



2022 International Conference on
Information Management and Technology
(ICIMTech)

11 - 12 August 2022
Indonesia

Conference Book

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Greetings!

Honorable Participants/Researchers/Delegates/Professors
Distinguish Guests,



It is a great pleasure and privilege to join the 2022 International Conference on Information Management and Technology (ICIMTech 2022) held hybrid in Semarang city, Indonesia. These seventh consecutive years of ICIMTech were organized by the School of Information Systems, Bina Nusantara University, in 2016. The conference objective is to become a receptacle for researchers and experts in information systems to share their knowledge, experiences, and expertise focusing on the theme "Fostering Digital Information."

A great appreciation to the IEEE Indonesian Section for continuous support and as honorable keynote speakers for sharing knowledge and research experiences. ICIMTech 2022 is organized under the technical support of the IEEE. Sincere gratitude to national and international Peer-Reviewers who volunteered and allocated precious time to review papers.

The highest appreciation to the committees and volunteers who made this international conference happen; they worked hard day and night. At the end of the Covid-19 pandemic, but possibly facing an economic recession, ICIMTech 2022 received 379 papers (last year 330 papers), and 129 tremendous papers (158 papers previously) were accepted and would be presented at this conference. The paper's authors are from Indonesia, Malaysia, Saudi Arabia, Taiwan, Canada, France, and Brunei. All papers are highly selected and limited to author or co-authors, for not more than five papers each since this year.

This event is an excellent opportunity for networking and discussions among all participants on the latest information management and technology issues. Hopefully, researchers, academicians, professionals, and students will contribute to improving knowledge and experiences, especially in Big Data and Data Mining, Business Intelligent, e-Business, Human-Computer Interaction, Information Engineering, Knowledge Management, Information systems Audit, Management Information systems, and Strategic Information System. A warm welcome to all participants who come to this conference both on-site and through a virtual conference. Thank you and enjoy the conference!

Sincerely Yours,

Dr. Erwin Halim, MM, MBA
General Chair ICIMTech 2022



WELCOMING REMARKS

General Chair BINUS Joint International Conference (BJIC) 2022



H.E. Prof. Dr. Ir. Harjanto Prabowo, MM., Rector, BINUS University
Vice rectors, Directors, Deans, and Professors,

Distinguished keynote speakers, ladies and gentlemen,

Let us praise God the Almighty for His merciful blessings as we gather here to attend The 7th International Conference on Information Management and Technology (ICIMTech) 2022 as part of BINUS Joint International Conference (BJIC) 2022.

This year BJIC consists of 5 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)**, chaired by Elioenai Sitepu, S.T., M.Sc., Ph.D., was held in Jakarta, 22 - 23 June 2022;
2. **International Conference on Information Management and Technology (ICIMTech)**, chaired by Dr. Erwin Halim, M.M., M.B.A, is held now in Semarang, 11-12 August 2022;
3. **International Conference on Business, International Relations and Diplomacy (ICOBIRD)**, chaired by Dr. Lili Yulyadi, will be held in Jakarta from 13-14 October 2022;
4. **International Conference on Eco Engineering Development (ICEED)**, chaired by Dr. Suryadi, M.Eng., will be held in Jakarta, 16 – 17 November 2022;
5. **International Conference on Computer Science and Computational Intelligence (ICCSCI)**, chaired by Dr. Abdul Haris Rangkuti, will be held in Jakarta from 17 – 18 November 2022.

BJIC has been an integrated effort to enhance the research and publication productivity of the faculty member since September 2018. This year we innovate by engaging industry closer to the academia and vice versa. An Indusial forum is the first step to commercializing the research product of the faculty members and getting ideas and feedback from the industry pertaining to specific needs of the industry and society.

The 7th ICIMTech, specifically, aims to bring together researchers and experts in information systems to share their ideas, experiences, and insights on related fields. ICIMTech is organized by School of Information Systems, Bina Nusantara University, and supported by IEEE Indonesia Section.



ICIMTech 2022 would focus on fostering digital innovation in society, delivered through the keynote speakers and distinguished lecturers.

Distinguished guests, ladies and gentlemen,

This conference is also very special because our keynote speakers are prominent scholars and professionals from Malaysia, Indonesia, and United Kingdom who contribute to the discussion of 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 do appreciate their contribution to these conferences.

Last but not least, I would like to thank all chairpersons of the five conferences and committee members who have been working very hard to make this conference possible. I would also like to thank the presenters, participants, our reviewers, and publishers of the paper presented at the conferences, as well as the partner and sponsor of this event. I hope you enjoy the conference!

Thank you very much.

Jakarta, 11 August 2022

Prof. Dr. Tirta N. Mursitama, PhD
General Chair BJIC 2022



Welcome Message

Welcome to the 7th International Conference on Information Management and Technology (ICIMTech 2022) held from 11-12 August (hybrid from Semarang). This is the seventh conference hosted by School of Information Systems, BINUS University (Bina Nusantara University). In the last seven years ago through this conference, we believe many researchers have been helped to develop their research work through constructive interaction with experienced academics. Learning from mature research and stimulating discussion with academics, practitioners, and more experienced researchers in the conference has turned ICIMTech to be a melting pot of multi-generation researchers. And for this year more than 250 delegates worldwide participate in the conference as participants and presenters. We are very excited to have all of you to join in this great event.



ICIMTech provides a scientific platform for both local and international scientists, engineers and technologists who work in all aspects of information, communication, and technology. It aims to be a prime international forum for both researchers and industry practitioners to exchange the latest fundamental advances in the state of the art and practice of information, communication, and technology, identify emerging research topics, and define the future of technology.

We congratulate the authors of papers that made it into the proceedings and to IEEE Xplore, for the job well done. We wish to express strong appreciation to our most important sponsors: BINUS University and IEEE Indonesia Section. We are also blessed to have three distinguished Guest Speakers: Professor Athman Bouguettaya, Professor Fergyanto E. Gunawan, and Associate Professor Dr Dimitar Kazakov. As always, many thanks are due to all members of ICIMTech committee for their dedication for making this conference a success. Above all, thank you to all of you for participating to this conference.

Our conference next year ICIMTech 2023 in Indonesia and we look forward to seeing all of you again and hope you enjoy the virtual conference this year.

Sincerely Yours,

Yohannes Kurniawan

Dean of School of Information Systems
Bina Nusantara University



WELCOMING REMARKS

Rector BINUS University



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

It is a great honor for me to welcome you to the 7th International Conference on Information Management and Technology (ICIMTech), hybrid hosted by School of Information Systems, BINUS University.

BINUS University's vision 2035 has underlined the clear message of fostering and empowering society in building and serving the nation. We realize that contribution of research, publication, and commercialization of research products is very important in achieving the vision.

This conference is also part of continuing efforts in creating and disseminating knowledge as well as creating research and industry partnerships among faculty members, industry representatives, and distinguished scholars from all over the world.

Ladies and gentlemen,

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 strongly advise making use of this conference wisely, not only discussing research but also trying to build new joint research, publication, faculty exchanges, and so on.

Finally, I also thank all the chairperson and committee members of the conference. I wish all of you a great conference and make new acquaintances during the conferences.

Thank you very much.

Jakarta, 11 August 2022

Prof. Dr. Ir. Harjanto Prabowo, MM

Rector, BINUS University



WELCOMING REMARKS IEEE INDONESIA SECTION



Dr.-Ing. Wahyudi Hasbi, SMIEEE
Chair, IEEE Indonesia Section



**Prof. Ir. Gamantyo Hendrantoro, M.Eng.,
Ph.D, SMIEEE**

Vice Chair, IEEE Indonesia Section

Dear Distinguished Guests, Colleagues, researchers, professionals, ladies, and gentlemen.

A prosperous, warm, and spirited greeting.

On behalf of the IEEE Indonesia Section, we would like to extend our warmest welcome to all keynote speakers, presenters, and participants to the 7th International Conference on Information Management and Technology (ICIMTech 2022) held as a hybrid conference at Semarang, Central Java, Indonesia on 11th – 12th August 2022. I also want to thank all of you who have joined this conference.

ICIMTech is yearly organized by the School of Information Systems, Bina Nusantara University and The conference aims to bring together researchers and experts in information systems to share their ideas, experiences, and insights, focus on **Fostering Digital Innovation**; delivered through the Keynotes Speakers and Distinguished Lecturers.

As we are all aware, the impact of COVID-19 is felt in every aspect, and there has been a shift in the standard of living. As more attentions are increasingly being focused on contactless task options, remote work arrangements, utilization of online and demand platforms, digitization of customer services, outsourcing of information technology and infrastructure, and turning to e-commerce; organizations and businesses should continue to adopt digital innovations to navigate these,



towards ensuring their timely recovery post-CoViD-19 pandemic and continuous survival. Hence The conference theme is relevant to these rapid changes.

IEEE Indonesia Section has conducted many activities over 34 years in Indonesia. In terms of collaboration, the IEEE Indonesia section has a good and mutual relationship with ICT organizations, Industries, Governments, Universities, and the Community in Indonesia.

IEEE Indonesia Section has contributed to more than 60 international conferences annually, and this conference is one of the conferences that IEEE Indonesia Section supported. As the seventh year of ICIMTech, this conference shows its sustainable quality due to the hard work of the conference organizers, well-organized conference, and high-quality papers. We hope that some high-quality conferences will be continued and strengthened soon to benefit and positively impact human beings, especially Indonesian people.

Finally, we do hope all of you will have an enjoyable and valuable experience during this event. You may share your best knowledge in your area of research and professional activities.

Thank you.

Jakarta, 11 August 2022

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Keynote Speakers

Professor Dr. Patrick Then



Professor Dr. Patrick Then is Director of the Centre for Digital Futures Swinburne Sarawak. Patrick is a strong advocate of R&D and commercialization of innovations in Big Data, Data Mining, and Internet of Things.

Topic: Digital Innovation in Healthcare

Abstract:

Digital innovation in healthcare has tremendously accelerated since 2020. Covid19 with worldwide lockdown posted extraordinary challenge to the whole healthcare ecosystem in the world. Research and development in digital health has gained unprecedented acceptance by users and progressed significantly. Its progress in the past two years exceeded accumulative progress in the past ten years preceding covid19 pandemic. We witnessed many corporations fell and rose in the past two years depending on their adaptation to the new paradigm resulted from covid19 pandemic and global lockdown. Patients are readier than ever to receive healthcare service delivered to their homes. Technology innovators are making internet of things (IoT) devices more affordable and ubiquitous so that healthcare providers can monitor patients who stay at their homes without commuting to clinics or hospitals. Investors are shifting their funding into multidisciplinary research and innovation to push digital health agenda forward to benefit more stakeholders especially patients. Innovation is indeed the mantra of this era.

Prof. Fergyanto E. Gunawan, Dr. Eng.



Professor Fergyanto E. Gunawan, Dr. Eng. is a Professor in Engineering of BINUS Graduate Program, Bina Nusantara University. He received his Doctoral Degree in Structural and System Engineering is from Toyohashi University of Technology, Toyohashi, Japan.

Topic: Computational Social Science: Intelligence Agent in Teamwork Dynamics

Abstract: Computational social science has been a fast-growing research field in the last decade. One of the exciting research topics within the area is using a computational model to quantify the team effectiveness in solving any given task with various levels of

skillsets, analytic and social intelligence, social and teamwork abilities, and communication skills. In this respect, the dimensions relevant to each individual within the team are motivation, collaborative behavior, communication skill, and social skillsets, in addition to hard skills. A few agent-based models have been developed to investigate the teamwork dynamics in various contexts. For example, Janus, the combat model of the United States Army, an interactive, six-sided, closed, stochastic ground combat simulation, is widely used to support acquisition processes and as an operational planning tool. KABOOM or Kirton Adaption--Innovation Inventory Agent--based Organizational Optimization Model is a framework to investigate the interaction effects of teamwork interactions, including communication patterns, specialization, and cognitive style composition on the team design performance. In this talk, we will describe the latest developments in computational social science, particularly related to the study of teamwork dynamics utilizing an intelligent agent. We propose a framework to design an intelligent agent model with an agent-based simulation approach. We will also demonstrate the team dynamics in solving problems involving agents of various skillsets, tasks with multiple levels of difficulty, the effects of the agent's experience and personal motivation, and tasks with dynamically changing the level of difficulty.

Dr Dimitar Kazakov



Dr. Dimitar Kazakov is a Senior Lecturer (Associate Professor) in Computer Science at the University of York, and coordinator of the CS Artificial Intelligence group. His research encompasses the development of Machine Learning (ML) and Evolutionary Algorithms and their applications to Natural Language Processing, real-time systems, intelligent agents, function optimization and financial forecasting.

Topic: Multirelational Learning and its Applications to Recommender Systems and Financial Modelling

Abstract: Machine learning (ML) approaches can achieve impressive results, but many lack transparency or have difficulties handling data of high structural complexity. The class of ML variously known as multirotational learning or Inductive Logic Programming (ILP) draws on the expressivity and rigor of First Order Logic to represent both data and models. ILP output is a prime candidate for explainable artificial intelligence; the expense being computational complexity.

This talk will introduce the principles behind ILP and its main bottleneck, the evaluation of models, then show how this critical step can be sped up dramatically through the use of concurrency.

We shall focus on a class of learners using description logics to represent data and models, i.e. the same formalism that underlies the representation of knowledge graphs.

The result is an approach providing a seamless integration between a knowledge graph, a deductive reasoner, and an inductive learner.

Two types of applications of ILP will also be discussed. In the first case, we shall demonstrate how this type of learning in logic can be applied to ordinal data in order to acquire models of users' preferences, and how these models can be used in recommender systems. The second case study will look at the use of a combination of stock market prices and company reports to select profitable portfolios for the so-called pairs trading.

References:

Qomariyah, Nunung Nurul, Kazakov, Dimitar and Fajar, Ahmad. (2020). On the benefit of logic-based machine learning to learn pairwise comparisons. Bulletin of Electrical Engineering and Informatics. 9. 2637-2649. 10.11591/eei.v9i6.2384. <https://tinyurl.com/2p99pzfs>

PROGRAM INFORMATION

Program at a Glance

August 11th, 2022

Jakarta and Semarang Local Time (UTC+7)

Agenda	Time
Registration	08.30 AM – 09.00 AM (UTC+7)
Opening	09.00 AM – 09.25 AM (UTC+7)
Keynote Speech (Session 1)	09.25 AM – 10.00 AM (UTC+7)
Coffee Break	10.00 AM – 10.30 AM (UTC+7)
Keynote Speech (Session 2)	10.30 AM – 11.10 AM (UTC+7)
Keynote Speech (Session 3)	11.10 AM – 11.50 AM (UTC+7)
Q&A	11.50 AM – 12.05 AM (UTC+7)
Closing	12.05 AM – 12.10 AM (UTC+7)
Lunch Break	12.10 AM – 01.00 PM (UTC+7)
Parallel Presentation (Session 1)	01.00 PM – 03.00 PM (UTC+7)
Coffee Break	03.00 PM – 03.30 PM (UTC+7)
Parallel Presentation (Session 2)	03.30 PM – 05.30 PM (UTC+7)

August 12th, 2022

Jakarta and Semarang Local Time (UTC+7)

Agenda	Time
Parallel Presentation (Session 1)	09.00 AM – 11.00 AM (UTC+7)

Keynote and Q&A Room

Agenda/Room	Link to Join	Meeting ID	Password
Keynote Session	https://bit.ly/icimtech22b	945 4283 8756	
ICIMTechQNA	https://bit.ly/ICIMTECH2022Lounge	994 0120 8905	icimtech22

Parallel Room
Thursday, 11th August 2022

ONSITE Binus@Semarang

Onsite Room Library
(Session Chair: Drs. Suroto Adi, M.Sc., D.M.S.)

Live Presentation: https://bit.ly/ICIMTECH2022Library	Meeting ID: 999 0284 5477 Meeting Password: icimtech22
01:00 PM - 03:00 PM	Identifying Important Usernames in 'Biofarma' Conversation using Twitter Network Analysis Reza Rahutomo, Ainun Jariyah, Joko Pebrianto Trinugroho, Bens Pardamean
	Database Management System Design Improvement for Child Stunting Data Collection in Multiple Observation Areas Reza Rahutomo, Gregorius Natanael Elwirehardja, Nicholas Dominic, Benedict Caesario, Bens Pardamean
	Using fuzzy sets Qualitative Comparative Configuration to Predict Consumer Travel Behavior from Instagram: The Role of Social Media Influencers Wen-Kuo Chen, Pantas H. Silaban, Cheng-Hui Chi, Widya Elisabeth Hutagalung, Andri Dayarana K. Silalahi
	IoT Architectural Design for Microgreens Cultivation Felicia Evan, Nur Anisa, Siti Julianingsih Nurfitiryani, Jennifer Alexandra
	The Impact of Online Review on Customers Patronage Intention on Restaurant or Eating Places Aldian Eka Tanudjaja, Valdi Hutomo Siady, Vincent Meidianto, Dyah Wahyu Sukmaningsih, Erwin Halim, Ferdianto
	Usage Evaluation of the Dana Digital Payment Sulistyo Heripracoyo, Abdul Malik Karim Amrullah, San Karya
	Strategy and Design of Digital Tourism Promotion Mobile Applications at the District or City Level in Indonesia Suroto Adi
03:00 PM - 03:30 PM	BREAK
03:30 PM - 05:30 PM	How To See Social Media Strategy of Coffee Shop in Indonesia (Data Analysis Perspective) Yohannes Kurniawan, Dendy Tiawan Putra, Fachri Iskandar, Muhammad Yusuf Dimas, Johan, Norizan Anwar
	Understanding Artificial Intelligence Adoption Predictors: Empirical Insights from A Large-Scale Survey Placide Poba-Nzaou, Anicet Sylvère Tchibozo
	Proposed IT Governance Model for Smart Tourism Destinations based on COBIT 2019 Framework SITI ELDA HIERERRA, Ford Lumban Gaol, Suhono Harso Supangkat, Benny Ranti
	Social Media in Business Intelligence as a Solution Toward Social Problems: A Systematic Literature Review Evaristus Didik Madyatmadja, Siti Elda Hiererra, David Jumpa Malem Sembiring, Ryo, Debri Pristinella

Onsite Room 1
(Session Chair: Dr. Evaristus Didik Madyatmadja, ST., M.Kom., M.T)

Live Presentation: https://bit.ly/ICIMTECH2022Onsite1	Meeting ID: 968 2904 6546 Meeting Password: icimtech22
01:00 PM - 03:00 PM	Analysis of Data Quality and Data Privacy Factors on The Factors of Intention to Buy and Decision to Buy on e-Commerce during Pandemic COVID-19 Surjandy, Bella Vierena, Cadelina Cassandra
	Understanding Consumers' Intentions to Use E-Commerce in Indonesia Anderes Gui, Astrid F. Purnama, Lucia Panduwinata, Muhammad S. Shaharudin, Anwar A. Pitchay, Yuvaraj Ganesan
	Risk Invalidation of Data in Banking Information System in Indonesia Willy Kristian, Mochammad Isro Alfajri, Bela Oktavia, Annisa Nofitriandi, Wiza Teguh
	Business Intelligence Design for Non-Customer Profiling System: Case Study Cloud Hosting Company Christian, Erwin Tedjakusuma Limas, Hanny Juwitasary, Kevin Vieri Antoni, Edi Purnomo Putra
	Challenges of Implementation Business Intelligence: A Systematic Literature Review Evaristus Didik Madyatmadja, Joni Suhartono, David Jumpa Malem Sembiring, Puspita Shabira, Asprina Br Surbakti
	Social Commerce Research Trends: A Systematic Literature Review Cadelina Cassandra, Hanny Juwitasary
03.00 PM - 03.30 PM	BREAK
03:30 PM - 05:30 PM	Evaluation of Online Field Practice Information Systems Refer to Agile Method Lukman Hakim, Lutri Veflina, Dina Fitria Murad, Rosilah Hassan. Bambang Dwi Wijanarko, Riyan Leandros
	ANALYSIS OF FACTORS AFFECTING THE REUSE OF ONLINE FOOD DELIVERY SERVICE APPLICATIONS Natalia Limantara, Jimmi Lianto Kurniawan, Kevin, Fredy Jingga
	The Use of Public Cloud Services Among Students for Online Learning Rosilah Hassan, Dina Fitria Murad, Wahiza Wahi, Riyan Leandros, Nurul Halimatul Asmak Ismail, Samer A. B. Awwad
	The Use of Deep and Machine Learning For Face Expression Recognition : a Literature Review Gusti Pangestu, Harco Leslie Hendric Spits Warnars, Benfano Soewito, Ford Lumban Gaol
	Analysis of AI-enabled Service Quality and Personalization to Continuous Usage Intention Erwin Halim, Muhamad Kharisma Buana, Hendry Hartono, Ferdianto, Marylise HEBRARD
	Impact of Gamification Element Towards Continuance Intention at Indonesia Marketplace Erwin Halim, Desy Sandra, Hendry Hartono, Dyah Wahyu Sukmaningsih, Marylise Theresa HEBRARD

Onsite Room 2
(Session Chair: Tri Pujadi, S.Sos., M.M., CDMS)

Live Presentation: https://bit.ly/ICIMTECH2022Onsite2	Meeting ID: 940 4525 6488 Meeting Password: icimtech22
01:00 PM - 03:00 PM	Empowerment Village Community Through the Rawang Village Information System (SiDeRa) Immanuel Saragih, Abdel Khairefo Eka Putra, Triana C Baringbing, Dina Fitria Murad
	Online Learning Experience Assessment Survey During the Covid-19 Pandemic Rosilah Hassan, Dina Fitria Murad, Wahiza Wahid, Bambang Dwi Wijanarko, Nurul Halimatul Asmak Ismail, Samer A.B. Awwad
	Designing Smart Energy Contract with Blockchain Technology Gunawan Wang, Kevin Sugandi
	Using E-SCM to Improve Performance in Manufacturing Companies Tri Pujadi, Rudy Rudy, Yuliana Lisanti
	Escape Room Mobile Game Design for Remote Learning Shavira Andysa, Muhammad Wildan, Fifi Sarasevia, Wiza Teguh, Natalia Limantara
	Customer Impulsive Buying Behaviors in Indonesia E-Marketplace Erwin Halim, Venny Cornelya, Hendry Hartono, Marisa Karsen, Marylise HEBRARD

Parallel Room
Thursday, 11th August 2022

ONLINE

Online Room 1 (Session Chair: Mediana Aryuni, S.Kom., M.Kom., CDAP)	
Live Presentation: https://bit.ly/ICIMTECH2022Online1	Meeting ID: 954 2154 4994 Meeting Password: icimtech22
01:00 PM - 03:00 PM	Influence of Technological, Social, and Individual Factors on Security and Privacy Take-up of Digital Banking Ayasha Nadira Widyadhana, Putu Wuri Handayani, Pramitha Dwi Larasati
	Consumer Buying Behavior in Online Travel Agent: A Preliminary Finding Sevenpri Candra, Sisilia Nita, Ooi Kok Loang, Ida Nyoman Basmantra, Novianty Krisna Wong, Meiliana
	Recommendation System Model for Personalized Learning in Higher Education using Content-Based Filtering Method M. Ramaddan Julianti, Yaya Heryadi, Budi Yulianto, Widodo Budiharto
	Automatic Sales Order Collection from a Top Indonesian Retailer's E-Procurement Website by using Selenium Jessica Devina, Win Ce
	Integrated Healthcare Ecosystem with SaaS Support Enhancing Patient Engagement and Emergency Handling Process in Indonesia Michelle Elisia Cahyadi, Kevin Irawan, Win Ce
	Critical Success Factor of Digital Start-Up Business to Achieve Sustainability: A Systematic Literature Review Desi Maya Kristin, Yakob Utama Chandra, Mohamad Noorman Masrek
03.00 PM - 03.30 PM	BREAK
Live Presentation: https://bit.ly/ICIMTECH2022Online1	Meeting ID: 954 2154 4994 Meeting Password: icimtech22
03:30 PM - 05:30 PM	Selection of Agile Method Management for ERP Development System Using Analytic Hierarchy Process Method in PT. ABC Ali Gunawan
	Knowledge Management System Design for Health Stores in PT. ABC Ali Gunawan
	Design and Development of Assets Management System Using Spring Webflux And Command Pattern Jason Setiadi, Abdul Haris Rangkuti
	The essential factor of metaverse for business based on 7 layers of metaverse– Systematic Literature Review Kristian Daniel Setiawan, Alvin Anthony, Meyliana, Surjandy
	Development of Healthy Lifestyle Users Based on Intelligent System Felia Putri Nadilla, Sheriene Sutedjo, Yuda Saputra, Abdul Haris Rangkuti, Evawaty Tanuar, Rissa Rahmania
	FACTORS AFFECTING BEHAVIORAL INTENTION AND USE BEHAVIOR OF E-COMMERCE USERS FROM GEN-Z USING UTAUT2 MODEL Alda Rizka Samila, Nabilah Poetri Shabrina, Siswono Akuan Rokanta

Online Room 2
(Session Chair: Ir. Hudiarto, M.M.)

Live Presentation: https://bit.ly/ICIMTECH2022Online2		Meeting ID: 925 3495 0357 Meeting Password: icimtech22	
01:00 PM - 03:00 PM	Implementation of Single Sign-on System for User Management at PT.XYZ Achmad Syarif, Arief Ainun Nazmi, Muhammad Nur Soleh, Arief Agus Sukmandhani, Jenny Ohliati		
	The ICT Paradox in Indonesia: ICT Investment and Firm Profitability Mohamad Ikhsan Modjo, Steven Loekman, Amelia Limijaya		
	Machine Learning Face Recognition Model for Employee Tracking and Attendance System Andry Chowanda, Jurike Moniaga, Joan Christina Bahagiono, Joko Sentosa Chandra		
	The Effects of Evangelist Marketing Activities on Menantea's Brand Equity (Study on Nihonggo Mantappu Indonesian Community) Asna Dila, Anindya Widita, Galuh Ayu Savitri, Gabriella Sagita Putri		
	Indonesia Covid-19 Pandemic Social Media Analysis With Text Mining Hilda Adelia Ahmad, Angelina Novianti Winarlie, Eka Miranda		
	Smart Mobile Phone Charging Stations for Public Service as Smart Cities Component Andi Pramono, M. Aldiki Febriantono, Tiara Ika Widia Primadani, Agung Purnomo, Fairuz Iqbal Maulana, Ira Audia Agustina		
03.00 PM - 03.30 PM	BREAK		
Live Presentation: https://bit.ly/ICIMTECH2022Online2		Meeting ID: 925 3495 0357 Meeting Password: icimtech22	
03:30 PM - 05:30 PM	Development of Supply Chain Spare Part Application in Maintenance, Repair, and Overhaul (MRO) Industry using Blockchain Technology Christopher Richardo, Nadeem Abdur Rasheed, Tb. Naufal Arya Maulana, Alexander A S Gunawan		
	Improving Employee Performance Through Digitalization: Designing a Web Based Human Resource Management Ray Tommy, Niccosan, Christian Kurniawan, Brilly Andro Makalew		
	The Role of Social Media in Nourishing Digital Ambidexterity Among MSMEs: Rasch Model View Maria Grace Herlina, Karto Iskandar, Banu Rinaldi		
	Understanding The Factors Influencing Consumer Purchase Intentions via Instagram Shopping Feature Desman Hidayat, Erick Fernando, Christian Haposan Pangaribuan		
	Applying Internet Of Things Framework In Real Estate Business With Enterprise Architecture Approach Gunawan Wang, Jarot S. Suroso, David Sanusi, Justin Arden Tanuwijaya, Tiohienritch Fitzdave Irvinne Theodora		
	The Essential Factors of Web 3.0 Affecting 7 Layers of Decentralized Web in Business or Industry Calvin Vernando, Hendry Hitojo, Randy Steven, Meyliana, Surjandy		

Online Room 3
(Session Chair: Dr. Eka Miranda, S.Kom., MMSI.)

Live Presentation: https://bit.ly/ICIMTech2022Online3		Meeting ID: 991 28943999 Meeting Password: icimtech22	
01:00 PM - 03:00 PM	The Influence of Environmental Awareness and Green Marketing Mix 2.0 Strategy on Brand Loyalty Dony Saputra, Divani Mutiara Punky Adellia		
	Information Technology Usage: Shariah Compliant Companies of Malaysia and Indonesia Anderes Gui, Hasnah Haron, Idris Gautama So, Elfindah Princes, Synthia Atas Sari		
	The Impact of Influencer Marketing on Online Advertising Click and Buying Behaviour During COVID-19 Surjandy, Janette Agatha		
	Predicting Confidentiality, Integrity, and Availability from SQL Injection Payload Yohan Muliono, Chrisando Ryan Pardomuan, Aditya Kurniawan, Mohamad Yusof Darus, Muhammad Azizi Mohd Ariffin		
	A Data Warehouse Schema for Monitoring Regional COVID-19 Case Registration Timotius Felix Setiadi, Reza Rahutomo		
	Social Network Analysis of Campaign Mobilization Of Marketplace On Twitter Fitri Handayani, Lidya Wati Evelina, Adrian Fitzgerald Tinihada		
03:00 PM - 03:30 PM	BREAK		
Live Presentation: https://bit.ly/ICIMTech2022Online3		Meeting ID: 991 28943999 Meeting Password: icimtech22	
03:30 PM - 05:30 PM	Web Information System Design for Fast Protein Post-Translational Modification Site Prediction Gregorius Natanael Elwirehardja, Nicholas Dominic, Bens Pardamean		
	SENTIMENT ANALYSIS ON THE PERCEPTION AND MINDSET OF THE PEOPLE OF INDONESIA ON THE USE OF VACCINES TO DEAL WITH THE COVID-19 PANDEMIC USING THE TEXT MINING METHOD Ijlal Hauzan Hidayat, Risqi Eko Parwanto, Rudy		
	Drone Application Model for Image Acquisition of Plantation Areas and Oil Palm Trees Counting Hermantoro Sastrohartono, Andiko Putro Suryatmo, Shoffan Saifullah, Teddy Suparyanto, Anzaludin Samsinga Perbangsa, Bens Pardamean		
	Database Design for Indonesian Scholarship Recommender Systems Gregorius Natanael Elwirehardja, Jason, Nicholas Dominic, Bens Pardamean		
	Model of Expected Benefit, E-Learning Curriculum, and Education Partners on E-Learning Indriana, Doni Purnama Alamsyah, Nina Kurnia Hikmawati		
	ICT-Based Conceptual Model for Local Culture Communities Using Soft System Methodology Hendro Nindito, Harjanto Prabowo, Spits Warnars Harco Leslie Hendric, Sfenrianto		

Online Room 4
(Session Chair: Joni Suhartono, S.Kom., M.M.)

Live Presentation: https://bit.ly/ICIMTECH2022Online4		Meeting ID: 989 8434 4955 Meeting Password: icimtech22	
01:00 PM - 03:00 PM	Social Media Analysis in Building Customer Trust – Systematic Literature Review Irma Irawati Ibrahim		
	Emotional Expression Recognition: A Systematic Literature Review Indrajani Sutedja, Jesslyn Septhia		
	Performance Analysis of Hooks Functionality in React and Vue frameworks Jason Sianandar, Ida Bagus Kerthyayana Manuaba		
	The Usage of Generative Adversarial Network for Image: A Systematic Literature Review Indrajani Sutedja, Jesslyn Septhia		
	REGION GROUPING BASED ON SALES RESULTS USING K-MEDOIDS ALGORITHM AT PT RMK Fathur Muhammad Haekal, Indrajani Sutedja		
	Utilization of Blockchain Technology in Making Police Record Certificates (SKCK) Using an Enterprise Architecture Approach Jarot Sembodo Suroso, Chessa Maulana Akbar Kusnanto, Devi Alfitria Anggraeni, Gunawan Wang, Dito Widiagusti		
03.00 PM - 03.30 PM	BREAK		
Live Presentation: https://bit.ly/ICIMTECH2022Online4		Meeting ID: 989 8434 4955 Meeting Password: icimtech22	
03:30 PM - 05:30 PM	Assessment of Knowledge Conversion Process in Online Learning Practice Using SECI Framework Case Study: Bina Nusantara University Mahaning Indrawaty Wijaya, Diana Utomo, Suzanna, Noviyanti T. M. Sagala, Vincent Colin		
	Adopting TOGAF to SME Information System Mahaning Indrawaty Wijaya, Inayatulloh, Tri Pujadi, Ika Diyah Candra Arifah		
	The Dissemination of Electric Control Installation Based on Microcontroller Through Digital Application in the Vocational School Environmental Mariko Rizkiansyah, Mastur, Ulani Yunus		
	The Indonesian Surface Weather Observation Monitoring System for Data Availability Kartika Purwandari, Join W. C. Sigalingging, Mayanatela Putri, Mahisa Ajy Kusuma		
	Contact Tracing Applications During The Pandemic Era: A Systematic Literature Review Johan Felix Alfarrel, Noerlina Noerlina		
	Analysis of Factors Affecting the Intensity of Mobile Transportation Applications Usage in Pekanbaru Kenny Charles, Anderes Gui, Yudi Fernando, Ridho Bramulya Ikhsan, Ernawaty, Maria Gabby		

Online Room 5
(Session Chair: Richard, S.Kom., M.M)

Live Presentation: https://bit.ly/ICIMTECH2022Online5		Meeting ID: 963 9989 9784 Meeting Password: icimtech22	
01:00 PM - 03:00 PM	Adopting Augmented Reality (AR) Technology in Retail Sector: Systematic Review of Prisma Methods Maryani, Harjanto Prabowo, Ford Lumban Gaol, Ahmad Nizar Hidayanto		
	The Effect of Financial Literacy and Fintech Knowledge on Fintech Services Usage Mulyono		
	Overconfidence Educated Young Males: A Study on Cryptocurrency Investors in Indonesia Mohamad Ikhsan Modjo, Fendi Santoso		
	Integration Model of Multiple Payment Gateways for Online Split Payment Scenario Muchsin Hisyam, Ida Bagus Kerthyayana Manuaba		
	Implementation of REST API vs GraphQL in Microservice Architecture Naman Vohra, Ida Bagus Kerthyayana Manuaba		
	Student Satisfaction Analysis in E-Learning Usage Based on Service Quality, Information Quality, and System Quality in Indonesian Higher Education Kevin Jonathan, Anderes Gui, Muhammad Shabir Shaharudin, Angellia Debora Suryawan, Henricus Bambang Triantono, Yunita Kartika Sari		
03:00 PM - 03:30 PM	BREAK		
Live Presentation: https://bit.ly/ICIMTECH2022Online5		Meeting ID: 963 9989 9784 Meeting Password: icimtech22	
03:30 PM - 05:30 PM	Escalating Digital Mastery for Strengthening Resilience and Sustainability in Small Businesses Nopriadi Saputra, Engkos Achmad Kuncoro, Muhammad Rihan Rauf Azkiya		
	Digital Capability as The Enabler of Business Agility and Firm Resilience in the Public Companies Nopriadi Saputra, Ferdinand Sadeli, Retnowati WD Tuti		
	Acceptance analysis on online health application during COVID-19 pandemic in Jakarta using TAM Nathan Margono, Cadelina Cassandra		
	Digital Competence as a Mediator for The Leadership in Empowering Workforce Agility Nopriadi Saputra, Gerry Patrick, Ronald		
	Analysis of Behavior Intention to Use Fitness Mobile Application with the UTAUT2 Model Sharfina Mazaya, David Candra F.W.H., Cadelina Cassandra		

Online Room 6 (Session Chair: Dr. Arta Moro Sundjaja, S.Kom., S.E., M.M., CDMS)	
Live Presentation: https://bit.ly/ICIMTECH2022Online6	Meeting ID: 927 2502 9439 Meeting Password: icimtech22
01:00 PM - 03:00 PM	How HRIS and HPWS affect on employee performance in the HR division using online shared services? Rini Kurnia Sari, Renarris Rizky Arvada, Yolanda, Syifa Amalia
	Analysis of Intention and Use of Audit Tools Linked Archive System (ATLAS) at Public Accounting Firms Rindang Widuri, Hidayatullah, Intan Novianti
	Modeling of Web-Based Monitoring Dashboard for Performance Evaluation of Power Generator Machines (Case Study: Indonesia State Electricity Corporation) Puti Humaira, Ratna Juwita Fauziah, Tito Bagaswara, Suharjito
	Analysis of Effective Online Learning Media during Covid-19 Pandemic (Study of Student's and Teacher's Perception) Rezky Yoga Pratama, Bayu Hernowo Aji, Herdyan Gamasya Putra, Ratna Sari
	Digital Village Analysis and Design using Design Thinking Method: Case Study of Village Management Website Nuril Kusumawardani Soeprpto Putri, Nadya Rosmala, Stefanny Roseliana, Dara Syah Maharani, Hudiarto Sukarman
03:00 PM - 03:30 PM	BREAK
Live Presentation: https://bit.ly/ICIMTECH2022Online6	Meeting ID: 927 2502 9439 Meeting Password: icimtech22
03:30 PM - 05:30 PM	The Country Readiness in Adpoting Continuous Auditing Technology - The Case of Indonesia Rosaline Tandiono, Theodore Yana Federicco
	Enhanced Personality Prediction: Fusing Structural and BERT-Based Lexical Features on Augmented Twitter Data Roslynlia, Derwin Suhartono
	IT Infrastructure and Perceived Ease of Use to Increase E-Learning Adoption Norfaridatul Akmaliah Othman, Doni Purnama Alamsyah, Satrio Matin Utomo
	Comparison of Social Media Marketing Strategy of Indonesian Digital Bank Companies in Attracting Unbanked Youths Rudy, Rozan Naufal Zhafran
	Factors Influencing Online Shopping Intention in Indonesia Yonatan Andrian Audrey, Albert Setiawan Wiguna, Salma Ayuningtyas Ramadhani, Anderes Gui

Online Room 7 (Session Chair: Drajad Wiryawan, S.E., M.M., CEH., CHFI, CSCA, CBDMP, PSM I, CDAP)	
Live Presentation: https://bit.ly/ICIMTECH2022Online7	Meeting ID: 963 7678 1898 Meeting Password: icimtech22
01:00 PM - 03:00 PM	COVID-19 FACTORS AND INTEREST RATES IMPACTING ON BITCOIN PRICE: A CASE STUDY IN ASEAN-5 COUNTRIES Shinta Amalina Hazrati Havidz, Michael Liputra, Mahda Karina
	The Analysis of Online Order Mobile Application Using User Experience Questionnaire (A Case Study Approach) Sugiarto Hartono, Faizah Shahudin, Hermawan Honggo Widagdo, Tommy Hendrawan
	DISCIPLINE, IMPACT, AND CHALLENGES OF VIRTUAL REALITY IN HIGHER EDUCATION: A SYSTEMATIC LITERATURE REVIEW Sunardi, Achmad Nizar Hidayanto, Meyliana, Harjanto Prabowo
	Impact of Student Engagement, Satisfaction, and Perception of Learning in Multi Channel Learning during COVID-19 Pandemic Meyliana, Henry Antonius Eka Widjaja, Rozan Rizqulloh Shofwanyuda, Bella Vierena, Josephine Edward Andersen
	Factors influencing Customer's Satisfaction and Impact to Customer Purchase Intention in Indonesia's Online Marketplace Suryanto, Erwin Ang Jaya, Nathanael Elbert William, Winarto
03.00 PM - 03.30 PM	BREAK
Live Presentation: https://bit.ly/ICIMTECH2022Online7	Meeting ID: 963 7678 1898 Meeting Password: icimtech22
03:30 PM - 05:30 PM	Challenges in Coronavirus Contact-Tracing Application Implementation in Indonesia: Users' Perspective Widia Resti Fitriani, Putu Wuri Handayani, Achmad Nizar Hidayanto
	Analysis of User Acceptance of Indonesian Society to Use Online Investment Application Tanty Oktavia, Edrick Devano, Abuzar Alghifari, Willsen Andrian, Verdy Wahyudi, Falend Muzafaat Suharlin
	An Evaluation of Human Capital Module of SAP System with Unified Theory of Acceptance and Use of Technology (UTAUT) Method: A Case Study Veronica, Stephanie Surja
	SMEs Data Pre-Processing: The First Step in Validating Instruments on Entrepreneurial Capacity Website Syahrul Effendi, Yasinta Indrianti, Any Sayekti, Arief Fahruri, Mario Istar
	THE EFFECTIVENESS OF ONLINE PROJECT-BASED LEARNING (PJBL) TO IMPROVE SUSTAINABILITY EDUCATION AT PRIVATE UNIVERSITY Tanty Oktavia, Agung Prayoga, Vincent, Kenth, Vannesa Devani, Ivena Milewis, Ford Lumban Gaol, Takaaki Hosoda

Parallel Room
Thursday, 12th August 2022

ONLINE

Online Room 1
(Session Chair: Yakob Utama Chandra, SE., MMSI, CDMS, CBDMP, CDAP)

Live Presentation: https://bit.ly/ICIMTECH2022Online1-2	Meeting ID: 940 2245 7165 Meeting Password: icimtech22
09:00 AM - 11:00 AM	Evaluation model of e-learning systems implementation by using factor analysis and regression analysis method Wahyu Sardjono, Aninda Rahmasari, Johan, Erma Lusia
	Preferences of students for online education on Pramuka Island Thousand Island DKI Jakarta during the COVID-19 Pandemic Wahyu Sardjono, Aninda Rahmasari, Johan, Erma Lusia
	Dissemination Model of Environmental Conservation Through the Development of Environmental Knowledge Management Systems Wahyu Sardjono, Johan
	Performance Factors Analysis of the Digital Sharing Economy Yakob Utama Chandra, Chandra Gunawan, Fretes Budiwan Tandrian, Stanislaus Seanbert
	Entrepreneurial Mindfulness Website: Entrepreneur profile Survey through Artificial Intelligence Yasinta Indrianti, Sasmoko, Nugroho Juli Setiadi, Nor Fadila Mohd Amin

Online Room 2
(Session Chair: Andreas Raharto Condrobimo, S.I.P., M.Kom., CDMS)

Live Presentation: https://bit.ly/ICIMTECH2022Online2-2	Meeting ID: 943 1123 7090 Meeting Password: icimtech22
09:00 AM - 11:00 AM	The Influence of Gamification Implementation on Customer Loyalty in Mobile Commerce Applications Bhaskoro Siddhi Pradhana, Muhammad Fachri Anandito, Mohamed Al Kwarizmi Dwi Anggara, Putu Wuri Handayani
	Project Management SaaS Feature Framework for MSMEs in Indonesia Santy, Yulia Magdalena
	A Survey on Electronic Dialogue, Risk Assessment, Customer Access, and Customers Relationship Lifetime Puji Tri Lestari, Yudi Fernando, Ridho Bramulya Ikhsan, Ika Sari Wahyuni-TD, Yudhita Valen Prasarry, Fineke Mergeresa
	YouTube Playlist: Iconic Song Triggers Nostalgic Memory and Function of Nostalgia Esther W. Andangsari, William J. Herlie, Rani A. Fitri, Evi A. Hurriyati, Meilani Dhamayanti
	The Impact of E-WOM, Online Communities, Online Advertisement on Brand Loyalty, and Buying Behaviour During COVID-19 Pandemic Surjandy, Sheilline Gabriella Widjaja

Online Room 3 (Session Chair: Dr. Erwin Halim, SPT., M.M., CBDMP, CDMS)

Live Presentation: https://bit.ly/ICIMTECH2022Online3-2	Meeting ID: 958 0607 6525 Meeting Password: icimtech22
09:00 AM - 11:00 AM	Implementation of National Samsat Online Application (SAMOLNAS) : Applying The Unified Model of Electronic Government Adoption (UMEGA) Levana Dhia Prawati, Mahda Karina, Ainaya Balqis
	The Effect of Responses to User-Generated Content on Brand Equity in Social Media Erwin Halim, Narendra, Nuril Kusumawardani Soeprapto Putri, Ignatius A. Sandy
	The Customer Behavior Data Analysis Towards Use of Digital Wallet During Covid-19 Pandemic Yohannes Kurniawan, Febrio Evan Hartanto, I Made Dwiparna, Reynaldi Evans Adam, Norizan Anwar, Devyano Luhukay
	Analysis of The Use of E-Money during the COVID-19 Pandemic of University Students Yohannes Kurniawan, Rusaida Al Adha, Aditya Ryandana Islami, Ravinka Briantino Waruwu, Norizan Anwar, Erwin Halim
	Utilization of Augmented Reality Technology as a Presentation Media in the Interior Sector Nuni Andaresta Sukiati, Pangeran Rasyach Artha Hasibuan, Fairuz Iqbal Maulana, Ida Bagus Ananta Wijaya

Online Room 4 (Session Chair: Dr. Sulisty Heripracoyo, S.I.P., M.M.)

Live Presentation: https://bit.ly/ICIMTECH2022Online4-2	Meeting ID: 997 9202 8290 Meeting Password: icimtech22
09:00 AM - 11:00 AM	The Effectiveness of Management Accounting Systems in Brunei Small and Medium Enterprises Hamizatul Diyana Narudin, Ulaganathan Subramanian, Farahiyah Kawi
	Proposing Tourism Chatbot by Employing The Wisdom of Crowds in Building Its Knowledge Base Albert Verasius Dian Sano, Adriel Anderson Stefanus, Elizabeth Paskahlia Gunawan
	Acceptance of Miro and Padlet as Collaboration Tools on Hybrid Flipped Learning & Case-Based Learning in Education 4.0 (a case study approach) Marisa Karsen, Harijanto Pangestu, Desi Maya Kristin
	THE E-LEARNING EFFECT ON LEARNING ACTIVITIES DURING COVID-19 PANDEMIC IN HIGHER EDUCATION Kendrick Ewaldo, I Gusti Bagus Gallant Bayu Abadi, Putu Kamaiso Chekitana, Ratna Sari
	Examining the Determinant Factors of Intention to Use of Quick Response Code Indonesia Standard (QRIS) as a Payment System for MSME Merchants Brata Wibawa Djoyo, Safira Nurzaqia, Salsa Imbartika Budiarti, Syerina Agustin
	Impact Analysis of Digital Banking Applications on Disrupting Traditional Banking Industry Michael Siek, Luin Yatnalaksita Parasdyayatma Rukma

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- Research paper will be scheduled for oral presentation, where each session is allocated 2 hours for 5-6 paper presentations.
- Please make sure your connection is stable during the presentation.
- Please join your parallel session 15 minutes before the session start, and make sure that your file runs appropriately.
- Please make sure that you finish your presentation in **15 minutes** and leave 3 minutes for Q&A.

ABSTRACT

Table of Content

Recommendation System Model for Personalized Learning in Higher Education using Content-Based Filtering Method	1
Identifying Important Usernames in 'Biofarma' Conversation using Twitter Network Analysis	2
Challenges in Coronavirus Contact-Tracing Application Implementation in Indonesia: Users' Perspective	3
Web Information System Design for Fast Protein Post-Translational Modification Site Prediction	4
Consumer Buying Behavior in Online Travel Agent: A Preliminary Finding	5
Analysis of Data Quality and Data Privacy Factors on the Factors of Intention to Buy and Decision to Buy on e-Commerce during Pandemic COVID-19	6
Influence of Technological, Social, and Individual Factors on Security and Privacy Take-up of Digital Banking... ..	7
Social Media Analysis in Building Customer Trust – Systematic Literature Review	8
Implementation of REST API vs GraphQL in Microservice Architecture	9
The Country Readiness in Adopting Continuous Auditing Technology – The Case of Indonesia	10
Sentiment Analysis on the Perception and Mindset of The People of Indonesia on the Use of Vaccines to Deal with the Covid-19 Pandemic using the Text Mining Method	11
The Effectiveness of Online Project-Based Learning (PJBL) to Improve Sustainability Education at Private University	12
Implementation of Single Sign-on System for User Management at PT.XYZ.....	13
Evaluation Model of E-learning Systems Implementation by using Factor Analysis and Regression Analysis Method	14
Adopting TOGAF to SME Information System	15
COVID-19 Factors and Interest Rates Impacting on Bitcoin Price: A Case Study in ASEAN-5 Countries.....	16
IT Infrastructure and Perceived Ease of Use to Increase E-Learning Adoption.....	17
Indonesia Covid-19 Pandemic Social Media Analysis With Text Mining.....	18
A Survey on Electronic Dialogue, Risk Assessment, Customer Access, and Customer Relationship Lifetime	19
Enhanced Personality Prediction: Fusing Structural and BERT-Based Lexical Features on Augmented Twitter Data	20
The ICT Paradox in Indonesia: ICT Investment and Firm Profitability	21
The Influence of Environmental Awareness and Green Marketing Mix 2.0 Strategy on Brand Loyalty	22
Integration Model of Multiple Payment Gateways for Online Split Payment Scenario	23
The Use of Public Cloud Service Among Students for Online Learning	24
Online Learning Experience Assessment Survey During the Covid-19 Pandemic	25
Performance Analysis of Hooks Functionality in React and Vue Frameworks	26
A Data Warehouse Schema for Monitoring Regional COVID-19 Case Registration	27
Database Management System Design Improvement for Child Stunting Data Collection in Multiple Observation Areas	28
The Effectiveness of Management Accounting Systems in Brunei Small and Medium Enterprises	29
Database Design for Indonesia Scholarship Recommender Systems	30
Drone Application Model for Image Acquisition of Plantation Areas and Oil Palm Trees Counting	31
An Evaluation of Human Capital Module of SAP System with Unified Theory of Acceptance and Use of Technology (UTAUT) Method: A Case Study	32
Region Grouping Based On Sales Results Using K-Medoids Algorithm at PT RMK	33
Emotional Expression Recognition: A Systematic Literature Review	34
The Essential Factors of Web 3.0 Affecting 7 Layers of Decentralized Web in Business or Industry	35
Utilization of Augmented Reality Technology as a Presentation Media in the Interior Sector	36
The Use of Deep and Machine Learning for Face Expression Recognition : A Literature Review	37
The Indonesian Surface Weather Observation Monitoring System for Data Availability.....	38
Analysis of Behavior Intention to Use Fitness Mobile Application with the UTAUT2 Model	39
Applying Internet Of Things Framework In Real Estate Business With Enterprise Architecture Approach	40
IoT Architectural Design for Microgreens Cultivation	41
Evaluation of Online Field Practice Information Systems Refer to Agile Method	42
Acceptance Analysis on Online Health Application During COVID-19 Pandemic in Jakarta Using TAM	43
Social Network Analysis of Campaign Mobilization of Marketplace on Twitter	44
Understanding The Factors Influencing Consumer Purchase Intentions via Instagram Shopping Feature	45
Knowledge Management System Design for Health Stores in PT. ABC	46
Smart Mobile Phone Charging Stations for Public Service as Smart Cities Component	47
Factors Affecting Behavioral Intention and Use Behavior of E-Commerce Users from Gen-Z Using UTAUT2 Model	47

.....	48
Selection of Agile Method Management for ERP Development System Using Analytic Hierarchy Process Method in PT. ABC	49
How HRIS and HPWS affect on employee performance in the HR division using online shared services?	50
Information Technology Usage: Shariah Compliant Companies of Malaysia and Indonesia	51
Understanding Consumers' Intention to Use E-Commerce in Indonesia	52
Dissemination Model of Environmental Conservation Through the Development of Environmental Knowledge Management Systems	53
Machine Learning Face Recognition Model for Employee Tracking and Attendance System	54
The Effects of Evangelist Marketing Activities on Menantea's Brand Equity (Study on Nihonggo Mantappu Indonesian Community)	55
The Usage of Generative Adversarial Network for Image: A Systematic Literature Review	56
The Dissemination of Electric Control Installation Based on Microcontroller Through Digital Application in The Vocational School Environment	57
Model of Expected Benefit, E-Learning Curriculum, and Education Partners on E-Learning	58
Understanding Artificial Intelligence Adoption Predictors: Empirical Insights from A Large-Scale Survey	59
Utilization of Blockchain Technology in Making Police Record Certificates (SKCK) Using an Enterprise Architecture Approach	60
Risk Invalidation of Data in Banking Information Systems in Indonesia.....	61
Escape Room Mobile Game Design for Remote Learning	62
Business Intelligence Design for Non-Customer Profiling System: Case Study Cloud Hosting Company	63
Comparison of Social Media Marketing Strategy of Indonesian Digital Bank Companies in Attracting Unbanked Youths.....	64
Factors Influencing Online Shopping Intention in Indonesia	65
Student Satisfaction Analysis in E-Learning Usage Based on Service Quality, Information Quality, and System Quality in Indonesia Higher Education	66
Analysis of The Use of E-Money during the COVID-19 Pandemic of University Students	67
Analysis of Factors Affecting the Intensity of Mobile Transportation Applications Usage in Pekanbaru	68
Digital Village Analysis and Design using Design Thinking Method: Case Study of Village Management Website	69
Project Management SaaS Feature Framework for MSMEs in Indonesia.....	70
How to See Social Media Strategy of Coffee Shop in Indonesia (Data Analysis Perspective).....	71
Performance Factors Analysis of the Digital Sharing Economy	72
The Influence of Gamification Implementation on Customer Loyalty in Mobile Commerce Applications	73
Automatic Sales Order Collection from A Top Indonesian Retailer's E-Procurement Website Using Selenium.....	74
Empowerment Village Community Through the Rawang Village Information Systems (SiDeRa)	75
The Effect of Financial Literacy and Fintech Knowledge on Fintech Services Usage	76
Youtube Playlist: Iconic Song Triggers Nostalgic Memory and Function of Nostalgia	77
Using fuzzy sets Qualitative Comparative Configuration to Predict Consumer Travel Behavior from Instagram: The Role of Social Media Influencers	78
Analysis of Intention and Use of Audit Tools Linked Archive System (ATLAS) at Public Accounting Firms	79
Impact Analysis of Digital Banking Applications on Disrupting Traditional Banking Industry	80
The Role of Social Media in Nourishing Digital Ambidexterity Among MSMEs: Rasch Model View	81
The Impact of E-WOM, Online Communities, Online Advertisement on Brand Loyalty, and Buying Behaviour During COVID-19 Pandemic	82
Analysis of Factors Affecting The Reuse of Online Food Delivery Service Applications	83
Escalating Digital Mastery for Strengthening Resilience and Sustainability in Small Businesses.....	84
Designing Smart Energy Contract with Blockchain Technology	85
Discipline, Impact, And Challenges Of Virtual Reality In Higher Education: A Systematic Literature Review	86
Integrated Healthcare Ecosystem with SaaS Support Enhancing Patient Engagement and Emergency Handling Process in Indonesia	87
Digital Capability as The Enabler of Business Agility and Firm Resilience in the Public Companies.....	88
Impact of Student Engagement, Satisfaction, and Perception of Learning in Multi Channel Learning during COVID-19 Pandemic.....	89
Proposed IT Governance Model for Smart Tourism Destinations based on COBIT 2019 Framework	90
Social Media in Business Intelligence as a Solution Toward Social Problems: A Systematic Literature Review	91
The Impact of Online Review on Customers Patronage Intention on Restaurant or Eating Places	92
Implementation of National Samsat Online Application (SAMOLNAS) : Applying The Unified Model of Electronic Government Adoption (UMEGA)	93

Entrepreneurial Mindfulness Website: Entrepreneur Profile Survey through Artificial Intelligence	94
SMEs Data Pre-Processing: The First Step in Validating Instruments on Entrepreneurial Capacity Website	95
Customer Impulsive Buying Behaviors in Indonesia E-Marketplace	96
Development of Healthy Lifestyle Users Based on Intelligent System	97
Strategy and Design of Digital Tourism Promotion Mobile Applications at the District or City Level in Indonesia	98
Analysis of Effective Online Learning Media during Covid-19 Pandemic (Study of Student's and Teacher's Perception)	99
Factors Influencing Customer's Satisfaction and Impact to Customer Purchase Intention in Indonesia's Online Marketplace	100
The Effect of Responses to User-Generated Content on Brand Equity in Social Media	101
<i>Keywords— social media, responses to user generated content, brand engagement, brand equity</i> The Customer Behavior Data Analysis Towards Use of Digital Wallet During Covid-19 Pandemic	101
Challenges of Implementation Business Intelligence: A Systematic Literature Review	103
Acceptance of Miro and Padlet as Collaboration Tools on Hybrid Flipped Learning & Case-Based Learning in Education 4.0 (a case study approach)	104
Critical Success Factor of Digital Start-Up Business to Achieve Sustainability: A Systematic Literature Review ..	105
The E-Learning Effect on Learning Activities During Covid-19 Pandemic in Higher Education	106
The Impact of Influencer Marketing on Online Advertising Click and Buying Behaviour During COVID-19	107
Predicting Confidentiality, Integrity, and Availability from SQL Injection Payload	108
ICT-Based Conceptual Model for Local Culture Communities Using Soft System Methodology	109
Adopting Augmented Reality (AR) Technology in Retail Sector: Systematic Review of Prisma Methods	111
Development of Supply Chain Spare Part Application in Maintenance, Repair, and Overhaul (MRO) Industry using Blockchain Technology	112
Overconfidence Educated Young Males: A Study on Cryptocurrency Investors in Indonesia	113
Proposing Tourism Chatbot by Employing The Wisdom of Crowds in Building Its Knowledge Base	114
Usage Evaluation of the Dana Digital Payment	115
Using E-SCM to Improve Performance in Manufacturing Companies	116
Preferences of students for online education on Pramuka Island Thousand Island DKI Jakarta during the COVID-19 Pandemic	117
The Improving Employee Performance Through Digitalization: Designing a Web Based Human Resource Management	118
Modeling of Web-Based Monitoring Dashboard for Performance Evaluation of Power Generator Machines (Case Study: Indonesia State Electricity Corporation)	119
Contact Tracing Applications During The Pandemic Era: A Systematic Literature Review	120
Analysis of User Acceptance of Indonesian Society to Use Online Investment Application	121
Examining the Determinant Factors of Intention to Use of Quick Response Code Indonesia Standard (QRIS) as a Payment System for MSME Merchants	122
The Analysis of Online Order Mobile Application Using User Experience Questionnaire (A Case Study Approach)	123
The essential factor of metaverse for business based on 7 layers of metaverse– Systematic Literature Review	124
Impact of Gamification Element Towards Continuance Intention at Indonesia Marketplace	125
Analysis of AI-enabled Service Quality and Personalization to Continuous Usage Intention	126
Social Commerce Research Trends: A Systematic Literature Review	127
Assessment of Knowledge Conversion Process in Online Learning Practice Using SECI Framework Case Study: Bina Nusantara University	128
Design and Development of Assets Management System Using Spring Webflux And Command Pattern	129

Recommendation System Model for Personalized Learning in Higher Education using Content-Based Filtering Method

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Abstract—An online learning system is a learning approach that typically uses a one fit for all approach in which all student abilities are considered the same so that the provision of learning materials provided is the same for all students. In contrast, a personalization learning system is a teaching and learning approach in which students are positioned as the learning centers and the students are motivated and facilitated to overcome their learning needs based on their learning speed and understanding of the learning process carried out to achieve. In the context of learning, learning materials and learning objectives are the main components that are interrelated in achieving the expected learning outcomes. However, the relationship between learning materials, especially in prerequisite courses, must have similarities so that the learning process can continue in accordance with the learning outcomes to be achieved. This paper presents an experiment results of the proposed the recommendation system modeling for personalization learning model implemented using Content-Based Collaborative Filtering model. In the proposed recommender system model, similarities between the learning materials and the description of the course being are computed as basis for developing recommended learning materials to students. The recommendation system modeling for personalized learning is applied as a solution to achieve learning goals and minimize dropouts due to the inability of students to understand the learning process in online learning systems. The results given in the research are modeling of an adaptive learning personalization recommendation system to provide recommendations for students who do not reach the minimum competency standards.

Keywords—*personalized learning, learning content, online learning, recommendation system, content-based filtering*

Identifying Important Usernames in ‘Biofarma’ Conversation using Twitter Network Analysis

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Abstract—This study analyzed interactions between Twitter users in conversations regarding Indonesia's state-owned vaccine manufacturer ‘Biofarma’ in 2021. The primary objective of this study is to identify Key Opinion Leaders (KOL) due to the need of authentic and trustworthy persona in social media. A technique called network centrality was employed in this research alongside four centrality measurements, namely degree of centrality, eigenvector centrality, betweenness centrality, and closeness centrality. Focused on using a reply network interaction dataset, the research discovered several important usernames with different roles that enlivened the conversation and have a potential for social media marketing optimization.

Keywords— *twitter, social media analysis, centrality, interaction pattern, usernames*

Challenges in Coronavirus Contact-Tracing Application Implementation in Indonesia: Users' Perspective

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Abstract— A contact-tracing application is implemented to monitor and manage the spread of disease during pandemics. Since its launch by the government, the adoption of the PeduliLindungi, an Indonesian contact-tracing application, has remained low. PeduliLindungi users are only 34% of smartphone users and 20% of the population in Indonesia. The effectiveness of contact-tracing apps cannot be measured without mass use and adherence to protective behavior. Approximately 80% of smartphone users, or 56% of the overall population, must use the app. Therefore, the app implementation challenges need to be researched to develop strategies to increase user adoption. This study used a qualitative methodology by conducting interviews with 17 respondents. Respondents were recruited using the purposive sampling method. This study used the NVIVO application to process and analyze data. Based on the results of data analysis using thematic coding, the challenges in contact-tracing apps implementation in Indonesia are divided into five main themes: technology limitations, lack of socialization, organizational problems, individual concerns, and socio-economic inequalities. This study contributes to the theory of challenges in contact tracing app implementation. The technical contributions and recommendations are also provided.

Keywords— *challenge, contact tracing apps, covid-19, qualitative, thematic analysis, Indonesia*

Web Information System Design for Fast Protein Post-Translational Modification Site Prediction

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Abstract—In the field of bioinformatics, the protein Post-Translational Modification (PTM) site prediction has been widely studied and Web Information Systems (WIS) has been deployed by researchers for this task. Through a literature review and benchmarking process, we identified the requirements which included quick predictions, efficient memory usage, and input validations. However, no detailed designs have been proposed so far, which may have contributed to some requirements not being implemented in some of the websites. Therefore, we propose a detailed WIS conceptual design, which can be used for predicting the sites of multiple PTM types, equipped with a validation algorithm and compared the usage of various string searching algorithms as well as file storage formats. Experiment results showed that the linear search algorithm is the fastest for this task and storing the protein data in npz format when performing multi-PTMs site prediction can assist in reducing memory usage. The proposed design can be implemented into user-friendly web tools that are both efficient in speed and memory usage in future studies.

Keywords—*post-translational modification, web information system, protein sequence, proteomics*

Consumer Buying Behavior in Online Travel Agent: A Preliminary Finding

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Abstract—Retargeting marketing is a form of online marketing strategy that targets consumers who have visited an e-commerce website without making a purchase. Retargeting marketing can help increase purchase intention as well as affect consumer buying behavior. This research was conducted to see how effective retargeting marketing is in increasing purchase intention of online travel agent visitors which mediated by consumer buying behavior. Structural Equation Modeling (SEM) is used in this research as data analysis method. This research was carried out by sending out questionnaire to e-mail subscribers of online travel agent who have never made a purchase. 142 responses were received. This research shows that retargeting marketing is a variable that affects consumer buying behavior and purchase intention. It also proves that consumer buying behavior doesn't necessarily affect purchase intention. Retargeting marketing will effectively work to increase customer's purchase intention when extra benefits are present, such as promotion or low prices. Based on this finding, researcher suggests for online travel agent to offer discounts and bigger benefits to its customers to create a positive shopping experience for its customers.

Keywords— *retargeting marketing, consumer behavior, ticketing, e-commerce*

Analysis of Data Quality and Data Privacy Factors on the Factors of Intention to Buy and Decision to Buy on e-Commerce during Pandemic COVID-19

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Abstract—The Covid-19 pandemic has changed the way customers shop. Previous research reports stated that during the Covid-19 pandemic there was an increase in transactions that occurred in e-Commerce and even a fairly large increase in income for the industry. On the other hand, it was found that there were often mistakes in shopping made by customers, resulting in product returns and so on. The implementation of data quality and data privacy is believed to have been carried out by e-Commerce. This study will explore how Data Quality and Data Privacy factors affect customer buying interest. This quantitative research uses the SmartPLS application to process the data and uses the SEM-PLS technique. This study used 477 e-commerce customers as respondents during the Covid-19 pandemic and from this research, interesting results were obtained for the development of e-commerce. The Complete Information factor was found to have a negative and significant influence on intention to buy, and other factors were also found that describe the behavior of customers who shop for e-commerce during the Covid-19 pandemic.

Keywords—*data quality, data privacy, e-commerce, SEM-PLS*

Influence of Technological, Social, and Individual Factors on Security and Privacy Take-up of Digital Banking

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Abstract—Digital bank applications have significant market potential in Indonesia given that bank penetration has not been comprehensive in Indonesia. However, this also comes with potential issues, especially data security and privacy issues. This study uses communication privacy theory and expectation-confirmation theory to examine the influence of technological, social, and individual factors on user perceptions of security and privacy and examines the effect of security and privacy perceptions on the intention to continue using digital banking applications. The authors used a Covariance-based structural equation modelling and got 421 valid respondent data from the data collection phase that was conducted for 22 days from September 17, 2021 and ending on October 8, 2021. The outcome indicates that perceived mobile transaction security affects perceived mobile app security and perceived mobile app security affects the intention to continue using digital banking apps. Furthermore, the perceived effectiveness of privacy policy, social influences, and perceived privacy awareness affect the perceived privacy risk. The results of this study provide insights for users of digital bank applications and are expected to contribute to digital bank research, especially in Indonesia. The results may also be used by bank and digital bank app developers to improve app security and take further measures to minimize user privacy risks.

Keywords—digital banking, security perception, privacy perception, mobile app, continuous intention, social factors, individual factors

Social Media Analysis in Building Customer Trust – Systematic Literature Review

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Abstract—Social media usage growth is so rapid that many companies are competing using social media as their marketing vehicle to improve customer engagement and improve their services to their customers. This research aims to analyze the use of social media in e-commerce in various types of industries and countries. The method used in this study is SLR - Systematic Literature Review. The results of this study identify the types of social media platforms used according to the type of industry and country, analysis of the main focus of journal studies regarding the use of social media in building the customer trust and methods used related to the case study. Related to social media big data analytic the most method use is Lexicon-based approach with Twitter is the context that is most often used. The general framework of Lexicon-based approach social media analysis is also depicted. This research can ultimately provide information to researchers and interested parties regarding the methods used by companies in analyzing social media to increase customer trust.

Keywords—*social media, social media analysis, systematic literature review*

Implementation of REST API vs GraphQL in Microservice Architecture

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Abstract—Recently, microservices have become a popular web architecture that implements Application Programming Interfaces (API) for main communication between its services. The Representational State Transfer (REST) has been recognized as a popular framework to develop web APIs. However, the presence of “GraphQL,” an alternative technology to REST, leads to a lot of debates and discussions to see which technology is more effective for communication between clients and server. Although many studies have discussed these two technologies, there is still limited study which covers the details on their implementation and performance in a microservice architecture scenario. Therefore, this paper discusses the implementation of REST and GraphQL technologies and performs a comparative study on the performance of each technology in a microservice architecture system, based on an identical freelance marketplace scenario. In addition, two corresponding gateways, the Ocelot and the HotChocolate, were implemented in this study. The gateways were tested in a local system on 17th March 2022. The test was conducted using a tool called “JMeter” which enables three test cases with distinct numbers of users and loop counts to be produced, with each test case impacting the gateways differently. For comparative analysis, the average “response time” and “throughput” parameters were analyzed. Results indicate that in every test case, REST and GraphQL perform comparably when dealing with queries of type POST and PUT but shows a significant performance difference when processing (GET) queries that involve data retrieval from more than one service.

Keywords—*microservice, REST, GraphQL, performance, comparative study*

The Country Readiness in Adopting Continuous Auditing Technology – The Case of Indonesia

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Abstract—Studies have shown that the country's readiness determines the adoption and the usefulness of continuous audit technology. Using Alles et al. (2002) economic architecture as the framework, this study analyses Indonesia's readiness to adopt continuous audit technology. This study examines the current audit environment and analyzes whether the current audit environment supports or impedes continuous audit adoption. This study uses qualitative data, i.e., semi-structured interviews, to collect its data. The findings showed that Indonesia is yet ready to adopt continuous auditing technology. Several factors were found – the domination of big audit firms, clients' perception toward auditors, the lack of enforcement from the regulatory body, and the uneven technology accessibility. This study contributes to the discussion of continuous auditing at the macro level, which is currently scarce.

Keywords—*continuous auditing technology, country's readiness, Indonesia, qualitative data*

Sentiment Analysis on the Perception and Mindset of The People of Indonesia on the Use of Vaccines to Deal with the Covid-19 Pandemic using the Text Mining Method

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Abstract—Right now, the world is busy with the COVID-19 pandemic. Coronavirus disease (COVID-19) itself is an infectious caused by a new variant of the newly discovered coronavirus. One way to deal with the virus is to get vaccinated against COVID-19. The government through the Indonesian Ministry of Health is also promoting the procurement of this COVID-19 vaccine by bringing various types of this COVID-19 vaccine. This research was conducted to know the sentiment and perception of the Indonesian people about the COVID-19 vaccination program. To find out, this research uses the Text Mining technique using Twitter as a data source. Data processing and analysis in this research used the Naive Bayes Classifier method using Python software. The results of this study show that the sentiment and perception of the Indonesian people to vaccination against COVID-19 is positive, as evidenced by the Confusion Matrix value leaning towards True Positive.

Keywords—*sentiment analysis, vaccines, text mining, naive bayes classifier*

The Effectiveness of Online Project-Based Learning (PJBL) to Improve Sustainability Education at Private University

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Abstract—Currently, online project-based learning is one of the methodologies used in university student assessment. Furthermore, this study is supported by several factors and current conditions applied to learning, such as the pandemic situation where all learning activities and assignments are carried out online and also the many applications of online project-based learning as a learning method to increase students' knowledges and abilities. The purpose of this study is to see how flow experience perception, self-efficacy, product evaluation, and learning motivation affect online PjBL effectiveness at a private university in Jakarta to improve sustainability education. We surveyed 62 active undergraduate students with online PjBL experience and interviewed one of these five responders from various majors for more information. Flow experience perception, self-efficacy, product evaluation, and learning motivation all have a positive influence on online PjBL, according to multiple linier regression.

Keywords—*flow experience perception, learning motivation, self-efficacy, product evaluation, online project-based learning*

Implementation of Single Sign-on System for User Management at PT.XYZ

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Abstract—PT.XYZ is an educational consulting company. In carrying out its activities, PT. XYZ has many applications; this sometimes causes frequent human errors, such as employees forgetting passwords on an application because of the many applications and credentials that need to be remembered. This research aims to implement a Single SignOn System (SSO), which can facilitate the management of web application users at PT.XYZ. With the implementation of SSO, it is expected that users can more easily access any web application and manage their credentials and make it easier for admins to manage user authorization for available web applications. The researcher collected data to strengthen the justification of the problems experienced by using observation and questionnaires distributed to twenty employees. The development of this system uses the waterfall method. For application security, penetration tests are carried out on SSO login authentication in the form of Dictionary and Rainbow table attacks

Keywords—ITSM, CMMI, IT services, SLA

Evaluation Model of E-learning Systems Implementation by using Factor Analysis and Regression Analysis Method

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Abstract—To achieve the target of implementing an electronic learning system or known as e-learning, it is necessary to evaluate the performance of the system on a regular basis. In response to this challenge, schools using the system have substantially increased the use of the system, through initiatives to disseminate information to teachers and students to use e-learning and support the teaching and learning process in every subject in the school. Careful evaluation of the acceptability and suitability of the technology is essential to ensure the implementation of the system and the continuity of the effective learning process. This study aims to evaluate the performance of e-learning implemented in the Kepulauan Seribu region of DKI Jakarta. The method used is factor analysis that can be used to find factors in successful implementation and regression analysis to build an e-learning evaluation model. The results obtained indicate that there are several main factors, namely system availability, instructor style, learning culture, helpdesk response and the latest technology can then be presented in the form of a mathematical model that can explain the performance of the system that is currently running with a value of 5.765 (from a scale of 0.000 -10,000), and can be used to build a system development plan in the future with a value of 8,328 (on a scale of 0.000 - 10,000)

Keywords—*evaluation model, e-learning, evaluation, factor analysis, regression analysis*

Adopting TOGAF to SME Information System

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Abstract—Digital disruption transforms the way organizations run their business, and SMEs are no exception. Moreover, the covid-19 pandemic also emphasizes the necessity of technology in all aspects, from work style to lifestyle. Many organizations currently need to apply work from home policy to limit people’s mobility and stop the spread of covid-19 virus. Some organization processes are also changing to adapt to the condition, such as going into the online channel to sell and market the product. This change requires the organization to plan and manage its digital transformation effectively. One of the methods is by creating a guideline such as an architecture design for this technology transformation. SMEs on the other hand, usually do not have experience in this field, since the limited resources and the resistance to use complex architecture design. Whereas previous research found the benefit of the architectural framework such as TOGAF for SMEs, the number of TOGAF adoption in SMEs is still very limited. In line with that case, the available research focusing on that is also rare. Therefore, the goal of this paper is to gather and analyze available literature. Finally, this paper constructs the conceptual approach and present the case of application to bring TOGAF ADM to Small and Medium Enterprises so that this paper could bridge the gap of current available literature about adopting enterprise architecture to the Small and Medium Enterprise.

Keywords—*enterprise architecture, TOGAF, small and medium enterprise*

COVID-19 Factors and Interest Rates Impacting on Bitcoin Price: A Case Study in ASEAN-5 Countries

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Abstract—This research aims to determine the COVID-19 factors and central banks' interest rates impacting on the Bitcoin price. A dearth study of measuring central banks' interest rate as Bitcoin determinants is the main research problem we aim to solve and hence produce the originality/value of this research. The COVID-19 factors utilized are COVID-19 cumulative cases and deaths. We further used the interest rate as a moderator variable. Feasible Generalized Least Square (FGLS) and moderated regression are applied as the first and second stage methodologies, respectively. We collected daily data from 2 March 2020 – 12 March 2021 and hence the total observations are 1,350. Focusing on the ASEAN-5 countries, this research found that Bitcoin can be an alternative investment. However, its character as a speculative asset may decrease investors' interest in Bitcoin when the condition is highly uncertain. Interest rate affects inversely on Bitcoin but insignificant. Surprisingly, the interest rate revealed a stronger inverse impact as a moderator variable to the Bitcoin price. Therefore, investors and central banks are highly suggested to watch the current condition for a better investment decision making and monetary policy adjustment to control and stabilize the economy.

Keywords—*bitcoin price, COVID-19 factors, interest rates, feasible generalized least square, moderated regression*

IT Infrastructure and Perceived Ease of Use to Increase E-Learning Adoption

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Abstract— The pandemic in 2020 known as Covid-19 had an impact on independent learning at home. Learning in university ultimately needs to be done online because of face-to-face restrictions. However, online learning activities ultimately affect the level of student motivation in learning. Examining the implementation of learning system on the university, the purpose of this study is to evaluate e-learning adoption on student psychological motivation through IT infrastructure support and perceived ease of use. This research examines a model with the goal of student psychological motivation, so that a study was carried out on students with a total of 149 respondents. The research method was carried out by quantitative surveys and research data obtained from questionnaires. Research with path analysis was conducted to evaluate the research model. In testing the research model, a study was carried out through the evaluation of research hypotheses. The findings in the model test results it is known that IT infrastructure and perceived ease of use are important for student regarding adoption to online learning. Another finding was conveyed that e-learning adoption can increase students' psychological motivation. The research findings focus on the mediation model of e-learning adoption; furthermore, for universities, this model can be used as input on the implementation of online learning. Model adaptation aims to increase student motivation in dealing with online learning.

Keywords—*IT infrastructure, e-learning adoption, psychological motivation, perceived ease of use, student*

Indonesia Covid-19 Pandemic Social Media Analysis With Text Mining

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Abstract— This research aimed to analyze public opinion regarding Indonesia's situation in facing community restrictions (PPKM) during the Covid-19 pandemic. This research used the text mining approach to classify public opinion into two classes of the Pro and Cons classes regarding the policies, along with comparing the accuracy, precision, and recall values using two text classification methods of Naïve Bayes and Support Vector Machine (SVM). The data collected were 217 tweets from Indonesia in November 2020. The Naïve Bayes method showed 64% accuracy, 72% precision, and 53% recall, while the SVM method showed 63% accuracy, 70% precision, and 53% recall. Based on these classification text methods results, researchers concluded that SVM's accuracy, precision, and recall values were not higher than Naïve Bayes

Keywords—*covid-19 pandemic, text mining, tweet, naïve bayes, support vector machine*

A Survey on Electronic Dialogue, Risk Assessment, Customer Access, and Customer Relationship Lifetime

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Abstract—The customer lifetime relationship has challenged the firms to engage with loyal customers. Typically, the relationship has no longer electronic compared to the conventional ones. This study aimed to determine the effect of electronic dialogue and risk assessment on customer access and relationship lifetime. The data were collected electronically and analysed using Structural Equation Modeling (SEM) based on component or variance of Partial Least Square (PLS). We found five hypotheses are accepted. The results prove that electronic dialogue affects customer access. Simultaneously, the findings found that electronic dialogue has significant results on lifetime value. At the same time, risk assessment impacts customer access and relationship lifetime value. The findings contribute to the extent of the electronic dialogue framework on consumer-based research. This research implies that the company needs to increase and monitor the relationship lifetime value frequently. The creative strategy needs to be applied to improve electronic dialogue, risk assessment, and customer access.

Keywords—*electronic, risk assessment, customer access, customer relationship value*

Enhanced Personality Prediction: Fusing Structural and BERT-Based Lexical Features on Augmented Twitter Data

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Abstract—Conventionally, assessing people’s personality done by psychology experts requires more time and effort. Hence automatic personality prediction is starting to get noticed by researchers. Nowadays, many people engage themselves in social media platforms, one of which is Twitter. This platform stores actions done in this media which reflect one’s personality. This research focuses on improving the performance of personality prediction models based on machine learning algorithms, by augmenting the dataset using Easy Data Augmentation to overcome imbalance dataset, thereafter, combining n-grams with POS-tag weighted by TF-IDF. Results show that this method outperforms other machine learning approaches and decreases bias, with a maximum of 72.62% of the best average accuracy and 72.72% best average F1 score using Support Vector Machine classifier. The second-best model is obtained by XGBoost and, lastly, Naive Bayes classifier. Overall, this study shows that data augmentation with the addition of POS-tag feature is evident in improving the performance of personality prediction models. However, larger data is needed.

Keywords—*natural language processing, easy data augmentation, machine learning, personality prediction, social media*

The ICT Paradox in Indonesia: ICT Investment and Firm Profitability

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Abstract—This study examines the ICT paradox using data from Indonesian firms. Specifically, it aims to investigate the impact of investing in ICT capital on the profitability of Indonesian firms. We use data from companies listed on the LQ45 index for the research sample, with a five-year observation from 2014 to 2018. Firm profitability is measured using ROA, while ICT capital is proxied using the ICT investment and intensity. Control variables included in this study are firm size, age, and leverage. We then employ a Cobb-Douglas process and fixed-effect panel data regression to analyze the data. Our findings suggest that ICT investment affects firms' performance positively. However, companies could not as well invest too much in ICT as we found that the square of ICT investment variable has a significant negative coefficient, indicating decreasing benefits of ICT investment after a certain amount. Furthermore, the relationship between ICT investment and performance was reinforced by the negative sign of the ICT intensity dummy variable. Based on this finding, we encourage firms to invest in ICT capital but be mindful not to over-invest as overstretching ICT investment could adversely affect profit.

Keywords—ICT, ICT capital, ICT intensity, ICT investment, profitability, ROA

The Influence of Environmental Awareness and Green Marketing Mix 2.0 Strategy on Brand Loyalty

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Abstract— An interesting phenomenon from this research is the emergence of many brands that apply environmentally friendly concepts. The purpose of this study was to describe the influence Environmental Awareness, Consumer Needs, Cost, Convenience, and Communication of cosmetic industry have on Brand Loyalty. The research design used was an associative quantitative approach. Sampling technique using Non-Probability Sampling-Purposive Sampling. Determination of the sample using the calculation of Hair. The data collection technique was through a questionnaire and distributed to 173 respondents from generation Z. The data analysis technique used Multiple Regression Analysis. The results achieved are Environmental Awareness, Consumer Needs, Cost, Convenience, and Communication have a significant partial and simultaneous effect on Brand Loyalty. The Cost is the variable that has the most influence and needs more attention. The research novelty is combination and applied model of 4c marketing mix toward green marketing mix in cosmetics industry.

Keywords— *environmental awareness, 4C green marketing mix, consumer needs, cost, convenience, communication, brand loyalty*

Integration Model of Multiple Payment Gateways for Online Split Payment Scenario

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Abstract— Payment is one of the key features in digital marketplace applications. Along with the advance of technology, many Fintech companies bring a lot of variances of digital money such as e-money which acts as an alternative payment option. Nowadays, Payment Gateway has been used to handle most of the process required for online payment transactions, including e-money payment model. Yet, the problem on implementing Payment Gateway is the limitation of various payment methods. In Indonesia, there are two well-known e-money that are very often used for online transaction which are GoPay and OVO. However, those payment method provided in separated payment gateways. In order to provide better experiences and more payment options to the user in single application, this study has explored the possibilities of integrating two different Payments Gateways which are Midtrans and Xendit and implementing them by using core API integration method for sample web app application prototype. For the result of the study, the architecture of integration model between these two payment gateways is successfully developed and tested, especially for splitting payment scenario between two e-money payment models from different payment gateways. Both payment gateways are integrated into a backend of marketplace scenarios where in this split payment scenarios might commonly occur.

Keywords— *integration model, payment gateway, midtrans, xendit, split payment scenario*

The Use of Public Cloud Service Among Students for Online Learning

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Abstract— A public cloud is a computing service offered by third-party service providers to Internet users. Some cloud service providers offer both free and paid services, where the prices are scaled to meet the needs and offered more benefits to clients than free cloud services. This paper aims to study the familiarity of public cloud services among respondents of multiple age groups and to find out the advantages and disadvantages of using the public cloud. The survey was taken randomly through google form media. Respondents are the public who use cloud services in Malaysia. A Google Form is used to gather data from the public among multiple age groups, from individuals aged 12 to 45 years and above. Based on the conducted survey, respondents show positive responses towards their knowledge and the usage of public cloud services. Findings from the survey revealed that almost 90.3% of the respondents use public cloud services, and about 75% of them think that the public cloud is reliable and safe to store data. Most respondents have indicated that Google Drive is their preferred public cloud, and the majority them use the public cloud for academic purposes. In conclusion, public cloud services are rather efficient for users with diverse usage necessities. Some public cloud services are reliable and affordable for students, as students need cloud storage for academic purposes, especially during pandemics where everything is conducted online.

Keywords— *cloud computing, public cloud, online learning*

Online Learning Experience Assessment Survey During the Covid-19 Pandemic

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Abstract— Due to the Covid-19 epidemic, the education system worldwide has changed profoundly. This has caused many lecturers to transform face-to-face teaching and learning to online learning. In this regard, this study focuses on students' experiences in dealing with online learning. A survey method using a questionnaire is used to gather data from students, and 46 respondents answered the survey. The survey is divided into three sections, which comprise of Online Learning (Assigning Tasks), Online Learning (Quizzes), and Online Learning (Online Meetings). The results showed that the online learning application that was mostly used for assigned tasks was Google Classroom, which was 78.3%. The online learning application that is mostly used for quizzes was Kahoot, 97.8% and for online meetings was Zoom, 63.2%. Overall, most respondents, 45.7% chose a combination of online learning and face-to-face classes.

Keywords— covid-19, online learning, assignments, quizzes, meetings

Performance Analysis of Hooks Functionality in React and Vue Frameworks

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Abstract— Front end plays a key role in web applications since it ensures the users have a great experience when interacting with the interface. Hence, optimizing front-end performance is important in building web applications. ReactJS and Vue JS are popular front-end frameworks that commonly be used in developing web-based applications and also introduced hooks functionality. There have been many debates regarding which library or framework is better between these two. Therefore, this study discusses a comparative study relating to the performance of ReactJS and Vue JS frameworks, specifically focusing on hooks functionality. For the study, two sample web app prototypes was developed using both frameworks. The performance test of these two frameworks is utilizing an extension for Google Chrome for, using the frameworks' respective hooks and standard CRD (Create, Read, Delete) - API (Application Programming Interface). The result of this research shows that React's hooks functionality performed slightly better for API requests and managing states on the web application.

Keywords— *react, vue, hooks, front-End, performance.*

A Data Warehouse Schema for Monitoring Regional COVID-19 Case Registration

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Abstract— From all websites in Indonesia, ‘variant’ is an important aspect that was excluded. Based on that limitation, we deliver an enhancement of a data warehouse design. The research methodology adopted Ralph Kimball’s Four Step methodology in designing dimensional model of data warehouse that defined four core elements of data warehouse such as business process, granularity, dimensional table, and fact table. Several dimensional tables with different granularity are combined with a fact table and formed a snowflakes schema as the research outcome. The proposed design included ‘variant’ as a new dimension to complete date, patients, and health centers dimensions. The proposed design is expected to deliver regional COVID-19 case analysis that covered risk, vaccine, therapeutics, and diagnostic is expected to present when the snowflake schema is implemented. For further development, it is expected to test the acceptance of the proposed a data warehouse schema in operating regional COVID-19 case analysis.

Keywords— *data warehouse, snowflake schema, covid-19, case, registration*

Database Management System Design Improvement for Child Stunting Data Collection in Multiple Observation Areas

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Abstract— The launch of StuntingDB is believed to enliven the role of database management systems (DBMS) in Indonesia's stunting research. However, a novelty in stunting data management that enables parallel project activation in multiple observation areas is necessary. Several improved functionalities in StuntingDB must be designed to prevent the high demand for accessibility in the middle of stunting research. Connolly and Begg's principle of database design is adopted along with Software Development Life Cycle's Waterfall model for creating a continuous development of the system. This research produces a new database design in the form of Entity Relationship Diagram (ERD) and Use Case Diagram to help system developers realizing a new version of StuntingDB for stunting research in several observation areas.

Keywords— *stunting, database management system, design, scalable.*

The Effectiveness of Management Accounting Systems in Brunei Small and Medium Enterprises

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Abstract— Management accounting uses financial documentation to give cash flow forecast data by helping the managers or business owners make the right decisions. However, it is still described as planning, gathering, selecting, summarizing, analyzing, and reporting the information to assist business owners or supervisors in achieving their goals. Recently, more studies have shown a better explanation of how effective management accounting affects Small and Medium Enterprises (SMEs). It also included the studies on roles and functions of management accounting in Small and Medium Enterprises. It is a combination with increasing of the economy in every country. This study will focus on the effectiveness of management accounting in Brunei's Small and Medium Enterprises and the roles and functions of management accounting in Brunei's Small and Medium Enterprises. We managed to get responses from 250 respondents

Keywords— *management accounting systems, small and medium enterprises, brunei*

Database Design for Indonesia Scholarship Recommender Systems

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Abstract— Following the evolution of technology, researchers have conducted several studies to propose reliable scholarship recommender systems. However, few have explored the data storage systems, which are highly beneficial to collect huge volumes of real data in training the recommender systems. In this paper, a database design for collecting such data was proposed, equipped with integer encodings for categorical variables and a method to normalize variables with varying ranges. Using Connolly and Begg’s database design method, the final design consisted of a normalized Entity Relationship Diagram (ERD) and data dictionaries. The design was also constructed to support usages of various data for determining scholarship recipients, including education history, achievements, and organizational experiences. The proposed design can be implemented on information systems to allow easier information access for scholarships in Indonesia.

Keywords— *database design, scholarship, education, recommender system*

Drone Application Model for Image Acquisition of Plantation Areas and Oil Palm Trees Counting

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Abstract— The area of oil palm plantations in Indonesia increased by 7% from 14 million ha in 2017 to 15 million ha in 2021. The vast land requires the support of effective and efficient management techniques to maintain sustainable productivity. The high-performance computing technologies, Internet of Things (IoT), Big Data, Artificial Intelligence, spatial modeling, and drones are the answers to these needs. This study aims to design an application that can obtain plantation image data and analyze the calculation of the number of oil palm trees. The image of oil palm plantations is obtained from processing photo data from drones through a mosaic and composite process. This study also employed Scrum and UML as a system model development method. The image of the oil palm plantation area is used to build a tree counting model using the Viola-Jones algorithm. The oil palm tree count information generated by this system can then be used by management for fertilizing, harvesting, and monitoring the condition of oil palm trees.

Keywords— *drone, oil palm, Viola-Jones, tree counting, Scrum, UML*

An Evaluation of Human Capital Module of SAP System with Unified Theory of Acceptance and Use of Technology (UTAUT) Method: A Case Study

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Abstract— This study's purpose is to do an evaluation of SAP Enterprise Resource Planning (ERP) system, specifically for the Human Capital Resource (HCM) module, in order to assess the adoption the system for PT.XYZ, a private banking company in Indonesia. The module focused on both the Employee & Manager Self Service (ESS & MSS) systems. In this study, Unified Theory of Acceptance and Use of Technology (UTAUT) was used as the method to test the relationship between the variables. These variables consist of: Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), and Facilitating Conditions (FC). Data collection is using questionnaire from total 55 respondents, who were users that uses ESS and MSS module, by using Roscoe sampling. The data was analyzed by linear regression method and using SmartPLS. The analysis shows all hypotheses in this study have a positive and significant effect.

Keywords— *ESS, MSS, evaluation, human capital, UTAUT.*

Region Grouping Based On Sales Results Using K-Medoids Algorithm at PT RMK

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Abstract— In the development of the business world, which is always evolving and full of competition, the business actors must always think about how to continue to survive in developing their business scale. Therefore, to support the company's business development, this study aims to help companies find out the potential sales areas in Bogor Regency using data mining. The stages of data mining work from data collection, data selection, modelling stage using the K-medoid clustering algorithm, and evaluation to the implementation phase. The results achieved are based on the K-Medoids Algorithm clustering of 2 clusters. The first is to cluster data on 2 clusters which results in the sub-districts of Gunung Putri, Cileungsi, Tapos, Citeureup, and Cibinong being the areas with the most superior potential, then clustering the data of 3 clusters which results in the sub-districts of Gunung Putri, Cileungsi as the area with the most superior potential and Cileungsi District with moderate potential. It can be concluded that Gunung Putri and Cileungsi sub-districts are the sub-districts that display the most superior potential graph. The conclusion is the K-Medoids algorithm clustering method can be used in grouping potential sales areas in sub-districts in Bogor district based on total sales transaction data.

Keywords— *k-medoids, CRISP-DM, business, data mining*

Emotional Expression Recognition: A Systematic Literature Review

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Abstract— Facial expression recognition is currently growing rapidly, not only in the field of education but also in the health sector. By implementing facial expression recognition, other researchers are trying to minimize individual errors. As the public knows, one's emotions / facial expressions cannot be hidden or faked. When the individual experiences a good state of wearing, the brain will respond to the situation and then display a facial expression according to the brain's processes for that situation. Therefore, the author raised this topic for further investigation. Currently, the author raises Facial Expression Recognition with the Systematic Literature Review method to see the best suites Algorithm for this problem. This research studies what methods are efficient in implementing facial expression recognition by using a (SLR) Systematic Literature Review. In this study, several health problems came to the attention of the author during the review, so from the many papers that the author had read, only 20 papers were filtered and will be the basis for this research. The aim is to examine the use of facial expression recognition used by other researchers in any field. The results shows that Brazil has the highest level of research related to facial expression recognition and the results show that the application of the CNN method gets the highest ranking in this study.

Keywords— *face expression recognition, systematic literature review, healthcare*

The Essential Factors of Web 3.0 Affecting 7 Layers of Decentralized Web in Business or Industry

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Abstract— The new web 3.0 or Web3 is a distributed web technology mainly operated by decentralized blockchain and Artificial Intelligence. The Web 3.0 technologies bring the changes in industry 4.0 especially the business sector. The contribution of this paper to discuss the new web 3.0 (not semantic web) and to explore the essential factors of the new Web 3.0 technologies in business or industry based on 7 layers of decentralized web. The Layers have users, interface, application, execution, settlement, data, and social as main components. The concept 7 layers of decentralized web was introduced by Polynya. This research was carried out using SLR (Systematic Literature Review) methodology to identify certain factors by analyzing high quality papers in the Scopus database. We found 21 essential factors that are Distributed, Real-time, Community, Culture, Productivity, Efficiency, Decentralized, Trust, Security, Performance, Reliability, Scalability, Transparency, Authenticity, Cost Effective, Communication, Telecommunication, Social Network, Use Case, and Business Simulation. We also present opportunities and challenges of the 21 factors in business and Industry.

Keywords— *web3, web 3.0, distributed web, 7 layers of decentralized web, decentralization, blockchain*

Utilization of Augmented Reality Technology as a Presentation Media in the Interior Sector

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Abstract— Technology has many functions and advantages to speed up human work. The advantages of this technology are also now widely applied in various fields, one of which is in the interior sector which is able to support human activities in it. And one of the technologies that are currently quite widely applied in the interior sector is Augmented Reality technology which can be said to be a branch of technology from Virtual Reality. Data collection using sensors to compute the distance from the sensor position to an item is one example. Augmented Reality may typically be presented on different devices such as glasses, displays, telephones, and so on in specific data formats such as films, photos, animations, and 3D models, allowing users to see the results in both artificial and natural light. For example, the major draw appears to be a variety of themes with musical accompaniment, reasonable rates, and menu options with traditional to modern characteristics. This demonstrates that public areas such as cafés, restaurants, and so on are quite popular in Indonesia. This demonstrates the widespread public interest in the presence of cafés, as the proliferation of cafes demonstrates market interest in the existence of cafes.

Keywords— *technology, interior, augmented reality, café, interactive*

The Use of Deep and Machine Learning for Face Expression Recognition : A Literature Review

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Abstract— In the current era, Artificial Intelligence (AI) and Computer Vision take the main role and participating to the people daily activities. Face Expression became as interesting topic to be explore. Face expression recognition or detection could be applied in many aspects, such as for student focus detection based on face expression, intruder detection system, lie detection and many more. Referring the useful of face expression detection, there are also much research that focused on the methodology to detects or recognize the face expression. Several approaches are use such by using Deep Learning, Machine Learning and statistical method. This paper focused on the process to obtain and knowing the best approach or methods to recognize the face expression by using Systematic Literature Review (SLR) process. From hundreds of retrieved papers with similar interest, we do the selection based on the interest, scope, and topic similarity. The process keeps repeating until we found papers that has similarity criteria in output, dataset, subject and the methods. There are 6 papers in total that fulfil our requirements based on subject, output, result and methods. Subsequently, every research paper was deep-reviewed and compared with another to find the best approaches proposed and dataset used.

Keywords— *face, expression, deep-learning, AI, machine-learning*

The Indonesian Surface Weather Observation Monitoring System for Data Availability

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Abstract— Indonesian Meteorology, Climatology and Geophysics Agency (BMKG) is the only Meteorology, Climatology and Geophysics (MKG) data provider with a single data center. Data collection for MKG information services needs to be fast, precise, and accurate on both a national and international scale. By providing a single data provider, the BMKG database center facilitates and speeds up MKG data and information services. However, BMKG has no system for understanding the quantity of MKG data in the database or for obtaining information about MKG data periods that are not currently available. Accordingly, the BMKG database center intends on building an application or system that can detect how complete data is. Thus, the monitoring system of the availability of MKG data can assist the database center by completing incomplete data. It provides complete information on metadata based on stations and the availability of data in the database management system

Keywords— *database, monitoring system, weather information, system design, Indonesia*

Analysis of Behavior Intention to Use Fitness Mobile Application with the UTAUT2 Model

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Abstract— Mobile applications are growing every year, increasing more during the COVID-19 pandemic. Most of the mobile applications that appear are applications related to health and other use to cope with the covid-19 pandemic, but with that substantial number of applications, it is not yet known how users accept this type of application and will be loyal to use it even if the pandemic is over. This study aims to analyze the effects of performance expectations, business expectations, social influences, facility conditions, and habits to understand user behavioral intentions on fitness applications using the UTAUT 2 model using quantitative methods. Data was gathered from March to April 2022 by distributing online questionnaires using google form through social media, with non-probability sampling. This study uses 7 factors contained in the UTAUT2 Model, namely Performance Expectancy, Effort Expectancy, Facilitating Condition, Social Influence, Price Value, Hedonic Motivation, and Habit. The target respondents of this study are fitness application users at least 17 years old. Then the data is processed using the SEM-PLS method. There are 7 hypotheses formed with 4 accepted and 3 rejected hypotheses.

Keywords— *fitness application, behavioral intention to use, UTAUT2, SEM-PLS*

Applying Internet Of Things Framework In Real Estate Business With Enterprise Architecture Approach

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Abstract— The real estate market in Indonesia is currently undergoing a downturn due to a variety of issues, including potential purchasers being unable to find houses that meet their criteria, a lack of time to do home assessments due to the pandemic, and the difficulties of transporting furnishings to new residences. Because development is one of the sectors that affect national economic growth, these issues must be addressed. The purpose of this research is to create an Enterprise Architecture design for the real estate market that incorporates Internet of Things (IoT) technology. The methodology for this research includes observation, data gathering and interviews which addressed the real estate industry's difficulties and demands, followed by designing the proposed business application and Enterprise Architecture Framework. This research found an Enterprise Architecture (EA) design for the real estate business that incorporates IoT technology.

Keywords— *economic growth, country development, real estate, enterprise architecture, internet of things*

IoT Architectural Design for Microgreens Cultivation

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Abstract— Nationally, the combined consumption of fruits and vegetables in Indonesia is far below the threshold set by WHO (World Health Organization) and the Ministry of Health. The increase of population, unstable climate, and the attacks of pests also affected the production of vegetables due to the decreasing land availability for plantations and the growth quality of the vegetables. To solve this issue, this paper proposed an IoT design architecture-based indoor vertical farming system for microgreens cultivation by using User-Centered Design (UCD) method. The proposed approach creates an architecture of vertical microgreens plantation unit that automates the process of monitoring, uses extensive vertical racking to optimize space, and provides optimum growing conditions with minimum human supervision. Thus, users are able to track the growth rate of sprouts and adjust the environment of the plantation to determine production steps effectively to increase the production of microgreens. For further implementation, hopefully we can create an image processing model to monitor plantation by camera.

Keywords— *microgreens, internet of things, IoT, vertical farming*

Evaluation of Online Field Practice Information Systems Refer to Agile Method

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Abstract— The company participates in fulfilling the relevance of education and industry through field practice programs. To avoid the risk of spreading the covid-19 virus and ensure the program continues, the implementation of field practice is changed from face-to-face offline activities to online activities. The purpose of the research is to develop an online field practice information system using the agile scrum method and evaluate the effect of the information system (online mentoring activities (X1) and features contained in the application (X2)) on the level of availability of field practice activities (Y) in the company. The information system development method uses the agile scrum method was chosen because it is able to produce quality software and can adapt to changes continuously. The information system is intended to better organize field practice activities for participants and companies so that all parties can benefit from field practice activities. A survey was carried out by distributing questionnaires to respondents with a respondent profile of 90% of students, 8% of employees who became supervisors for field practices, and 2% of employees who became admins of field practices. This survey is distributed via a google form with 100% of respondents filling out and returning the survey results. The questionnaire distributed contained questions about online mentoring activities (X1) and the features in the application (X2) to measure the level of availability of the implementation of field practice through the information system (Y). Based on the evaluation results, it was found that online mentoring activities (X1) and features in the application (X2) have an influence of 63.4% on the availability of field practice activities (Y) in the company.

Keywords— *information system, field practice, agile scrum.*

Acceptance Analysis on Online Health Application During COVID-19 Pandemic in Jakarta Using TAM

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Abstract— Online health applications have been popular in Indonesia since there are many people who must stay in their house to do self-isolation. Researchers want to analyze how the public accepts this information system technology in their daily lives using the TAM model. Some of the variables tested on this study are user's perceived ease of use, perceived usefulness, attitude towards using, behavioral intention and actual use of the application. By doing quantitative research on this topic researchers got 105 respondents on the questionnaire distribution and the data was analyzed and processed using smartPLS software. As a result of this study is that online health applications are accepted well by the users, also all hypotheses proposed are significant and accepted.

Keywords— *user acceptance, online health application, TAM, Covid-19 pandemic.*

Social Network Analysis of Campaign Mobilization of Marketplace on Twitter

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Abstract— This study presents a visualization and analysis of social network for campaign mobilization conducted by marketplace Shopee and Lazada. The aim of this study is to gain insight on user interaction as well as to examine the comparison of hashtags used in campaign mobilization on social media. Hashtag has been used as part of digital activism which allows the user generated content (UGC). Marketplace Shopee and Lazada also employ digital activism by conducting Harbolnas (online shopping festival) campaign to boost customers engagement and purchase intention. The case investigated is the hashtag #Shopee1111BigSale and #Lazada1111. This paper used social network analysis by using big data from Twitter obtained by Twitter Archiving Google Sheets (TAGS) application. The data is then processed using Gephi. The result showed that #Shopee1111BigSale was more successful to create mobilization. In terms of network properties and network centrality, Shopee also has more influential actor that disseminate information in Twitter faster and more widely.

Keywords— campaign mobilization, hashtag, marketplace, social network analysis

Understanding The Factors Influencing Consumer Purchase Intentions via Instagram Shopping Feature

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Abstract—This study aims to examine the influence of factors that influence product purchase intention on Instagram shopping feature. This study developed a conceptual model with 6 hypotheses from 7 variables: social motive, escapism motive, value motive, hedonic enjoyment, utilitarian value, information quality, and purchase intention. For this study, therefore, data on Instagram shoppers was collected and analyzed involving 616 respondents with a 6-point Likert scale using the online survey form. We used the snowball sampling technique and the Smartly 3.0 application to evaluate the research model. The analysis results found four variables affecting the interest to purchase intention: escapism motive, hedonic enjoyment, information quality, and value motive. However, two factors showed no association with purchase intention: social motive and utilitarian value. The findings of this study have several theoretical contributions and practical implications for marketing for evoking purchase intention using the Instagram shop feature.

Keywords— *purchase intention, Instagram, shopping feature, online shopping*

Knowledge Management System Design for Health Stores in PT. ABC

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Abstract— This study aims to identify, analyse needs, and design a Knowledge Management information system for marketing personnel who sell health products and by using interviews and observation methods as data collection techniques. The research was conducted when the process was running at PT ABC, it was found that the marketing staff had difficulty explaining hundreds of health products in terms of size, function, price, and promotion to customers. In addition to the difficulty of explaining the product, there are also new products that are always present every time and products that are no longer produced. with dozens of shops and hundreds of marketing personnel spread throughout Indonesia, it is not easy for PT. ABC to explain product knowledge and understanding to all marketing personnel, therefore the results of this research are then poured into the design of Knowledge Management information systems in the form of mobile applications and web-based applications. The design of the Knowledge Management system is a knowledge management tool that functions as an online learning tool and provides the latest changes in the provision of applicable knowledge, a media facility to improve the soft skills and hard skills of marketing personnel, as well as an effective and efficient means to store knowledge information. a product and promotion that is beneficial for employees and companies.

Keywords— *knowledge management, OOSAD, information system*

Smart Mobile Phone Charging Stations for Public Service as Smart Cities Component

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Abstract— The need to charge a smartphone is because the battery on a smartphone is designed not to have long enough power, especially the need for the smartphone for browsing using a data plan. Mobile phone charging stations in public areas are generally open, and some have also implemented a manual lock on each charging box. Some boxes lose their keys due to someone's carelessness, resulting in the box being unable to be used by others. This research aims to make a prototype mobile charging station equipped with a fingerprint security system. The method used in this research is a case study by making a prototype of a mobile phone box charging station. The security system in the charging station author utilized Arduino Mega connected to the solenoid controlled by fingerprint to open and lock each box. The device successfully registered each user's fingerprint based on the results of creating a prototype of a security system using a fingerprint. The device can read the correct fingerprint to open and close the solenoid in the box. In the case of unrecorded or mismatched fingerprints, the device will issue a warning and refuse to allow access to open and close the box. As a result, this security system is ideal for use in a prototype mobile charging station.

Keywords— *charging station, fingerprint, public space, smart cities, smartphone*

Factors Affecting Behavioral Intention and Use Behavior of E-Commerce Users from Gen-Z Using UTAUT2 Model

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Abstract— E-Commerce XYZ is one of Indonesia's most widely used E-Commerce compared to other E-Commerce. The purpose of this research is to determine the elements that affect Behavioral Intention and Use Behavior on the E-Commerce XYZ for Gen-Z users using the UTAUT2 model that has 8 independent variables. This study was conducted from March 26, 2022 to April 17, 2022, to 150 respondents of Gen-Z who were born between 1995 - 2010 with more than three years of experience and less than three years of experience in using ECommerce XYZ by filling out an online questionnaire based on the Likert scale. The data that has been obtained will be analyzed using SEM-PLS. This research is expected to help ECommerce XYZ improve application performance and help other E-Commerce to create innovations so that their existence is known by users and can increase the number of transactions. This study proved that Performance Expectancy, Facilitating Conditions, Habit, and Behavioral intention affected Behavioral Intention and Use Behavior.

Keywords— UTAUT2, e-commerce, behavioral intention, use behavior, generation Z

Selection of Agile Method Management for ERP Development System Using Analytic Hierarchy Process Method in PT. ABC

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Abstract— PT. ABC is a company that has been around for 32 years and has branches spread across all major cities in Indonesia. PT. ABC manufactures products for the needs of motorized vehicles. PT. ABC wants to build an integrated system starting from raw material requirements, quality control, production, distribution, logistics to marketing. Because the current ERP system cannot fulfill the business process needs optimally. The platform to be used is web-based using a web framework, namely Code Igniter, the database used is MariaDB. The system development method will use the agile method. The agile method also has many derivative variants so that PT. ABC must really choose the best method according to the culture and business process of PT. ABC, and all of the agile development methods the most popular are the Adaptive - Software - Development (A S D) development method and the Dynamic System Development Method (DSDM) The aim of academics applying the AHP technique can determine which agile method is very proper for make use of. And in assumption, PT. ABC will use Adaptive Software Development (ASD). By using the AHP quantitative method, it is expected to be able to determine which method is the most suitable for use for the conditions and circumstances of PT. ABC so that the method used for ERP development will be faster and much more effective. and by using the AHP method it was found that the most appropriate method for PT. ABC is a method of Adaptive Software Development (ASD) Agile Method Development at PT. A B C. From table XI Adaptive Software Development (ASD) by value 0.2806 compared to Dynamic System Development Method (DSDM) by value 0.0969

Keywords— agile method, development, AHP

How HRIS and HPWS affect on employee performance in the HR division using online shared services?

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Abstract— At this time companies are competing to transform technology into innovation to make their work easier. Especially efficiency in the use of human resources. Innovation in technology that is expected to improve performance and provide sustainable added value for the company. Online shared services are one of the innovations created to empower limited company resources. Based on the phenomenon that occurs, the purpose of this study is to analyze whether the human resource information system (HRIS) and high performance work system (HPWS) affect on employee performance in the human resources (HR) division using online shared services. This study uses quantitative methods with data collection conducted through literature studies and questionnaires. The sample size used in this study is 30 employees who work in oil and gas companies in the human capital division. The results showed that HRIS and HPWS have a partial and simultaneous positive relationship on employee performance. The coefficient of determination is 53%, indicating the correlation of changes in employee performance can be explained by the HRIS and HPWS variables.

Keywords— *employee, performance, HRIS, HPWS, online, shared, service*

Information Technology Usage: Shariah Compliant Companies of Malaysia and Indonesia

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Abstract— All businesses, including Shariah-compliant businesses, are encouraged to fully utilize information and communication technology (ICT) such as internet platforms to effectively address disruptions and ensure the long-term viability of professional knowledge in the field by implementing policy-compliant technologies and incorporating environmentally friendly IT requirements as part of the Industrial Revolution 4.0. IT is a powerful tool for improving the workplace, expanding staff education, improving customer interactions, and increasing revenue. A corporation becomes shariah-compliant when the Securities Commission Malaysia (SCShariah Advisory)'s Council (SAC) authorizes it. A two-tier quantitative technique will be used to evaluate the companies, including a business activity and financial ratio benchmark. The IT usage of Shariah-Compliant firms in Malaysia and Indonesia is compared in this study. The annual reports of 70 manufacturing Shariah-compliant companies for the year ended 2019 in Malaysia and 70 manufacturing Shariah-compliant companies for the year ended 2019 in Indonesia were used in this study. The data were analyzed using descriptive analysis. According to the statistics, Indonesian businesses use more technology than Malaysian businesses.

Keywords— *information technology, usage index, shariah-compliant companies*

Understanding Consumers' Intention to Use E-Commerce in Indonesia

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Abstract— The purpose of this study is to investigate the characteristics that impact Indonesian consumers' adoption of e-commerce. The study employs quantitative approaches, with a Google form being used to collect 237 data points, of which 217 may be utilised. SmartPLS 3.0 to conduct statistical testing and data processing to achieve the research objective. The findings of the research show that: (1) the majority of those who use e-commerce services are members of Generation Z, (2) e-commerce is effortless to apply for and very simple to use, (3) it assists in meeting users' needs, resulting in users choosing to use it more frequently in the future, (4) users believe that the payment system in e-commerce is acceptable, resulting in users feeling interested in shopping, and (5) the security policies implemented by e-commerce make users feel more secure while shopping. This study's findings also reveal that attitudes have a positive and statistically significant influence on e-commerce usage, as well as intention to use having a positive and statistically significant influence on e-commerce usage. The conclusion is that Indonesian consumers are now prepared to trade through e-commerce, and service providers should begin to capitalise on the e-commerce platform in order to expand market share.

Keywords— *intention to use, e-commerce, website quality, trust*

Dissemination Model of Environmental Conservation Through the Development of Environmental Knowledge Management Systems

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Abstract— Sustainable national development needs to take into account the utilization of natural resources that are environmentally sound for the needs of future generations. For the community, the environment is a space or place to live for life, so it needs to be preserved as well as utilized. Collaboration between environmental knowledge and its preservation with Information and Communication Technology (ICT) knowledge can be developed into a management system, knowledge of the environment (Environmental Knowledge Management Systems). This study aims to build a model for the development of knowledge management systems (KMS) socialization activities for environmental conservation. The research design is included in exploratory research, with a sample of 189 respondents and sampling was done by non-probability convenience sampling. The results of the study indicate that there are important factors that can be modeled mathematically through factor analysis which identifies the representation of effectiveness of awareness, reliable tools, environmental scope, social collaborative, and conservation resistant factors as the main factors in developing KMS from the respondent's point of view. On the development side of KMS socialization activities for environmental conservation, through regression analysis of the formed factor values, the perception of understanding felt by the community can be modeled by utilizing the formed factor values. It is concluded that the knowledge management systems development model can be built and utilized to maximize environmental conservation dissemination activities and can be used as an instrument in implementing sustainable development policies.

Keywords— *model, dissemination, knowledge management systems, factor analysis, environmental conservation.*

Machine Learning Face Recognition Model for Employee Tracking and Attendance System

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Abstract— An attendance system is widely implemented to monitor someone's presence in the office, schools, or events. Several technologies can be implemented as the attendance system. Face recognition is a natural, inexpensive, and easy way to be implemented as an attendance system. In this pandemic and post-pandemic era, face recognition can be the best alternative to be implemented as the attendance system. This research aims to propose a real-time attendance system using face recognition with consistently high accuracy. Moreover, the system is able to update the attendee's face periodically to tackle the changes in the face over time. The attendee can take their attendance using a camera. The camera captures the face and detects the face using the Multi-Task Cascaded Convolutional Neural Network (MTCNN). In addition, The Face Alignment Network (FAN) is applied to the image to extract the facial landmark in the image. The next step is to extract information from the face by using FaceNet. Finally, the face embedding extracted from Face Detection System is classified. The best classifier accuracy achieved by the model was 100% and 99.90% for training and validation, respectively

Keywords— *attendance system, face recognition, face alignment, face embedding, machine learning*

The Effects of Evangelist Marketing Activities on Menantea's Brand Equity (Study on Nihonggo Mantappu Indonesian Community)

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Abstract— The dependence on the internet has encouraged the transformation of e-WoM messages and created a variety of marketing strategy innovations, one of which is evangelism marketing. This study aimed to understand the influence of evangelist marketing activities on Menantea's brand equity from the perspective of the Nihonggo Mantappu Indonesian community as fans of Jerome Polin. Uses and gratification theory, evangelist marketing, and brand equity concepts were used to support the analysis of finding. This research used a quantitative approach through questionnaires distributed to samples with criteria of generation Z with the category B of socioeconomic status and have purchased the brand at least once. The data processing passed the classical assumption test and simple linear regression analysis. The results showed that there was a positive and significant influence between the variables of evangelist marketing activity and brand equity of 65%, with the other factors contributing to the rest. From the data, it can be concluded that the opinion leadership indicator as the source of the message has the highest influence on Menantea's brand equity. The brand also has actively involved their followers in creating and distributing content through Instagram. Moreover, the effectiveness of user-generated content as well as perceived quality of the brand also contributed to the influence of evangelist marketing on brand equity.

Keywords— brand equity, brand evangelism, evangelist marketing, e-wom

The Usage of Generative Adversarial Network for Image: A Systematic Literature Review

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Abstract— GAN is growing rapidly, by using GAN claims that it is most promising in image enhancement and manipulation. But for some reason on detecting fake images, people's eyes are more accurate rather than using machine learning approach. The presence of GAN itself giving a new method on manipulating and changing the digital image such as image translation. GAN is a part of Deep Learning method. Where comparing to another model of Deep learning such as CNN, ANN, and so on. Author is trying to research more about GAN for image by implementing Systematic Literature review method. With this topic, author studies a lot of implementation and research from scientist across the world on how to use GAN and how it works. In this study, several problems came to the attention of the author during the review, so from the many papers that the author had read, only 20 papers were filtered and will be the basis for this research. The results of this study indicate that USA and China have the highest level of research related to GAN and the results show that the application of the GAN method gets the highest ranking in this study comparing to CNN, LSTMs, VAE. On This paper will be explain more about other methods of GANs.

Keywords— *GAN, machine learning, CNN, deep learning*

The Dissemination of Electric Control Installation Based on Microcontroller Through Digital Application in The Vocational School Environment

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Abstract— SMKN 1 Riau creates an electric control installation device based on a microcontroller through digital application. But the vocational school has difficulty in socialization this innovation. This study aims to explain how to spread the innovation of microcontroller-based electrical installation control devices through digital media in the internal and external environment of SMKN 1 Kepulauan Riau. The theory used to help explain the process of spreading innovation is innovation diffusion through four elements, namely innovation, time, media, and social systems. in addition, this study compares how the process of diffusion of these innovations through conventional means. the method that will be used is qualitative with data collection techniques, include conducting interviews with actors who play a role in spreading the innovation of the electrical installation control device. the results showed that the innovation of SMKN 1 Kepulauan Riau was in the form of electrical installation controllers such as garden lights, water pumps and other industrial installations. teaching factory and training is a way of socializing to the microenvironment while online media is used to disseminate innovation information to the macro environment. the preparation process was carried out for three months.

Keywords—*microcontroller, electrical installation devices, innovation diffusion, vocational school*

Model of Expected Benefit, E-Learning Curriculum, and Education Partners on E-Learning

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Abstract— Adaptation of new technology in e-learning begins with psychological motivation from students, where this becomes important related to the success of the e-learning concept. Examining the phenomenon, this study aims to investigate the relationship between student psychological motivation and expected benefits, e-learning curriculum, and educational partners. The research was conducted on students in the city of Bandung through a quantitative survey. The data from students was taken through a questionnaire and the tabulated data from the questionnaire was processed using SmartPLS. There is a research model based on the design of the research hypothesis being tested. The results showed that the expected benefit and e-learning curriculum had a positive relationship with psychological motivation. Meanwhile, educational partners do not have a positive relationship with psychological motivation. Furthermore, it is known that the expected benefit has the biggest impact in supporting the psychological motivation of students. Psychological motivation is important related to the adaptation of new technology in e-learning, because it is a factor that can increase the success of using e-learning as a learning medium. The findings of this study can be used as input for universities in reviewing the concept of e-learning so that it can be well received by its users.

Keywords—*expected benefit, e-learning curriculum, educational partners, psychological motivation*

Understanding Artificial Intelligence Adoption Predictors: Empirical Insights from A Large-Scale Survey

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Abstract— Scholars, policymakers and managers have already agreed on the critical role that artificial intelligence (AI) technologies will play on both businesses competitiveness and country's economic growth. However, our knowledge of factor influencing AI adoption by organization is still limited. Responding to calls for more empirical research on AI adoption at firm-level, we used data collected in 2019 from a European-Wide survey of a representative sample of 9272 firms on the adoption or non-adoption of 10 different types of AI technologies. We investigated predictors of adoption, intention to adopt and non-adoption of AI using Multivariate logistic regression. Consistent with previous research, our results confirm that firm size and perceived obstacles matter for AI adoption.

Keywords— *artificial intelligence, adoption, predictors, survey, logistic regression*

Utilization of Blockchain Technology in Making Police Record Certificates (SKCK) Using an Enterprise Architecture Approach

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Abstract— Blockchain is one of the products born from the rapid development and growth of technology which is common in Industry 4.0. However, Indonesia has not implemented blockchain in the government sector until now, even though this is an important thing to create a safe and transparent system for its citizens and to improve technological development in Indonesia so that it can always keep up with the times. Even though Blockchain technology can be used in the design of any system, including the creation of a Surat Keterangan Catatan Kepolisian (SKCK) because the use of blockchain in SKCK can help secure the data of every resident. The research method used is descriptive analysis of the results of the various literatures studied. The purpose of this research is to design a system for making Police Record Certificates (SKCK) by utilizing blockchain technology using an Enterprise Architecture approach. From here it is analyzed using several diagrams such as Use Cases and Flowcharts to be able to describe the needs and business processes of an SKCK system. The conclusion of this research is that Blockchain implementation is very necessary because Blockchain implementation can make SKCK data and information more secure and verifiable using immutable hashes.

Keywords— *enterprise architecture, blockchain, SKCK, police record certificate*

Risk Invalidation of Data in Banking Information Systems in Indonesia

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Abstract— Customer information was crucial in the banking industry; customer detailed information was needed to provide the eligibility of the customer to fulfill customer profile to link the data governance. In the banking industry we called as know your customer or KYC. This step was an important stage when the customer opened the bank account based on the regulation of the central bank of Indonesia (Bank Indonesia) and the financial service authority (OJK). The detail customer profile was used to prevent the money laundry (AML) action and counter financing terrorism (CFT), this data will lead to the transaction record of the customer as the mitigation action and the customer has been classified based on risk-based approach (RBA). Besides that, the customer data must be reported regularly to the Bank Indonesia and OJK as the regulator. Nowadays, at the bank industry the bank officer has been to complete the customer information based on standard operational procedure (SOP) but in the other side the customer was incomplete the requirement and somehow the officer did not fill the whole information but only the mandatory information that filled and the lead misuse data by the officer to input the data of the customer. It was caused by human error and the system regulation. This research was carried out based on direct monitoring of the system used in several banks and found the existence of data invalidity and data updated in the information system that has potential to become a risk that ultimately becomes a loss both for customer, banking staff and bank management. Allowing invalid data will be a threat that comes from within the bank environment itself.

Keywords— *know your customer, kyc, data validation, risk-based approach, banking information systems, risk invalidation*

Escape Room Mobile Game Design for Remote Learning

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Abstract— Education has been there for a long time in human life. Since its existence, education have developed in such a progressive fashion in order to fulfill human needs. Even more with the help of digital technology and internet, education delivery has been forever changed and the change are here to stay. This paper purpose is to propose a design of education platform that utilizes digital technology, internet, and games. Using the design thinking approach, the result of this paper is a design of escape room-based design to provide an alternative education delivery platform in a fun way. Escape room-based design is chosen because of its unique ability to integrate game and education delivery.

Keywords—*serious games, game-based learning, education, escape room, design thinking*

Business Intelligence Design for Non-Customer Profiling System: Case Study Cloud Hosting Company

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Abstract— Large amounts of data about customers and new information technology tools have created opportunities for businesses to leverage data and earn profits. Customer profile development is essential for conducting targeted marketing campaigns because it classifies new customers and provides information about current customers. BI applications can analyze data more effectively, for example, by analyzing and building customer loyalty to increase company profits, analyzing customer interactions, and optimizing the relationship. The purpose of designing Business Intelligence for a non-customer profiling system is to provide a straightforward approach based on segmentation to customize products, services, and marketing objectives for each segment. The method was chosen so that the Business Intelligence design stays focused on the scope and can define the sequence of projects related to tools, data, and analysis. Business Intelligence that has been built can help the marketing department in making decisions and making the right marketing strategy. Suggestions that can support further development for Business Intelligence include web or mobile-based, developing parameter tools in the dashboard, and building databases and data warehouses for data storage.

Keywords— *business intelligence, dashboard, customer profile, marketing*

Comparison of Social Media Marketing Strategy of Indonesian Digital Bank Companies in Attracting Unbanked Youths

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Abstract— Digitalization and the advancement of technology have made the financial sector in Indonesia more available and accessible than ever, making the financial sector increasingly popular in the Indonesian people. However, banks are faced with the unbanked people who have not own any accounts due to various reasons. When COVID-19 Pandemic started spreading, it caused most activities including financial activities, to be done with limited contact with each other. This caused most activities to go online, including banks. Digital banks started to appear with them marketing their different services to compete with other digital banks in attracting the unbanked. This paper focuses on the marketing strategy of the digital banks in Indonesia in the social media platform Instagram in attracting new users into their services. By analysing secondary data of each digital banks' Instagram account's performance and their contents, this research provides insight into how each digital banks advertise their services and how they are attracting the unbanked youths on Instagram.

Keywords— digital banking, social media, digital marketing, unbanked

Factors Influencing Online Shopping Intention in Indonesia

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Abstract— The purpose of this study is to determine the factors that influence the Indonesian people so that they decide to shop online through e-commerce. Data was collected in May 2nd, 2022 until June 2nd, 2022 through a google form questionnaire which was collect as many as 526 respondents from various regions in Indonesia using purposive technique sampling. Data processing uses the SmartPLS application to measure convergent validity, discriminant validity, and path coefficients. The results of the analysis show that Payment Options, Online Shopping Awareness, Online Shopping Perception, Privacy, and Security affect Online Shopping Intention variable. Meanwhile, Website Quality does not have a positive relationship with Online Shopping Intention variable because most consumers prefer to shop through applications on smartphones than through websites. The conclusion is that Indonesian people tend to choose to shop online compared to shopping in-store because shopping online, flexible, practical, competitive prices, quality comparable to offline purchases, and of course shopping can be done online and at any time via internet.

Keywords— *e-commerce, UTAUT, website quality, online shopping intention, security, privacy, awareness, perception, payment*

Student Satisfaction Analysis in E-Learning Usage Based on Service Quality, Information Quality, and System Quality in Indonesia Higher Education

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Abstract— In the current pandemic era, almost all activities are carried out online, including the provision of education. E-Learning is something that is new, because of the pandemic, many provider institutions have implemented E-learning first. But not all online education is successful because people still feel that the best education is traditional (face to face), and this will have an impact on student satisfaction as the party receiving education. Student satisfaction is significant factor to look for improving the quality of education and the university's brand image, in addition to the use of IT and the integration between education and IT which must also support each other, the main goal is to achieve good student satisfaction. The study purposed to analyze the factor that influences student's satisfaction using the theory obtained from previous research. A questionnaire-based survey distributed to 564 active students at universities throughout Indonesia was used to collect the data needed for this research. After analyze the data, the result shown that the service quality, information quality, and system quality and significantly influences the e-learning quality and e-learning quality and student satisfaction has relationship each other. This study uses the development of SERVQUAL theory for the research model. This study also provides better insight on how to achieve high student's satisfaction level with the education systems provided.

Keywords—*e-learning, student satisfaction, e-learning quality, service quality, information system success*

Analysis of The Use of E-Money during the COVID-19 Pandemic of University Students

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Abstract— The Covid-19 pandemic makes people must adapt quickly, especially in digital money adoption. This study analyzes the effect of e-money on the consumptive behavior of students. This study uses a quantitative research design with a descriptive approach. This research's data was collected through the distribution of questionnaires with digital form media to Bina Nusantara University (Indonesia) students with an average age of 18 to 22. While the sample was selected using a purposive sampling technique. The total sample of the study amounted to 136 people. The results of this study show that there is a high level of consumptive behavior and a high level of use of electronic money services, especially for students. For some students, electronic money is not a substitute for paper money, but it is only used when there is a need or an exciting promotion. Students have also experienced problems or bad experiences in using electronic money services. This identified problem can be a suggestion for the company of this electronic money service to minimize the problems experienced by some students as active users of electronic money services.

Keywords—*digital money, e-money, consumptive behaviour, covid 19, university student introduction*

Analysis of Factors Affecting the Intensity of Mobile Transportation Applications Usage in Pekanbaru

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Abstract— This study was made to analyzes the factors that affects the intensity of mobile transportation applications usage in Pekanbaru. This study is intended to find the correlation between behavioral intention to use main factor such as service value, service quality, and satisfaction. In this study, researcher is using quantitative research as the research method. Purposive sampling was used to collect the data. The data collection of this study is survey. While the survey's link was up from 12th June to 29th June 2022, it collected a final amount of 238 respondents. The survey is made with google forms and shared through online groups on Line, WhatsApp, and Discord that is populated with Pekanbaru residents. This study target respondent is for those who has stayed in Pekanbaru and has already used mobile transportation application in Pekanbaru. 2 hypotheses are rejected in this study as the result of this study. The hypotheses are perceived usefulness and perceived enjoyment has a positive relationship, satisfaction and behavioral intention has a positive relationship. This study found that service value and service quality are the main driver of behavioral intention to use the service. Although satisfaction doesn't serve as main driver of behavioral intention, it still affects the usage of the application. Limitation of this studies is the sample size that can be improved by further studies that add new variables such as accessibility and security.

Keywords—intensity, satisfaction, behavioral intention, service value, service quality, mobile transportation usage

Digital Village Analysis and Design using Design Thinking Method: Case Study of Village Management Website

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Abstract— Some villages still have gaps in understanding aspect and implementing the Smart Village concept. The main problem face in building smart village in rural area is the concept goals of smart village itself, especially for the aspect of 'Smart People' and 'Smart Government' this affects the dissemination of information between communities which is less evenly distributed because the lack of space for information can be easily obtain and pass it on to the wider community. Hence, this research was intended to propose the possibilities of analyzing and design a village website as open space for distributing information as solution for smart village concept problem examined using the design thinking methodology and UML diagrams by collecting data through in-deph interview in village case study sample of Cibatu Village, Sukabumi Regency, Indonesia. As result, the proposed implementation of smart village concept through website is categorized to four type of users including (1) The Village Apparatus, (2) The MSME Villagers, (3) The General Villagers, and (4) The Society. This research can be expected to implement in other village by considering the characteristics of users in each specific villages and match the solution by prioritizing main problem and availability of human and environment resource.

Keywords—*design thinking, information distribution, smart village, study case*

Project Management SaaS Feature Framework for MSMEs in Indonesia

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Abstract— Around 95 percent of Indonesia’s total workforce are being employed by micro and small and medium enterprises (MSMEs) and cover around 99 percent of existing business enterprises in Indonesia, and many of them are managing projects for their business but lack on the usage of the appropriate tool for managing projects. The research described in this paper was undertaken in a MSME company in Indonesia, specialized in offering event management. Along with the observation and interviews to the MSME company, literature review is also done in the area of project management, SaaS and MSMEs to identify on the mandatory features of project management tool that are needed to sustain a project successfully. The main goal of the research is to develop a feature list or framework for project management SaaS tools to improve the performance of the company. The research result can be used by other MSMEs in Indonesia as a guideline when selecting the right Project Management SaaS tools which fit for their company.

Keywords—*software as a service, small medium enterprise, project management, SaaS, project management SaaS*

How to See Social Media Strategy of Coffee Shop in Indonesia (Data Analysis Perspective)

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Abstract—Recently, coffee shops are extremely popular among young and adult, but there are still many coffee shops that have not maximized their marketing techniques through social media, especially Instagram. therefore, this research was conducted to find the right marketing strategy to increase engagement and sales in a coffee shop. The research carried out took the scope of Instagram and used secondary data collected from the coffee shop to be analyzed. This research uses descriptive method. We use website analysis.io, inflact.com and manual data collection via Instagram for collecting the data we need to support this research. In this study, we found several results that we could save from the data that we had previously collected. We describe the data in the Result and Discussion section. With this data, we also held discussions to summarize the data into something that can be understood through words from our perspective as researchers. One of the conclusions we can take is to find a coffee shop that has the most engagement among other coffee shops. Coffee shop FR where he has an engagement of 3.39%. it proves that the FR coffee shop has succeeded in creating interactions with customers, seen from the many likes and comments.

Keywords—*coffee shop, descriptive, social media, data analysis*

Performance Factors Analysis of the Digital Sharing Economy

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Abstract— Several studies have analyzed the indicator performance of the digital sharing economy; however, it is essential to know how to implement and improve the indicator performance of the digital sharing economy by understanding the three fundamentals needed for implementing the digital sharing economy. Indicator performance in the digital sharing economy can be an opportunity for hospitality and ride-sharing services. Successfully implementing and improving the digital sharing economy requires understanding the sharing economy itself. In this paper, we research the explanation of sharing economy and show the indicator performance and the key factors that can help the company improve or implement the sharing economy. To answer the research question "what are the performance factors that are needed for the company to implement a digital sharing economy successfully?" and "what are the key factors that are needed to see in implementing a digital sharing economy in the company?", research uses a qualitative approach. Five essential indicators for the digital sharing economy exist. Eight critical factors are divided into two perspectives: the customer and the company. From the customer's perspective, there are four main factors. At the same time, the company has four main elements for using the sharing economy. From the analyzed factors, the indicator performance and the factor also have a connection that can help link the customer and the company.

Keywords— *sharing, economy, digital, performance, factors*

The Influence of Gamification Implementation on Customer Loyalty in Mobile Commerce Applications

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Abstract— Up until today, various studies have discussed gamification but none of them have explored how different types of gamification will affect customer satisfaction and loyalty. Therefore, this study aims to analyze the impact of several types of gamification in loyalty programs on customer loyalty in mobile commerce applications (m-commerce). This study covers the types of gamification found in m-commerce applications in Indonesia, including points, tasks/quests, and levels-related gamification. Data collection in this study was carried out through an online questionnaire distributed to users who have used gamified loyalty programs on m-commerce applications in Indonesia. To test the hypothesis, this study uses a covariance-based structural equation modeling method with the help of AMOS 26. The results found that points, tasks/quests, and levels-related gamification significantly affected utilitarian and hedonic values. It was also found that utilitarian value affects satisfaction and loyalty, but hedonic value only affects satisfaction. This study explains the importance of utilitarian values in implementing gamification in loyalty programs and provides insight into the type of gamification that has the most significant influence on customer loyalty, which is levels-related gamification.

Keywords—*gamification, loyalty program, mobile commerce, customer loyalty, utilitarian value, hedonic value, Indonesia*

Automatic Sales Order Collection from A Top Indonesian Retailer's E-Procurement Website Using Selenium

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Abstract— The utilization of E-Procurement services is increasing rapidly over the years. This can be seen in several cases of mainstream supermarket retailers in Indonesia such as Carrefour, Hero, and Indogrosir. They will have a centralized order placing system which has been proven to provide numerous benefits. However, from the suppliers' point of view, it might be perceived as a difficulty since they are obligated to check multiple websites throughout the day. Hence, this solution is proposed to solve the suppliers' problem of being required to continuously monitor the e-procurement websites. Selenium will be used to automatically harvest sales orders data from the e-procurement website with the appropriate credentials. The data will be inserted into a database after undergoing data cleansing which will then be displayed via a User Interface. The system have been built and the testing shown 100% success of data collection.

Keywords—*automation, e-procurement, supermarkets, selenium, data harvesting*

Empowerment Village Community Through the Rawang Village Information Systems (SiDeRa)

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Abstract— The purpose of this research is the development of a village information system with community empowerment to manage data in Rawang Village. The problem in this research is that the data management has not been recorded properly. Service activity data is archived in paper-based form and requires a large storage space so that there are difficulties in finding the data and information needed, which causes public services to be not optimal. In addition, another problem faced is that the existing profile application is still manually adding data. The solution to this problem is to build a web-based information system because of the web application in terms of almost unlimited data access, flexibility, and portability so that data management is optimal, village profile data is automatically added, and improving public services. All activity data will be stored in the system and village communities can get information quickly. The method used in this research is Agile Scrum and User Acceptance Test (UAT) to test user satisfaction with the system. UAT uses a questionnaire with 50 respondents from Pariaman village and the sampling method used is a random sample. The statistical method used is regression analysis with the independent variable (variable X) and the dependent variable (variable Y). The UAT results found that the village information system variable (X) has an effect on the variable to improve the quality-of-service quality in Rawang village (Y) by 75.6% which means that the information system built helps village communities in improving services public, more optimal data management, easier access for village communities to information, and provide statistics or data reports automatically.

Keywords— *village, information systems, web, agile scrum, UAT*

The Effect of Financial Literacy and Fintech Knowledge on Fintech Services Usage

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Abstract— This research aims to observe the effect of financial literacy on fintech service usage with the support of fintech knowledge. Data collecting through a questionnaire with 210 students from BINUS Business School, Bina Nusantara University. The questionnaire was made using a Likert scale. The collected data is then processed using the structural equation modelling method. Indicators measure the financial literacy variable: understanding interest rates, understanding inflation, financial skills, financial attitude, management of finances, and risk and return in investing. The fintech knowledge variable is measured by indicators, namely knowledge about fintech practices, knowledge about fintech terms, knowledge from college, familiarity in fintech, and awareness of fintech. The fintech services usage variable is measured by indicators of access features, service reliability, user's needs, user friendly application, trust, and intention. The study results show that financial literacy has significant and positive influence on fintech knowledge. Financial literacy has significant and positive influence on fintech services usage with the support of fintech knowledge.

Keywords—*financial literacy, fintech knowledge, fintech services usage, financial technology, structural equation modelling*

Youtube Playlist: Iconic Song Triggers Nostalgic Memory and Function of Nostalgia

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Abstract— The use of social media is increasingly integrated with human life due to pandemic conditions. YouTube as the most popular social media in Indonesia needs to be used to improve the quality of well-being through nostalgia as a memory and psychological function of nostalgia. Social media such as YouTube is considered to be able to save and get nostalgic memory and cause the effect of the nostalgia function. This study aims to explore the use of YouTube as a tool for evoking childhood nostalgic memory and personal relations memory, and to get a nostalgic effect in the form of meaning in life which is obtained through the dimensions of positive affect, self-regard, and social connectedness. The participants were given manipulation to listen to the Nina Bobo song, then asked to remember the nostalgic memory and fill out a questionnaire on the nostalgia scale. The analysis used in this study were descriptive statistics, linear regression, and hierarchical linear regression. The results showed that the use of the Nina Bobo song from YouTube had an effect on childhood nostalgic memory and personal relations memory. Then, the nostalgic memory that is evoked had an effect on meaning in life, as well as a person's maturity judging by age had an impact on a person's meaning in life after remembering childhood nostalgic and personal relations memories.

Keywords—*nostalgia, nostalgic memory, meaning in life, social media, youtube*

Using fuzzy sets Qualitative Comparative Configuration to Predict Consumer Travel Behavior from Instagram: The Role of Social Media Influencers

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Abstract— During the last few years, social media influencers (SMIs) have increasingly evolved into independently operating entities with the capability of influencing their audiences. SMI on Instagram is increasingly being used as a marketing communication tool by businesses due to its popularity and effectiveness. Only a few studies have investigated how social media influence travel behavior in tourism. This study examines whether SMI can affect the travel behavior of Instagram followers. SMI is determined by taking into account attractiveness, similarity, and expertise. SMI generates Para social interactions with followers and establishes trust by promoting destinations based on these three dimensions. In this study, the sample consists of Instagram users who watch travel-related content. A purposive sampling technique is used in which there is a set of criteria for selecting a participant. We obtained 364 responses from an online survey. The data were analyzed using fsQCA 3.0. The fsQCA results confirm the presence of two configurations with high travel intentions. According to the causal conditions configuration presented in this study, one exists an interdimensional relationship between SMIs (attractiveness, similarity, and expertise), trust, and parasocial interaction in terms of travel intention. This study also contributes a great deal of theoretical insight and managerial implications regarding how scholars and tourism managers can leverage SMIs to create high travel intentions.

Keywords— *social media influencer, instagram, parasocial interaction, fuzzy set qualitative comparative analysis.*

Analysis of Intention and Use of Audit Tools Linked Archive System (ATLAS) at Public Accounting Firms

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Abstract— The goal of this study is to explore the influence of performance expectation, effort expectation, social influence, and facilitating conditions on the intention to continue using Audit Tools and Linked Archive System (ATLAS) by the external auditor at a public accounting firm in Indonesia. This study adopted the Unified Theory of Acceptance and Use of Technology. This study collected data from 126 external auditors using the purposive sampling method. The empirical data indicate that performance expectations, effort expectations, and social influence have a substantial impact on continuation intent. Moreover, facilitating conditions have no appreciable positive impact. This study suggests that an accounting firm needs to provide better IT support and improve the quality of information about the parties that can be contacted if there are difficulties and obstacles in using ATLAS.

Keywords— *UTAUT, audit tools and linked archive system, ATLAS, continuance intention*

Impact Analysis of Digital Banking Applications on Disrupting Traditional Banking Industry

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Abstract— In the era of emerging technologies, the banks strive to provide a variety of innovations toward digital banking transformations. Hence, digital banking is the result rapid establishment of innovative digital banking applications that attracts more customers allowing for personalized and commercialized banking transactions. Due to the emerging needs of customers and changes in business models, digital banking applications have been sought to be the solutions for some drawbacks in traditional banking operations. This paper aims at identifying and determining the impacts of digital banking application in disrupting the traditional banking industry using hypothesis testing and analysis of regression on response data collected with convenient sampling technique. The data analysis utilized 265 samples gathered in May until June 2022 with the characteristics of respondents having age above 18 years old and using at least one digital banking application. The data analysis results with proper research framework demonstrate that the digital banking application has significantly disrupted the traditional banking industry, primarily due to the perceived ease of use, habit, customer satisfaction, and behavioral intention to use digital banking applications. This research result can provide useful reference and strategy for banking industry to provision innovative solutions towards banking digitalization and automation.

Keywords—*technology innovation and disruption, quantitative research, analysis of regression, innovative application*

The Role of Social Media in Nourishing Digital Ambidexterity Among MSMEs: Rasch Model View

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Abstract— Indonesians have a keen understanding of technology. However, just 7.4% of all Indonesian MSMEs use digital channels. Even though only a small percentage of MSMEs have used them, the adoption rate has been impressive. Using Rasch Model Analysis, the results show that social media experiences substantially impact Indonesian MSMEs' digital ambidexterity. The study's findings imply that small and medium-sized businesses (SMEs) should prioritize their social media experience to anticipate change. To maximize their digital ambidexterity, MSMEs must access sufficient digital environments. A foundation has been laid for future research into the digitalization of small and medium-sized businesses. Small and medium-sized businesses (SMEs) can take advantage of Indonesia's high social media use, which presents several opportunities.

Keywords— *ambidexterity, social media, MSMEs, exploration, exploitation*

The Impact of E-WOM, Online Communities, Online Advertisement on Brand Loyalty, and Buying Behaviour During COVID-19 Pandemic

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Abstract— The COVID-19 pandemic has been going on for more than two years in Indonesia. The pandemic has turned many things digital, including e-WOM/Electronic Word of Mouth. e-WOM research has been widely conducted and has proven to be very influential in improving customer purchasing decisions. However, e-WOM also has negative impacts such as inaccurate understanding and challenging to control impacts. This study aims to see the impact of e-WOM, Online Communities, and Online advertisements from people who have social media accounts that are e-WOM facilities and see their effect on Brand Loyalty and Buying Behavior during the COVID-19 pandemic. Special conditions during a pandemic have a different impact from general conditions. The SEM-PLS technique uses to conduct this quantitative study, and 137 respondents participate in the study. The study found that several factors influence brand loyalty and intention to buy. First, e-WOM does not influence purchase intention. Second, online communities do not influence intention to buy and brand loyalty. The results of this research will significantly help the industry develop e-WOM/electronic Word of Mouth, Online advertisements, and communities online.

Keywords— e-WOM, buying behavior, purchase intention, online communities, online advertisement, brand loyalty

Analysis of Factors Affecting The Reuse of Online Food Delivery Service Applications

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Abstract— The purpose of the study was to identify the factors that influence users in reusing online food delivery services. The research model used was inspired by the technology acceptance model (TAM) which was added with several additional variables. Data was collected through the distribution of online questionnaires domiciled from Jakarta, Indonesia. The data collected were analyzed using the Structural Equation Model-Partial Least Square (SEM-PLS) method. The results of the study found that the online rating, online tracking, perceived usefulness, and perceived ease of use variables have a significant influence on customer satisfaction which in the end also affects the user's desire to reuse online food delivery services.

Keywords— *online food delivery, TAM, Smart-PLS*

Escalating Digital Mastery for Strengthening Resilience and Sustainability in Small Businesses

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Abstract— This article attempts to examine the effect of digital mastery on the business resilience and sustainability management of the small businesses. It was constructed from survey based research with descriptive and causal analysis. It has involved about 296 owners and/or managers of small businesses from the JakPreneur – a community of entrepreneurs in Jakarta (Indonesia) as the selected respondents. The results conclude that digital mastery has positive and direct impact on business resilience and sustainability management. For strengthening small businesses in struggling during the crisis, digital mastery development is a strategic issue.

Keywords— *digital mastery, business resilience, sustainability*

Designing Smart Energy Contract with Blockchain Technology

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Abstract— Recently, the disruption of blockchain technology has changed the business world, including supply and use of electrical energy. The article addresses the advantages of blockchain technology to a national utility company to act both roles as producer and consumer (prosumers) of electricity to maximize all electricity capacity. The prosumer role encourages the collaboration of independent small and medium utility producers in a business ecosystem to assist managing national wide electricity distribution. The article uses the Blockchain 2.0 framework that links all parties in prosumer role in smart contract mechanism. Participants in the system enable to exchange their data transactions in open platform collaboration easily and securely. The outcome of the article is expected to invite more startups to participate to assist national utility company in efficiently manage electricity investment and distribution.

Keywords— *Design smart contract, blockchain, smart energy*

Discipline, Impact, And Challenges Of Virtual Reality In Higher Education: A Systematic Literature Review

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Abstract— Virtual Reality (VR) has received attention since the trend of the Metaverse came after the pandemic era. Several studies look into how Virtual Reality can be used in higher education. because all the research comes from the education field. However, previous research is too narrow in using technology, but not the area, impact, and challenges of Virtual Reality itself. Therefore, the systematic literature review (SLR) from 2016 to 2022 is discussed in this work to research how discipline, impact, and challenges of Virtual Reality in Higher Education. From 702 papers retrieved, and 214 candidates, to determine the applicability of the study question, 62 papers were chosen. The result shows that most discipline areas are still in computer science, followed by education and public health. Most reports said Virtual Reality is still highly impacted in solving the problem, especially in public health and education. However, there are still some pitfalls: the challenge of using The Head Mounted Device makes Virtual Reality-Induced symptoms and effects (VRISEs) such as Cyber sickness, simulator sickness, Motion sickness, dizziness, and physical discomfort. The implication of the SLR will be considered for academic purposes in preparing for the Metaverse era, especially in higher education.

Keywords— *systematic literature review, virtual reality, technology*

Integrated Healthcare Ecosystem with SaaS Support Enhancing Patient Engagement and Emergency Handling Process in Indonesia

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Abstract— Health, is inherently a primary need of human beings and a functional society. Optimizing care delivery, outcome and effectiveness becomes a focal point especially with the technology and data advancement to ensure best medical service provision to the community. However, in Indonesia, the healthcare paradigm as is, is still segmented with individual hospitals storing health information separately where it matters. This condition hinders full potential of harnessing medical information for betterment of care quality across the industry, reflecting to disengaged patients due to poor patient experience. To collect insights from important health stakeholders, the research uses the NeHc's 5 Stages of Patient Engagement framework as foundation to interview patients, doctors, and pharmacist around Indonesia. This ensures a valuable and patient-centric ecosystem by addressing current pains and objectives. The result of data evaluation shows inadequacy in the current patient healthcare experience and provider care standard, which determines a need for a SaaS platform and mHealth application powered with an integrated electronic medical record database. The result realizes in the form of database design for integrated EMR, along with a SaaS supported mobile health application with the following core features: patient booking, medication reminders, historical medical resume profile, education library, and electronic prescriptions. The solution supports an integrated healthcare ecosystem which can benefit patients' engagement in care participation and help healthcare organizations in comprehensive data provision for accurate treatments, contributing to a patient centered, effective, and quality healthcare system.

Keywords— *digital healthcare, electronic medical record, National eHealth Collaborative (NeHC) patient engagement framework, software-as-a-service, application programming interface*

Digital Capability as The Enabler of Business Agility and Firm Resilience in the Public Companies

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Abstract— This article strives to examine the impact of digital capability on business agility and firm resilience. It is based on cross-sectional study with involving about 127 top executives from 59 public listed companies in Indonesia. PLS based SEM and SmartPLS were used for structuring and analyzing the data. The result explains that business agility plays mediating role in the relationship between digital capability and firm resilience. For making public listed company more resilient in dealing with the crisis, digital capability development should be directed for improving business agility.

Keywords— *digital capability, firm resilience, business agility*

Impact of Student Engagement, Satisfaction, and Perception of Learning in Multi Channel Learning during COVID-19 Pandemic

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Abstract—The worldwide Covid-19 pandemic has altered many things, including the way of learning, the way of learning that is carried out during the pandemic through online to avoid or minimize the spread of the virus. Changes in the way of learning for students provide new experiences for universities and students. Several previous studies have been conducted related to this and several important factors were found such as learning program structure factors, student interaction, lecturer presence, student engagement, student satisfaction and learning perception. This quantitative research was carried out using the SEM-PLS technique to see how the influence of the factors that affect learning perception and student satisfaction during pandemic Covid-19 took place. This study used a sample of 436 respondents and found a very significant relationship between factors. The results of this study found, Learning Program Structure, Student Interaction, Lecture Presence, Student Engagement have an influence on Learning Perception factors and Student Satisfaction. The study results useful for the development of future learning methods.

Keywords—*learning program structure, student engagement, student satisfaction, lecturer presence, student satisfaction*

Proposed IT Governance Model for Smart Tourism Destinations based on COBIT 2019 Framework

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Abstract— Tourism is one of Indonesia's main economic drivers because it can absorb many workers and bring in foreign exchange through tourism activities. Research related to Smart Tourism Destinations (STDs) and the technology that supports them has gained popularity and has received special attention in the last ten years. STDs show that various technologies are applied to a tourist destination, one of which aims to increase added value for the surrounding community and tourists. This study employs the systematic literature review (SLR) method to investigate smart tourism destinations and governance topics. This research aims to identify and analyze the main components of Smart Tourism Destinations Governance. Two research questions were developed and incorporated into the search term. This research resulted in 24 research papers on smart tourism destinations and governance. The result of this study is a proposed IT Governance Model, which can be a guideline for tourism's DMOs (Destination Management Organizations), tourism enterprises, IT companies that support smart tourism concepts, and policymakers (government) to improve their service to society/community. The model can be used as a guide to governing the IT implementation in smart tourism destinations projects. Limitations of this study regarding the scalability of database and keyword usage and their methodologies. Theoretical implication for scholars in the next research is that research can be conducted on how to implement this model and whether this model can be easily adopted. This future work also regarding the IT Governance Maturity Model or the measurement of IT Gov readiness in smart tourism destinations.

Keywords— *smart tourism destinations, governance, IT governance model, COBIT 2019*

Social Media in Business Intelligence as a Solution Toward Social Problems: A Systematic Literature Review

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Abstract— Business intelligence has been a growing concept and method that businesses have used since its development in 1989. The point of using business intelligence is to provide businesses with strategies and technologies used by enterprises to improve decision-making and the company's overall workflow. BI technologies can be used for reporting, analytics, dashboard creation, data mining, benchmarking, etc. In this paper, the author will show different implementations of using social media with the technology of BI to show the different usage of earning data from social media by using data mining to be implemented in day to day basis usage like healthcare, urban planning, social welfare and etc. the process of data mining itself is a process of acquiring and analysing information through big data that are present in social media and to easily help users that would be using data the information can be visualized into dashboards or become the basis of benchmarking for different usages. The author's goal in doing this research is to analyse how social media in BI can create a solution for social problems. The author uses a systematic literature review in the study.

Keywords— *social media, business intelligence, systematic literature review*

The Impact of Online Review on Customers Patronage Intention on Restaurant or Eating Places

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Abstract—Today, there is an increase in the number of online reviews about eating places on the internet; this could pose a problem that people become more difficult to decide. This study examines the factors that influence online reviews in Google Maps about eating places and their effect on patronage intention. This study collected 547 respondents via an online questionnaire in November-December 2021 using Purposive Sampling and used PLS-SEM as a study research method. Respondents were from Greater Jakarta and other cities throughout Indonesia. There were five (5) independent variables (textual comment, contextual image, numerical rating, review quantity, review credibility) involved in this study to evaluate the effect of online reviews on eating places. The result of the study found that textual comment, numerical rating, review quantity, and review credibility positively affect patronage intention. We outline recommendations for eating places or the restaurant industry and Google to improve the potential use of google maps to increase patronage intention and the number of online user reviews.

Keywords—restaurant, eating places, customer, textual comment, contextual image, numerical rating, review quantity, review credibility, patronage intention

Implementation of National Samsat Online Application (SAMOLNAS) : Applying The Unified Model of Electronic Government Adoption (UMEGA)

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Abstract—In order to move towards industry 4.0, the Indonesian government implements regional tax management using e-government. SAMOLNAS is an online technology e government for paying motor vehicle taxes. The aim of this research is to test UMEGA model on the successful of SAMOLNAS implementation. This research was conducted by distributing online questionnaires to users SAMOLNAS application in Jakarta. The sampling is used on this research is purposive sampling and total respondents are 106 vehicle taxpayers. Data was analyzed using Partial Least Square analysis. The research results indicates that the factors influencing SAMOLNAS users are effort expectancy, social influence, perceived risks has impact on user attitudes significant and can increase behavioral intention. Facility conditions has a significant impact on effort expectancy but cannot increase behavioral intentions. Performance expectancy has not affected on attitude.

Keywords—samsat online, E-Government, regional tax, behavioral intention, UMEGA

Entrepreneurial Mindfulness Website: Entrepreneur Profile Survey through Artificial Intelligence

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Abstract—One of the breakthrough solutions in the development of the latest website is the use of artificial intelligence (AI) technology. Therefore, AI is used in the development of entrepreneurial mindfulness websites. Entrepreneurial mindfulness website is a website that was developed by utilizing the development of AI to conduct a survey of entrepreneurs in order to obtain a profiling of entrepreneurs based on their entrepreneurial mindfulness capacity. This capacity can be seen from the conditions related to entrepreneurial engagement capacity, entrepreneurial attitude capacity, entrepreneurial strategic capacity, entrepreneurial mindset, and their cognitive and affective mindfulness. The AI-based website was developed using the Neuroresearch research method and the waterfall method. The Neuroresearch method is carried out by combining qualitative and quantitative research so that it is included in the mixed method. The waterfall method is applied to website development whose process starts from the stages of needs analysis, design development, website development, testing and maintenance. The result of the research is the Artificial Neural Network (ANN) process as part of AI development which produces the ANN structure to explain the entire survey process to the results obtained from the AI-based entrepreneurial mindfulness website.

Keywords— *entrepreneurial mindfulness, artificial intelligence, website, artificial neural network, neuroresearch, waterfall method*

SMEs Data Pre-Processing: The First Step in Validating Instruments on Entrepreneurial Capacity Website

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Abstract— Micro, Small and Medium Enterprises (MSMEs) have made a very significant contribution to the economic progress of the Indonesian nation. However, in the midst of progress and rapid development of technology, MSMEs have begun to position themselves so that they can compete with young and modern entrepreneurs. Therefore, MSME practitioners need to optimize their capacity to capture and take advantage of opportunities called Entrepreneurial Capacity. This study aims to examine more deeply the Entrepreneurial Capacity of MSME practitioners in Indonesia. The research was conducted using the Neuroresearch method which consisted of three stages of research, namely exploratory, explanatory and confirmatory research. The survey was conducted using an entrepreneurial capacity website which was developed based on standard entrepreneurial capacity instruments. The analysis was carried out using the smartPLS software in addition to seeing the relationship between variables as well as to ensure model fit. The results show that indicators of readiness for change and entrepreneurial performance mindset have a big role in developing entrepreneurial capacity.

Keywords— SMEs, data pre-processing, validating instrument, entrepreneurial capacity

Customer Impulsive Buying Behaviors in Indonesia E-Marketplace

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Abstract— Customers' buying behavior is critical in e-marketplace. It is crucial to analyze customers' impulsive buying behavior to increase sales in e-commerce, especially on e-marketplace. This study aims to investigate factors that influence the impulsive behavior of customers in the e-marketplace by using the SOR Model. This study aimed to determine the effect of impulsive customer behavior on the e-marketplace. There are six variables in the research model: Situational Factor, Promotional Factor, Product Factor, Internal Factor, Urge to Buy Impulsive, and Impulsive Buying. This study used the SOR (Stimulus, Organism, and Response) Model to confirm all the hypothesis results. For Statistic analysis, Sequential Equation Modeling (SEM) with Smart PLS 3.0 was used to calculate the data of 510 respondents. The data was collected online and used the Purposive sampling method in November 2021. The results showed that all five hypotheses had a significant effect.

Keywords— *impulsive buying behavior, urge to buy impulsive, buying behavior, customer behavior, e-marketplace, e-commerce*

Development of Healthy Lifestyle Users Based on Intelligent System

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Abstract— The healthy lifestyle application is decreasing due to the high activity of user activities carried out every day. This application would assist users in carrying out a healthy lifestyle. In this application, there are several features that can support the implementation of a healthy lifestyle. The first feature is a drink reminder, every day the user requires a minimum of liquid to be consumed because a lot of activities make the user forget to drink. The second feature is BMI (Body Mass Index). The BMI feature makes it easier for users to find out their body's health condition by entering the user's height and weight. The third feature is the calorie counter. The calorie counter feature makes it easier and helps user to calculate the number of calories from the food that being consumed every day. After doing the research, we got 86 respondents of various ages to support the design of this HealthFit application, and by using waterfall model, we develop the application based on the research. The conclusion from the results obtained from the 86 respondents is that 60.5% of respondents are interested in using the drink reminder feature. 82.6% of respondents are interested in using the BMI feature and 88.4% of respondents are interested in using the calorie counter feature. In conclusion, there are 90.7% of respondents are interested in using the HealthFit application that is used in everyday life to help respondents in implementing a healthy lifestyle.

Keywords— *healthy lifestyle, application, drink reminder, BMI, calorie counter, features*

Strategy and Design of Digital Tourism Promotion Mobile Applications at the District or City Level in Indonesia

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Abstract—Currently, the number of new tourist destinations in Indonesia, especially district or city tourist destinations, is increasing in line with the orientation of government programs which are not only oriented towards increasing the number of foreign tourist visits but also increasing the number of domestic tourists. However, the information on these new tourist destinations has not been widely informed and socialized to the wider community. The purpose of this paper is to recommend a strategy for promoting district or city tourism products based on tourist destinations and promotional content that is necessary and easy to understand, as well as the use of promotional media that is in accordance with the current development of digital social media technology. Literature studies and web browsing/blogs provide travel information and developments in information and communication technology, platforms, operating systems, infrastructure, and their utilization. The results obtained are promotional information content strategies, information delivery strategies, initial application designs that make it easier for users of information and recommendations for district or city tourism promotion media using mobile phones.

Keywords— *tourism information, strategy, digital promotion, local tourism, mobile phone*

Analysis of Effective Online Learning Media during Covid-19 Pandemic (Study of Student's and Teacher's Perception)

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Abstract— The Focus of this research to determine how Effective is online learning during pandemic using Microsoft Teams and Zoom applications that used by Teacher and Student. The methodology is using Technology Acceptance Model (TAM) to research the effect of innovation on user behavior. This research emphasizes to analyze how effective is online learning during pandemic covid-19 and which application is most used for teaching purpose and learning for student during pandemic covid 19. Research method used for this research is quantitative technique by information assortment utilizing questionnaire from Google form. The data will be processes using SPSS. We expect for the result can be reference for the future so Teacher and student can understand which application most used during pandemic covid-19 for Teaching and learning during pandemic covid-19.

Keywords— *online learning, Microsoft Teams, Zoom, education.*

Factors Influencing Customer's Satisfaction and Impact to Customer Purchase Intention in Indonesia's Online Marketplace

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Abstract— The study in this paper possess a purpose to explicate an extensive model regarding the factors influencing satisfaction and the impact of customer purchase intention particularly in Indonesia's online marketplace with all the occurring problems and phenomenon related to security breach that possibly affecting customer satisfaction and purchase intention. Through previous researches and studies on related topics and connecting supporting variables, a conceptual framework model was designed as a guidance on conducting further study on costumer's purchase intention in online shopping platform, particularly in Indonesia. A total of eleven hypothesis were made for this research, connecting 5 variables from similar researches. The survey was conducted by using Google Form quantitatively to 407 registered users in Indonesia that uses online marketplace, who is highly dependent upon the knowledge and experienced in online shopping, the collected data was analysed and processed using Bootstrapping and PLS through SmartPLS. The result of discriminant, convergent validity and path analysis were discovered that one out of four hypotheses was not accepted. Furthermore, all of limitations still needed to be researched for future studies, including sample of geographical and theoretical foundation limitation.

Keywords— *online marketplace, perceived security, perceived privacy, perceived information quality, satisfaction, purchase intention*

The Effect of Responses to User-Generated Content on Brand Equity in Social Media

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Abstract— This research is motivated by the phenomenon of influencing social media users on user-generated content, especially on social media. On social media, many things make consumers interested in a brand. The problem was that many consumers were unaware that they were involved in a brand for some reason. This research aims to reveal which factors have a more significant impact on consumers by including the brand in social media. This study requires the relation of variables: Social Factors, Firm Generated Information, Responses to User-Generated Content, and User-Base Factors in Social Media Brand Engagement. In addition, the see the relation of the Social Media Brand Engagement variable to the Brand Equity variable. The method used is Structural Equation Modeling (SEM) PLS with the appropriate sampling method for primary data collection. Data were taken from social media users who responded to video posts, photos, stories, comments, product reviews, ratings, or reviews. Primer data of 190 respondents was obtained in early June 2022 from 243 people who filled in data in the metropolitan area of Jakarta, Indonesia. One of the five hypotheses proved to have no significant effect, namely the Firm-Generated Information variable to Brand Engagement on social media.

Keywords— *social media, responses to user generated content, brand engagement, brand equity*

The Customer Behavior Data Analysis Towards Use of Digital Wallet During Covid-19 Pandemic

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Abstract—Digital wallet has been recognized as one of the comfortable and easily accessible digital payment methods and is well-known throughout the world, even in Indonesia. Due to the COVID-19 pandemic, it has been observed that there are changes in the pattern of consumer behavior in the use of digital wallets. The main objective of the study is to investigate how consumers feel about digital wallets and what are the numerous factors that influence their decision to utilize digital wallets during the pandemic and help businesses determine whether the implementation of digital wallets will be beneficial for them based on their target markets. The data was collected through a survey made using google forms and distributed to people in Indonesia with using random sampling. The result of the survey shows there is a significant increase in digital wallet usage as it is convenient and efficient in making transactions and users were able to obtain financial benefits from discounts and promotions. Most users find digital wallets to be useful and easy to use. However, there are privacy and security issues that caused people to hesitate or distrust putting their personal and vital information on digital wallet applications. Our study provides opportunity for further research, particularly in the privacy and security aspect of digital wallets to discover or develop the proper strategies and methods which could be used to improve the users trust and sense of security towards digital wallets.

Keywords— *consumer behavior, digital wallet, pandemic, perceived usefulness, privacy and security*

Challenges of Implementation Business Intelligence: A Systematic Literature Review

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Abstract—Business development in the era of globalization provides excellent opportunities for entrepreneurs, such as the opening of global (international) markets, thus making competition between companies tighter. Thus, making companies start thinking about what business strategies will keep them in the market, one of the strategies is business intelligence. However, when the execution occurs, it allows the company to experience difficulties in implementing it, therefore this article examines and explores the application of BI in several companies and the challenges of BI by using the Systematic Literature Review (SLR) method, which is a method that identifies, assesses, and interprets the findings. findings on a research topic to answer research questions.

Keywords— *business intelligence, systematic literature review, challenges*

Acceptance of Miro and Padlet as Collaboration Tools on Hybrid Flipped Learning & Case-Based Learning in Education 4.0 (a case study approach)

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Abstract— The Covid-19 pandemic has hit most countries since March 2020. For almost two years education industry has been running the distance learning process (online), and now the learning process has started to run in hybrid learning with limited face-to-face learning methods. In this case, the learning process must be pandemic-friendly but interactive, especially in higher education. Therefore, the education 4.0 era needs to use online collaboration tools like Miro and Padlet. This research aims to evaluate the effectiveness of online collaboration tools based on several hybrid flipped learning courses from the lecturer's side. This research uses a research method by distributing a questionnaire to all Lecturers from the School of Information Systems, one of Private University in Jakarta, Indonesia. They have experienced the learning process with hybrid flipped-learning and case-based learning methods for 28 courses. The result of 62 Lecturers fulfilled the questionnaire. Data analysis was using SEM-PLS in compared two online collaboration tools, which are Miro and Padlet. The result stated that for Miro, Perceived ease of Use and Social Influence affect to acceptance of Lecturers to use the tools, while for Padlet, Perceived Ease of Use affects the approval of Lecturers to use the tools. From this result, researchers can evaluate several factors that can be considered to implement online collaboration tools from the lecturer's side.

Keywords—online collaboration tools, hybrid learning, hybrid flipped learning, evaluation

Critical Success Factor of Digital Start-Up Business to Achieve Sustainability: A Systematic Literature Review

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Abstract—The rapid development of technology and the internet is forcing people to adapt. Many people are forced to use the internet for their activities. This situation is an opportunity for start-up companies to enter the emerging market, especially start-ups in mobile applications as the basis of their business. The literature review of this study aims to examine the focus research area of digital start-up businesses and their critical success factors in achieving sustainability. A Systematic Literature Review method based on the descriptive analysis used in this study included formulating the research question, title, abstract analysis, content analysis, and summary. The search results reveal the importance of the various research area and factors that support digital start-up businesses to succeed. By using the keyword “Business Start-up,” it funded 6,315 research articles. The researcher found a more specific keyword and profound analysis of the abstract, then found 24 research articles from 7 databases sources. After the identification of relevant studies and deep analysis, the results show function, feature, and development of technology products is the most research area of author focuses, and then the business model the second place. The fifth place is commercialization, human resources, and others. Moreover, the result shows 42 critical success factors of digital start-up businesses and grouped them into six latent variables. Those products, external, and processes are the key fields where attention is needed for the development and sustainability of digital start-up businesses. Market, capability, and organization support the development and sustainability of digital start-up businesses.

Keywords—critical success factor, start-up business, digital, incubator, accelerator, focus research area

The E-Learning Effect on Learning Activities During Covid-19 Pandemic in Higher Education

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Abstract— The study aimed to identify factors influencing learning limitations using e-learning methods during the Covid 19 pandemic. The changes in learning methods previously carried out face-to-face to online learning methods. using online learning methods there are several obstacles in using online learning methods, starting from the internet which is less stable which can cause disruption of the learning process. Technology Acceptance Model (TAM) is the model used to analyze. This research used purposive sampling as research methodology and this data collected with questionnaires and the respondents specifically chosen from students in higher education with various majors. As a result of this study, e-learning has had a significant impact on the learning process, especially in the midst of the COVID-19 pandemic. When meeting in person is not possible, e-learning becomes a solution to support the learning process in an ongoing manner.

Keywords— *e-learning, covid-19, pandemic, technology acceptance model (tam), higher education*

The Impact of Influencer Marketing on Online Advertising Click and Buying Behaviour During COVID-19

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Abstract— We Are Social reports the development of Social Media year by year. It means social media is very influential for every person. Recently, marketing used influencers as part of its marketing strategy. However, several previous studies found the negative impact of using influencers. Therefore, this study, which uses a qualitative method with the SEM-PLS technique, will look at the factors that influence influencers and the impact on whether customers are interested in buying the product or not. The qualitative study facilitates by Google Form and using the snowball sampling technique to collect data due to the limitation of social access in COVID-19. Eleven factors use as the research model. The study used 227 respondents, but only 64.7% of people were interested in buying products after seeing influencers. Furthermore, 35.3% of people do not buy products for various reasons. The results of this study are beneficial for developing the use of influencers in marketing in the future.

Keywords— *influencer marketing, online advertising click, buying behavior, influencer social media*

Predicting Confidentiality, Integrity, and Availability from SQL Injection Payload

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Abstract— SQL Injection has been around as a harmful and prolific threat on web applications for more than 20 years, yet it still poses a huge threat to the World Wide Web. Rapidly evolving web technology has not eradicated this threat; In 2017 51% of web application attacks are SQL injection attacks. Most conventional practices to prevent SQL injection attacks revolves around secure web and database programming and administration techniques. Despite developer ignorance, a large number of online applications remain susceptible to SQL injection attacks. There is a need for a more effective method to detect and prevent SQL Injection attacks. In this research, we offer a unique machine learning-based strategy for identifying potential SQL injection attack (SQL injection attack) threats. Application of the proposed method in a Security Information and Event Management(SIEM) system will be discussed. SIEM can aggregate and normalize event information from multiple sources, and detect malicious events from analysis of these information. The result of this work shows that a machine learning based SQL injection attack detector which uses SIEM approach possess high accuracy in detecting malicious SQL queries.

Keywords—SQL injection, support vector machine, security information and event management, SIEM, confidentiality, integrity, availability

ICT-Based Conceptual Model for Local Culture Communities Using Soft System Methodology

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Abstract— The problems that exist in the field of art and culture preservation experienced by the arts and culture community side are the limitations on physical facilities for disseminating works, exchanging information between arts and culture communities, as well as the need to increase professionalism so that they can be independent in order to help improve the economy, where the role of regulation in this regard also affects this condition. Based on the facts above, this community requires an interaction model that is integrated with the use of information technology. This study uses a Soft System Methodology approach to create a model that is suitable for the arts and cultural community. The result is an ICT-based conceptual model for a local culture community.

Keywords— *community, local culture, ICT, soft system methodology*

Analysis Digital Competence as a Mediator for the Leadership in Empowering Workforce Agility

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Abstract—This article attempts to elaborate the impact of empowering leadership and digital competence toward workforce agility in Indonesian construction service company. This articles is based on empirical quantitative study with descriptive and causal analysis for testing hypothesizes. The study has collected and analyzed perceptual responses from 378 field employees as workforce in PT Sinar Budi Sentosa. SmartPLS application were applied for structuring and analyzing the data in PLS based SEM approach. The result concludes that workforce agility is positively, significantly, and directly influenced by empowering leadership of the supervisors and digital competence of the field employees. For establishing workforce agility, supervisors are recommended to apply empowering leadership approach to strengthen digital competence of the workforce. Digital competence plays a mediating role in the relationship between empowering leadership and workforce agility.

Keywords— *digital capability, firm resilience, business agility*

Adopting Augmented Reality (AR) Technology in Retail Sector: Systematic Review of Prisma Methods

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Abstract— One of the most popular technologies nowadays is augmented reality (AR). popular technologies in various industries. Many industries have adopted this AR technology, one of which is with the aim of marketing the products offered to their customers. With more and more adopting this technology, retailers are also using it. The goal of this research is to determine out what important variables are often encountered in the application of AR technology. A qualitative technique is used in this study, as well as a Systematic Literature Review Prism approach. The result are 56 papers, 35 candidate papers and 26 papers were selected. We examine where and how in retail, augmented reality (AR) is used, the aspects of Augmented reality technology that are frequently examined, and the psychological and behavioral effects that AR can have.

Keywords— *augmented reality, retail, mobile apps*

Development of Supply Chain Spare Part Application in Maintenance, Repair, and Overhaul (MRO) Industry using Blockchain Technology

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Abstract— The purpose of developing this application is to help organizations that are involved in the aviation manufacture industry, including Manufacturer, Vendor, MRO (Manufacturer, Repair, and Overhaul), and Airline when conducting an operation by providing a decentralized platform for spare part supply chain information in the aviation industry to solve traceability, immutability, and transparency issues. The research methods are divided into analysis and design. Analytical methods are divided into interviews with sources related to the spare part supply chain in the aviation industry and literature studies. The design method is Incremental, which consists of requirement, design, development, and testing. From the evaluation, organizations that are involved in the aviation manufacturing industry feel at ease when inserting and viewing data at a decentralized platform and resolving current issues.

Keywords— aviation, supply chain, spare part, blockchain, MRO.

Overconfidence Educated Young Males: A Study on Cryptocurrency Investors in Indonesia

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Abstract— This paper examines Indonesian cryptocurrencies investors' characteristics and explores the effects of their confidence and financial literacy on the likelihood of investing. Our sample consists of 339 Indonesian investors investing in various financial assets, including digital cryptocurrencies. The paper then applies probit regression to analyze the relation of investors' confidence and literacy on cryptocurrency investment. The findings imply that the average cryptocurrency investors in Indonesia are likely to be over-confident investors who disregard the risk associated with crypto asset investing. In addition, our findings suggest that the average cryptocurrency investors tend to be young male investors with bachelor's degree educations.

Keywords— *cryptocurrency, crypto assets, financial literacy, financial skills, investors' confidence*

Proposing Tourism Chatbot by Employing The Wisdom of Crowds in Building Its Knowledge Base

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Abstract— This study aims at proposing to develop a tourism chatbot by employing the wisdom of crowds in building its knowledge base. The importance of this chatbot is that it provides an information system perfectly matching with tourists' characteristics that are most likely accessing information while travelling or mobile. In other words, tourists need an information system with a good capability and flexibility in dialogical communication instead of querying information many times in any search engines. The methodology used is quantitative by conducting initial questionnaires with closed-ended questions and using non-probabilistic sampling (n=40). Later, we do several technical steps to build a knowledge base. The uniqueness of this proposal is that this chatbot will have a capability to display aggregate data about the comparative judgement of tourism sites made by the crowds. It is highly recommended to implement this proposed chatbot as it will give benefit to the visiting tourists as well as tourism sites' managements. For tourists, they can access information about the comparative judgement about tourism sites by the crowds. It can help tourists choose which sites to visit. And for tourism sites' managements, they can take benefit of the comparative judgment by the crowds as part of their decision-making processes to improve their business.

Keywords— *decision-making processes, tourism chatbot, wisdom of the crowds*

Usage Evaluation of the Dana Digital Payment

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Abstract— Currently, digital payment applications are increasingly being used, one of the most widely used digital payment applications is DANA. This research was conducted with the target of evaluating the public's assessment of the use of the DANA application. This research was conducted by distributing questionnaires to respondents and 433 data were obtained, then the data obtained were analyzed using a partial least square model based on the technology acceptance model (TAM) as a basis for evaluation, this is because the measured variables fit this model. The object of research is users or the public who have used the DANA application. Referring to the results of the analysis carried out, it is known that the Intention to Use variable is significantly influenced by the Trust variable. The Trust variable is significantly influenced by the variables Perceived Usefulness, Perceived Risk, and Perceived Ease of Use. The Perceived Risk Variable is influenced by the Perceived Usefulness Variable and the Perceived Risk Variable. Perceived Usefulness Variables and Perceived Ease of Use Variables are influenced by Perceived Satisfaction Variables. With these results it is obtained that to increase the Intention to use variable, the Trust Variable must be increased.

Keywords— *evaluation, technology acceptance model, structural equation modeling-partial least square, digital payment*

Using E-SCM to Improve Performance in Manufacturing Companies

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Abstract— A manufacturing company uses various efforts to improve its performance. This is achieved by keeping the production process timely, controlling the stock of raw materials, distributing the products on time, and thus improving customer service. The use of computers for companies will reduce the problems in the production process. The purpose of this research examines how the use of computers can support business performance by developing a web-based supply chain management application. The method in this research consists of analysis using a preliminary step based on the Ross approach, and the stages of designing a web-based E-SCM using UML diagrams. The result is the e-SCM application as an information channel, making it easier for distributors to place orders for companies through the website, so that information flows better between suppliers, companies, and consumers/distributors.

Keywords— *manufacturing, supply chain management, e-SCM, application, UML*

Preferences of students for online education on Pramuka Island Thousand Island DKI Jakarta during the COVID-19 Pandemic

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Abstract— The implementation of Online Learning to date has made students accustomed to using technology in the learning process which will also change the habit of using student preferences in the learning process in choosing non-print information sources because of the ease of access. The thing that is very important at this time during the Covid-19 pandemic and the learning process at home is that the most accessible source of information is via the internet or non-print, so that it is very possible for students' preferences for information sources to change from print to non-print will increase, sources of information Online is the main source of information used amidst social and physical restrictions during the Covid-19 pandemic. This study focuses on the e-learning platform that is implemented in area of the Thousand Islands DKI Jakarta using a theoretical framework to evaluate e-learning performance. The method used is factor analysis used to find factors that built the success of implementation and regression analysis to build an e-learning evaluation model. The results obtained indicate that there are a number of main factors, namely intelligent content, content development, content governance, content innovation which can then be used to build mathematical models that describe the current system performance and predictions in the future, and can be used to build a system development plan in the future with the value is 7.540 (from a scale of 0.000 - 10.000).

Keywords— *student preference, Pulau Pramuka, covid-19 pandemic, online education, model*

The Improving Employee Performance Through Digitalization: Designing a Web Based Human Resource Management

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Abstract—The purpose of this research is to develop a web based human resource management application to help in monitoring and improving overall employees' performance from small to medium sized companies with online and remote direct access. The research methods consist of data collecting using literature study and comparison of similar applications, and design using UML Diagrams, the application is expected to assist small to medium sized companies in monitoring and improving overall employee performance with the evaluation results that can be applied to improve application effectiveness.

Keywords— *web application, electronic human resource management, human resource*

Modeling of Web-Based Monitoring Dashboard for Performance Evaluation of Power Generator Machines (Case Study: Indonesia State Electricity Corporation)

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Abstract—To obtain performance results from the power generator machine, Indonesia State Electricity Corporation East and North Kalimantan Region UnitSub-Sector of Power Generator analyzes and manages performance data of the power generator machine. Currently, Microsoft Excel an example of a file-based data management system is still used for data management. Data management which is still a file-based system, makes the reporting of monitoring data not yet centralized so that it can cause errors due to data differences. This problem will make it difficult to analyze the data for the power generator in this company because of the lack of data integrity. This research will create a web-based dashboard monitoring application of power generator performance for data management to overcome this. It will also display the data processing results in graphical form to make it easier to analyze, monitor, and evaluate power generator performance. The development model used in this research is the System Development Life Cycle and the monitoring dashboard's design using star schema modeling. This application uses the MySQL database server, also the CodeIgniter (CI) and Bootstrap frameworks that use the PHP programming language. The User Acceptance Testing (UAT) evaluation shows that the application is feasible to use, with an eligibility percentage of 87.78%. Thus, the implementation of dashboard monitoring can help companies in managing the performance of generating machines.

Keywords— *Dashboard Monitoring, System Development Life Cycle, Star Schema, CodeIgniter (CI), Bootstrap, MySQL, PHP*

Contact Tracing Applications During The Pandemic Era: A Systematic Literature Review

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Abstract— Covid 19 has become a global pandemic since 2019, which brings not only health problems, but also brings problems to all aspects of human life. There have been many efforts that have been carried out by countries around the world to overcome the pandemic. One of the efforts taken in almost all countries is the use of digital contact tracing applications whose main goal is to reduce the rate of transmission of the disease. But in reality, the use of these applications also brings a negative impact, especially related to the use of personal information. There are many articles that review the use of this application and its side effects. In this paper, we attempt to conduct a systematic literature review on various similar applications issued by various state institutions from previous publications researching the topic, and also discuss various issues related to these applications. It is hoped that the results can be used as a reference for the government to make improvements to similar applications and can also be used as a basis for researchers to be able to carry out further research. Especially by examining the antecedents for worldwide adoption of similar applications.

Keywords— *digital contact tracing, information technology adoption, COVID-19, technology acceptance*

Analysis of User Acceptance of Indonesian Society to Use Online Investment Application

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Abstract— In the development of today's era technology is increasingly developing rapidly or can be said to be more sophisticated, one of which is our ease in investing, if in the past investment was only tightened by buying a piece of land, buying a house, or buying gold only, it also has a fairly complicated process. But with the development of technology that is increasingly investing is now very easy and simple, because it can be done by using online-based investment applications. The research model applied in this research is the Unified Theory of User Acceptance and Technology (UTAUT), A survey is conducted on People who are using this online investment application in Indonesia using an online questionnaire, From 115 respondents that participate in the survey and analyzed using smart pls 3, it can be concluded that all variables in the research model have a positive relationship with user intention on using an online investment platform except the Effort Expectancy, with Habit as the most significant. And also, the significance effect of the user intention to user behavior on using online investment application.

Keywords— *online investment application, UTAUT, user acceptance*

Examining the Determinant Factors of Intention to Use of Quick Response Code Indonesia Standard (QRIS) as a Payment System for MSME Merchants

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Abstract— This study purpose was to examine the determinant factors that affect the Micro, Small, and Medium Enterprise (MSME) merchants who had the intention to use Quick Response Code Indonesian Standard (QRIS) as a payment system. QRIS was expected to be applied by merchants to diminish the virus spread and keep the circulation of money safe; but there were not many merchants using the QRIS as a payment method. The factors MSME merchant might not use the QRIS were related to perceived usefulness, perceived security, perceived ease of use, and trust. The population was MSMEs in South Tangerang City who did not use QRIS yet and the population was unknown. Using the Lemeshow formula, obtained a sample of 115 people, and the sampling technique used purposive sampling. Then data were analyzed using multi-regression analysis and processed by SPSS. The results indicated that perceived usefulness and perceived security had a significant affect on trust, whereas trust and ease of use significant affect the intention to use QRIS. Moreover, trust was able to mediate the perceived usefulness to intention to use. Since ease of use had no significant affect on trust, then the mediation given by trust to perceived ease of use had no significant affect on intention to use.

Keywords— *perceived usefulness, perceived security, perceived ease of use, trust, intention to use, QRIS, MSME merchants*

The Analysis of Online Order Mobile Application Using User Experience Questionnaire (A Case Study Approach)

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Abstract— ABC Application is owned by ABC Company which already has branches of more than 100 stores in 7 countries where Indonesia is one of the branches with 79 stores spread across several cities, especially Jabodetabek area. ABC has launched an application that has been operating for more than a year; because the ABC application is new to the food and beverage sector, the application has received several positive and negative responses from its users especially on its user experience. Based on this background, this research will more focus on user experience of ABC Application. ABC Application can find out the assessment of user experience and improve the results of any negative responses in the form of criticism or suggestions from users. The method used in this research is the User Experience Questionnaire (UEQ). From the research results that have been carried out, the novelty scale is the scale with the lowest attachment of all respondents. Therefore, improving and developing the ABC application through this scale is necessary.

Keywords— *user experience, user experience questionnaire, mobile application, online order mobile application*

The essential factor of metaverse for business based on 7 layers of metaverse— Systematic Literature Review

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Abstract— Lately the world is hyped by technological advances, and one of the examples is metaverse. The metaverse is a hypothetical new release of the internet as a single, commonplace, and enchanting virtual world that is facilitated using virtual reality (VR) and augmented reality (AR) headsets. A metaverse is a digital system of 3D virtual worlds centred on social relationship. The metaverse itself comes as a breakthrough for situations where people are doing a lot of activities online. This so-called metaverse will allow us to walk around and interact with spaces that we currently only see on screens – in theory at least. The Metaverse is not just a place for them to change what exists in the physical world into a digital world, but to go one step further by addressing newfound needs and conventions that are unique to the digital world. From the metaverse, we can address new ideas and opportunities that can help not only for us in the virtual world but also a lot of benefits for us in Real Life. This review will discuss about essential factors that the metaverse offer for business based on 7 Layers of the metaverse. We also use the qualitative method to gather papers as a based for this research. By the help of our selected papers, this study can focus on essential factors of the metaverse. The result of this research is to describe the essential factors of the metaverse for business.

Keywords— *Metaverse, Virtual World, Immersive technology, 3D World, Metaverse Infrastructure, Creative Business*

Impact of Gamification Element Towards Continuance Intention at Indonesia Marketplace

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Abstract— In this era, the marketplace needs to use various strategies in their business and marketing to compete with other businesses to have a competitive advantage that can attract customers. One of the strategies is to use a new concept called gamification in digital marketing. Shopee Tanam is one of the most popular gamification features in Indonesia. The research goals were to define and clarify the effectiveness of applying Shopee Tanam gamification elements in the Shopee marketplace. Also, finding gamification elements that have the most significant impact on user Continuance Intention of Shopee Tanam game on the Shopee marketplace. This study uses Partial Least Square-Structural Equation Modelling (PLS-SEM) as study research with a purposive sampling method; data was gathered by online questionnaire from 399 respondents in November 2022 and respondents are located in Greater Jakarta and other cities around Indonesia. In this research, Intrinsic Motivation and satisfaction influence Continuance Intention, while Competence, Autonomy, Relatedness, and Reward affect Intrinsic Motivation.

Keywords— *continuance intention, gamification element, marketplace, shopee tanam*

Analysis of AI-enabled Service Quality and Personalization to Continuous Usage Intention

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Abstract— This study aims to identify the impact of Artificial Intelligent enabled (AI-enabled) service quality and Personalization on Continuous usage intention in the marketplace in Indonesia. There are seven variables (AI-enabled service quality, Personalization, AI User Experience, Trust, Perceived Value, User Satisfaction, and Continuous Usage Intention) and ten hypotheses in the research model. The Partial Least Squares Structural Equation Modeling (PLS-SEM) analytical approach evaluates hypotheses. There is 215 sample used in this study. The respondents are marketplace users in Indonesia; data was collected online with Purposive sampling in November 2021 in Indonesia. The results show that all hypotheses are significant. This study's result revealed how users' continuous usage intention is significantly affected by user satisfaction and the perceived value of the marketplace in Indonesia. Moreover, AI-enabled service quality and personalization also affect trust, perceived value, and user satisfaction.

Keywords— *AI-enabled service, personalization, AI-user experience, trust, perceived value, user satisfaction, continuous usage intention*

Social Commerce Research Trends: A Systematic Literature Review

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Abstract—In recent years, social commerce, which combines e-commerce and social media, is quite popular and discussed in many fields of study. The development of social commerce is also a breakthrough for businesses to reach more customers. Even though social commerce was started to be introduced in 2005, the phenomenon change, the behaviour change, and many types of social commerce exist in the market. It is still very interesting to explore since the online customer is the most difficult to understand. This study investigates and explores the recent outcomes and popular themes that researchers want to find in the social commerce area of research. This paper uses the Systematic Literature Review approach to analyze the paper between 2012 – 2022 from reputable databases such as ScienceDirect, IEEE Xplore, Research Gate, Emerald, ACM, and Proquest. The result shows the trends of social commerce, knowledge area in social commerce research, most popular outcomes and list factor, and the research method.

Keywords— *social commerce, customers, social media, e-commerce*

Assessment of Knowledge Conversion Process in Online Learning Practice Using SECI Framework Case Study: Bina Nusantara University

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Abstract— In the last three years, most education institutions conduct learning activities in online mode. Despite that, many are still questioned if online learning has the same effectiveness as face-to-face learning, and how to conduct online learning more effectively, especially to improve knowledge creation process. Using SECI framework, this paper elaborates the practice of online learning comprehensively. A survey of the knowledge creation process is distributed to information system students in a private university in Indonesia to measure the current level of knowledge creation and to find out the various technologies utilized to support each process in the SECI framework. It found that the current level of the knowledge creation process in the university is already high, with average scores of each phase is more than 4 of 5 scales. This means that the practice of knowledge creation in the university can be a benchmark to the other academic institutions. This paper provides a set of questionnaires which can be used to measure knowledge conversion process in the learning environment. This paper also elaborates various technologies that helped to support each phase of SECI model so that this contributes to promote the improvement of knowledge creation practice in online learning setting.

Keywords— *knowledge creation, SECI, online learning*

Design and Development of Assets Management System Using Spring Webflux And Command Pattern

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Abstract— Asset management refers to the cost-effective process of developing, operating, maintaining, and selling assets. The term asset management is most used in finance to refer to individuals or companies that manage assets on behalf of other individuals or entities. Asset management will be difficult if done manually and not well structured. Currently, there are already several asset management applications in Indonesia. However, some applications are still insufficient to meet user needs. An asset management application has been created that tries to overcome the difficulties of the asset management process. This asset management application is built using Spring Webflux for backend services, which implement reactive programming and Angular.js framework for frontend services. The development goal is to simplify and optimize users in performing asset management (asset management, maintenance, and other processes) so that the benefits obtained are the asset management process carried out by the user to be more optimal. Asset Management System has succeeded in reducing the time required to perform asset management by an average of 66.11%.

Keywords— *angular.js, asset, asset management, reactive programming, spring webflux*

The logo for ICIMTech features the letters 'I', 'C', 'I', 'M', 'T', and 'E' in a bold, blue, sans-serif font. The 'I' and 'C' are connected by a blue line with a white circle at the junction. The 'M' and 'T' are also connected by a blue line with a white circle at the junction. The 'E' is positioned to the right of the 'T'.

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