a quantitative methodology to probe the interrelations of perceived value, trust, ease of use, and customer satisfaction with loyalty. A structured survey disseminated via Google Forms, analyzed through SMART-PLS software, reveals that each of these variables significantly influences loyalty, with perceived value and trust surfacing as the most potent predictors. The study's results not only confirm the acceptance of all posited hypotheses but also illuminate the critical role of user-friendly interfaces and satisfying consumer interactions in fostering repeat patronage. The implications extend far beyond Indomaret's strategic initiatives, offering valuable insights for the wider retail sector on the importance of integrating customer expectations with seamless, trustworthy digital experiences. This synthesis of technological convenience with reward-driven loyalty programs emerges as a pivotal factor in ensuring sustained customer engagement and securing a competitive edge in the evolving marketplace.**

Keywords— *loyalty program, indomaret card, indomaret poinku, customer loyalty*

National Single Window Focus Area from the Perspective of IT Governance: Case Study in Government Sea Transportation Agency

Diana Utomo*
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
diana009@binus.ac.id

Siti Elda Hiererra
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
elda.siti@binus.ac.id

Ayu Kharizsa
System Information Division - Sea Transport Area,
Ministry of Transportation
Republic of Indonesia
Kharizsa@dephub.go.id

Nuraini Sari
Accounting Department,
School of Accounting
Bina Nusantara University
Jakarta, Indonesia 11480
nsari@binus.ac.id

Carissa Lavinia
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
carissa.lavinia@binus.ac.id

Mahaning Indrawaty Wijaya
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
mahaning.wijaya@binus.ac.id

Abstract— The awareness to apply sufficient Good Corporate Governance (GCG) in government agency, especially those in public sector such as ministry of transportation, has increased. The transformation of technology-driven transportation services is evident through Indonesia National Single Window (NSW). The coverage of NSW is extensive, involving numerous ministries and government agencies. This paper, however, focuses on applying IT Governance principle as a key element of Good Corporate Governance (GCG) within the Ministry of Transportation, particularly concerning its port digitalization. Efforts have been made to design IT governance through the assessment of 11 design factors COBIT 2019, covering aspects from organizational strategy, objectives, risk levels, to the role of IT and organizational size. From this design, 13 out of a total of 40 COBIT 2019 objectives/processes were identified as focus area in respective of IT Governance for port digitalization, ranging from an effective governance, ensuring continuity, clarity of business outcomes, a robust business case, a proper enterprise architecture, and change management.

Keywords— *National Single Window (NSW), port digitalization, COBIT 2019, IT Governance, design factors, focus area.*

Sentiment Analysis of Makeup Alley Website Cosmetic Reviews using SVM and TF-IDF

Christine Putri
Mobile Application & Technology Program, Computer Science Department
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
christine.putri@binus.ac.id

Claudya Salim
Mobile Application & Technology Program, Computer Science Department
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
claudya.salim@binus.ac.id

Veronica Dwiyanti W.K
Mobile Application & Technology Program, Computer Science Department
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
veronica.keluli@binus.ac.id

Said Achmad
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
said.achmad@binus.ac.id

Jurike V Moniaga
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
jurike@binus.edu

Abstract—**This paper focuses on performing sentiment analysis of cosmetic reviews using a machine learning algorithm. The study aims to classify reviews into positive, neutral, and negative opinions using aspect-based sentiment analysis with TF-IDF and SVM algorithms. The research questions include understanding user opinions on cosmetic products and identifying the most common positive and negative sentiments in reviews. Data cleaning, tokenization, stopwords removal, normalization, and lemmatization techniques are employed to achieve these goals. The study uses the Makeup Alley website as a data source and employs web scraping to obtain the data. The Natural Language Toolkit (NLTK) is used to simplify the removal of stopwords. The research seeks to document the step-by-step process of developing a sentiment analysis application tailored to cosmetic product reviews.**

Keywords—sentiment analysis, machine learning, review cosmetics, support vector machine, TF-IDF

Knowledge Graph-Enhanced Semantic Cache for Low Latency and Cost-Effective Inference in Large Language Models

Nicholas Dominic
Bioinformatics & Data Science Research Center
Bina Nusantara University
Jakarta, Indonesia 11480
nicholas.dominic@binus.ac.id

Bens Pardamean
Computer Science Department,
BINUS Graduate Program – Master of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
bpardamean@binus.edu

Abstract— **In organizational knowledge management, Large Language Model (LLM) caches act as a semantic repository gathered from previous LLM responses. Due to intensive calls from multiple users, LLM may suffer from high inference latency. While there are many prior available approaches to solve this problem, most of them are inherently complex. This paper introduced a Knowledge Graph-enhanced Semantic Cache mechanism as an alternative, lightweight technique to boost retrieval for similar prompts. The latest state-of-the-art open-source LLM, named Google's Gemma-2B-it, was used to generate sample prompts and responses as a draft, while a knowledge graph (KG) was built from Wikipedia sentences. To create embeddings of prompts and KG, all-MiniLM-L6-v2 from SentenceTransformer was used. This new cache system resulted in up to 28% improvement over a standard model. In particular, reinforcement with KG cache embeddings yielded more than 85% semantic cache accuracy. To map the next trajectory of this pilot study, an overview of the extended framework for LLM knowledge management was also presented in this paper. The framework includes the new KG- enhanced cache system equipped with scalable security and fallback mechanisms that can promote green technology through substantial improvements in latency, throughput, and overall LLM costs.**

Keywords—semantic cache, knowledge graph, symmetric similarity search, large language models, green technology

Will The Effect of Social Presence on Impulsive Buying Lead to Regret?

Annastasya Widjaja
Management Department,
BINUS Business School Master Program
Bina Nusantara University
Jakarta, Indonesia 11480
https://orcid.org/0009-0005-0711-6377

Caroline A. Benjaminsz
Management Department,
BINUS Business School Master Program
Bina Nusantara University
Jakarta, Indonesia 11480
https://orcid.org/0009-0007-8525-6679

Desri Febriyana Susanto
Management Department,
BINUS Business School Master Program
Bina Nusantara University
Jakarta, Indonesia 1480
https://orcid.org/0009-0002-5564-3401

Evelyn Hendriana
Management Department,
BINUS Business School Doctor of Research in Management
Bina Nusantara University
Jakarta, Indonesia 11480
https://orcid.org/0000-0001-6421-812X

Abstract— **Understanding the emotional aftermath of impulsive buying, notably purchase regret, holds significant importance in the landscape of live-streaming shopping. This study employs the S-O-R model to analyze customer behavior before and after purchases in the fashion industry. Through purposive sampling techniques, 258 respondents from Greater Jakarta who engaged in impulsive buying of fashion products via live-streaming shopping platforms were analyzed utilizing PLS-SEM. The results demonstrate that social presence has a substantial impact on customer trust, although there was no conclusive evidence regarding the correlation between customer trust and flow state. Furthermore, this research explores the complex interaction between impulsive buying behavior and purchase regret.**

Keywords— *impulsive buying behavior, live-streaming shopping, purchase regret, social presence, S-O-R model*

Deep Learning Method for Sign Language Recognition: A Systematic Literature Review

Sekar Ayu Nadita
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
sekar.nadita@binus.ac.id

Lavender Nathania Adelya
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
lavender.adelya@binus.ac.id

Daniel Hendra Susanto
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
daniel.susanto001@binus.ac.id

Gusti Pangestu
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
gusti.pangestu@binus.edu

Abstract— **This systematic literature review will discuss and explore the implementation of different types of artificial intelligence models including deep learning in recognizing and interpreting sign language. Nowadays, communication is an important aspect of human life. However, the communication ability of each human being is not the same, some have limitations in communicating such as deaf and speech impaired people so they need tools such as sign language. Unfortunately, not everyone can understand sign language and it has become a limitation in communication. This encourages researchers to continue developing various systems to solve this problem. In this review, we conducted an in-depth evaluation of 14 published articles that have been published with a focus on developing artificial intelligence systems for sign language recognition. The review was conducted by looking at the models, techniques, accuracy, and datasets used in each article. The expected results will be used as considerations for the creation of more advanced systems in the future. The results show the challenges of AI in understanding complex sign language gestures and expressions, but also show positive progress with various AI models, where ResNet-50 shows the highest accuracy rate reaching 99.98%.**

Keywords— *artificial intelligence, deep learning, sign language recognition, AI models*

A Comparative Study of Complex Query Performance on MySQL and Oracle Databases for the Oil and Gas Industry

Ellyz Yaory
Computer Science Department,
School of Computing and Creative Arts
Bina Nusantara University
Jakarta, Indonesia 11480
ellyz.yaory@binus.ac.id

Ida Bagus Kerthyayana Manuaba
Computer Science Department,
School of Computing and Creative Arts
Bina Nusantara University
Jakarta, Indonesia 11480
bagus.manuaba@binus.ac.id

Abstract— **Data has become an essential component in decision- making across various industries including the oil and gas sector. Before utilizing and generating data into insights, data storage and accessibility are necessary. Databases which are commonly used in the oil and gas sector are MySQL and Oracle databases due to the requirement for standardized and uniform data storage. The major challenge in this industry is implementing and executing complex queries efficiently because of the volume and data complexity involved. Hence, the purpose of this study is evaluating whether the execution of complex queries on MySQL and Oracle databases for the oil and gas scenario is efficient. To reach this goal, we utilized Docker to build up the database environment. Afterwards, dummy data was generated, and a complex SQL query was formulated based on the schema. Then, the testing scenarios, variables, and analysis methods were planned. In this study, MySQL database has a better execution time and CPU time performance compared to Oracle database for all the tested scenarios. T-test is one of the analysis methods used to find out whether the performance is significantly different, and after analyzing, there is a significant difference. The results imply that MySQL database is quicker in execution time and CPU time than Oracle database. The aim of this study is to highlight the importance of selecting a database in the oil and gas industry. MySQL has a faster execution time and CPU time performance compared to Oracle database.**

Keywords— *performance, SQL database, oil and gas industry, complex query*

The Influence of Digital Economy, Entrepreneurship Education, and Digital Literacy on Digital Entrepreneur Intention among University Students

Riza Primahendra
Research Department
Amerta Association
East Jakarta, Indonesia, 13220
rizaprimahendra@gmail.com

Tri Adi Sumbogo
Communication Department,
Faculty of Digital Communication and
Hotel & Tourism
Bina Nusantara University
Jakarta, Indonesia 11480
tri.sumbogo@binus.ac.id

Ch. Fara Dharmastuti
Management Study Program,
Faculty of Economic and Business Atma
Jaya Catholic University
Jakarta, Indonesia
christiana.fara@atmajaya.ac.id

Reney Aquino Lensun
Research Department,
Amerta Association
Bina Nusantara University
East Jakarta, Indonesia, 13220
reney.aquino@gmail.com

Teguh Mudjiyono
Research Department,
Amerta Association
East Jakarta, Indonesia, 13220
tmudjiyono@gmail.com

Sugiyanto
Research Department,
Amerta Association
East Jakarta, Indonesia, 13220
slemansugiyanto@gmail.com

Abstract— **University students in Indonesia are experiencing a process of change brought by the covid-19 pandemic and education policies geared towards developing digital entrepreneurship. This study intends to look at the influence of digital economy, entrepreneurship education, and digital literacy on digital entrepreneur intention among university students. This research uses a quantitative method using a Google Form-based online survey. Data were collected through questionnaires from university students in agglomeration area called Jakarta, Bogor, Depok, Tangerang and Bekasi (Jabodetabek), Indonesia. The data analysis used PLS SEM and found that digital economy and entrepreneurship education influence digital entrepreneur intention while digital literacy has no influence.**

Keywords— *digital economy, entrepreneurship education, digital literacy, digital entrepreneur intention*

Optimizing Pneumonia Classification on Pediatric Chest X-ray Images Using ConvNeXt Network

Simeon Yuda Prasetyo
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
simeon.prasetyo@binus.ac.id

Abram Setyo Prabowo
Computer Science Department,
School of Computer Science Bina
Nusantara University
Jakarta, Indonesia 11480
abram.prabowo@binus.ac.id

Santy
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
santy@binus.ac.id

Patricia Pepita
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
patricia.pepita@binus.ac.id

Abstract— **Pneumonia is a major worldwide health concern, particularly among children, and early and correct diagnosis is critical for successful treatment. This study addresses the challenges in classifying pediatric pneumonia on chest X-ray (CXR) images, where issues such as limited image data and non- standardized interpretation persist. Utilizing machine learning and deep learning techniques, notably Convolutional Neural Networks (CNNs), provides potential answers. The research explores the optimization of pneumonia classification in pediatric CXR images using the ConvNeXt network, an advanced CNN architecture. Through experiments utilizing five pretrained ConvNeXt models, the study evaluates transfer learning and fine-tuning methodologies. Results demonstrate the superior performance of ConvNeXt Large, achieving 95.97% accuracy with transfer learning, underscoring the robustness of deeper ConvNeXt architectures. Insights demonstrate that transfer learning is useful in improving classification accuracy. Additionally, the study emphasizes the practical significance of these findings in improving diagnostic accuracy and streamlining pediatric pneumonia detection in clinical settings. The inclusion of a confusion matrix provides a comprehensive understanding of model performance. Overall, ConvNeXt models present promising prospects for pediatric pneumonia detection, heralding a significant advancement in medical imaging and disease diagnosis.**

Keywords— *pneumonia classification, pediatric chest x-ray, ConvNeXt network, transfer learning, medical imaging*

Mapping the Landscape of Social Learning: Integrating Key Success Factors, Challenges, and Digital Platforms

Marcel
Computer Science Department,
BINUS Graduate Program - Doctor of
Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
marcel005@binus.ac.id

Meyliana
Information Systems Department,
School of Information Systems,
Bina Nusantara University
Jakarta, Indonesia 11480
meyliana@binus.edu
spits.hendric@binus.ac.id

H Harco Leslie Hendric Spits Warnars
Computer Science Department,
BINUS Graduate Program - Doctor of
Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
shendric@binus.edu

Tirta Mursitama Nugraha
Management Department,
BINUS Business School Doctor
of Research in Management
Bina Nusantara University
Jakarta, Indonesia 11480
tmursitama@binus.edu

Abstract— **This research develops a conceptual model to understand the influence of digitalization on social learning, especially in the context of community empowerment. This model maps the relationship between factors that influence success, challenges faced, and variations in the use of digital platforms in social learning. By using a literature study approach, the research results show that effective communication, collaboration and empowerment are the main keys to the success of social learning in society. Key challenges identified include limited access to information, resource constraints, and digital literacy barriers, all of which require specific strategies to overcome. By examining the relationship between success factors, challenges, and use of digital platforms, this research provides new insights that support the development of more effective strategies for using digital technology to support social learning that leads to community empowerment. This research has great potential to increase people's access to learning opportunities and information, allowing them to be more active in the social learning process.**

Keywords— *social learning, success factors, challenges, digital platforms, conceptual model*

Analysis Regarding People's Needs & Desires to Use Healthcare Monitoring Technology on Smartwatch Device

Rudy
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
rudy@binus.ac.id

Stefany Maycella The
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
stefany.the@binus.ac.id

Caturariya
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
catur.ariya@binus.ac.id

Leo Nardi
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
leo.nardi@binus.ac.id

Abstract— **Health Monitoring is an IoT-based technology that allows for the monitoring of an individual's health using a variety of devices. Presently, a smartwatch serves as one of the practical applications of this technology. Smartwatches are a kind of wearable electronics that provide a variety of functionality, including the ability to assist individuals in monitoring their health. However, the precise behavioral intentions of individuals when using healthcare technology on smartwatch devices are still uncertain. The goal of this study is to discover out customers' behavioral intentions in relation to about the use of smartwatches, particularly in regard to the Health Technology capabilities they provide. In this research, we use a quantitative method for data gathering. We send questionnaires to individuals who use smartwatch gadgets and reside in Jakarta. The result of this research suggest that variable Health Technology, Performance Expectancy, and Design Benefits significantly affects Behavioral Intention. This study effectively gathered a thorough comprehension and data regarding an individual's behavioral intention about using healthcare monitoring on a smartwatch device. Upon the conclusion of this research, it is anticipated that it will prove beneficial to both society and future studies.**

Keywords—smartwatch, healthcare monitoring, UTAUT2

Consistency Check for Multimodal Transportation Data: A Case Study of Vision and LiDARA

Zhengyu Liu
Software Engineering Institute University of Science and Technology of China HeFei,China,230026 Research Center for Automotive Electronics Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences
ShenZhen, China, 518055
zhengyuliu@mail.ustc.edu.cn

Zhenwu Chen
Innovation Center for ITS Shenzhen Urban Transport Planning Center Co.,Ltd.
ShenZhen, China,518063
czw@sutpc.com

Xiangmin Yang
Dept. Research and Development Shenzhen Shenzhentong Co.,Ltd.
ShenZhen, China,518131
yangxm@shenzhentong.com

Lei Peng[*]
Research Center for Automotive Electronics
Shenzhen Institute of Advanced Technology,
Chinese Academy of Sciences
ShenZhen, China,518055
lei.peng@siat.ac.cn

Abstract— **This study proposes a novel consistency verification method for multimodal transportation data, targeting spatial feature issues caused by multisource heterogeneous data in the transportation field. We unify different sources of data and point cloud data into a single 3D space through image data dimensionality increase and point cloud registration, addressing data inconsistencies caused by perspective differences. Through the application of data dimensionality augmentation and point cloud registration, our method effectively resolves spatial feature discrepancies between various data sources, significantly improving the accuracy of consistency verification. Experimental results indicate that the model trained with our method exhibits superior precision in consistency verification of multisource heterogeneous data compared to traditional approaches.**

Keywords— multimodal data consistency verification, point cloud registration,3D spatial data processing

A Hybrid Deep Learning Techniques using BERT and CNN for Toxic Comments Classification

Adelia Jessica
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
adelia.jessica@binus.ac.id

Migel Sastrawan Sugiarto
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
migel.sugiarto@binus.ac.id

Jerry
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
jerry003@binus.ac.id

Said Achmad
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
said.achmad@binus.edu

Rhio Sutoyo
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
rsutoyo@binus.edu

Abstract— **Cyberbullying is a pervasive issue across all forms of media, affecting various demographics and platforms indiscriminately. From social media networks to online forums and comment sections on news sites, the harmful behavior of cyberbullying manifests in many forms, including harassment, threats, and demeaning comments. This ubiquity underscores the need for effective detection mechanisms. This paper explores the identification of toxic traits in online comments using advanced hybrid models, specifically BERT-CNN and BERT-LSTM. The research methodology involved constructing and configuring multiple layers within these models to optimize their ability to detect harmful content. For the BERT-CNN model, BERT's powerful language understanding capabilities are combined with CNN's strength in feature extraction through convolutional layers, capturing spatial hierarchies of features. In the BERT-LSTM model, BERT is integrated with LSTM layers to leverage their ability to learn long-term dependencies and sequential patterns in text. Various configurations of these models were tested, including adjustments in the batch sizes and the length of the word tokens, to enhance performance in identifying toxic language. The best model which is BERT-CNN using the configuration 256 as the unit and 32 as the batch size achieved 94.48% accuracy in detecting toxic comments. The result from the model indicates that by harnessing BERT's contextual embeddings and the respective benefits of CNN's and LSTM's processing capabilities, it is possible to significantly reduce the frequency of cyberbullying through effective detection, ultimately fostering safer online environments across different media platforms.**

Keywords— ***toxic comment detection, BERT, LSTM, CNN, cyberbullying***

Predicting Entrepreneurial Spirit: A Machine Learning Approach

Dedy Suryadi
Industrial Engineering Department,
Parahyangan Catholic University
Bandung, Indonesia
dedy@unpar.ac.id

Daniel Kurniawan
Industrial Engineering Department,
Parahyangan Catholic University
Bandung, Indonesia
6131801192@student.unpar.ac.id

Abstract— **This research applies Machine Learning models for predicting entrepreneurial spirit among college students. Previous researches in the domain mostly utilized Structural Equation Modeling. In a supervised learning setting, the features are defined by the entrepreneurial skill and external variables of a student. The labels are High, Medium, and Low entrepreneurial spirit. Those labels are obtained by clustering the variables describing the spirit. Three Machine Learning models are applied to a data set of almost 400 students, and the best-performed model is Random Forest, with the macro- averaged F1-score of 0.656. The permutation importance reveals the essential features in predicting entrepreneurial spirit, i.e., Effective Planning and Leadership abilities.**

Keywords— *entrepreneurial spirit, machine learning, random forest, clustering, permutation importance*

Automated Product Description Generator Using GPT-Neo: Leveraging Transformer-Based Language Models on Amazon Review Dataset

Bryan Felix
Mathematics Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
bryan.felix@binus.ac.id

Alexander Agung Santoso Gunawan
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
aagung@binus.edu

Derwin Suhartono
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
dsuhartono@binus.edu

Abstract— **In this modern era, technological advancements are progressing rapidly, leading to many activities being conducted online. One of the sectors most significantly impacted is the trade sector, where one contributing factor is the emergence of e-commerce. This presents a unique challenge, especially for sellers who wish to conduct business on such an e-commerce platform, where the time required to upload a product is not insignificant. Therefore, this research aims to develop a transformer-based model using the Amazon review dataset. This study compares baseline GPT-2 model with the proposed GPT-Neo model. The results indicate that the proposed GPT-Neo model performs better. The GPT-Neo model achieved the best scores on the test data using a temperature parameter of 0.7 and a top_k of 50, with an average BLEU score of 43.10% and a ROUGE-L score of 11.93%, showcasing its capacity to create more coherent and contextually correct product descriptions. Furthermore, it improves businesses' overall e-commerce experience.**

Keywords— *natural language processing, text generation, transformer, GPT-2, GPT-Neo, BLEU, ROUGE*

Evaluating Gamification Needs for Software Developers: Study Case of UX in Project Management Tools

Rifqi M Riefard
Department of Informatics
Institut Teknologi Sepuluh Nopember
Surabaya, Indonesia
6025231001@student.its.ac.id

Darlis Herumurti
Department of Informatics
Institut Teknologi Sepuluh Nopember
Surabaya, Indonesia
darlis@if.its.ac.id

Hadziq Fabroyir
Department of Informatics
Institut Teknologi Sepuluh Nopember
Surabaya, Indonesia
hadziq@its.ac.id

Denny Sagita Rusdianto
Interdiscpilinary School of Management Technology
Institut Teknologi Sepuluh Nopember
Surabaya, Indonesia
7032222007@student.its.ac.id

Laila Ma'rufah
Department of Informatics
Institut Teknologi Sepuluh Nopember
Surabaya, Indonesia
6025231058@student.its.ac.id

Imam Kuswardayan
Department of Informatics
Institut Teknologi Sepuluh Nopember
Surabaya, Indonesia
imam@its.ac.id

Abstract— **This research discusses the importance of software developers' role in software development, where an effective strategy is needed to increase performance and satisfaction with the results of their work. The solution that this research tries to offer is a gamification analysis using the Octalysis Gamification Framework to look at the influential factors that encourage software developers and increase their motivation. This research was carried out at the Directorate of Technology and Information Systems Development, Institute Technology of Sepuluh Nopember Surabaya (DPTSI ITS), with 27 respondents who worked as Software Developers. This research divides the workers based on roles (Programmer, Software Analyst, and Quality Assurance) and seniority level (Junior, Intermediate, and Senior), resulting in variations of Core Drive Influence using the Octalysis Framework. Apart from that, an analysis of 22 gamification features that could be implemented in gamified project management tools was also carried out, which resulted in 16 important features being available. In comparison, the remaining 6 features were optional. This insight displays understanding regarding motivational factors in Software Development and guides the creation of a Gamified Project Management Tool.**

Keywords— gamification, software developers, project management tools, octalysis framework, user experience

Systematic Literature Review of Blockchain Applications: Insights from India's Case Study

Jessicania Windari
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
Jessicania.windari@binus.ac.id

Adam Fahsyah Nurzaman
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
adam.nurzaman@binus.ac.id

Raihand Ramadhani Abdul Sayeed
Business Management Department School
of Management Business Studies
Mahatma Gandhi University
P.D.Hills, Kerala, India, 686560
raihand.sayeed@outlook.co.id

Abstract— **The insurance industry has recently experienced a notable surge in adopting blockchain technology, revolutionizing company operations by enhancing security, transparency, efficiency, and overall effectiveness. Blockchain integration has played a pivotal role in reshaping the insurance landscape, particularly in managing vast amounts of data, ensuring transparency, and bolstering security measures. However, a comprehensive examination incorporating the People Process Technology framework is essential to gain a deeper understanding of the multifaceted impact of blockchain within the insurance sector. Key areas requiring further exploration include the transparency of products and insurance processes and the development of robust policies, particularly in domains such as health insurance. By delving deeper into the interplay between insurance practices and blockchain technology through the lens of People Process Technology, the industry stands to evolve further, elevating the standard of insurance services provided to consumers. Bibliometric analysis underscores the increasing significance of blockchain technology within insurance literature, underscoring the imperative for collaboration and knowledge sharing among industry experts to advance insights into the transformative role of blockchain in insurance operations.**

Keywords— ***blockchain, industry, digital, insurance***

Predicting Customer Sentiment in E-commerce: Leveraging Naive Bayes and Support Vector Machine Models using the Twitter API

Julio
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
julio001@binus.ac.id

Valentcia Angelica
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
valentcia.angelica@binus.ac.id

Kristien Margi Suryaningrum
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
kristien.margi@binus.ac.id

Rezki Yunanda
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
rezki.yunanda@binus.ac.id

Abstract— **Sentiment analysis also known as opinion mining, is a technique to identify, extract, and evaluate the subjective data in texts using natural language processing. In the digital era, the widespread use of the internet to share opinions through online reviews offers a wealth of sentiment data that is important for public opinion analysis, understanding consumer expectations and preferences. This research focuses exclusively on Twitter comments as the primary data source. Popular sentiment analysis techniques include Support Vector Machine (SVM), and Naïve Bayes are used to categorize reviews and comments into positive, negative, or neutral sentiment. From the experiments that have been carried out, the SVM model on the Tik Tok Shop dataset has an accuracy of 80%, on the Zalora dataset has an accuracy of 75%, and the Shopee dataset has an accuracy of 90%, then for the NB model on the Tiktok Shop dataset has an accuracy of 70%, on the Zalora dataset has an accuracy of 83%, and the Shopee dataset it has an accuracy of 90%. Experimental results show that the SVM model can effectively classify comments with higher accuracy than Naive Bayes.**

Keywords— *sentiment analysis, naïve bayes, support vector machine, tiktok shop, shopee, zalora, twitter*

Comparison of a Combined Model (K-Nearest Neighbor Algorithm and Support Vector Machine Algorithm), K-Nearest Neighbor Algorithm, and Support Vector Machine Algorithm to Detect Hate Speech on Social Media

Gabriel Mackenzie
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
gabriel.mackenzie@binus.ac.id

Meyliana
Computer Science Department,
School of Computer Science Bina
Nusantara University
Jakarta, Indonesia 11480
meyliana001@binus.ac.id

Rezki Yunanda
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
rezki.yunanda@binus.ac.id

Kristien Margi Suryaningrum
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
kristien.s@binus.edu

Abstract— **In this study we delve into the use of a combined machine learning model to counter the growing problems of hate speech on social media. Hate speech can significantly impact individuals, communities, and society. To counteract this, we have proposed a combined K-Nearest Neighbor (KNN) algorithm with a Support Vector Machine (SVM) algorithm called the KNN-SVM. We used a publicly available dataset from Kaggle [18]. The dataset contains labels such as hate speech, offensive language, and normal text. Our aim is to improve the classification metrics for accuracy, precision, recall, and F1-score on detecting hate speech. Then we compared our model's performance to the individual KNN and SVM model. While all models faced significant challenges due to the imbalanced data with fewer hate speech examples, KNN-SVM achieved a promising result against the other models. It demonstrated the highest recall and F1-score for hate speech detection, indicating its effectiveness in identifying these crucial instances. However, limitations exist. The model's overall accuracy was lower than the individual SVM model. Further research is needed to enhance the model's effectiveness through data refinement techniques like balanced labeling and exploring advanced algorithms like deep learning.**

Keywords— *KNN, SVM, KNN-SVM, social media, hate speech*

Systematic Literature Review: Mobile Payments in Indonesia as an Effective Payment Services

Steven Tafianoto
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
steven.tafianoto@binus.ac.id

Adrian Sutaman
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
adrian.sutaman@binus.ac.id

Michael Nicolas Wijaya
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
michael.nicolas@binus.ac.id

Rudy
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
rudy@binus.ac.id

Abstract— **Mobile payment adoption has grown dramatically over the years as the financial industry has transitioned to a digital payment system. The influence of mobile payments has continued to grow throughout Indonesia, since users will have greater efficiency in each transaction. Over the last few decades, mobile payment has proven to be a far more convenient payment method than traditional paper money. Utilizing analysis as the primary method, this study's "systematic literature review" serves as the foundation for this research paper. The Scopus database was utilized to discover journals related to the present "Mobile payment" study. From 2014 to 2024, 717 journals were found that met the "Mobile payment" requirement. This research paper was formed by literature review and included research from many publication sources, such as the journal "Sustainability (Switzerland)".**

Keywords— *mobile payment, Indonesia, digital payment, systematic literature review, mobile payment system, efficiency, electronic money*

Enhancing Readiness: A Comprehensive Study on ERP Implementation Readiness Factors

Bhre Bramantyo
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
bhre.bramantyo@binus.ac.id

Evelyn Halim
Information Systems Department, School
of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
evelyn.halim@binus.ac.id

Salsabila O. A. Arring
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
salsabila.arring@binus.ac.id

Dyah Wahyu Sukmaningsih
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
dyah.wahyu@binus.ac.id

Abstract— **In the current corporate landscape, widespread implementation of Enterprise Resource Planning (ERP) systems to enhance innovation and efficiency necessitates attention to the prevalent issue of implementation failures and associated financial setbacks. A recurring challenge is insufficient preparedness, which is often overlooked in ERP project evaluations. Unlike previous research that focuses on ERP pre- implementation readiness, this study emphasizes the critical aspect of ERP readiness. Utilizing a Systematic Literature Review (SLR) with the Kitchenham methodology, the study reviews 367 past research papers, narrowing them down to 30 key studies. This study aims to create a conceptual model of factors contributing to ERP implementation readiness in organizations. The findings reveal that user training programs, the competency of IT staff, effective project management, communication, and collaboration, and change management are pivotal factors. These insights contribute to a more nuanced understanding of ERP readiness, offering a robust framework for organizations to enhance their ERP implementation strategies.**

Keywords— *ERP, implementation, measurement, readiness level, ERP success*

Decentralized Social Media: Blockchain Analysis on Technologys, User Activities, Challenges, and Opportunities

Andry Alamsyah
School of Economics and Business
Telkom University
Bandung, Indonesia
andrya@telkomuniversity.ac.id

Puti Reno Indeswari
School of Economics and Business
Telkom University
Bandung, Indonesia
putirenoindeswari@student.telkomuniversity.ac.id

Abstract— **Decentralization is currently the talk of the tech world as a solution to privacy concerns. Decentralized systems empower users with data control, in contrast to centralized models. Blockchain technology, the key to this change, increases security and transparency in various sectors, including social media. Evidently, the blockchain-based startup industry reached a record high of $2.4 billion in the first quarter of 2024, driven by significant annual growth and large venture capital investments. Blockchain presents a decentralized alternative, offering greater security and transparency. Users gain greater convenience and freedom of activity by integrating technologies such as metaverse, Web3, DeFi, DAOs, and smart contracts. When facing governance challenges, decentralized blockchains can create a more secure and liberating "second world". This paper explores and illustrates the transformative potential of a decentralized social media platform based on blockchain technology. By mapping the technology's features, user activities, challenges, and opportunities, this paper aims to provide strategic guidance for the public to accelerate the adoption of the technology, drive innovation, and provide critical solutions to address privacy and freedom of expression challenges in the industry. The research methodology combines a qualitative approach with a literature review and interviews.**

Keywords— social media, decentralized, blockchain, web3, defi, dao, smart contract.

Comparing the User Experience of Mobile-Based Microlearning Application Using Heart Metrics and Honeycomb Framework

Ilham Wibisono
Information Systems Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
ilham.wibisono@binus.ac.id

Angelia Putri Indonesia Br Maringga
Information Systems Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
angelia.maringga@binus.ac.id

Sunardi
Information Systems Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
sunardi@binus.ac.id

Abstract— **The proliferation of mobile microlearning applications is primarily driven by the pervasive use of mobile devices, which offer focused, concise, and convenient instruction. In order to enhance features, prioritize fulfilment, and innovate the learning journey, it is essential to evaluate user experience as demand increases. The issue is that these applications' engagement and learning efficacy can be impeded by a lack of intensive research into the user experience (UX). The objective of this paper is to evaluate the user experience of mobile-based microlearning applications against two frameworks: the Honeycomb framework and HEART metrics. A purposive sampling method was used to select 10 participants for this study. According to conducted research, Happiness is the most significant satisfaction variable, with Mimo and Sololearn earning 94.29% and 2.6 conformity levels, respectively. The conformity levels and scores of three variables are identical for both applications: Engagement at 85.71% with 0 conformity, Adoption at 90% with 0.6 conformity, and Task Success at 91.43% with 1.6 conformity. Retention demonstrates a substantial disparity: Sololearn scores 84.29% with a conformity level of -0.2, while Mimo scores 90% with a conformity level of 0.6. The results of this study will contribute to a more comprehensive comprehension of user interactions with mobile microlearning applications, offering valuable insights for UX practitioners and academics.**

*Keywords— **heart metrics, honeycomb framework, learn to code apps, microlearning, user experience***

Research on Designing Architecture for Open Data Systems Based on Theory in Vietnam

Ngo Mai Phuong
Faculty of Economics and Adminstration
Thai Nguyen University of Information and
Communication Technology
Thainguyen 2400, Vietnam
Nmphuong@ictu.edu.vn

Truong Tuan Linh
Faculty of Business and Economics
Phenikaa University
Hanoi, Vietnam
linh.truongtuan@phenikaa-uni.edu.vn

Dang Thi Viet Duc
Faculty of Finance and Accounting
Posts and Telecommunications Institute of
Technology
Hanoi, Vietnam
ducdtv@ptit.edu.vn

Nguyen Thi Thanh Huyen
Faculty of Business and Economics
Phenikaa University
Hanoi, Vietnam
huyen.nguyenthithanh1@phenikaa-uni.edu.vn

Abstract— Open data refers to datasets, information, or statistical data that anyone can freely access, use, and reuse. Providing open data brings many benefits to economic and social development in the era of technological advancement. The article uses methods of collecting and processing information to clarify the concept of open data, the benefits of open data, and the government open data system. The national database in Vietnam is currently connected to 12 ministerial units and 25 localities, focusing mainly on four groups of databases: Insurance, Electronic identity cards, Enterprises, and Land. Therefore, the research group proposes to develop the infrastructure architecture of the national open data portal, including database development, application programming interface, data storage platform, data processing and analysis mechanisms, security mechanisms, backup and recovery mechanisms, network infrastructure, and user interface. Moreover, the research group proposes to expand the types of data to meet the needs of the community and businesses. However, the group only focuses on developing the system based on foundational theories. Therefore, the future research direction is to quantitatively evaluate the usefulness of the national open data portal.

Keywords— *open data, open data system, system architecture, theory, vietnam*

Finding the Important Elements Linked to Integration Problems in the Use of Enterprise Resource Planning Systems

Wahyu Sardjono
Information Systems Management Department, BINUS Graduate Program - Master of Information Systems Management
Bina Nusantara University
Jakarta, Indonesia 11480
wahyu.s@binus.ac.id

Desi Maya Kristin
Information Systems Department, School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
desi.kristin@binus.ac.id

Dewi Sagita Pranata
Cyber Security Studi Program, Department of Informatics
Faculty of Natural, Mathematical & Engineering Sciences
King's College London, UK, Strands West Minster WC2R 2LS
dewi.pranata@kcl.ac.uk

Abstract— **Organizations face an urgent need to become faster, more efficient, and more successful in their commercial operations, given the current state of technological evolution and the arrival of Industry 4.0. Many businesses have adopted the idea of enterprise resource planning (ERP) systems to achieve this goal. The ERP system is expected to increase worker productivity, improve business performance to maximize profitability and profits, and provide accurate and up-to-date data and information to management and stakeholders. This research aims to find new variables related to integration problems in the use of ERP systems. Using the SPSS statistical program, the data collected will be examined using quantitative exploratory factor analysis (EFA). Data processing then includes collecting demographic information from respondents, reliability testing, conducting the Kaiser- Meyer-Olkin (KMO) test, testing using an anti-image matrix, and deriving new factors using a rotation component matrix. This research seeks to identify new elements underlying ongoing integration problems in ERP system implementation. The research results show several reasons for underlying integration problems and offer in-depth information to management that can be used to analyze and evaluate the ERP system in their company appropriately in the future so that the company's performance becomes superior to the competition.**

Keywords— enterprise resource planning, integration problem, exploratory factor analysis, evaluation model, sustainability

Evaluation of User Experience on Pelita Air Application Using Design Thinking Method

Faqih Darojat
Information Systems Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
faqih.darojat@binus.ac.id

Fefa Belladina
Information Systems Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
fefa.belladina@binus.ac.id

Miftah Mufida
Information Systems Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
miftah.mufida@binus.ac.id

Riyan Leandros
Information Systems Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
riyan.leandros@binus.ac.id

Dina Fitria Murad
Information Systems Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
dmurad@binus.edu

Abstract— **Pelita Air, owned by PT. Pelita Air Services, provides air transportation services through both charter and regular systems. In response to technological advancements, Pelita Air launched the "Pelita Air" mobile application, aiming to streamline flight ticket bookings for potential passengers. However, users encountered difficulties in locating necessary menus and found the interface less intuitive, impeding the ticket booking process. Data revealed significant customer dissatisfaction, with unsatisfactory ratings of 53.33% on the App Store and 23.68% on the Play Store. This study addressed customer dissatisfaction issues such as feedback during actions within the Pelita Air application, the lack of innovative and creative existing interfaces, the need for new features or aspects to enhance user experience, the necessity for guidance features to assist new users, and the discovery of several bugs in the application. This research implemented the Design Thinking methodology, involving crucial stages of empathizing, defining, ideating, prototyping, and testing. By applying a quantitative research method, hypotheses were tested using a sample of 100 respondents. The sampling technique employed in this study was simple random sampling using the Taro Yamane formula. The evaluation of the Pelita Air application pre-improvement showed an average rating of 3.58, which significantly increased to 4.52 out of a total score of 5 post-implementation. It is recommended to involve the introduction of additional services, such as implementing a customer loyalty program and a points redemption system.**

Keywords— customer satisfaction, mobile applications, UI/UX, design thinking

Analysis Implementation of Chatbots to Increase Knowledge of Stunting Prevention in Indonesian Society with Bibliometric

Indrajani Sutedja
Information Systems Department,
School of Information Sytems
Bina Nusantara University
Jakarta, Indonesia 11480
Indrajani@binus.ac.id

Lutfi Handayani
Faculty of Nursing and Midwifery,
Midwifery Study Program
Binawan University
Jakarta, Indonesia 13630
Lutfi.handayani@binawan.ac.id

Maryuni
Faculty of Nursing and Midwifery,
Midwifery Study Program
Binawan University
Jakarta, Indonesia 13630
Maryuni@binawan.ac.id

Hendry
Faculty of Information Technology,
Satya Wacana Christian University
Salatiga, Indonesia 50711
hendry@uksw.edu

Mohammad Reza Faisal
Department of Computer Science,
FMIPA.
Lambung Mangkurat University
Banjarmasin, Indonesia 70123
reza.faisal@ulm.ac.id

Abstract— **The healthcare industry uses AI, because it is more efficient. In Indonesia, the accuracy of measurements and transmission of children's growth and development is often wrong. Many small hospitals usually don't have length measuring equipment, so the results are inaccurate. This research aims to determine the effectiveness of the stunting prevention program in Indonesia using an information system. The methodology used is a qualitative method, to conduct subjective research and analysis. The results of the research are to improve the website/mobile application information system which can display a child's growth and development history and simple educational information related to nutrition. Digital recording methods can speed up the process of updating data with a central database in real time. The value of this research is to reach the public to utilize technology and obtain personalized and interactive information directly to individuals. The theoretical implications of this research focus on information dissemination and understanding how chatbots influence knowledge acquisition and behavior change in the context of stunting prevention can contribute to advancing these theories in the field of public health. Managerial implications can provide cost effectiveness as Chatbots offer potentially cost-effective solutions and data-driven insights where managers can leverage chatbot analytics.**

Keywords— *artificial intelligent, stunting, stunting prevention, VOS viewer, indonesian, information system stunting, stunting chatbot and bibliometric*

Indonesian Tweet Emotion Detection using IndoBERT

Nikita Ananda Putri Masaling
Computer Science Department,
BINUS Graduate Program – Master of
Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
nikita.masaling@binus.ac.id

Ricky Reynardo Siswanto
Computer Science Department,

BINUS Graduate Program – Master of
Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
ricky.siswanto@binus.ac.id

Abba Suganda Girsang
Computer Science Department,

BINUS Graduate Program – Master of
Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
agirsang@binus.edu

Abstract— **This study investigates emotion detection on tweets written in the Indonesian language, using the IndoBERT model that has been trained for 50 epochs. The examination conducted in this study provides a comprehensive analysis of the performance dynamics shown by the model. The assessment results provide an accuracy score of 0.74, indicating the model's proficiency in identifying sentiments within the collection of tweets. By using assessment criteria such as accuracy, recall, and the F1-score, the model's comprehensive analytical ability is validated, emphasizing its effectiveness in deciphering various emotional circumstances. The accuracy, recall, and F1-score of the model, with average values of 0.79, 0.78, and 0.78 respectively, combined demonstrate its resilience in accurately capturing subtle emotional subtleties. This study enhances our comprehension of language model applications in the field of emotional intelligence by exploring the complexities of sentiment analysis. It emphasizes the practical value of these applications in real-world scenarios.**

Keywords—BERT, emotion detection, IndoBERT, tweet

Social Gratification and Flow State as a Driven to Purchase Intention Using Live Shopping Feature

Ridho Bramulya Ikhsan
Management Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
ridho.bramulya.i@binus.ac.id

Helen
Management Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
helen.helen906@binus.ac.id

HM. Rosariandoko Wijanarko
Accounting Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
hubertus.maria@binus.ac.id

Reagen Yohanes Sayoga
Management Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
reagen.sayoga@binus.edu

Hartiwi Prabowo
Management Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
hartiwi2200@binus.ac.id

Hardiyansyah
Management Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
hardiyansyah@binus.edu

Abstract— **Shopping using live-streaming features in e-commerce continues to increase significantly and has gained consumers' trust in several developing countries, including Indonesia. However, due to the position of live shopping features in e-commerce platforms that dominate classic sales, this study aims to examine consumers' intention to transact through live shopping in e-commerce. Social gratification and flow state are of concern to increase purchase intention through live shopping in e-commerce. This study gathered data using questionnaires from 479 live shopping visitors who had transacted in five cities around DKI Jakarta. Data were analyzed using structural equation modeling with SmartPLS 4.10. This research found that purchase intention using the live shopping feature in e-commerce is significantly determined by social gratification (social presence and social interaction) and flow state. The flow state is significantly influenced by social presence. This study will help merchants in e-commerce who use live shopping features to understand more about how to stimulate consumer purchasing behavior.**

Keywords— social gratification, flow State, live Shopping, purchase intention, e-commerce

Analysis of Artificial Intelligence's Impact on The E-commerce Platform to Increase Purchase Intention

Arcelia Ferani
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
arcelia.ferani@binus.ac.id

Calista Syifa Putri Wardhana
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
calista.wardhana@binus.ac.id

Rendy Vincent Gunawan
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
rendy.gunawan@binus.ac.id

Marisa Karsen*
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
mkarsen@binus.edu

Abstract— As e-commerce has become an essential aspect of daily life in Indonesia, competition among e-commerce companies has increased. This increased competition emphasizes the importance of continuous innovation to remain competitive. Artificial intelligence could be a solution, but its impact is uncertain. The goal of this study is to use the SOR model to analyze the effectiveness of artificial intelligence in e-commerce in increasing purchase intentions. The research model contains six variables: AI Insight Experience, AI Interactive Experience, AI Product Recommendation, Perceived Utility Value, Perceived Hedonic Value, and Purchase Intention. The data from 400 respondents was analyzed using Sequential Equation Modeling (SEM) with Smart PLS 4.0. A questionnaire was used to collect the data online for two weeks in April 2024. The findings revealed that every one of the eight hypotheses had a significant effect.

Keywords—artificial intelligence, purchase intention, product recommendation, virtual assistant, e-commerce, e-marketplace

Disclosure Privacy Information Social Media TikTok

Dedy Syamsuar
Professional Engineer Program Department,
Faculty of Engineering,
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
dedy.syamsuar@binus.ac.id

Fazri Fahrezi
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
fazri.fahrezi@binus.ac.id

Ahnaf Favian
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
ahnaf.favian@binus.ac.id

Edy Irwansyah
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
eirwansyah@binus.edu

Achmad Fakhri Irawan
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
achmad.irawan@binus.ac.id

Abstract— **With the rapid development of technology, the use of social media by the public, especially among young people, is increasing. One of the social media platforms currently used by young people is the TikTok application. It is a video-based TikTok feature accompanied by music, writing, and pictures that are considered attractive, so teenagers like it to show their existence and self-disclosure. Therefore, this study aims to examine the intention of users to disclose their privacy. As the basis of the theory, this study deployed the privacy calculus theory, where the perceived benefits and perceived risks play crucial roles in the intention to disclose their privacy. The study successfully collected 369 responses. The empirical findings indicated that only the relationship between Perceived Personalization (PP) and Perceived Risk (PR) was not supported. However, all the remaining hypotheses were supported. These findings emphasize how several complicated variables influence social media users' intentions to disclose their privacy. When people feel in control of their privacy settings and see significant benefits, they are more likely to divulge personal information; nevertheless, perceived risks can greatly discourage users.**

Keywords— *privacy disclosure intention, TikTok, teenager, social media, behavior, privacy calculus theory*

Revolutionizing Industries through Data Mining and Data Warehousing Techniques Across Various Business Areas

Mary Jane Samonte
School of Information Technology
Mapúa University
Makati City, Philippines
mjcsamonte@yahoo.com

David Anton Alvarez
School of Information Technology
Mapúa University
Makati City, Philippines
dacalvarez@mymail.mapua.edu.ph

Lex Anilov Ogaya
Department Name,
School of Information Technology
Mapúa University
Makati City, Philippines
latogaya@mymail.mapua.edu.ph

Jeremey Joshua Yao
School of Information Technology
Mapúa University
Makati City, Philippines
jjmyao@mymail.mapua.edu.ph

Abstract— **Data mining and warehousing techniques are essential for managing and analyzing large datasets across various industries. This meta-analysis aims to consolidate and evaluate existing research on the practical application of these techniques in different fields. The study emphasizes the significance of database servers in effectively handling big data and highlights both the advantages and challenges associated with data mining and warehousing. It explores the versatile applications of these techniques in crucial sectors such as healthcare, finance, marketing, cybersecurity, education, and more. Data mining enables personalized treatment plans, accurate disease diagnosis, comprehensive market trend analysis, effective customer segmentation, and reliable fraud detection. Meanwhile, data warehousing facilitates seamless integration, ensuring easy accessibility and flexibility. The study acknowledges the transformative potential of these techniques, driving innovation and fostering growth in data-driven industries. Additionally, the research identifies crucial areas for further exploration, such as integrating streaming data into data warehousing architectures and thoughtfully addressing ethical considerations tied to data mining and warehousing practices. This meta-analysis provides valuable insights to empower researchers, practitioners, and decision-makers, advancing data-driven methodologies and supporting informed decision-making processes in various sectors.**

Keywords— data mining, data warehousing, fraud detection, data integration, data accessibility, data flexibility.

Fashioning Decisions: The Power of Social Media Engagement in Influencing Customer Purchase Decisions

A
Steven William Bunardi
Entrepreneurship Department,
BINUS Business School Undergraduate
Program
Bina Nusantara University
Jakarta, Indonesia 11480
steven.bunardi@binus.ac.id

Iston Utama
Entrepreneurship Department,
BINUS Business School Undergraduate
Program
Bina Nusantara University
Jakarta, Indonesia 11480
iston.utama@binus.edu

Angel Tandajaya
Entrepreneurship Department,
BINUS Business School Undergraduate
Program
Bina Nusantara University
Jakarta, Indonesia 11480
angel.tandajaya@binus.ac.id

Tristan Ethan Phieter
Entrepreneurship Department,
BINUS Business School Undergraduate Program
Bina Nusantara University
Jakarta, Indonesia 11480
tristan.phieter@binus.ac.id

Abstract— **This study tries to investigate whether Instagram social media affects young customers' purchasing decisions for fashion products. The study was conducted with the quantitative approach by using snowball sampling and getting a total number of valid respondents of 246. The results reveal that interactivity is not significant to the purchase decision, but significant to the customer satisfaction, which means that sellers need to consider and maintain interactivity by creating personalized content. Seller openness communications also significantly influence customer purchase decisions and satisfaction, emphasizing the importance of clear and detailed product information. The study also highlights the essential role of brand familiarity and closeness in enhancing customer satisfaction, indicating that personalized treatment, creative, and consistent message content are crucial for engaging customers. Furthermore, the findings indicate that after-sales service and ongoing engagement on social media are essential for maintaining customer satisfaction after a purchase is made.**

Keywords— social media, consumer behavior, purchasing decisions, fashion products

Optimizing Success: Analyzing Key Factors and Improving the Info BMKG Application

Jeanette Aurelia Siswanto
Information Systems Department, School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
jeanette.siswanto@binus.ac.id

Go, Cindy Agustine Sugiarto
Information Systems Department, School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
go.sugiarto@binus.ac.id

Afina Salma
Information Systems Department, School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
afina.salma@binus.ac.id

Shanon Graciella Joy Soesilo
Information Systems Department, School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
shanon.soesilo@binus.ac.id

Sugiarto Hartono
Information Systems Department, School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
shartono@binus.edu

Abstract— **Indonesia faces significant risks of natural disasters, ranking second globally for disaster vulnerability. With frequent occurrences of earthquakes in several areas in Indonesia, the need for efficient early warning systems is paramount. The "Info BMKG" app by BMKG aims to fulfill this need by providing weather, climate, and earthquake information. However, user reviews indicate inefficiencies, prompting this study to analyze its success factors using the Delone and McLean model. The research explores dimensions such as System Quality, Information Quality, Early Warning System Success Factor, Intention to Use, and User Satisfaction to identify areas for improvement. User Satisfaction is a popular metric for evaluating the information system success. This research found that information quality and EWS success factors had effect on users' intention to use, which in turn significantly influences on user satisfaction when using the application, while system quality had no effect on intention to use. The result of this research aims to guide BMKG in enhancing application performance, ensuring accurate information dissemination, and improving user experience, ultimately bolstering disaster preparedness and response.**

Keywords— early warning system, Delone and McLean ,odel, success factors, performance, BMKG

Case Study: Forecasting Time Consumption Exponential RSA Factorization using Java Program

Martin Suhartana
Computer Science Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
martin.suhartana@binus.ac.id

Emny Harna Yossy
Computer Science Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
emny.yossy@binus.ac.id

Abstract— **In response to the previous issue, wherein the RSA (n) factorization process relied on Pythagorean and quadratic equations, facilitated by MS Excel Solver, and constrained by a 15-digit limit for n [3], [19], transitioning to Java programming significantly enhanced the factorization capability, enabling operations on n exceeding 100 digits, but this was not done due to limited time and computer resources currently available. During experimentation, it became evident that the current computational speed averaged 0,00806444662771415 milliseconds per attempt, indicating that despite limited infrastructure computer, we are advancing scientific development and research. Our findings show that each two-digit addition (p * q) takes ten times as many attempts, leading to an exponential increase in processing time. This study proposed that the main strength of the RSA algorithm lay in the difficulty of factorizing long prime numbers with limited computer resources, and this experiment was only conducted to demonstrate that exponential occurred when the number of digits in p and q to form the n value in RSA increased. As example in TC#6, 13 x 13 digits, where the time required is amounting to 1562003 ms equal to 1562,003 seconds equal to 26,033 minutes. This research lays a foundational step towards more effective and efficient scientific development, thereby contributing to future advancements in the field.**

Keywords— *RSA Factorization RSA, pythagorean, quadratic equation, java programming*

User-Centered Design in AI Applications: A Systematic Literature Review

Bryan Wongso
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
bryan.richie@binus.ac.id

Kevin Nathanael Lienaka
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
kevin.lienaka@binus.ac.id

Vincent Firstian
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
vincent.firstian@binus.ac.id

Yulia Magdalena
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
yulia.magdalena@binus.ac.id

Abstract— **This study aims to look at the implementation of User Centered Design (UCD) in Artificial Intelligence (AI) application development, the methods used, and the results of using UCD approach in AI application development. We conducted a systematic literature review using the PRISMA checklist, resulting in 21 studies selected based on the criteria of the studies containing UCD methods in AI development. The results reveal an increasing interest in UCD in AI application development, with most UCD implementation in AI occurring in the medical field. The study also highlights the prevalence of various UCD methods used, such as interviews, surveys, prototypes, and usability testing. Results shows that implementing UCD positively impacts the usability and user satisfaction levels in AI applications, as shown by improved performance metrics, compliance with design principles, and enhanced willingness by users to interact with the systems.**

Keywords—user-centered design, artificial intelligence, systematic literature review

Harnessing Artificial Intelligence for Effective Coastal Flood Disaster Management: A Systematic Literature Review

Eileen Anindya Puri Maheswari
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
eileen.maheswari@binus.ac.id

Firsa Anata Mernisi
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
firsa.mernisi@binus.ac.id

Sidharta Sidharta
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
sidharta@binus.ac.id

Chasandra Puspitasari
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
chasandra.puspitasari@binus.ac.id

Abstract— **Floods stand out as among the most devastating natural calamities globally, with their occurrence and severity increasing rapidly due to the effects of climate variability. With inadequate infrastructure, developing countries like Indonesia are more vulnerable to flood disasters. Artificial intelligence (AI) has emerged as a promising tool in helping deal with flood disasters. In flood disaster management, AI can help manage emergency response, provide early warning to the public, and predict floods. The purpose of this literature review is to find highly accurate AI methods for predicting coastal flooding in Indonesia, the factors used as data completeness for predicting coastal flooding, and also identify the strengths and weaknesses of the AI methods used to predict coastal flooding. This study conducted a thorough analysis of relevant research, compared, and concluded that AI methods such as machine learning have shown relevant results in predicting coastal flooding. This study provides a broad insight into the use of AI in flood disaster management, especially in Indonesia, and emphasizes that future research is needed to address issues in the effective application of AI in the field.**

Keywords— artificial intelligence, machine learning, flood disaster management, coastal flooding

ChatGPT and VARK Model in Education: A Systematic Literature Review

Marvella Gunawan
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
marvella.gunawan@binus.ac.id

Marcaelle Maia
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
marcaelle.maia@binus.ac.id

Steven Klein
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
steven.klein@binus.ac.id

Meyliana
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
meyliana@binus.edu

Surjandy
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
surjandy@binus.ac.id

Abstract— **In the ever-growing digital era, the use of artificial intelligence (AI) such as ChatGPT is increasingly widespread, especially in education. ChatGPT is a generative AI that could produce human-quality text, write creative content, translate languages, and answer questions informatively. A Systematic Literature Review (SLR) methodology is conducted to explore the role of ChatGPT in supporting a learning process that considers individual learning styles based on the VARK Model (Visual, Auditory, Read/Write, and Kinesthetic). This research aims to identify factors in ChatGPT that could improve the learning process. The findings from this study provide valuable insights for education development, identifying 55 essential factors in ChatGPT for education and the implications for AI.**

Keywords—ChatGPT, Generative AI, education, learning, learning style, VARK Model

A Systematic Literature Review: The Impact of People, Process, and Technology on InsurTech

Jessicania Windari
Information System Departement,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
jessicania.windari@binus.ac.id

Yulia Ery Kurniawati
Information System Departement,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
yulia.ery@binus.ac.id

Rhisa Adika Putri
Information System Departement,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
rhisa.putri@binus.ac.id

Abstract— **The emergence of the 4.0 age has given rise to many fintech companies, some of which have combined with the insurance sector, a phenomenon known as InsurTech. About 2022, InsurTech started to take off, primarily by utilizing Artificial Intelligence (AI) and machine intelligence. Based on the Systematic Literature Review (SLR) approach, it is found that there is still a shortage of academic research on InsurTech. This study aims to close the gap by thoroughly examining the relationship between fintech, InsurTech, and emerging technologies using the Vos viewer software as a tool for SLR. From this research review, we can get results about the influence of InsurTech on the insurance sector in the future. Because there is still a lot of confusion about insurance out there**

Keywords— *InsurTech, fintech, insurance company, SLR, vosviewer*

Exploring The Factors that Motivate Individuals to Utilize E-Payment within The FinTech Sector

Stevannie Florensia
Finance Program, Accounting Department,
School of Accounting
Bina Nusantara University
Jakarta, Indonesia 11480
stevannie.florensia@binus.ac.id

Agustini Hamid
Finance Program, Accounting Department,
School of Accounting
Bina Nusantara University
Jakarta, Indonesia 11480
agustinihamid@binus.ac.id[i]

Abstract— **The emergence of technological sophistication has encouraged the adoption of e-payments in Indonesia. E- payment services become a facilitator in supporting the success of online payment transactions through e-commerce. Therefore, this study aims to measure validity about factors that influence users in Indonesia to adopt an e-payment system. Sample data collection techniques of 134 prospective respondents and the research model measurement results used PLS-SEM using Smart PLS 4.0. Based on the test results, there are 3 hypotheses that have a positive impact on e-payment utilization, namely perceived security, social influence, and e- commerce transaction. Meanwhile, performance expectancy, quality of information, and perceived convenience have no significant links. Structural model test results with R-square value of 0.543 are categorized as moderately accurate. In conclusion, there are three variables that can be agreed upon by companies or entrepreneurs who adopt the use of e- payment to increase the attractiveness and number of consumers to implement this e-payment method. With continuous development, this factor can represent opportunities for a greater percentage of success through consumer intentions of the use of e-payments in Indonesia, which has the potential to support the country's economic growth.**

Keywords—e-payment utilization, fintech, services, online payment, transaction process system.

Combining DistilBERT and LSTM to Enhanced Detection of Depression in Social Media Text

Felix Indra Kurniadi
Computer Science Department
,School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
felix.indra@binus.ac.id

Ni Luh Putu Satyaning Pradnya Paramita
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
ni.luh@binus.ac.id

Erna Fransisca Angela Sihotang
Statistics Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
erna.sihotang@binus.ac.id

Maria Susan Anggreainy
Computer Science Department,
BINUS Graduate Program - Doctor of Computer Science Bina Nusantara University
Jakarta, Indonesia 11480
maria.susan001@binus.ac.id

Rongfang Zhan
Department of Rehabilitation and Health Service,
School of Computer Science
University of North Texas
United States of America
rongfang.zhan@unt.edu

Abstract— **Depression affects a significant number of people, and it has a significant impact not only on their lives but also on society as a whole. In light of this, we require more advanced methods that are capable of locating individuals who are depressed in a timely and accurate manner. This research investigates the effectiveness of Long Short-Term Mem- ory (LSTM) networks used in conjunction with DistilBERT, a small transformer-based model, in identifying indications of melancholy in posts made on social networking platforms. The text was cleaned up using a dataset that was obtained from Reddit, and then we used the mixed DistilBERT+LSTM model to evaluate how well it performed in comparison to the DistilBERT model by itself. The findings that we obtained indicate that both approaches produce results that are comparable but not flawless, with only slight variations in terms of accuracy, precision, recall, and F1 scores. The fact that this is the case demonstrates that there are issues with optimizing the model and displaying the data.**

Keywords— depression, natural language processing, Distil- BERT, LSTM

The Role of Brand Attitude Mediates the Effect of Electronic Word of Mouth on Purchase Intention at PT XYZ in North Jakarta

Febby Kozaly
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
febby.kozaly@binus.ac.id

Manise Hendrawaty
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
manise.hendrawaty@binus.ac.id

Danang Prihandoko
Business Management Program,
Management Department
BINUS Business School Undergraduate
Program
Bina Nusantara University
Jakarta, Indonesia 11480
dprihandoko@binus.ac.id

Abstract— **With heightened competition in the coffee shop industry due to the nation's great demand supply of coffee beans, the coffee shop industry is very competitive, which leading businesses to focus on increasing customer purchase intentions in order to survive. In this research, the correlation between customers' purchase intention and the brand attitude of PT XYZ coffee shop in North Jakarta is investigated in relation to the emerging digital strategies, electronic word of mouth (e-WOM). This research employs purposive sampling techniques by collecting primary data through Google Forms, focusing on customers who recognize about PT XYZ coffee shop through e- WOM. The data is analyzed using the SEM-PLS methodology with the assistance of Smart PLS 4.0 software. Based on the findings of the hypothesis testing, it can be concluded that e- WOM significantly influences consumers' propensity to buy and their perception of the brand. Additionally, brand attitude is also vital for PT XYZ customers' propensity to buy and to close the gap with e-WOM.**

Keywords—electronic word of mouth (e-WOM), brand attitude, purchase intention, coffee shop.

Gen-Z Consumers: E-Commerce Platforms for Sustainable Shopping Experinces

Synthia Atas Sari
Management Department,
BINUS Business School Master Program
Bina Nusantara University
Jakarta, Indonesia 11480
synthia@binus.edu

Justin Bryan Mcfadden
Management Department,
BINUS Business School Undergraduate
Program
Bina Nusantara University
Jakarta, Indonesia 11480
Justin@yahoo.com

Maulana Azmi Arif Alfayed
Management Department,
BINUS Business School Undergraduate
Program
Bina Nusantara University
Jakarta, Indonesia 11480
maulanaazmi@gmail.com

Abstract— **Nowadays, the use of internet is rapidly growing after the spread of the COVID-19 virus. During pandemic due to physical restrictions, most companies should change their business process to be more digital. Therefore, E-commerce as digital platform for market become popular. The sustainability of online shopping is influenced by several factors including income, security transaction, effort expectancy, and trust. Therefore, by using the theory of planned behavior, this study examine these four factors to the intention of adoption e-commerce by Gen-Z. To achieve the research objective, this study uses quantitative research methodology which the data were collected from 200 Gen-Z respondents on Java Island, Indonesia. Using multiple-regression data analysis, this study indicates that security, effort expectancy, and trust significantly affect adoption intention by Gen-Z to e-commerce. However, income has an insignificant effect. With this result, this study has theoretical contribution on sustainability knowledge by examining how Gen-Z's e-commerce adoption which enables sustainable online buying in transitional nations is influenced by those four factors. Additionally, this research contributes to business practice by identifying the specific criteria that owners should prioritize when spending their limited resources to generate interest among Gen-Z in adopting e-commerce as their preferred buying platform.**

Keywords— Gen Z, e-commerce, sustainability, income, security, effort expectancy, trust

Analysis of News Sentiment and Stock Price Using Web Scraping and Vader Sentiment Analysis

Michael Siek
Business Information Systems Program,
Information Systems Department
School of Computing and Creative Arts
Bina Nusantara University
Jakarta, Indonesia 11480
michael.s@binus.edu

Erik Sebastian Setiadi
Business Information Systems Program,
Information Systems Department
School of Computing and Creative Arts
Bina Nusantara University
Jakarta, Indonesia 11480
erik.setiadi@binus.ac.id

Abstract— **Rapid development of the information technologies and methods has contributed to the advancement of financial stock analysis and prediction. This paper focuses on investigating Bank Mandiri stock sentiments from financial news data using web scraping and VADER sentiment analysis to obtain accurate news polarity scores. The dynamical alignment and changes between the resulting sentiment analysis and stock prices towards neutral, bullish and bearish stock movements can subsequently be identified and evaluated using Pearson's and Spearman's correlation coefficients for the model refinement. The research results over market conditions indicate that there are consistent alignment and direction between stock sentiments from the financial news and dynamical stock price changes. This work can provide some benefits and insight for the financial investors and stock traders in making a better decision.**

Keywords— ***web retrieval, stock price dynamics, sentiment data analysis, time series forecasting***

Holiday Planner Mobile Apps for Efficient Scheduling

Uzda Nabila Shabiriani
Visual Communication Design Department,
School of Design
Bina Nusantara University
Jakarta, Indonesia 11480
uzda.nabila@binus.ac.id

Chandra Kevin Harianto
Visual Communication Design Department,
School of Design
Bina Nusantara University
Jakarta, Indonesia 11480
kevin.harianto@binus.ac.id

Firsta Rangga Satria Purnama Putra
Visual Communication Design Department,
School of Design
Bina Nusantara University
Jakarta, Indonesia 11480
firsta.putra@binus.ac.id

Lita Rachel Hoo
Visual Communication Design Department,
School of Design
Bina Nusantara University
Jakarta, Indonesia 11480
lita.hoo@binus.ac.id

I Gede Cahya Pradipa
Visual Communication Design Department,
School of Design
Bina Nusantara University
Jakarta, Indonesia 11480
i.pradipa@binus.ac.id

Muhammad Nur Adisetiawan
Visual Communication Design Department,
School of Design
Bina Nusantara University
Jakarta, Indonesia 11480
muhammad.adisetiawan@binus.ac.id

Abstract— **The difficulty for many people in making holiday plans is due to a lack of understanding about the area they want to visit, minimal time in planning, minimal experience and knowledge in planning a holiday schedule. The aim of this research is to design the MALING holiday planner mobile application as an efficient way of scheduling. Researchers use the design thinking method which starts from define, research, ideate, prototype, choose, implement and learn. Based on the results of data analysis, a modern, vibrant and user-friendly concept was obtained which is suitable for the target audience of young people aged 17 to 35 years and was used in designing the MALING mobile application. The researcher used a flat design style, sans serif font, dominant blue and yellow colors, and simple icons the size of an Android smartphone. MALING mobile apps are very important to use as a medium that can make it easier for tourists who will visit Malang and plan tourist holiday schedules so that tourists don't need to worry about the activities they will do during the holidays.**

Keywords— holiday plan, mobile apps, malang, user interface, design thinking.

Beyond Chatting an Analysis of the Full Potential Use of Chat Generative AI for University Students in the Greater Jakarta Area

Muhammad Rizqy Al Gozali
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
muhammad.gozali@binus.ac.id

Devin Revel
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
devin.revel@binus.ac.id

Christian
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
https://orcid.org/0009-0003-9161-6803

Abstract— **In the realm of education the rising popularity of Chat Generative Artificial Intelligence (AI) has sparked interest, in its potential to enhance learning experiences. This technology, known for generating text that resembles speech offers an opportunity for students to hone their questioning skills and leverage it for their academic pursuits. A study conducted in Greater Jakarta encompassing DKI Jakarta, West Java and Banten delves into how students utilize Chat Generative AI to support their journeys. Specifically the research aims to explore how this tool influences students ability to formulate questions and engage with content. By conducting a survey the study sheds light on the frequency, context and nature of using Generative AI in a setting. The findings aim to inform educators researchers and developers, about the advantages of incorporating this technology into education practices to enhance the learning experience. Through an analysis of survey data this paper underscores the usage trends and advantages of employing AI chat platforms to create personalized learning environments.**

Keywords— *chat generative Artificial Intelligence (AI), insights, competence.*

The Implementation of Artificial Intelligence for Online Review: A Systematic Literature Review

Dedy Syamsuar
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
dedy.syamsuar@binus.ac.id

Marcello
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
marcello@binus.ac.id

Abstract— In the digital era, many researchers are examining the usefulness of online reviews, which show the importance of online reviews. This has led many researchers, practitioners, and companies to implement Artificial Intelligence (AI) technology for automating and optimizing various aspects of online reviews. The implementation of AI for online review has become a hot topic. However, there is a necessity to classify and synthesize existing insights to identify the latest trends and opportunities for further research in the future. Therefore, this study will conduct a systematic literature review (SLR) to address this gap by examining the current state of research in the implementation of AI for online review. The study utilized the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) flow diagrams by submitting 3 Research Questions (RQ). The final results obtained from 27 selected primary studies show that the research trend in the implementation of AI for online review is still highly relevant today, and retail is the most utilized industry by researchers. In addition, it was revealed that current research focuses on five topics, i.e., sentiment analysis, fake detection, information extraction, dataset analysis, and review helpfulness. Hopefully, this study can contribute to the academic side for future research and practical side for insightful information in implementing AI for online review.

Keywords— systematic literature review, online reviews, electronic word of mouth, artificial intelligence

Navigating Digital Marketing in Entrepreneurship: Interdisciplinary Perspective through Systematic Review

Hervandiaz Santoso
Entrepreneurship Department,
BINUS Business School Undergraduate Program
Bina Nusantara University
Jakarta, Indonesia 11480
hervandiaz.santoso@binus.ac.id

Agung Purnomo
Entrepreneurship Department,
BINUS Business School Undergraduate Program
Bina Nusantara University
Jakarta, Indonesia 11480
agung.purnomo@binus.ac.id

Abstract— **The Swift development of digital marketing has significantly impacted the landscape of entrepreneurship, necessitating a comprehensive understanding of their interplay. This review's purpose is to determine the status of the development of literature studies related to the roles, challenges and interdisciplinary perspectives of digital marketing in the entrepreneurship area on the global scene. This systematic literature review was carried out using the PRISMA protocol based on the Scopus database and Gioia thematic analysis. It was demonstrated that digital marketing played significant roles in entrepreneurship, such as digital transformation and strategy, market development and penetration, inclusivity, and education in digital marketing. However, implementing digital marketing in entrepreneurship can face challenges, such as strategies for digital marketing adoption, obstacles in achieving digital marketing innovation and capabilities enhancement, and the impact of digital marketing on entrepreneurial success. This research based on perspective and research gaps analysis suggests a significant research opportunity to investigate the SEO and SEM on various entrepreneurship types and further opportunities to investigate entrepreneurship types of imitative entrepreneurship, intrapreneurship, hustle entrepreneurship, buyer entrepreneurship, researcher entrepreneurship, and innovative entrepreneurship relate to digital marketing area.**

Keywords— *digital marketing, entrepreneur, entrepreneurship, marketing, systematic literature review*

Innovative Finance for Sustainability: Exploring The Attitude to Use of Mobile Payment

Muhammad Sahlan Manar Fauzan
Entrepreneurship Department,
BINUS Business School Undergraduate Program
Bina Nusantara University
Jakarta, Indonesia 11480
muhammad.fauzan017@binus.ac.id

Doni Purnama Alamsyah
Entrepreneurship Department,
BINUS Business School Undergraduate Program
Bina Nusantara University
Jakarta, Indonesia 11480
doni.syah@binus.ac.id

Abstract— **Sustainable technology occurs through the implementation of mobile payment platform. The online platform is part of innovative finance which is currently widely used by consumers. In line with the financial technology issue, the research aims to discuss consumers' attitude to use in using mobile payments with analysis of social influence and facilitation conditions. This is survey research on mobile payment users, considering that what is being studied is related to online payment behavior. Quantitative data was collected from mobile payment users using an online questionnaire over a certain period. Data was collected from 245 users, then the data was tabulated, screened, and tested using the SmartPLS tool through two tests (PLS Algorithm, Bootstrapping). Research analysis was carried out by testing the research hypothesis. The research results explain that there is support from social influence and facilitating conditions on attitudes to use mobile payments. In more depth, the significant effect of the attitude to use for user engage in use mobile payment. The study was involved behavior in online payment platform (mobile payment), so that the intention in question is sustainable. The research results provide important information for mobile platform providers regarding the importance of understanding the attitude to use of mobile payment to support sustainable use of financial technology services.**

Keywords— ***sustainability, attitude to use, mobile payment***

The Role of IT Governance in Aligning IT Strategy and Business Strategy for Sustainability in the Era of Disruption

Kukuh Lukiyanto
Entrepreneurship Department,
BINUS Business School Undergraduate
Program
Bina Nusantara University
Jakarta, Indonesia 11480
kukuh.lukiyanto@binus.ac.id

Fahrizal Maulana
Entrepreneurship Department,
BINUS Business School Undergraduate
Program
Bina Nusantara University
Jakarta, Indonesia 11480
fahrizal.maulana@binus.ac.id

Wilson Rangga Anak Anthony Jiram
Faculty of Built Environment
University of Malaysia Sarawak
Malaysia
ajwrangga@unimas.my

Elysabet Christy Diandra Selano
APMAI Researcher
Asosiasi Peneliti Manajemen Adat Indonesia,
Surabaya, Indonesia
elysabetchristyd17@gmail.com

Abstract— **In an era of disruption characterized by rapid change, IT Governance is an important factor in aligning IT strategy with business strategy to achieve sustainability. This research aims to investigate and analyze the mediating effect of IT capabilities on IT strategic alignment and operational performance, considering the complexity and dynamics of the external environment as well as the internal business processes adopted by the business entity. Using a positive paradigm approach and quantitative methods, this study finds that IT Adoption and IT Assimilation provide different indirect effects. IT adoption plays a key role in establishing strategic alignment of IT and business to improve operational performance, indicating the importance of IT adoption decisions that are aligned with strategy, vision, mission and broader business goals. However, IT assimilation does not directly improve Operational Performance which can create sustainable competitive advantages for business entities. These findings emphasize the importance of effective IT Governance in directing IT investments and strategies to drive alignment, sustainability and resilience amidst the challenges and opportunities offered by an ever-evolving business landscape. The results of this research provide valuable guidance for business leaders and IT professionals in developing and implementing strong IT Governance practices to achieve strategic alignment and sustainability in an era of disruption.**

Keywords— ***IT governance, information technology, IT capability, IT strategic alignment, IT adoption, IT assimilation***

Implementation of Logistics Super App: Impact on Technostress Creators, Employee Engagement, and Generational Roles

Michael Christian*
Management
Universitas Bunda Mulia
Jakarta, Indonesia
0000-0001-8892-5400

Kurnadi Gularso
Master of Management
Universitas Bunda Mulia
Jakarta, Indonesia
0000-0002-6371-8613

Henilia Yulita
Master of Communication Studies
Universitas Bunda Mulia
Jakarta, Indonesia
0000-0002-3782-2273

Oktafalia Marisa Muzammil
Business Management Program,
BINUS Business School Undergraduate
Program
Bina Nusantara University
Jakarta, Indonesia 11480
0009-0004-8515-2640

Sumarny Manurung
Master of Management
Universitas Bunda Mulia
Jakarta, Indonesia
0000-0001-7371-1733

Suryo Wibowo
Medical Profession Study Program
Krida Wacana Christian University
Jakarta, Indonesia
0000-0001-7460-0250

Abstract— **Mobile applications, because of technological progress, have now expanded into different domains of human existence, encompassing supply chains and logistics management. This can facilitate firms' rapid growth and achievement of commercial objectives, particularly by providing customers with a streamlined, convenient, and cost-effective procedure. However, this can also lead to technostress when there is an overwhelming amount of work, an intrusion of technology, complex job requirements, uncertainty about one's expertise or skills, and a lack of faith in technological advancements. Over time, there is concern that this will adversely affect employee engagement. The aim of this study is to investigate the factors that influence employee engagement, with a particular focus on technostress predictors and generational dimensions. This study utilized SEM-PLS to scrutinize a sample of 93 participants working for firm X, a pioneer in super-app logistics in Indonesia. Conducted using SmartPLS 4.0, the key findings of this study demonstrate that technology overload, technological invasion, technological uncertainty, and generation have a significant impact on employee engagement. This research emphasizes the necessity for the organization to incorporate a sequence of technical training programs for employees as a component of their strategy to mitigate technology overload, intrusion, and ambiguity. The findings of this study provide theoretical support for the JD-R model, specifically enhancing the concepts of techno overflow, techno invasion, and techno uncertainty.**

Keywords— **supply chain and logistics management technology, technological innovation, mobile app, technostress, organizations**

Creating Mathematical Models to Help Formulate Company Strategies for Knowledge Management System Implementation

Wahyu Sardjono
Information Systems Management Department, BINUS Graduate Program
Master of Information Systems Management
Bina Nusantara University
Jakarta, Indonesia 11480
wahyu.s@binus.ac.id

Widhilaga Gia Perdana
Post Graduate Program of Management Science,
State University of Jakarta,
Jakarta, Indonesia 13220
widhilaga_9917922044@mhs.unj.ac.id

Dewi Sagita Pranata
Cyber Security Studi Program, Department of Informatics, Faculty of Natural, Mathematical & Engineering Sciences, King's College London, UK,
Strands, West Minster WC2R 2LS
dewi.pranata@kcl.ac.uk

Abstract— **This research aims to build a mathematical model to formulate the problems of implementing knowledge management systems in companies that often face obstacles in achieving the desired objectives and goals. With increasing competition in the business sector, organizations or organizations realize the importance of utilizing the knowledge assets that reside in each individual and organization. If this knowledge can be managed optimally, it can become a competitive advantage for the company due to the emergence of innovative ideas by the concepts of knowledge management theory. By implementing optimal knowledge management (KM), companies can design innovative solutions to improve business operations and increase overall revenue. The factor analysis method will be used to find the determining factors for the success of the implementation of knowledge management systems (KMS) and the regression analysis method will also be used to form a mathematical model of several new factors which are formed as independent variables with the current level of community understanding of KMS as the dependent variable. The research results provide insight into strategies to improve success factors to successfully facilitate KMS implementation. This study contributes to existing knowledge management by providing insight into dynamics that go beyond the technical aspects of KMS, ultimately developing strategies for more effective and efficient utilization of knowledge and organizational growth and supporting competitive advantage for companies.**

Keywords—mathematic model, knowledge management, innovation, exploratory factor analysis, competitive advantage

Early Melanoma Skin Cancer Detection using Artificial Intelligence: A Comparative Review

Nazhira Dewi Aqmarina
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
nazhira.aqmarina@binus.ac.id

Lin Dan Christiano
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
lin.christiano@binus.ac.id

Regina Celine Adiwinata
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
regina.adiwinata@binus.ac.id

Gusti Pangestu
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
gusti.pangestu@binus.edu

Abstract— **Cancer is a deadly disease if not treated seriously, including the most visible part of the body, the skin. Melanoma is a deadly type of skin cancer. If this type of cancer is not treated quickly, it is likely to spread to other parts of the body and cause death. Artificial Intelligence can help humans overcome the problem of Melanoma by detecting it so that it can be treated as quickly as possible. This paper focuses on finding the model with the highest accuracy and knowing the factors that influence the accuracy value. This research uses the Systematic Literature Review (SLR) method, where the authors will search for papers related to the topic and research questions, review, analyze, and provide detailed conclusions on these papers. Of the hundreds of papers covering the topic, eight that met the criteria were taken for further analysis to find the best model accuracy. Among the models that demonstrate a high degree of accuracy are VGG19, ResNet-18, and ResNet-50, with 97.5%, 94.47%, and 93.96%, respectively. The selection of a suitable dataset strengthens the accuracy of the model. The results show that the HAM10000, ISIC 2019, and ISIC 2020 datasets are three datasets that produce high accuracy when used for matching models. So, factors influence the production of precise accuracy, such as the selection of models and datasets.**

Keywords— *systematic review, melanoma, skin cancer, artificial intelligence, deep learning*

Optimizing Customer Retention in Urban Laundry Services: A Comparative Analysis of Machine Learning Algorithms in Jakarta's MSME Sector

Rhisa Adika Putri
Information Systems Management Department,
BINUS Graduate Program - Master of Information Systems Management
Bina Nusantara University
Jakarta, Indonesia 11480
rhisa.putri@binus.edu

Tuga Mauritsius
Information Systems Management Department,
BINUS Graduate Program - Master of Information Systems Management
Bina Nusantara University
Jakarta, Indonesia 11480
tmauritsus@binus.edu

Bryan Ananda
Information Systems Management Department,
BINUS Graduate Program - Master of Information Systems Management
Bina Nusantara University
Jakarta, Indonesia 11480
bryan.ananda@binus.ac.id

Riyanto Jayadi
Information Systems Management Department,
BINUS Graduate Program - Master of Information Systems Management
Bina Nusantara University
Jakarta, Indonesia 11480
riyanto.jayadi@binus.edu

Abstract— **In the rapidly urbanizing context of major cities such as Jakarta, the demand for efficient and rapid laundry services poses a considerable challenge, particularly within residential settings like boarding houses or dormitories in Central Jakarta, where access to communal laundry facilities is markedly constrained. Against this backdrop, laundry enterprises categorized under Micro, Small, and Medium Enterprises (MSMEs) in the service sector have witnessed significant growth. These services typically encompass the collection, washing, drying, folding, and delivery of laundry to the customer's domicile. Nevertheless, the burgeoning proliferation of laundry businesses has precipitated intensified competition within the sector, compelling these enterprises to devise strategies for customer retention and revenue augmentation. This research endeavors to delineate effective strategies and solutions to navigate the competitive landscape of the laundry industry. The study undertakes a meticulous evaluation of various machine learning algorithms, including Decision Tree, Logistic Regression, Naïve Bayes, Support Vector Machine, Random Forest, XGBoost, LightGBM, and CatBoost, based on their performance with unseen data. This evaluation employs a comprehensive set of metrics such as precision, recall, F1-score, and ROC AUC to determine the efficacy of each model. The findings reveal that the CatBoost Classifier algorithm outperforms others, achieving a training accuracy of 95.9% and a testing accuracy of 85.7%. The novelty of this study lies in its comprehensive comparison of multiple machine learning algorithms in the context of MSMEs in Jakarta's laundry sector, highlighting the superior performance of the CatBoost algorithm. Furthermore, the study contributes by demonstrating the practical application of these algorithms to improve customer retention strategies, enhance service quality, and optimize marketing tactics. Based on these results, the study recommends the implementation of the CatBoost Classifier model as a foundational tool for developing refined customer retention strategies, enhancing service quality, and optimizing marketing tactics within the laundry service industry.**

Keywords— *customer churn, (MSME) UMKM, machine learning, laundry business, clothing washing service*

Prediction and Analysis of Protein 3D Structures Using Protein Language Model and Streamlit

C.S.Srushti
Department of CSE
UVCE
Bengaluru, India
srushtichan@gmail.com

Prathibhavani P.M
Department of CSE
UVCE
Bengaluru, India
prathibhavani.pm@uvce.ac.in

Veena A
Department of CSE
UVCE
Bengaluru, India
veenacse28@gmail.com

K.R.Venugopal
Former Vice Chancellor,
BU Retired Professor
Dept of CSE,UVCE
Bengaluru, India
venugopalkr@gmail.com

Abstract— **The development of deep learning has extensively amplified the accuracy of protein tertiary structure prediction. The success of AlphaFold from DeepMind demonstrates that extensive evolutionary information may be found in a sequence's multiple sequence alignment, which results in precise 3D models. It would take significant computing power to train a comparable model. Web apps can use strong server-side resources, so users don't always need high-end technology. This paper presents a novel web-based application that integrates ESMFold, a protein language model for protein structure prediction developed by Facebook AI, with Streamlit, an open-source webapp framework. Our application enables users to input an amino acid sequence and quickly receive a prediction of its tertiary structure. The analysis of the predicted structure is performed by Ramachandran Plot and calculating the pLDDT value. The effect of mutation on amino acid sequence is calculated by masked marginal score. Streamlit facilitates a user-friendly, interactive interface that requires minimal setup and can be used effectively by researchers without extensive computational expertise.**

Keywords— *protein structure prediction, protein language model, pre-trained model, ESMFold, streamlit, mutation*

The Role of Social Media Marketing in Mediating Emotional Appeal and Information Usefulness from eWOM on Buying Behavior

Kusumah Arif Prihatna
BINUS Entrepreneurship Center,
Management Department,
Bina Nusantara University
Jakarta, Indonesia 11480
kusumah.arif@binus.ac.id

Dotty Wimpertiwi
BINUS Entrepreneurship Center,
Management Department,
Bina Nusantara University
Jakarta, Indonesia 11480
dotty.wimpertiwi@binus.ac.id

Isana Wikrama
BINUS Entrepreneurship Center,
Management Department,
Bina Nusantara University
Jakarta, Indonesia 11480
isanawikrama@binus.ac.id

Adhi Bawono
BINUS Entrepreneurship Center,
Management Department,
Bina Nusantara University
Jakarta, Indonesia 11480
adhi.b@binus.ac.id

Abstract— **Social media has become one of the main pillars in marketing strategies that allow direct interaction with potential consumers. This study examines the interaction between emotional appeal and information usefulness from eWOM on buying behavior, with social media marketing as a mediator. Data were collected from 230 social media users aged 19-21 in Jakarta, West Java, and Banten in Indonesia, using a 5-point Likert scale questionnaire. The results of the analysis show that emotional appeal, information usefulness from eWOM, and social media marketing significantly have a positive effect on consumer buying behavior. In addition, social media marketing proved to be a strong mediator in influencing the relationship between emotional appeal and information usefulness from eWOM toward buying behavior. The implication of these findings is the importance of considering the role of social media in designing effective marketing strategies to influence buying behavior based on emotional appeal and information usefulness from eWOM**

Keywords— ***emotional appeal, information usefulness from eWOM, buying behavior, social media marketing***

Analysis of User Experience in Applications Madrasah Digital Report Website at MTSs Assa'adah Cicurug

Febi Walmika Saragih
Information Systems Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
febi.saragih@binus.ac.id

Raden Nadya Oktaviani
Information Systems Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
raden.oktaviani@binus.ac.id

Riyan Leandros
Information Systems Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
riyan.leandros@binus.ac.id

Silvia Ayunda
Information Systems Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
silvia.ayunda@binus.ac.id

Abstract— **In order to support the Digital Madrasah program with information technology in madrasah, where MTSs Assa'adah Cicurug is one of the schools, the Ministry of Religious Affairs created an application that can be a special value bank for madrasah and the Ministry of Religious Affairs, namely the Rapor Digital Madrasah (RDM) website application. Access to the RDM website application was made more flexible, allowing users to select their preferred school year and semester to review or monitor grade data. This study aimed to evaluate the user experience on the RDM website, and the findings were utilized to guide enhancements to the RDM website application. In this case, the user provides feedback where there was still dissatisfaction regarding the appearance of features in the application. The research methodology used System Usability Scale (SUS) that contains Usability Testing is used to determine the tendency of RDM users to be passive. Based on the SUS method, a score of 64.03 was obtained. The test results served as a reference for recommending changes to the "Attitude" assessment menu by adding descriptions for each value in the form of a mock-up, which will guide the development of the RDM website application.**

Keywords— madrasah, digital report card, user experience, usability

How Digital Orientation, Personality Traits, and Network Strategy Affect Bank Digital Transformation

Muhammad Daffa Adryanshah
Management Department,
BINUS Business School Undergraduate Program
Bina Nusantara University
Jakarta, Indonesia 11480
muhammad.adryanshah@binus.ac.id

Dicky Hida Syahchari
Management Department,
BINUS Business School Undergraduate Program
Bina Nusantara University
Jakarta, Indonesia 11480
dicky.syahchari@binus.edu

Abstract— **Banking digital transformation entails using digital technology across all banking operations to enhance efficiency, enhance client experiences, and adjust to changing market circumstances. The research examines how personality attributes, digital orientation, and network strategy impact digital transformation. Three hypotheses and four variables are included in the research model. The operational variable comprises 26 indications. One hundred fifty-one bank workers in Greater Jakarta were questioned using an online survey to collect primary data. Data will be analyzed using Structural Equation Modeling-Partial Least Squares (SEM-PLS) using the Smart-PLS program. The study's results provide shallow p values for Hypotheses 1 and 3, suggesting robust statistical evidence for the connection between personality characteristics, strategic networks, and digital transformation. Hypothesis 2 demonstrates a significant correlation between digital orientation and digital transformation but with less compelling evidence than the other hypotheses. Organizations may expedite digital transformation by evaluating personalities for openness, cultivating a digital-friendly culture, establishing strategic collaborations, and improving network tactics. These endeavors improve creativity, digital literacy, and preparedness for change, guaranteeing competitiveness and success in the digital age.**

Keywords— *digital orientation, digital transformation, network strategy, personality traits*

Missing Person Search Information System with User-Centered Design

Ahmad Harori Zaki Ichsan
Faculty of Computer Science
Universitas Indonesia
Depok, Indonesia
ahmad.harori@ui.ac.id

Muhammad Estuputra Denaya
Faculty of Computer Science
Universitas Indonesia
Depok, Indonesia
muhammad.estuputra@ui.ac.id

Naifathiya Langitadiva
Faculty of Computer Science
Universitas Indonesia
Depok, Indonesia
naifathiya.langitadiva@ui.ac.id

Putu Wuri Handayani
Faculty of Computer Science
Universitas Indonesia
Depok, Indonesia
putu.wuri@cs.ui.ac.id

Nabila Clydea Harahap
Faculty of Computer Science
Universitas Indonesia
Depok, Indonesia
nabila.clydea@ui.ac.id

Abstract— **This study aims to design an information system for searching for missing persons using a user-centered design (UCD) approach. This study used qualitative methods using interviews and quantitative methods by distributing the system usability scale (SUS) and post-study system usability questionnaire (PSSUQ) questionnaires. The respondents of this research consisted of official institutions, victims' families or relatives, volunteers, and experts in the field of interaction systems. The interviews were analyzed using the content analysis method, while the quantitative data were analyzed using the calculation method. The first iteration produced a low-fidelity prototype which was evaluated by interviews. The second iteration produced a high-fidelity prototype which was evaluated using usability testing (UT). The third iteration produced a high-fidelity prototype which was evaluated using SUS and PSSUQ. The SUS and PSSUQ values showed acceptable results. According to the authors' knowledge, there has been no research that proposes an information system for searching for missing persons in Indonesia with a comprehensive design process.**

Keywords— missing person, user-centered design, usability testing, system usability scale, post-study system usability questionnaire

Deep Learning for Stock Market Prediction: A Review

Jenny Ohliati
Computer Science Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
jenny.ohliati@binus.ac.id

Yuniarty
Mannagement Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
yuniarty@binus.ac.id

Abstract— **The success of stock market predictions will be a useful asset for stock market securities institutions, as well as allowing shareholders and investors to grasp market forces and focus on long-term investing. Stock markets have fluctuating and volatile data, so it makes investor hard to predict the stock market. Several researchers have attempted to develop effective stock market prediction systems. This study aims to investigate the performance of current deep learning models used for stock prediction. This study conducts a review of important scientific publications before analyzing them using textual narrative synthesis. Based on stock market predictions, a complete evaluation was conducted on 29 scientific publications that proposed deep learning models such as long short-term memory, convolution neural network, autoencoder, reinforcement learning, mixture of expert, and neural arithmetic logic units. Long short-term memory is a popular approach, with improvements in accuracy in the 90%-100% range, mean absolute percentage error of 0.5, and root mean squared error decrease in the 0.5 range. The stock market is a very difficult activity, and numerous aspects must be addressed to anticipate the market's future more correctly and effectively.**

Keywords— stock market prediction, deep learning, long short-term memory.

Enhancing Traffic Analysis and Prediction through A Hybrid LSTM-ARIMA Model

Le Xiang Lim
Faculty of Information Science and Technology
Multimedia University
Melaka, Malaysia
1191200843@student.mmu.edu.my

Tee Connie
Faculty of Information Science and Technology
Multimedia University
Melaka, Malaysia
tee.connie@mmu.edu.my

Michael Kah Ong Goh
Faculty of Information Science and Technology
Multimedia University
Melaka, Malaysia
michael.goh@mmu.edu.my

Abstract— **Innovative methods for analyzing traffic are crucial for modernizing transportation infrastructure, particularly in highway planning. This study explores the integration of computer vision techniques, emphasizing image processing and machine learning, for real-time highway traffic analysis. Given the limitations of traditional methods like slow speed and inaccuracy, the importance of computer vision-based real-time analysis can never be exaggerated. In this paper, a hybrid LSTM-ARIMA model is proposed for accurate highway traffic flow estimation by exploiting modern deep learning techniques. This model fuses the advantages of Long Short-Term Memory (LSTM) with those of Autoregressive Integrated Moving Average (ARIMA) to improve forecasting accuracy. Based on the experimental findings, LSTM-ARIMA is more effective than both standalone LSTM and ARIMA approaches since it has a stacking MAE of 0.2662 in case of outgoing traffic as compared to 0.5385 for incoming traffic. These findings demonstrate strong evidence that our proposed approach could revolutionize traffic analysis and management to aid transportation authorities and infrastructure developers in making informed choices when planning their cities or municipalities.**

Keywords— traffic analysis, computer vision, LSTM-ARIMA, ARIMA, LSTM, traffic forecast

Analyzing Gamification Impact in Diverse Learning Environments: A Systematic Literature Review

Marchel Hermanliansyah
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
marchel.hermanliansyah@binus.ac.id

Lydiawati Kosasih Asalla
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
lkosasih@binus.edu

Abstract— **In this modern society, there is a visible decline in motivation and productivity across various age groups, specifically in activities like learning which are usually overshadowed by other fun activities like social activities and games. Acknowledging this widespread problem, many people decided to put a game element into non-game contexts to increase engagement and interest which is commonly recognized as gamification. This research will explore how gamification affects diverse learning environments and will involve a Systematic Literature Review as the research methodology. Around 48 journals that were published between 2015 and 2023 will be examined to gain the result. Through data processing and visualization, we can see that most of the literature we examined conveyed that gamification produces a positive impact, but not a few also concluded otherwise or did not discuss the impact of gamification in their studies. From the correlation matrix obtained, the number of implemented gamification concepts also do not have a significant influence on the success of gamification to bring a positive impact on learning activities, the most important thing is how properly gamification is implemented and ensuring that gamification is not used inappropriately. This leaves room for future researchers to conduct further research to identify the specific influence of gamification on improving academic grades. We recommend future research to pay more attention to the process of searching and managing data, we suggest providing citations when necessary to increase the clarity of the point to be conveyed.**

Keywords— gamification, learning, SLR.

Using CNN along with Transfer Learning to Predict Wildfires in Borneo's Topography

Richard Limec
Computer Science Departement,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
richard.limec@binus.ac.id

Roderick Kangson
Computer Science Departement,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
roderick.kangson@binus.ac.id

Anderies
Computer Science Departement,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
anderies@binus.ac.id

Andry Chowanda
Computer Science Departement,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
achowanda@binus.edu

Abstract— **Indonesia has experienced significant carbon emissions resulting from wildfires, and these projections indicate that these emissions are expected to rise over the next decade due to the effects of climate change. These wildfires are due to environmental characteristics, especially ombrotrophic peatlands present in wildfire-prone areas like Borneo. To address the wildfire problem in Borneo, we can try leveraging machine learning models to develop a wildfire prediction model that integrates real-time weather data and a fuel classification system using frameworks like TensorFlow. With the limited resources and remote terrain that Borneo inhibits, we utilize satellite technology for a more efficient and cost-effective approach to wildfire prediction compared to ground-based devices. Utilizing satellite imagery combined with Convolutional Neural Networks (CNNs) to analyze geospatial data for identifying wildfire-affected regions along with a Fire Weather Index adjusted for areas of peatland could result in a more accurate result, with the addition of transfer learning from the model we could produce an accurate result. These results could then be used to enact preventative measures that could reduce the severe impact of wildfires on Borneo's ecosystems and communities.**

Keywords— **CNN, transfer learning, Borneo, wildfire, prediction**

H.E.L.P: Handheld Emergency Locator for Protection – A Tool Against Sexual Violence

Nicky Angel R. Ventura
School of Information Technolog
Aurora State College of Technology
Baler, Aurora, Philipines
angelnickyventura@gmail.com

Angel May T. Tresmanio
School of Information Technology
Aurora State College of Technology
Baler, Aurora, Philipines
angelmaytresmanio@gmail.com

Dicker John C. Padua
School of Information Technology
Aurora State College of Technology
Baler, Aurora, Philippines
pdickerjohn@gmail.com

Dreena Mae Q. Esperancilla
School of Information Technology
Aurora State College of Technology
Baler, Aurora, Philippines
dreenamaeesperancilla@gmail.com

Janyl Dane S. Estabillo
School of Information Technology
Aurora State College of Technology
Baler, Aurora, Philippines
janyldaneestabillo@gmail.com

Prof. Sherwin B. Glorioso
IEEE Graduate Student Member
Aurora State College of Technology
Baler, Aurora, Philippines
sherwinglorioso@ascot.edu.ph

Abstract— **Sexual violence carries lasting impacts on victims, compounded by social stigma, and inadequate support systems. Beyond the trauma, survivors often face social repercussions that manifest in social isolation due to fear of judgment from family and community. The fear of being disliked or disbelieved prevent victims from reporting the assault, allowing perpetrators to escape accountability and potentially harming others. In Baler, Aurora, traditional reporting avenues face challenges with timeliness and confidentiality, hindering victims' access to justice. These delays can hinder timely intervention, evidence collection, and access to essential medical support. This research introduces the Handheld Emergency Locator for Protection (HELP) Tool, an IoT-based device designed to address these challenges. Aligned with UN SDG 16, the HELP Tool promotes peaceful and inclusive society and access to justice for sustainable development. Discreetly embedded in keychains, the HELP Tool allows users to send a distress signal and location coordinates to the police station by pressing the button twice. Enabling rapid distress signaling and location tracking of the HELP Tool empowers potential victims, strengthens community safety, and supports law enforcement in responding to incidents of sexual violence. Developed using an agile methodology, the tool prioritizes user needs and robust functionality. A validation study using a 5-point Likert scale through the ISO 25010 model, involving 5 experts and 15 non-experts (N=20), yielded a positive overall weighted mean of 3.48. It indicates good user acceptance and system quality, and the tool also offers promising solution for deterring sexual violence, fostering a safer community in Baler, Aurora.**

Keywords— IOT, sexual violence, panic button, help, harassment

Factors Influencing the Adoption of Digital Banking Service Super Apps in Indonesia Using Modified UTAUT2 Model

Alvita Hari Kusmanto
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
alvita.kusmanto@binus.ac.id

Stephanie Surja
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
stephanie.surja@binus.ac.id

Abstract— **The rapid development of digitalization post-pandemic in Indonesia has produced multiple potentials in many industries, including digital banking services. These digital banking services are slowly beginning to adopt the new model of super apps in terms of financial context. Existing literature has explored various digital banking services, but none to answer the study of digital banking service super apps in Indonesia. This study aims to further analyze the factors that influence the adoption of digital banking service super apps in Indonesia and to support the lack of data in the specific study using the modified UTAUT2 model. The data were collected from 410 respondents with a history of using at least one of 16 digital banking service super apps in Indonesia. The study revealed that performance expectancy, facilitating conditions, hedonic motivations, and habit significantly influence the adoption of digital banking service super apps in Indonesia. The findings can be used as a basis for further research and development in the Indonesian financial industry in terms of digital banking service super apps, which include both digitalized traditional banking and digital bank apps.**

Keywords— *digital banking service, super apps, UTAUT2, Indonesia*

Implementation of a Diabetes Status Prediction Application Using a Machine Learning Algorithm Approach

Zulkifli Zulkifli
Department of Informatics Engineering,
Faculty of Technology and Informatics
Aisyah University
Pringsewu, Indonesia
zulkifli@aisyahuniversity.ac.id

Sri Wahyuningsih
Faculty of Medicine
UPN Veteran Jakarta
Jakarta, Indonesia
sriwahyuningsih@upnvj.ac.id

Adelia Isni Hendrawan Putri
Department of Informatics Engineering,
Faculty of Technology and Informatics
Aisyah University
Pringsewu, Indonesia
adel@aisyahuniversity.ac.id

Tahta Herdian Andika
Department of Informatics Engineering,
Faculty of Technology and Informatics
Aisyah University
Pringsewu, Indonesia
tahta.herdian.a@aisyahuniversity.ac.id

Panji Bintoro
Department of Software Engineering,
Faculty of Technology and Informatics
Aisyah University
Pringsewu, Indonesia
panjibintoro09@aisyahuniversity.ac.id

Mida Pratiwi
Department of Pharmacy
Faculty of Medicine
Aisyah University
Pringsewu, Indonesia
midapratiwi@aisyahuniversity.ac.id

Abstract— **In Indonesia, corn is the second most important commodity after rice. However, its cultivation has substantial challenges, particularly pests and illnesses. Work must be done to stop the disease from spreading if these challenges are to be solved. Utilizing the symptoms and indicators detected on corn plant leaves, classifying leaf diseases is one technique to improve diagnosis accuracy. The CNN method has recently been used in research on classifying illnesses on corn leaves. The CNN method often employs the softmax loss (cross-entropy) loss function. A downside of the softmax loss is that there are significant intra-class variances. To reduce intra-class variances, the center loss is proposed. According to research, accuracy is higher when using a loss-fused convolutional neural network (LF-CNN), a CNN model that combines two separate loss functions (softmax loss and center loss) than when using a single softmax loss. As a result, the Loss-Fused Convolutional Neural Network (LF-CNN) approach was used in this study to carry out the classification. This method increases accuracy by combining two separate loss functions in the CNN model. The LF-CNN model's for accuracy, sensitivity, and specificity findings were 94.15%, 82.72%, and 96.08%, respectively. This demonstrates that the LF-CNN method outperforms the standard CNN method, which has an accuracy of 92.85%, in diagnosing illnesses on corn leaves.**

Keywords— image classification, convolutional neural network, loss-fusion, corn leaf diseases

Beyond Conventional Banking: Gen Z's Adoption of Digital Services in Indonesia

Jody Fernand Partono
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
jody.partono@binus.ac.id

Ratna Sari
Information Systems Department,
School of Information Systems
Bina Nusantara Univeristy
Jakarta, Indonesia 11480
ratnasari@binus.ac.id

Hery Harjono Muljo
Accounting Department,
School of Accounting
Bina Nusantara University
Jakarta, Indonesia 11480
heryhm@binus.ac.id

Abstract— **This paper investigates Generation Z's (Gen Z) attitudes towards digital banking in Indonesia, with an emphasis regarding the effect of service quality, security concerns, and banking services' accessibility and convenience. Using a Partial Least Square Structural Equation Model (PLS-SEM), the study examined answers from Gen Z individuals who were primarily involved in utilizing digital banking services. The findings emphasize the generation's preference for secure, efficient, and accessible financial services. Contrary to predictions, the quality of services had no significant effect on customer perceptions, implying that Gen Z's expectations may go beyond standard service quality measures. The study's findings are critical for financial institutions looking to increase engagement and happiness among this technologically aware group, emphasizing the importance of strong security measures and convenient, user-friendly service delivery. This study contributes to the theoretical discourse by combining the Technology Acceptance Model (TAM) with nuanced viewpoints on perceived risk, resulting in a more complete understanding of the factors driving Gen Z's adoption of digital banking.**

Keywords— digital banking, generation z, customer attitude, cautiousness, directness

Analyzing Sleep Health From Lifestyle Data Using Lasso Regression

Ascendiazorg Riupassa
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
ascendiazorg.riupassa@binus.ac.id

Putri Ireine Rambi
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
putri.rambi@binus.ac.id

Muhammad Amien Ibrahim
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
muhammad.amien@binus.ac.id

Renaldy Fredyan
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
renaldy.fredyan@binus.ac.id

Abstract— **Optimal sleep is the primary determinant of one's overall well-being and contentment. This study investigates the correlation between lifestyle choices and the quality of sleep by use the Lasso regression technique. The Lasso regression algorithm was employed to analyse lifestyle data obtained from Kaggle. The findings indicate that the Lasso regression model exhibits strong performance, with a training score of 0.9113 and a testing score of 0.8995. Additionally, the model demonstrates a low error rate of 0.1757. The regression coefficient analysis reveals that sleep length, physical activity, stress levels, and the occurrence of sleep disorders are the lifestyle factors with the greatest impact on sleep quality. These findings enhance our comprehension of how lifestyle choices impact the quality of sleep and can be utilised to create more efficient interventions for enhancing sleep quality and general well-being.**

Keywords— *lasso regression, machine learning, sleep health, linear regression, lifestyle.*

Inventory Management Process Efficiency with Enterprise Resource Planning Customization and Configuration (Case Study: Catering Industry)

Diki Ilham Firmansyah
Department of Information System
Telkom University
Bandung, Indonesia
dikiilham@student.telkomuniversity.ac.id

Tien Fabrianti Kusumasari
Department of Information System
Telkom University
Bandung, Indonesia
tienkusumasari@telkomuniversity.ac.id

Taufiq Maulana Firdaus
Department of Information System
Telkom University
Bandung, Indonesia
taufiqmf@telkomuniversity.ac.id

Prihandoko
Department of Informatic
Gunadarma University
Depok, Indonesia
pri@staff.gunadarma.ac.id

Abstract— **Efficiency in the inventory management process through customization and configuration of the Enterprise Resource Planning (ERP) system is very important for the catering industry to ensure timely availability of raw materials and reduce waste thereby improving the evaluation process in raw material storage. A case study was conducted using the Odoo quickstart method to identify the impact of customizing ERP features. Research results show that ERP customization and configuration can reduce inventory management time by up to 50 percent and reduce the recording error rate by 30 percent Customized ERP systems help reflect raw material needs more accurately, thereby improving responsiveness to customer requests. These findings demonstrate the importance and adaptability in ERP implementation to achieve optimal efficiency in inventory management in the catering industry.**

Keywords— ***ERP, catering industry, customization, inventory management, process efficiency measure***

Welcome to Mobile Legends: Unravel the Effects of Habit, Visual Authority, and Hedonic Motivation on In-Game Purchases

Indra Adiputra
International Business Management Program,
Management Department
BINUS Business School Undergraduate Program
Bina Nusantara University
Jakarta, Indonesia 11480
indra.adiputra@binus.ac.id
0000-0002-9971-5772

Muhammad Iqbal Nurfauzan
Management Department,
Institut Budi Utomo Nasional
Majalengka, Indonesia
muhammadiqbalnurfauzan@gmail.com
0000-0002-4120-7214

Abstract— **This study investigates the impact of Habit, Visual Authority Value, and Hedonic Motivation on in-game purchases among Jabodetabek gamers. Through multiple regression analyses with 110 respondents, the research reveals that Visual Authority Value significantly influences in-game transactions, highlighting the importance of social recognition and aesthetic appeal in gamers' decision-making. The results emphasize the interplay of habitual gaming behavior, visual aesthetics, and pleasure-driven motivations in shaping purchasing decisions. Visual Authority Value emerges as the most influential factor, indicating the allure of social prestige and visual elements in driving gamers' transaction choices. Future research avenues could explore these factors across various gaming genres, examine the lasting effects of in-game purchases on player engagement, and investigate strategies to enhance player experiences and loyalty in the mobile gaming industry.**

Keywords— habit, visual authority value, hedonic, motivation, in-game purchase, mobile game

Design of an Automatic Price Tag System for Web-Based Retail Business

Suryadiputra Liawatimena*
*Automotive & Robotics Program, Computer Engineering
Department, BINUS ASO School of Engineering,
Computer Science Deparment, BINUS Graduate Program - Master
of Computer Science
Bina Nusantara University*
Jakarta, Indonesia, 11480
suryadi@binus.ac.id

Devina Gunawan
*Automotive & Robotics Program, Computer Engineering
Department, BINUS ASO School of Engineering
Bina Nusantara University*
Jakarta, Indonesia 11480
devina.gunawan001@binus.ac.id

Abstract— **Modern retail businesses face a significant challenge with the inefficiency of manually changing price labels on shelves. This manual process not only consumes valuable time and resources but also increases the likelihood of errors, leading to potential inaccuracies in pricing and a less streamlined shopping experience for customers. The proposed solution is the implementation of an Electronic Shelf Label (ESL) system that automatically displays the prices of goods on retail business shelves. This system connects a website (front end and back end) to e-paper via a Wi-Fi network and microcontroller, allowing retail business owners to update prices more easily. Additionally, buyers can search for desired items through the website. The results are the time to send data from the website to the e-paper, namely, to know the performance of the e-paper used. The average time required from 10 attempts to send data from the website to the e-paper is 20.935 seconds. Since the data is connected to the server and will be updated automatically, using this system will be more efficient than manually changing the price label, although it takes time to transfer data from the website to the e-paper.**

Keywords— electronic shelf label, e-paper, market website, product innovation, internet of things

Analysis of the Effect of Using Online Trading and Investment Mobile Applications on the Purchase Decision of Indonesian People in Investing in the Indonesian Capital Market

Wilsen Stanley
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
wilsen.stanley@binus.ac.id

Ratna Sari
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
ratnasari@binus.ac.id

Kevin Deniswara
Accounting Department,
School of Accounting
Bina Nusantara University
Jakarta, Indonesia 11480
kevindeniswaraignatius@binus.ac.id

Abstract— **Mobile applications for investing and online trading have grown quickly throughout the world, particularly in Indonesia. Indonesians' online trading and investing habits have improved thanks in part to online trading and investing mobile applications like Stockbit, IpotGO, Ajaib, BCAS (BCA Securities), Neo HOTS Mobile (Mirae Asset Securities), Motion Trade (MNC Securities), and others. Transactions involving online trade and investing are growing and spreading throughout society. The availability of a user-friendly and useful mobile application for online trading and investing may change the investors' and traders' behavior regarding purchase decisions in stocks online trading and investing. This study aims to examine how purchase decisions on trading and investing activity are influenced by perceived usability, friend preferences, E-Word of Mouth, advertising, TAM factors, and impulsive buying factors. The study's participants were Indonesian people who had used mobile applications for online trading and investing to complete transactions. 100 people were purposefully sampled to obtain the sample. The study's findings demonstrated that perceived usability has a positive relationship or influence on TAM factors; (2) friends' preferences, e-WOM, and advertising have a negative relationship or don't have an influence on impulsive buying behavior in stock trading and investing; (3) TAM factors have a positive relationship or influence on stock trading and investing purchase decisions; (4) The behavior of impulsive buying has a negative relationship or doesn't influence purchase decisions on stock trading and investing transactions**

Keywords— **online trading, investment, mobile application, purchase decision, Indonesian capital market.**

Examining the Effectiveness of an AR-Enhanced Waste Sorting Game for Marine Conservation: A UEQ-Based Evaluation

Aldo Arista Wijaya Pujo Wibowo
Computer Science Department, School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
aldo.wibowo@binus.ac.id

Kanz Abdillah Hamada
Computer Science Department, School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
kanz.hamada@binus.ac.id

Fairuz Iqbal Maulana
Computer Science Department, School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
fairuz.maulana@binus.ac.id

Abstract— **Ocean pollution threatens marine ecosystems around the world. It is estimated 4.8-12.7 million metric tons of new plastic waste goes into the ocean every year. It has brought a huge negative impact to more than 1000 marine species. Therefore, we developed AquaVerse AR, an app that leverages Augmented Reality (AR) technology to provide education about marine life and conservation. This application was done by two developers using the Agile method within three weeks. In technical testing, it was found that the success rate of marker detection was 100% at a distance of 30 cm – 80 cm and a height of 60cm with an angle of 20.56 ° – 63.43 °. The results of usability testing using the UEQ method get excellent benchmarks in all aspects, with the highest aspect being attractiveness with a mean of 2.58 and the lowest being novelty with a mean of 1.80.**

Keywords— *ocean pollution, marine conservation, augmented reality (AR), education, agile methodology, user experience questionnaire (UEQ)*

Eludicating the Mediating Role of E-Trust in Customer Satisfaction Augmentation: An Empirical Analysis of E-service Quality in Online Marketplaces

Veny Megawati
Faculty of Business and Economics
University of Surabaya
Surabaya, Indonesia
veny.megawati@yahoo.com

Adi Prasetyo Tedjakusuma*
Department of Business Administration
Chaoyang University of Technology
Taichung, Taiwan,
Faculty of Business and Economics
University of Surabaya

Surabaya, Indonesia
atedjakusuma@staff.ubaya.ac.id

Li-Wei Liu
Department of Business Administration
Chaoyang University of Technology
Taichung, Taiwan
llouis@cyut.edu.tw

Andri Dayarana K. Silalahi
Department of Marketing and Logistics Management
Chaoyang University of Technology
Taichung, Taiwan
andridksilalahi@gmail.com

Abstract— **To stay ahead of the competition and keep customers coming back, businesses must understand what makes people happy and trusted. However, there is a gap in research when it comes to grasping how things like benefits and good customer service impact trust and satisfaction in online services. This study intends to study the gap by investigating service quality aspects that influence trust, which then leads to satisfaction. Using SmartPLS for testing hypotheses, the research looks at data from customers who use marketplaces to validate the proposed model, including both direct and mediating effects. The results show that emotional benefits and customer service affect e-trust, which then boosts satisfaction. On the other hand, efficiency, privacy and reliability had less of an impact, through trust. This study adds to our knowledge of marketing by highlighting the importance of connecting with customers and providing services for a better online shopping experience.**

Keywords— e-service quality, e-satisfaction, e-trust

User Experience Evaluation on Mobile Application for Indonesian Passport Using Sentiment Analysis and Cognitive Walkthrough

Amilia Purnama
Information Systems Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
amilia.purnama@binus.ac.id

Marcelina Lailatul Fitria
Information Systems Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
marcelina.fitria@binus.ac.id

Ryandhika Yudhistira Widyaputra
Information Systems Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
ryandhika.widyaputra@binus.ac.id

Sunardi
Information Systems Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
sunardi@binus.ac.id

Abstract— **This research has contributed to the improvement of the government's application and introduces a novel combination of sentiment analysis methods and cognitive walkthrough. The rise in overseas travel among Indonesians, influenced by the ASEAN Economic Blueprint 2025, has highlighted the need for digital passports, especially during and after COVID-19. Despite the Immigration Division's development of the M-Paspor app, it has received poor reviews and low ratings on the Apple Store (1.3 stars) and Google Play Store (2.5 stars). This research examines user experience through sentiment analysis of reviews and cognitive walkthroughs with both experienced and inexperienced users. Findings reveal that user sentiment is mostly negative, with common complaints. The cognitive walkthrough indicates widespread frustration and difficulty, particularly with registration, login, document upload, and date selection. Recommendations for improvement have been made for the UI design of the several pages. Additionally, recommendations for UX design improvements include moving the location and date selection to the final step and adding a reminder feature during the date selection stage. This research enhances M-Paspor app design, providing insights through user feedback and thorough analysis.**

Keywords— **cognitive walkthrough, m-paspor, sentiment analysis, user experience**

uitPETransMDS: A PE Malware Detection System Using a Hybrid Approach of Transfer Learning and Image Visualization

Trinh Gia Huy
Faculty of Information Systems
University of Information Technology,
Faculty of Information Systems
Vietnam National University
Ho Chi Minh City, Vietnam
20520556@gm.uit.edu.vn

Luong Nguyen Thanh Nhan
Faculty of Information Systems
University of Information Technology,
Faculty of Information Systems
Vietnam National University
Ho Chi Minh City, Vietnam
20520667@gm.uit.edu.vn

Nguyen Tan Cam*
Faculty of Information Science and Engineering
University of Information Technology,
Faculty of Information Science and Engineering
Vietnam National University
Ho Chi Minh City, Vietnam
camnt@uit.edu.vn

Abstract— **The rapid expansion of devices and computers, alongside technological advancements, has led to a corresponding increase in malicious attacks. Malware attacks represent a significant global threat in cyberspace. Despite the concerted efforts of security researchers and security companies to mitigate these attacks, they remain a persistent challenge. This has prompted a substantial focus on research endeavors to combat malicious software. Recent advancements in artificial intelligence have spurred various research efforts in malware detection. This paper focuses on detecting and classifying malware using transfer learning models, such as variants of VGG, ResNet, and MobileNet, on a grayscale image-based PE dataset with dimensions of 64 x 64 x 3 pixels. The proposed architecture comprises three modules. The first module is responsible for converting the PE binary file to a grayscale image. The second module aims to identify whether the input file is malicious or benign. Among the models tested, MobileNetV1 achieved the highest performance with an accuracy of 98.70% and an F1-score of 96.46%. The third module, utilizing the ResNet101 model, is responsible for malware classification (five different types in the dataset). It achieved an accuracy of 98.78% and an F1-score of 97.52% on the testing set.**

Keywords— *portable executable file, malware gray-scale image, malware detection system, imbalanced data enhancement, transfer learning, ResNet101, MobileNetV1*

uitSQLid: SQL Injection Detection Using Multi Deep Learning Models Approach

Dong Thi Ngoc Tram
Faculty of Information Science and Engineering
University of Information Technology,
Faculty of Information Science and Engineering
Vietnam National University
Ho Chi Minh City, Vietnam
tramdtn.18@grad.uit.edu.vn

Nguyen Tan Cam[*]
Faculty of Information Science and Engineering
University of Information Technology,
Faculty of Information Science and Engineering
Vietnam National University
Ho Chi Minh City, Vietnam.
camnt@uit.edu.vn

Abstract— **Injection attack is the most common risk in web applications. There are various types of injection attacks like LDAP injection, command injection, SQL injection, and file injection. Among these, SQL injection is often found in web applications that utilize databases. There has been significant research related to SQL injection attacks. In this study, we propose a system to detect SQL injection attacks by using various deep learning models (named uitSQLid). We employ natural language processing (NLP) approaches during the data processing stage and for feature vector creation. The three NLP models used are BERT, DistilBERT and Word2Vec. We utilize two deep learning models. The first one is Convolutional Neural Network model (CNN). The second one is Long Short- Term Memory networks model (LSTM). Experimental results show that our proposed system achieves an impressive accuracy of 99.73%. These results can be used to further develop related studies in the future.**

Keywords— *SQL injection detection, natural language processing, CNN, LSTM, BERT, Word2Vec*

The Design Science Research Methodology for Knowledge Sharing System in Consulting Firm

Muhamad Firdaus
Department of Information System
Institut Teknologi Sepuluh Nopember
Surabaya, Indonesia
mfirdausutg@gmail.com

Erma Suryani*
Department of Information System
Institut Teknologi Sepuluh Nopember
Surabaya, Indonesia
erma.suryani@gmail.com

Reny Nadlifatin
Department of Information System
Institut Teknologi Sepuluh Nopember
Surabaya, Indonesia
reny.nadlifatin@gmail.com

Abstract— **Knowledge Sharing (KS) is essential for Consulting Firms to enhance project effectiveness and efficiency, improve client service quality, and achieve a competitive advantage in an increasingly competitive and complex market. By leveraging information technology, Consulting Firms can effectively facilitate the KS process. The objective of this study was to develop KS service artifacts that include KS measurements and to identify individual involvement and influence in KS activities, representing a novel contribution to existing research. This study elucidates the process of artifact development from the perspective of Design Science (DS) research. As a case study, KS service artifacts with measurement and identification of individual involvement and influence were developed within a Consulting Firm using the Design Science Research Methodology (DSRM) approach. DSRM was selected for its efficacy in designing and developing artifacts tailored to organizational needs. This study contributes to the advancement of DSR in Information Systems, particularly within the limited scope of KS, providing a valuable reference for future research.**

Keywords— *design science research methodology, knowledge sharing, consultancy firm, KS measurement*

Enhancing Two-Factor Authentication with Deep Speaker Recognition on Librispeech Dataset

Cindy Natasya
Mathematics Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
cindy.natasya@binus.ac.id

Alexander Agung Santoso Gunawan
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
aagung@binus.edu

Siti Komsiyah
Mathematics Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
citie_math@binus.ac.id

Abstract— **Technological developments have a big impact on every sector, especially the financial sector. Currently, the security level in the financial sector uses two factor authentication which generally uses a pin and fingerprint for the authentication process. Therefore, researchers developed a speaker recognition system using the DeepSpeaker model which uses triplet loss for the training process and uses cosine similarity to measure the level of speaker similarity which is applied to website applications. The method used by the author in this research is to compare the DeepSpeaker model and Gaussian Mixture Models to find out the appropriate method for the two-factor authentication process. The results of this research show that the DeepSpeaker model achieved an accuracy of 0.998 with an equal error rate of 0, while the Gaussian Mixture Model produced 0.83 with an equal error rate of 0.33. Therefore, researchers concluded that the DeepSpeaker model is a suitable method for the voice recognition process using two authentication factors.**

Keywords— **speaker recognition, DeepSpeaker, two factor authentication, GMM**

MycoAR: Augmented Reality Mobile Application for Mycology Education

Salomo Agung Adrianto Rehmina Hutapea
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
salomo.hutapea@binus.ac.id

Kristania Yohana Tumilaar
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
kristania.tumilaar@binus.ac.id

Ady Nugroho
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
ady.nugroho@binus.ac.id

Fairuz Iqbal Maulana
Computer Science Department,
School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
fairuz.maulana@binus.edu

Abstract— **Augmented reality (AR) technology represents a powerful tool for enhancing learning experiences across a range of disciplines. Although AR has significant potential, it is necessary to examine its unique influence on teaching mycology, a complex discipline that might substantially benefit from interactive and immersive learning methods. This project introduces MycoAR, a cutting-edge augmented reality (AR) application developed to facilitate comprehension of fungal creatures and their environments. MycoAR is a Unity-based application that integrates digital content with the physical world, providing students with a comprehensive and dynamic educational experience. The testing process involved a total of eighteen participants and yielded three significant discoveries. (1) Augmented reality (AR) technology significantly enhances students' understanding and memory of mycology material; (2) The application improves the learning process by presenting information in a visually captivating format, surpassing conventional methods; (3) The capabilities of Unity enable the creation of an interactive and practical AR application. The findings indicate that MycoAR provides a distinct and effective technique for teaching mycology. This suggests that augmented reality (AR) technology can play a vital role in updating educational approaches and enhancing student achievements in intricate scientific disciplines.**

Keywords—augmented reality, mycology education, interactive learning, unity development

User Experience Analysis for Cinema Application Using Content Analysis From Online Reviews and Usability Testing

Eriza Ilzar Zhafira
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
eriza.zhafira@binus.ac.id

Alika Anggia
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
alika.anggia@binus.ac.id

Dyah Wahyu Sukmaningsih
Information Systems Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
dyah.wahyu@binus.ac.id

Abstract— **One of the essential aspects that determine the success of information technology product development in mobile application development is the ability of the product to resolve user problems and provide usefulness effectively. There is a mobile application for ordering online cinema tickets, namely Cinema C. However, there are many negative reviews from users regarding the app's usability in the Google Play Store and App Store. This study aims to analyze user experience and usability in terms of effectiveness, efficiency, and user satisfaction and provide recommendations for interface design to improve the user experience in this application. The research method used is a mixed method that combines qualitative and quantitative data. Qualitative data was obtained through content analysis from user reviews and short interviews from usability testing that were analyzed using affinity diagrams. The quantitative data was obtained by measuring the effectiveness, the efficiency, and the level of satisfaction from the usability testing results. Based on the usability testing results, several usability problems were found, which became references and suggestions for alternative designs to solve these problems and improve usability. The alternative design has also been evaluated with the results of an average completion rate of 92%, the average result of time-based efficiency for five tasks is 0.018 goals/sec, the average result of overall relative efficiency is 93%, and the user satisfaction value based on the SUS questionnaire is 84, which is an acceptable category.**

Keywords— *human computer interaction (HCI), usability, user experience, usability testing, system usability scale (SUS)*

Navigating the E-Learning Landscape: A Comparative Analysis between ElevateEd LMS and other Learning Management Systems in the Philippine Educational Context

Glendora V. Tiu
International Students Services Offices
National University-Manila
Manila, Philippines
gvtiu@national-u.edu.ph

Rachelle F. Marcoso
College of Computing and Information Technologies
National University-Manila
Manila, Philippines
marcosorf@students.national-u.edu.ph

Angelique D. Lacasandile
College of Computing and Information Technologies
National University-Manila
Manila, Philippines
adlacasandile@.national-u.edu.ph

Adrianne Bleu R. Canivel
College of Computing and Information Technologies
National University-Manila
Manila, Philippines
canivelar@students.national-u.edu.ph

Kenneth R. Gunay
College of Computing and Information Technologies
National University-Manila
Manila, Philippines
gunaykr@students.national-u.edu.ph

Mark James G. Cayabyab
College of Computing and Information Technologies
National University-Manila
Manila, Philippines
mgcayabyab.national-u.edu.ph

Abstract— **The educational system in the Philippines is undergoing significant changes due to the adoption of Learning Management Systems (LMS) as a means of delivering online education. However, not all LMS are equally suited for the needs and challenges of the out-of-school youth [OSY], a marginalized and underserved population in the country. This study introduces ElevateEd, a dedicated LMS that aims to provide accessible, engaging, and relevant online education for this target population. This study initiates a comparative analysis, with the aim of evaluating ElevateEd alongside other preexisting LMS. The objective of this study is to be able to identify the unique characteristics, strengths, and potential areas of enhancements within ElevateEd. A systematized search and selection process was carried out to identify two (2) comparable Learning Management Systems (LMS) within the educational context of the Philippines, which are: TESDA Online Program (TOP), and the DSWD Learning Management System (DSWD LMS). The findings of the study showcased distinct attributes for each LMS, highlighting ElevateEd's focus on OSY, TOP's nationwide reach with a diverse range of courses, and DSWD LMS's emphasis on social welfare development for internal staff and partners. The discussions delved into the potential impact of each LMS, such as ElevateEd's contribution to agricultural skill development, DSWD LMS's role in enhancing capabilities for community service, and TOP's broader impact on national workforce development.**

Keywords— *comparative analysis, e-learning, online education, learning management system, out-of-school youth*

Digital Art Technology: Interactive Signage for Sustainable Development of Bajulmati Sea Turtle Conservation Area

Christoforus Justine Pranoto
Visual Communication Design Department,
School of Design
Bina Nusantara University
Jakarta, Indonesia 11480
christoforus.pranoto@binus.ac.id

Yudhistya Ayu Kusumawati
Visual Communication Design Department,
School of Design
Bina Nusantara University
Jakarta, Indonesia 11480
ykusumawati@binus.edu

Asri Radhitanti
Visual Communication Design Department,
School of Design
Bina Nusantara University
Jakarta, Indonesia 11480
asri.radhitanti@binus.ac.id

Kukuh Lukiyanto
Entrepreneurship Department,
BINUS Business School Undergraduate Program
Bina Nusantara University
Jakarta, Indonesia 11480
kukuh.lukiyanto@binus.ac.id

Abstract— **This research is based on the issue of the declining sea turtle populations in Indonesia, specifically in East Java. Therefore, conservation efforts are needed to preserve the sea turtle habitats. However, the behavior of conservation visitors and the local community often causes damage either conservation areas or the habitats. Through this issue, this study aims to develop a solution that can educate visitors and the community about the regulations in conservation areas and sea turtle habitats. The research was conducted in stages, including data collection through observation, interviews, questionnaires, and reviews of existing literature from previous studies. The result of this research will be a digital interactive signage system that will be implemented in the conservation area. Therefore, understanding how to create digital interactive signage that can attract the attention of visitors while providing essential information desired by the conservation owners is essential. This study also requires feedback from both the conservation owners and visitors regarding the desired signage format.**

Keywords— sea turtle, conservation, signage, communication, effectiveness

How The Knowledge Management Improving The Technological Innovation Capabilities: Indonesia SMEs Context

Gogor Arif Handiwibowo
Management Science Doctoral Program,
Brawijaya University
Malang, Indonesia
gogor_mmt@student.ub.ac.id
Dept. of Business Management,
Institut Teknologi Sepuluh Nopember
Surabaya, Indonesia
gogor@mmt.its.ac.id

Armanu Thoyib
Dept. of Management,
Faculty of Economics & Business
Brawijaya University
Malang, Indonesia
armanu@ub.ac.id

Ainur Rofiq
Dept. of Management,
Faculty of Economics & Business
Brawijaya University
Malang, Indonesia
rofiq@ub.ac.id

Fatchur Rohman
Dept. of Management,
Faculty of Economics & Business
Brawijaya University
Malang, Indonesia
fatchur@ub.ac.id

Abstract— **Post Covid-19 conditions are very complex and unpredictable because the business environment is very dynamic. Various literature recognizes innovation as a strategy in dealing with this phenomenon for organizations to maintain their competitive advantage. Meanwhile, for every business organization, accumulated knowledge has the potential to produce innovation. The point of knowledge management (KM) towards innovation is to provide philosophical studies at a conceptual level in an effort to improve and develop organizational aspects for innovation. This research tries to explore further the correlation between knowledge management and technological innovation capability (TIC) dimensions, especially for business organizations at the Small and Medium Enterprise (SME) level. There were 216 respondents taken from a total population of 350 at SME Logam Ngingas, so the response effectiveness rate in this study was 61.71%. This research tries to explore how knowledge management is able to influence the dimension of TIC. In the context of the SME Logam Ngingas, the highest correlation is between KM & Manufacturing capabilities. Meanwhile, the lowest correlation is between KM and R&D capabilities.**

Keywords— *innovation, knowledge management, technological innovation capabilities, SME*

E-Government Interoperability: Provincial-Level Architecture Model to Enable Fast Healthcare Interoperability Resources (FHIR)

Diana Wijayanti
Department of Information Systems,
BINUS Graduate Program
Bina Nusantara University
Jakarta, Indonesia 11480
https://orcid.org/0000-0003-0936-9835
Satriawansyah Urbaya

Senior ICT Specialist
Country Health Information
Systems
and Data Use (CHISU) ProgramUSAID
Indonesia
Jakarta, Indonesia 12930
https://orcid.org/0009-0002-6573-4462

Taufiq Hamzah Sitompul
Department of Informatics
University of Oslo
Oslo, Norway 0316
https://orcid.org/0000-0001-6147-2659

Verry Adrian
Center of Data and InformationTechnology
Jakarta Provincial Health Office
Jakarta, Indonesia 10160
dr.verry@gmail.com

Abstract— **The process of using ICT to provide services to the public is known as the Indonesian e-Government system, or Sistem Pemerintahan Berbasis Elektronik (SPBE). The e- Government initiative in Jakarta Provincial Health Office involves enhancing collaboration among public health entities for efficient data exchange and streamlined processes, especially between the Provincial and District Health Offices, public hospitals, government clinics, and primary health care centers (Puskesmas). Achieving interoperability requires standardized protocols and a well-defined architectural model to integrate data seamlessly. This study presents a provincial-level architectural model focused on improving electronic health records interoperability, aiming to promote the adoption of the national Fast Healthcare Interoperability Resources (FHIR) health information exchange platform and enhance the integrity of health data in Jakarta. The study methodology involves conducting literature reviews, observations, and discussions with representatives from healthcare facilities to develop the e- Government architecture model and prototype of the infrastructure layer aiming to facilitate the interoperability of Electronic Health Records (EHRs) across 93 healthcare facilities, all of which are part of the SPBE users.**

Keywords— e-Government, interoperability, fast healthcare interoperability resources, SATUSEHAT

Smart-home System using The Fuzzy Logic Method On The Nodemcu Platform

Novianti Fitti Suswanti Santi
Computer Science Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
novianti.santi@binus.ac.id

Maulana Rizal Hilman
Computer Science Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
maulana.hilman@binus.ac.id

Zidni Ilma
Computer Science Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
zidni.ilma@binus.ac.id

Dwi Listriana Kusumastuti
Information System Department,
School of Information Systems
Bina Nusantara University
Jakarta, Indonesia 11480
dlistriana@binus.ac.id

Emny Harna Yossy*
Computer Science Department,
BINUS Online Learning
Bina Nusantara University
Jakarta, Indonesia 11480
emny.yossy@binus.ac.id

Abstract— **One of the significant technological advances is smart home systems, which aim to increase comfort, productivity, and security at home. The fuzzy logic method is used in this research to provide adaptive decision-making capabilities based on data from various sensors. Additionally, the NodeMCU platform allows us to integrate various sensors in smart-home systems easily. This study shows how Internet of Things (IoT) technology can help everyday life by making homes more intelligent and more comfortable. The implementation and evaluation results show that using the fuzzy logic method and NodeMCU in the context of a smart home improves the user experience, creating a home that is smarter, more comfortable, and responsive to the needs of residents. This research opens the door to further developing how to use the Internet of Things (IoT) to improve the performance and intelligence of smart home systems. The testing method in this research uses integration and system testing, and an evaluation method uses black box testing. The test results confirm the successful implementation of automatic control of lights and fans based on environmental conditions, such as darkness and temperature, and show the user's ability to control the device via a smartphone application, monitor temperature, and check the status of the lights.**

*Keywords— **fuzzy logic, Internet of Things, NodeMCU, smart-home***

Explainable AI for Detecting Rice Leaf Disease: A Smartphone Application Utilizing Deep Transfer Learning

Mohammad Naimul Islam Shanto
Department of Computer Science & Engineering
International Islamic University Chittagong
Kumira,Chattogram-4318,Bangladesh
naimulislam11032@gmail.com

Arfanul Islam
Department of Computer Science & Engineering
International Islamic University Chittagong
Kumira,Chattogram-4318,Bangladesh
arfanulislam1998@gmail.com

Md.Sorowar Mahabub Rabby
Department of Computer Science & Engineering
International Islamic University Chittagong
Kumira,Chattogram-4318,Bangladesh.
sorowarmahabub.bsc.cse.iiuc@gmail.com

Mohammed Mahmudur Rahman
Department of Computer Science & Engineering,
International Islamic University Chittagong
Kumira,Chattogram-4318,Bangladesh
mmr.cse@iiuc.ac.bd

Md. Khorshed Ali
Department of Computer Science & Engineering,
International Islamic University Chittagong
Kumira,Chattogram-4318,Bangladesh
khorshed.chem.cse@iiuc.ac.bd

Zulkifly Mohd Zaki
Faculty of Science and Technology
University Sains Islam Malaysia
Nilai, Malaysia 71800
zulkifly@usim.edu.my

Abstract— **Plant diseases threaten global food security by limiting access to safe food and reducing agricultural productivity. Rice, which is necessary for global food security, is prone to diseases. Timely diagnosis and treatment are critical to reducing losses in production, necessitating the development of novel detection of disease systems. Convolutional neural networks (CNNs) can detect diseases in plant leaves although training them requires huge datasets of classified images, which can be costly and consume time. This study presents a novel method to identify rice leaf disease by deep transfer learning. Here, we tested CNN, DenseNet121, EfficientNet-B4, VGG16, VGG19 and Resnet50 architectures on a dataset of 2100 rice disease photos that achieved accuracy of 88.636%, 90.342%, 97.159%, 92.045%, 91.667% and 93.371% respectively. Where the EfficientNet-B4 outperforms. The proposed method requires significantly fewer training data while maintaining good accuracy. These simulation results demonstrate the feasibility and efficiency of early disease detection in rice, making it an affordable and practical option for resource-constrained underdeveloped nations. This has the potential to support the production of nutritious foods. We developed a system in a mobile application that uses deep learning and image processing to diagnose rice leaf diseases quickly. Our technology employs image processing to automatically detect disease indications on leaves or plants, giving farmers timely information and treatment alternatives. This leads to improved disease control. Our research also investigates deep learning models interpretability using Saliency maps and Grad-CAM techniques, providing useful insights into decision-making. These insights are accessible via a mobile app.**

Keywords— *rice leaf, Deep Transfer Learning, disease detection, Classification Algorithm, Saliency Map, Grad-CAM*

Preventing Cyber Adversaries: Examining BlackCat Ransomware's Tactics and Preventive Measures for Enhanced Cybersecurity

Eric Blancaflor
School of Information Technology
Mapua University
Makati, Philippines
ebblancaflor@mapua.edu.ph Eileen Cailyn

Rae Bautista
School of Information Technology
Mapua University
Makati, Philippines
crbautista@mymail.mapua.edu.ph Kezia

Donald Oliver S. Gavino Jr.
School of Information Technology
Mapua University
Makati, Philippines
dosgavinojr@mymail.mapua.edu.ph

Bryce Angeles
School of Information Technology
Mapua University
Makati, Philippines
bnangeles@mapua.edu.ph

Jose Roberto J. Kam
School of Information Technology
Mapua University
Makati, Philippines
jrjkam@mymail.mapua.edu.ph

Abstract— **Ransomware attacks serve as an example of how cyber adversaries provide a constant and changing threat in the digital age, making it imperative to fully comprehend their strategies and take preventative action to reduce risks. This study explores the subtleties of the highly skilled cyber threat known as BlackCat ransomware, examining its strategies and suggesting countermeasures to strengthen cybersecurity. By looking at this, the study hopes to provide cybersecurity experts and companies with the information they need to strengthen their defenses against the growing threat of ransomware.**

Keywords— AlphV, BlackCat, cybersecurity, malware, mitigation, ransomware

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