



# ICIMTECH

2023 International Conference on  
Information Management and Technology  
(ICIMTech)

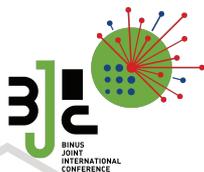
24 - 25 August 2023  
Indonesia

## Conference Book

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# Greetings!

Honorable Participants/Researchers/Delegates/Professors  
Distinguish Guests,



Welcome to the 8th edition of the “International Conference on Information Management and Technology (ICIMTech).” It is a great pleasure for me to host you this year at Malang, East Java, Indonesia. ICIMTech 2023 is organized by the School of Information Systems and supported by the Research and Technology Transfer Office at BINUS University. The ICIMTech 2023 conference is part of the BINUS Joint International Conference (BJIC) and the five other conferences held earlier this year. Along with BINUS University, the IEEE Indonesia Section sponsored ICIMTech 2023 with technical guidance on the article structure and context.

The 2023 edition is the eighth consecutive year of the ICIMTech conference. ICIMTech 2023 is held in hybrid mode to increase researchers' inclusiveness in Indonesia. The ICIMTech conference has always been a wonderful place for researchers to share their thoughts on Information Systems and Computer Science. In this edition, “Sustainable Technology for Society” has been chosen as the conference theme. The conference theme is selected based on the rising issues in geosocial, and Indonesia is believed to play an important role in sustainability. ICIMTech 2023 consists of a collection of articles that try to address the sustainability issue.

In this year's edition, ICIMTech 2023 received around 534 article submissions which were screened, filtered, and reviewed. After the rigorous review process, the technical program committee choose 148 articles for this year's conference. The selected articles are written by authors who originated from Taiwan, India, Malaysia, Pakistan, Philippines, Korea, and Indonesia. By participating in the ICIMTech conference, all authors and participants will get an opportunity to exchange ideas in the emerging technology field such as Artificial Intelligence, Blockchain, Cloud, and Data. Last, thank you for IEEE Indonesia Section and Binus@Malang to make this conference happen. And also thank u to all of you who participated in the ICIMTech 2023 conference, and I hope you enjoy the conference.

Best Regards,

**Dr. Richard, S.Kom., M.M.**

ICIMTech 2023 General Chair



## WELCOMING REMARKS

### General Chair

### **BINUS Joint International Conference (BJIC) 2023**

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



Distinguished keynote speakers,

Prof. Dr. Kusriani, M. Kom from AMIKOM University, Yogyakarta, Indonesia,

Dr. Li Yi from Nanyang Technological University, Singapore,

Associate Professor Yen Ching Chiuan from National University of Singapore

Distinguished guests, ladies and gentlemen,

Let us praise God the Almighty for His merciful blessings as we gather here to attend The 8<sup>th</sup> International Conference on Information Management and Technology (ICIMTech) 2023 as part of BINUS Joint International Conference (BJIC) 2023.

This year BJIC consists of six 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 2023)**, chaired by Dr. rer.nat. Ditdit Nugeraha Utama, MMSI, was held virtually, 27 - 28 June 2023;
2. **International Conference on Computer Science and Computational Intelligence (ICCSCI 2023)**, chaired by Dr. Anita Rahayu, S.Si., M.Si., was held in Binus @Malang from 2 – 3 August 2023.
3. **International Conference on Information Management and Technology (ICIMTech 2023)**, chaired by Dr. Richard, S.Kom., MM, is held hybrid on Binus @Malang and virtually, 24-25 August 2023;
4. **International Conference of Business, International Relations And Diplomacy (ICOBIRD 2023)**, chaired by Moch. Faisal Karim, Ph.D, will be held in Jakarta from 11-12 October 2023;
5. **International Conference on Eco Engineering Development (ICEED 2023)**, chaired by Dave Mangindaan, S.T., M.T., Ph.D, will be held virtually on 8 November 2023;
6. **International Conference on Sustainable and Smart Engineering Solutions (INCOSSE)** chaired by Dave Mangindaan, S.T., M.T., Ph.D, will be held virtually on 9 November 2023;

BJIC has been an integrated effort to enhance faculty members' research and publication productivity since September 2018.

The 8<sup>th</sup> ICIMTech aims to bring together researchers and experts in information systems to share their ideas, experiences, and insights on related fields. ICIMTech is organized by School of Information Systems, Bina Nusantara University, and supported by IEEE Indonesia Section.

ICIMTech 2023 would focus on fostering digital innovation in society, delivered through keynote speakers and distinguished lecturers.

Distinguished guests, ladies and gentlemen,

This conference is also extraordinary because our keynote speakers are prominent scholars and professionals from Singapore and Indonesia who contribute to discussing new insights about information systems from their perspectives as academicians, professionals, and experts from different fields. This conference shows the bold commitment of BINUS University as a world-class university in creating high-impact research towards BINUS Vision 2035 and in continuously producing, sharing knowledge, and fostering and empowering society. Therefore, I 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 worked very hard to make this conference possible. I would also like to thank the presenters, participants, reviewers, and publishers of the paper presented at the conferences and the partner and sponsor of this event. I hope you enjoy the conference!

Thank you very much.  
Jakarta, 24 August 2023

**Prof. Dr. Tirta N. Mursitama, PhD**  
General Chair BJIC 2023

# Welcome Message

Welcome to the 8<sup>th</sup> International Conference on Information Management and Technology (ICIMTech 2023) held from 24-25 August (hybrid from Malang). This is the eighth conference hosted by School of Information Systems, BINUS University (Bina Nusantara University). In the last eight years 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 into a melting pot of multi-generation researchers. 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 Dr. Kusri, M. Kom from AMIKOM University, Yogyakarta, Indonesia; Dr. Li Yi from Nanyang Technological University, Singapore; Associate Prof. Yen Ching Chiuan from National University of Singapore. 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 2024 in Indonesia and we look forward to seeing all of you again and hope you enjoy the conference this year.

Sincerely Yours,

**Dr. Rudy, S.Kom., M.M.**

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 8<sup>th</sup> International Conference on Information Management and Technology (ICIMTech) 2023, 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 the 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 and creating research and industry partnerships among faculty members, industry representatives, and distinguished scholars worldwide.

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 using 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, 24 August 2023

**Dr. Nelly, S.Kom., M.M., CSCA**  
Rector BINUS University

## WELCOMING REMARKS IEEE INDONESIA SECTION



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

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, I would like to extend our warmest welcome to all keynote speakers, presenters, and participants to the 2023 International Conference on Information Management and Technology (ICIMTech 2023). The conference is held on 24th – 25th of August 2023 in hybrid mode in the city of Malang in Indonesia by Bina Nusantara University Indonesia and technically co-sponsored by the IEEE Indonesia Section.

ICIMTech 2023 takes the theme of "Sustainable Technology for Society", which is very much in agreement with the global Sustainable Development Goals declared by the United Nations Member States in 2015. With the optimal use and management of information enabled by current technologies, we could hope for a better future for humanity. Such technologies have become the focus of research presented and discussed in ICIMTech, and that is what makes this conference important, which is the primary reason why IEEE Indonesia Section proudly supports ICIMTech.

The IEEE Indonesia Section have carried out a large variety of activities over the 35 years of its operation in Indonesia. Our mission is in line with the global mission of IEEE, namely, advancing technology for humanity, which in our case is adapted to the conditions and necessities of the people in Indonesia, while still contributing to the mission implementation internationally.

We maintain mutual relationship and networking with the Indonesian government, industries, universities, professional and scientific organizations, and various communities in Indonesia. We have had a cooperation agreement with the Director General of Higher Education (Dirjen Dikti) since 2021, which allows us to directly participate in the development of engineering higher education in Indonesia. Currently we are also starting to work together with other IEEE Sections in the Asia Pacific region, especially in promoting clean technology to mitigate the climate change effects.

Our Section currently have 21 Technical Society Chapters and Joint Chapters covering the fields of interest of 27 IEEE Societies, widely ranging from power and energy, to computer, to oceanic engineering, to education, to social implications of technology. These Chapters support various scientific and academic activities in Indonesia, including technical co-sponsorship of international conferences.

As of now, the IEEE Indonesia Section have Student Branches and Student Branch Chapters in 36 universities in Indonesia, which support educational, early career development, and international networking for university students. We would like to invite all universities in Indonesia to establish IEEE Student Branch at their campus and maximize the potential benefits of talent and skills development for students through IEEE. Aside from that, we also hold workshops on STEM (science, technology, engineering and mathematics) for high school students in our attempt to attract the best talents to study in the fields of engineering.

In terms of international publication, according to IEEExplore, as of August 2023 there are almost 31,000 scientific papers in IEEExplore with at least one author coming from Indonesia, published in IEEE co-sponsored conferences and IEEE journals. However, out of those 31,000, there are still less than 1,000 papers with at least one Indonesian author published in high-impact IEEE journals. Accordingly, we encourage Indonesian researchers to publish their works in relevant IEEE journals.

To conclude this remark, we highly appreciate the commitment shown by the organizer of ICIMTech 2023 to keep the quality of accepted papers at the highest level, focusing only on papers within the scientific scope of the IEEE and the conference. Finally, we wish you an enjoyable and valuable experience during this event by sharing your best knowledge in the research area of your interest. Please make ICIMTech 2023 a memorable event.

Thank you and have a good day.

Thank you.

Jakarta, 24<sup>th</sup> August 2023

IEEE Indonesia Section



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## Keynote Speakers

**Dr. Yi Li**



Dr. Yi Li, is the Assistant Professor of School of Computer Science and Engineering, NTU. He also become the Associate Director of NTU Centre in Computational Technologies for Finance (CCTF). He is the Program Director of MSc in Blockchain, NTU

**Topic:** Building Trustworthy Decentralized Applications

**Abstract:** Decentralized Applications (DApps) refer to computer programs that operate on blockchain platforms and are designed to handle significant amounts of money, facilitate transactions involving valuable assets, and oversee the transfer of digital rights among numerous parties. DApps provide a trustless environment for autonomous, transparent, and fully traceable exchange of value. Many traditional industries, such as finance, energy, and supply chain, are expected to be revolutionized by this new technology. Yet, in reality, the trustworthiness of DApps is under constant threats, with people losing millions of dollars. In this presentation, I will demonstrate how the security and fairness in the DApp world are both due to the mismanaged conflicting interests between contending parties. I will also present solutions we have developed in the past few years and suggest potential future directions.

## Prof. Dr. Kusrini, M.Kom

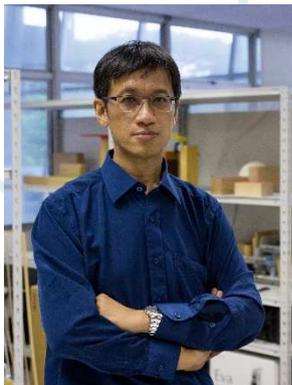


Prof. Dr. Kusrini, M.Kom is a lecturer at Universitas AMIKOM Yogyakarta since 2003. Currently serves as the Director of Postgraduate and Head of the Informatics Engineering Magister Program. Completed computer science doctoral studies at Gadjah Mada University in 2010. Active as Coordinator of Distance Learning and MOOC at APTIKOM Pusat, as Secretary General of CORIS, and as Head of IndoCEISS Cooperation. She Enjoys researching the fields of Artificial Intelligence, Computer Vision, Decision Support Systems, Data Mining and Databases. She Actively involved as an IT consultant for both the government and the private sector. Actively publishing, and currently has an H-Index Scopus 8. Got some research grants from national and international. Currently, she is as a work package leader of Silvanus Project which involves 49 institutions from 18 countries. The project is granted by European Commission under Horizon 2020 Project until March 2025.

**Topic:** Integrated Technology for Forest Fire Management

**Abstract:** Forest area, the world's oxygen supplier, continues to decrease. One of the causes of reduced forest area is forest fires. Various policies have been launched by the government to prevent forest fires. Budgets and other resources are also prepared to deal with forest fires that occur. Not only that, various programs are carried out by the government together with the community to restore the forest to its original condition. As a form of concern for the future of our next generation, technology for the prevention, detection, handling, and monitoring of restoration results is developed in an integrated manner. Various data sources and modeling including the use of artificial intelligence are integrated in a visualization dashboard to assist the government and society in protecting our forests. This research project is under the SILVANUS consortium which involves researchers from 49 institutions in 18 countries. There are 11 locations as pilots including Sebangau National Park, Palangkaraya, Indonesia.

## Associate Prof. Yen Ching Chiuan



Associate Prof. Yen Ching Chiuan is the Co-Director of Keio-NUS CUTE Center, Co-Director of NUS Centre for Additive Manufacturing (AM.NUS) and was the founding Head of Division of Industrial Design (DID) at the National University of Singapore (NUS). He also holds joint appointments with the Smart Systems Institute at NUS. His research interests lie in methodologies for design, and he champions a “pluralistic dimension” of design study and research, in particular, in the area of design for healthcare and interaction. He has worked with many renowned companies including: ABBOT, ASUS, BMW Designwork USA, Coca Cola, Creative, Chang Gung Memorial Hospital, DELL, Estee Lauder, OSIM, National University Hospital, Samsung, Swarovski, Tupperware, and VISA, etc. He has successfully received over S\$ 30M grant as PI/Co-PI/Collaborator from government agencies, universities and industries. His supervision in design is highly regarded and has received more than 50 top international or regional design awards, including, to name a few, the, Stanford Longevity Technology Prize 2015, Braunprize 2007, Luminary, red-dot award: design concept 2006, ACM CHI Student Competition 2016 and James Dyson Award (Singapore) 2012

**Topic:** Simulation as a Catalyst for Sustainable Futures: A Journey from VR to XR Education

**Abstract:** In pursuing a sustainable future, simulation technologies have emerged as transformative tools, exemplified by the evolution from Virtual Reality (VR) to Extended Reality (XR) in the realm of education. This talk explores the pivotal role of simulation in driving sustainability by leveraging educational advancements. We trace the trajectory from VR to XR, showcasing how immersive and interactive simulations enhance learning experiences while minimizing environmental impact. The fusion of real-world context with virtual environments fosters deeper understanding and paves the way for sustainable practices in diverse sectors. Through this journey, we illuminate how simulation can revolutionize education, empower sustainable decision-making, and contribute to a more ecologically conscious and prosperous world.

# ICIMTech 2023 Presentation Guidelines

First, we would like to welcome all of you to ICIMTech 2023

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

- Please kindly note that during your presentation, we will record all the presentation. But won't upload it online for public.
- Research paper will be scheduled for oral presentation, where each session is allocated 2 hours for 3-6 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 5 minutes for Q&A.

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# ABSTRACT

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# Robotic Process Automation to Enhance Education's Administration Process: Case of Attendance Checking and Reporting

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***Abstract***—Technology has impacted various industries and sectors; education is no exception. The use of technology in education facilitates the educational process, both for class engagement and the administration process. The excellence process in the educational institution not only leads to student and teacher satisfaction but also improves the reputation of the institution in the eye of academic assessors and the public. One of the technologies which are currently applied in this industry 4.0 era is robotic process automation (RPA). RPA helps the organization streamline the business process by replacing manual effort that has low value-added, with a program that can increase effectiveness and efficiency. This paper explains the analysis and implementation of RPA in one private university. The automation is developed to automate the checking and recapitulation process in an asynchronous online class that is normally done by people in the administration department. The data collection was done by doing direct observation and interview to the stakeholder. After the implementation, the time used to perform the activity was reduced by 99.9%. Besides that, the cost associated for completing the job also could reduce by 43% in 5 years. The development of automation could help the administration department to be more productive and focus on the activity that has more value-added, such as answering and analyzing any problem that arises in the processes.

***Keywords***—*Robotic Process Automation, education, business process improvement*

# The Impact Entrepreneurial Spirit on Technoprenurial Intention Based on Shane Theory

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**Abstract**—Technopreneurship, one part of the development of entrepreneurship, provides an overview of entrepreneurship by using technology-based innovation. Technopreneurship is also known as a process of synergy from a strong ability to master technology and a thorough understanding of the concept of entrepreneurship. This research aims to examine the influence of entrepreneurial motivation toward entrepreneurial spirit, the influence cognitive factor toward entrepreneurial spirit, the influence entrepreneurial opportunity toward entrepreneurial spirit, the influence environmental conditions toward entrepreneurial spirit, and the influence entrepreneurial spirit toward technopreneurial intention. Respondents in this study were 100 students in Indonesia. Sampling technique using purposive random sampling. Reliability, validity, and hypothesis testing using Smart-PLS software version 3. The results of this study indicate that only one hypothesis is rejected, namely environmental conditions have no effect on entrepreneurial spirit. On the other hand, other hypotheses are accepted, namely entrepreneurial motivation has a significant effect on entrepreneurial spirit, cognitive factor has a significant effect on entrepreneurial spirit, entrepreneurial opportunity has a significant effect on entrepreneurial spirit, and entrepreneurial spirit has a significant effect on technopreneurial intention.

**Keywords**—*technopreneurship, entrepreneurial spirit, cognitive factor, entrepreneurial opportunity*

# Mixing Digital Intelligent with Servant Leadership for Establishing Service Quality in the Service Industry

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***Abstract***—Service quality becomes strategic concern of every business, especially in the service industry. This paper is interested to examine the effect of digital intelligence and servant leadership toward the service quality. A survey-based study was conducted for testing the hypotheses by involving 236 employees of service industry in Palembang, Indonesia. The collected data was structured into PLS SEM and analyzed by SmartPLS version 4.0. The results reveal that servant leadership is a substantial predictor which affects directly and indirectly on the service quality. For establishing service quality at service industry, supervisor and/or manager are recommended to practice servant leadership and through the leadership will improve digital intelligent of employees for providing higher level of service quality.

***Keywords***—service quality, digital intelligent, servant leadership

# Ensemble Learning for Mobility-Aware of Edge User

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***Abstract***—The mobility of edge users in cellular networks critically affects throughput and signal reception performance. The mobile manner of users can deteriorate network connection, causing a significant delay in data delivery. In addition, a limited number of cellular base stations also increases the signal blocking for far-sight users, making it difficult to achieve optimum signal reception for ubiquitous locations. To maintain throughput performance, the network coordinator needs to identify the mobility type; thus, it can provide a priority resource for the high-mobility user. Accordingly, this paper proposes an ensemble learning to classify the mobility type of edge users by utilizing throughput, distance, and delay as features. The proposed ensemble learning combines multiple weak models, i.e., Random Forest and XGBoost, to construct more robust and established models. The verification results show that ensemble learning predicts a model with more than 97% accuracy. Moreover, the evaluation results confirm that the proposed algorithm outperforms conventional algorithms in precision, recall, and F1-score for every feature.

***Keywords***—*mobility, edge users, ensemble learning*

# Knowledge and Perceived Security as Driven The Continuance Use of Mobile Fintech Payments

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**Abstract**—The issue of security in the use of payment-based technology is considered essential to continue to be studied because of the impact of advances in technology and information. One of the payment methods that is developing in Indonesia is m-fintech. Therefore, this study analyzes the aspects driving the continuance intention of m-fintech payments, namely knowledge, perceived security, and perceived usefulness. This study uses a questionnaire as the primary data to test the hypothesis. Questionnaires were distributed online to 357 consumers using m-fintech payments in Jabodetabek. Therefore, the sampling technique used is purposive. Partial Least Square-Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0.8.9 software is used to answer the hypothesis. The results of this study prove that knowledge, perceived security, and perceived usefulness are good predictors in explaining the continuance intention of m-fintech payments. In detail, knowledge influenced perceived security, and perceived usefulness influenced the continuance intention of m-fintech payments. Finally, perceived security and usefulness affect the continuance intention of m-fintech payments. These findings contribute to m-fintech payment companies continuing to improve the security of m-fintech payments in line with improvements in technology and information.

**Keywords**—*perceived security, perceived usefulness, knowledge, M-Fintech payment, higher-order constructs*

# The Effectiveness of the Online Food Delivery Application on the Person Who Lives in Boarding

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***Abstract***—The existence of an online food delivery application can be said to be very helpful for room tenants who are not familiar with their new environment well, especially for children who come from outside the area. Various lists of available restaurants and food provide more efficient information for room tenants without having to go out. Therefore, in this research, we will analyze the effectiveness of using online food delivery applications for room tenants. This study was conducted by obtaining questionnaire respondents to 304 respondents from room tenants in Jakarta, Indonesia who had used an online food ordering application. The purpose of this paper is to identify the effectiveness and assess the driving & inhibiting factors for the use of online food and beverage ordering services for room tenants in Jakarta. Based on our analysis, the five variables are significantly related to the effectiveness variable, so it can be concluded that the quality of information available on applications, promotions, prices, restaurant credibility, and convenience in use are factors that contribute to effectiveness. Online food delivery on the lives of room tenants.

***Keywords***—*Effectivity, Restaurant, Online Food Delivery, Structural Equation Modelling*

# Analysis Intention to Use of Smart Tourism Application with Model Extended UTAUT 2 Approach

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**Abstract**—The development of information technology currently provides great opportunities for tourism and tourist businesses. All developments provide useful application effectiveness for tourists. Therefore, it is important and useful to explore the factors that influence the intention to use tourism applications among tourists. This study aims to understand the basic factors that influence user intentions to adopt and use smart tourism applications among college students. This study uses 61 indicators with nine constructs to form the proposed research model on the basis of the Extended UTAUT2 model. This study used an online survey using Google Forms with the results of 278 valid and appropriate respondents. Analysis was performed with 278 data using SMART PLS 4.0. The analysis of testing the fit model shows that the results are good, namely R<sup>2</sup> of 0.743. Also, found that of the eight hypotheses designed six hypotheses were not supported, namely Performance Expectancy, Hedonic Motivation, Effort Expectancy, Social Influence, Facilitating Conditions, and habit, which had no effect on tourist Behavior Intention. Two hypotheses were supported, namely, that deal proneness and pricing value have a crucial impact in raising tourist intention to utilize the application. The application provides easy transaction services with various payment methods, fast payments, high security for transaction convenience, provides promotional offers, and rewards. So, the tourist industry in developing tourism applications can fulfill users' wishes.

**Keywords**—*smart tourism, Extended UTAUT, application, PLS-SEM*

# Assessing the Effectiveness of Digital Upskilling: Evaluation Framework for GreatNusa Online Learning Platform using UTAUT Extension Model

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***Abstract***—In the context of education, COVID-19 pandemic has posed obstacles to the traditional face-to-face delivery of education, and reliance on Online Learning Platform (OLP) has become necessary to ensure continuity. The significance of user acceptance from the perspectives of learning, lectures, and course quality on GreatNusa platform should be investigated. Therefore, this research aimed to examine user acceptance or adoption of digital upskilling through GreatNusa OLP. UTAUT framework and three extension variables were adopted to support the main framework. A questionnaire using a 5-point Likert scale was employed to survey users of GreatNusa OLP, with a total sample size of 542, and the collected data was processed using statistical software SmartPLS4. The result showed that social influence and performance expectations positively and significantly influenced users' intention to use platform. Additionally, it held direct implications for content management, particularly within the field of OLP. By enhancing the adoption approach, these platform can shape consumers' intentions and drive the actual usage of products. This research provided valuable insights into identifying critical variables that influenced consumer behavior and informed effective content management strategies.

***Keyword*** —*digital Skills, upskilling, online learning, learning management platform, UTAUT*

# Knowledge Management in Business using Patent Landscape Analysis

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***Abstract***—Patents in knowledge management provide businesses and entrepreneurs with an excellent opportunity to develop new and efficient company strategies and processes. This study was done to evaluate the patent landscape and major trends of patents on the topic of knowledge management in global businesses. The researcher used data from 74 patent intellectual property papers extracted from the Lens.org database for patent landscape analysis. The result of the study indicates that the number of patent trends relating to business knowledge management increases annually. Businesses can renew patents with a legal status of discontinued by paying filing and maintenance fees to the authorities. Patents on knowledge management in business were dominated by American companies and inventors, with seven patents. Knowledge management in business patents was dominated by physics patents (G). There are 72 simple family patents on knowledge management in three countries, with the United States having the most.

***Keywords***— *patent landscape analysis, entrepreneurship, innovation, knowledge management, patents*

# User Experience Evaluation on Nucleus Farma Website using System Usability Scale

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***Abstract***—Technological developments require companies to continue to innovate in any way, one of which is using websites in terms of marketing and branding. The Nucleus Farma company has innovated using the website to increase the credibility of its products and as a means of branding. Currently, Nucleus Farma has marketed its products in more than 500 outlets in Indonesia. Product knowledge support is made to expand the market network to compete in the global market. However, the Nucleus Farma website needs to function correctly. From the research results that have been done, it shows 30% of users feel that the interface could be better, and 34% say that the information could be more informative. The reason for those problems is since it was published in 2018 until now, Nucleus Farma has never evaluated the quality of using the website or changed its appearance to improve the User Experience of the website. Testing and evaluation are part of increasing website user satisfaction and interaction. Therefore, this study aims to conduct a usability test on the Nucleus Farma website to determine how satisfied the users are. In conducting research, the authors use the System Usability Scale method. Researchers collected the data through a questionnaire to test its validity and reliability. The score obtained from a series of test and measurement was 65.3 (grade D), meaning users are not satisfied with the Nucleus website interface experience. This user experience evaluation results in a design plan focusing on user experience to increase user satisfaction in using the Nucleus Farma website.

***Keywords***—*user experience, website, system usability scale, usability evaluation*

# Enhance Sleep Duration Using Smart Room based on IoT

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**Abstract**—The Internet of Things (IoT) is a technology that connects devices to the internet and communicates with internet connection. Many things could be applied to IoT Technology, and the smart room is one of its implementations. Sleeping is the most effective way to rest and regain energy after a day of activity, and smart room can be applied to bedroom to control factors that could affect sleep quality. IoT technology could help to regulate the room so that the factors could be set to an ideal value and help to improve sleep quality. The author uses Arduino Uno microcontroller and NodeMCU ESP8266 to communicate and send data to Thingspeak.com and Blynk. This system reads temperature, humidity, air quality, and light intensity. The sensors used in this research are DHT22 for temperature and humidity, MQ-2 and MQ-135 for air quality, and LDR Photoresistor for light intensity. IoT System is automated to regulate room conditions and meet user needs. This study aims to help the sleep process for people who have difficulty sleeping with the help of IoT devices. The result gives a desirable impact of using IoT, like a user can enhance sleep from 490 minutes to 520 minutes. Therefore, this study has succeeded in increasing sleep duration by as much as 30 minutes by utilizing IoT as a medium for regulating sleep comfort.

**Keywords**—*smart room, sleep duration, internet of things, temperature, air quality, humidity*

# The Impact of Hybrid Learning on Learning Quality for Higher Education Institution

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***Abstract***—Since the numerous developments in Information and Communication Technology (ICT) in recent years, there more internet use is common. Currently, traditional higher education is influenced by internet education. An issue raised in this research is the need to compare online and hybrid learning in the post-COVID-19 era using the right media to offer learning opportunities that can support student learning more effectively than either platform alone can. So that the purpose of this study is expected to be able to find out what impact is given when carrying out hybrid learning to higher education institution students during the Pandemic. This study used qualitative research methods to limit the research to the assumptions and characteristics of a qualitative approach. Based on the results of the questionnaires distributed to 100 respondents, the conclusion was that hybrid learning was more efficient than online learning. More and more higher education institutions are interested in creating hybrid learning, programs, and degrees because of the potential benefits.

***Keywords***—*learning, hybrid, education, online, student*

# Gamification-Based To-Do List Mobile Application Development

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***Abstract***— The paper discusses the development of mobile to-do list applications using the concept of gamification. The purpose of developing this application is to assist users in motivating themselves to complete tasks encountered in everyday life. The gamification concept applied to this application consists of several elements, such as the use of a point system, level system, and badge system as a representation of the user. In this paper, the application is developed using the waterfall method. Then, testing the application involves several users as participants. The results of the test show that application users feel more motivated and more productive in completing their tasks after using this application. In addition, users also provide positive feedback regarding the gamification elements applied to the application. Overall, developing a mobile to-do list application using the concept of gamification can be an effective solution to help users increase their motivation and productivity in completing daily tasks.

***Keywords***—*to-do list, gamification, mobile application, waterfall*

# Factors Affecting Consumer Purchase Intention to using E-Commerce in Indonesia

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**Abstract**— In restoring the economy in Indonesia since the Covid-19 pandemic, sales in e-commerce have begun to increase. Therefore, this study analyzes the variables that are accepted in influencing or increasing consumer purchase intentions to shop online through e-commerce in Indonesia. This study adopted a quantitative research method. Questionnaires were distributed using the Google Forms through communication platforms, like Line, Instagram, Discord, and WhatsApp. The Google forms were used to collect 218 responses, which were then analyzed using SmartPLS. The results show that Service Quality, System Quality, Information Quality, Subjective Norms, Perceived Risk, and Perceived Security variables positively impact e-commerce purchase intentions. Unexpectedly, two variables are rejected, namely Perceived Ease of Use and Perceived Usefulness which have no impact on e-commerce purchase intentions. This research concludes that the utilizing e-commerce since the pandemic has increased transactions and can restore the economy in Indonesia because e-commerce has improved several qualities in specific fields, which supports user interest in using e-commerce. The study's finding provides insight into e-commerce market players like Shopee, JD.ID, Lazada and others to strategies their service and business plan to sustain their business. **Keywords**—bitcoin price, COVID-19 factors, interest rates, feasible generalized least square, moderated regression.

**Keywords**—TAM, information, system, success, subjective norms, intention to use

# The Effect of Virtual Laboratory Perceived on the Interest of Indonesian and Malaysian Students

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***Abstract*** — The development of online changed the way of educating. Researchers developed virtual laboratory broadcasting media to achieve learning goals in academia. but there has been no research linking the benefits and ease of use of virtual laboratories in attracting students' attention to using virtual laboratories. The purpose of this research is figure out the effect of perceived usefulness and perceived of ease to gain the attention to use virtual laboratory in Malaysia and Indonesia. The accepted technology model is used to find out the student's interests based on perceived the technology dimension. The population are students of the mass communication in the Malaysian and Indonesia university. Eighty-seven respondents joined a survey after receiving a lecture from the Bina Nusantara virtual laboratory broadcast and using virtual laboratory for the first time. This study shows that perceived ease and usefulness in a virtual laboratory positively affect students' attention to use. Even though Malaysia and Indonesia have different cultures, but students find the virtual laboratory capable of increasing their knowledge of broadcasting technology.

***Keywords***—*broadcasting study, online learning, technology acceptance model, virtual laboratory*

# Predicting Over The Top Services Movies and Shows Success using Machine Learning

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**Abstract**—Product innovation plays a crucial role in the film business, especially in the highly competitive and uncertain landscape of the entertainment sector. To stay ahead of the competition, filmmakers, investors, and OTT services need to continuously innovate and create successful movies and shows. The film business is a multi-billion-dollar entertainment sector with significant hazards. The excessive costs of production still do not guarantee the success of a movie or show. To overcome this uncertainty, machine learning technology can be used to predict the success of a film. Currently, people are starting to watch movies and TV shows on the over-the-top (OTT) services. Netflix is an OTT service that has a lot of subscribers. With such a large business opportunity in this industry, it would be better if the stakeholders could predict the success of a film earlier, so filmmakers, investors, and OTT services will benefit from it, such as by saving costs. Therefore, this study's purpose is to find the best model for predicting the success of Netflix movies and shows using various attributes, namely type, release year, age certification, runtime, genre, production country, IMDB vote, TMDB popularity, TMDB score, and Top Movie (The class label generated from IMDB score, which classifies a movie to be successful ( “Yes” ) if the score is  $\geq 8$  and unsuccessful ( “No” ) if the score is  $<8$ ). This paper applied Random Forest, Naive Bayes, and k-Nearest Neighbors machine learning algorithms for predicting the success of a movie or show. This study shows the comparison of the measurements of the three algorithms without and with SMOTE. The best algorithm in this case is Random Forest with 81.59% Accuracy, 87.41% Precision, 73.82% Recall, 91.30% AUC, and 79.48% F1-Score.

**Keywords**— *industrial growth, product innovation, machine learning, movie success prediction, random forest, naïve bayes, K-nearest neighbors*

# Purchasing Power Analysis using K-means Algorithm

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**Abstract**—The purpose of this study is to analyze the purchasing power of district and city communities in West Java based on their spending levels, using data from Jabar Open Data for the years 2018 to 2021. This study focuses on one of the factors that affects purchasing power, namely spending, and uses the K-means algorithm to analyze it. This algorithm helps to group data into clusters, which enables a better understanding of purchasing power based on the expenditure levels of people in districts and cities in West Java. The research was conducted using the CRISP-DM method with the K-means algorithm, which is applied to perform data mining on expenditure level data of district and city communities in West Java, listed in West Java Open Data. The data consists of 320 regions including cities and regencies in West Java Province, from 2010 to 2021, with provincial codes, regency codes, and cities. From this data, the research aims to identify regional groups that have high purchasing power, which are considered areas with good opportunities for establishing businesses. The results of this study indicate that urban areas in West Java have high purchasing power, which makes them good locations for establishing businesses. Based on this finding, the researchers plan to establish culinary businesses in urban areas in West Java, particularly in the city of Bandung.

**Keywords**—*purchasing power, k-means, crisp-dm*

# Understanding the Uses and Potential of IoT with 5G Technology Compared to 4G LTE: A Systematic Literature Review

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***Abstract***— IoT or Internet of Things growth in recent years is on the rise, but most of these IoT devices are still mainly dependent on 4G technology which is already at its peak and has many limitations. It has been four years since 5G technology was introduced, but the deployment and development are still not spread evenly in many cities. This research focuses on capturing the use and potential of IoT devices with 5G technology while comparing it to its predecessor, the 4G technology. A systematic literature review is used to capture related information and results of previous similar research to produce new findings and enrich current knowledge of 5G technology uses and potential. The result of this paper is to increase the insight into IoT with 5G technology, starting from the reason why 5G is the future of IoT devices, limitations in 4G, use and potential of IoT devices with 5G, applications and scenarios of IoT with 5G, comparison of 4G and 5G technologies, and new and essential features in 5G to support 5G-IoT.

***Keywords***— IoT, 4G, 5G, technology, networks, information systems, comparison, potential, literature

# The Analysis and Evaluation of User Experience Factors on using Video-on-Demand

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**Abstract—** The usage of video-on-demand (VOD) platforms has increased due to the COVID-19 pandemic. Because of this, many companies have created their own VOD platforms. Despite the high tide of growth, there are still some aches and pains that users experience when using VOD platforms. This research aims to find the key factors that influence people's decisions to use a VOD platform and analyze a VOD platform based on those factors. VOD is a concept where content can be accessed whenever and wherever the viewer wants it. The authors used a systematic literature review approach for this research. The authors have found 32 papers published within 2017–2022 that suit the category and have analyzed them. There are 24 dependent factors as the key factors in the usage of VOD, which are affected by 86 independent factors. The top three dependent factors as well as the key factors are: purchase intention, intention to use, and satisfaction. Purchase intention is the idea in the consumer's mind that they are going to purchase a product. Intention to use is when someone intends to use or reuse a certain object. Satisfaction is the state in which the consumer gets what they want from a certain object or product.

**Keywords—** *video-on-demand, systematic literature review, key factors, purchase intention, intention to use*

# Uncover Configurational Paths of Streamers' Characteristics Predicting High vs. Low Consumers' Watching Intention to TikTok Live Streaming

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**Abstract**— The recent popularity of live streaming on social media has fascinated scholars' devotion. Though, prior studies have yet to satisfactorily elucidate how continuous watching intentions are enlightened regarding live streaming. This study aims to develop an asymmetrical framework for predicting consumers' watching intentions based on streamers' characteristics, such as beauty, humor, warmth, passion, and expertise. A total of 450 respondents who watched live streaming on TikTok participated in this study. This study attempts to examine propositions that specify models that predict high vs. low watching intentions based on the five streamers' characteristics using the fsQCA 3.0. The findings designate two configurations that signify both high vs. low watching intention. To achieve high watching intention, conditions of humor, warmth, passion, and expertise are required. Meanwhile, consumers will not continue to watch TikTok live streaming when the absence of beauty, humor, passion, and warmth is significant. This study signifies theoretical implication where a configurational model of live streaming watching intention based on streamers' characteristics was well-validated. At the same time, this study also provides marketers with practical guidelines on increasing watching intention using four configurations of streamers' characteristics.

**Keywords**— *asymmetrical analysis, fuzzy sets qualitative comparative analysis, live streaming, social media, streamers' characteristics, watching intention*

# Analysis of the Effect of Gamification Implementation on Customer Loyalty in Online Travel Agency (OTA) Mobile Applications

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**Abstract—** Today, online travel agency (OTA) platform is the ideal choice for people to book their travel needs. Currently, there are many OTA brands with various attractive offers and features. One feature that is often used is gamification. This study aims to analyze whether gamification in OTA can affect customer loyalty by examining the utilization of gamification on Traveloka, tiket.com, and . The gamification components which are the tested are tasks, games, points, and levels. The information was gathered through an online questionnaire emailed to respondents in Indonesia who utilize gamification on Traveloka, tiket.com, and. This study employed PLS-SEM as a data validation system and the Bootstrapping method using SmartPLS to test our hypothesis. According to the findings of this study, the Point influences Utilitarian Value whereas the Level influences Hedonic Value. It was also established that utilitarian and hedonic values had a substantial impact on satisfaction and loyalty. Through this result, the implementation of point and level of gamification in the OTA application can affect customer loyalty.

**Keywords—** online travel agents (OTA), gamification, customer loyalty

# Generating and Solving Mazes Using Parallel Minimum Spanning Tree Algorithms

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***Abstract***— This paper proposes a method for generating and solving mazes using minimum spanning tree algorithms and parallelizing them using OpenMP. The approach involves generating a random maze using Prim's and Kruskal's algorithms, which constructs a minimum-spanning tree from a set of edges. The maze is then solved using Dijkstra's algorithm, which finds the minimum spanning tree from a given starting point. To optimize the algorithms' performance, the parallel processing capabilities of OpenMP are utilized to distribute the workload across multiple processors. The results of the experiments demonstrate the effectiveness of the proposed method in generating and solving mazes efficiently, with significant reductions in computation time achieved through parallelization.

***Keywords***— *computation Time, Kruskal's algorithm, openMP, Prim's algorithm, solving mazes*

# Scrutinizing Effect of Youtube Video Advertising to Increasing Advertising Value, Flow Experience, Brand Awareness, and Purchase Intention

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**Abstract**— As technology evolves, companies are increasingly using technology to increase sales by advertising products on social media platforms such as YouTube. But not a few users give negative feedback to advertising that they find distracting to users. The focus of this study is to find out whether the existence of advertisements on YouTube can influence users' purchase intentions for advertised products or not and to find out the factors that influence users' purchase intentions for advertised products. In this study, there are 19 hypotheses and 11 variables. This study had a total of 400 respondents who were collected by distributing questionnaires from February to May 2023. The criteria were respondents aged 17-35 years and living in the JABODETABEK (Jakarta, Bogor, Depok, Tangerang, Bekasi) region, Indonesia. In this study, data was analyzed using SEM-PLS with Smart-PLS software. Finally, the study showed that the variables credibility, emotional value, entertainment, informativeness, and reward affect advertising value. Meanwhile, the irritation variable does not affect advertising value. The Advertising Value, Entertainment, and Reward variables affect the Flow Experience. Meanwhile, credibility, informativeness, irritation, and web design quality do not affect Flow Experience. The Emotional Value and Web Design Quality variables affect brand awareness. The Advertising Value, Flow Experience, Web Design Quality, and Brand Awareness variables affect purchase intention.

**Keywords**— *advertising, social media, YouTube, Purchase Intention, digital marketing*

# Considering Factors for Cloud Accounting Adoption in SME: A Systematic Literature Review

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**Abstract**— Small and medium-sized businesses (SMEs) are essential to Indonesia's economic growth. Financial management is one of the biggest problems SMEs in Indonesia encounter. Cloud accounting is one of the solutions to the financial management problems SMEs face. This study's objective is to examine the variables that SMEs should take into account before implementing cloud accounting. The systematic literature review method is used in this qualitative descriptive study. According to the findings, there are 54 aspects that SMEs must take into account when deciding whether to embrace cloud accounting. This systematic literature review uses 9 online databases namely Google Scholar, Emerald, Elsevier, ResearchGate, IEEE Xplore, ACM Xplore, Springer, EBSCO, and AISEL. The results showed that there are 54 factors considering cloud accounting adoption in SMEs which are divided into 4 categories of factors, namely Technology, User expectations, Organization, and Environment and external. Found 28 publications with 88 authors, 41 organizations, and 19 countries that examine the implementation of cloud accounting in SMEs. Consumers are now better aware of the factors that influence SMEs' adoption of cloud accounting as a result of this article.

**Keywords**— *cloud accounting adoption, accounting information system, SME, systematic literature review*

# The Social Learning Platforms during COVID-19 in Indonesia and Pakistan that Supported by Sustainability Technology

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***Abstract***— As the countries with a high percentage of deaths due to COVID-19, Indonesia and Pakistan have the potential to difficulties in maintaining the sustainability of social, economic and political life including sustainability technology. The quality of education in Indonesia and Pakistan has the same fate, which is more lagging behind its neighbouring countries. Likewise, Pakistan, lags behind India so that some of its citizens choose to study abroad. The purpose of this study is to illustrate how Indonesia and Pakistan utilize social learning platforms to support sustainability technology. The theoretical framework used is about social learning platforms as part technology, assumptions of lagging ICT in developing countries and digital communication systems in a country supporting the lives of its citizens. The research method used was descriptive qualitative, with data verified crosscheck by research teams from two countries. The conclusion of the study mentioned that some social learning platforms in the two countries vary and are not equal in popularity. Google Classroom, Coursera, Udemy, and LinkedIn Learning are popular platforms in both countries studied. They are different habit of learning process in two countries; Students in Indonesia is getting used to learning via digital media, while in Pakistan; students still expect face-to-face lectures/teachers meetings even though there are already a digital version of the learning platforms.

***Keywords***— *social learning platform, Indonesia, Pakistan, sustainability technology, digital communication*

# The Role of Trust Transfer in Facilitating Stickiness Behavior in Live Streaming: A Socio-technical Perspective

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**Abstract**— In recent years, research on live streaming has developed rapidly among scholars. Especially scholars are increasingly interested in understanding consumer behaviors regarding purchasing behavior on live streaming platforms, which is classified as transactional behavior. A separate consideration is a non-transactional behavior, as there are currently many live-streaming platforms that are not only used for sales activities but also to broadcast games, cooking, and eating activities, which do not focus on consumer behavior in live-streaming activities. This study investigates consumers' non-transactional behavior (e.g., stickiness behavior) on live streaming platforms using socio-technical theory and trust transfer. This study tested the hypothesis on 285 Indonesian participants participating in various live-streaming activities across various platforms. Data analysis was performed using a structural equation modeling approach using Smart-PLS 4.0 software. In the study, interactivity and visualization significantly impacted cognitive trust more than affective trust. Although cognitive trust significantly impacts affective trust, it will also similarly impact consumers when they already possess it. The study also confirms that both types of trust increase stickiness behaviors. This is primarily because building cognitive trust is a priority for trust transfer. Therefore, it can increase stickiness behavior and affective trust, which, in this study, evolve significant managerial implications.

**Keywords**— *cognitive and affective, live streaming, socio-technical theory, stickiness behavior, trust transfer*

# Robotic Process Automation to Improve Education's Administration Process: Case of Students' Internship Reporting

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***Abstract***— Technology has impacted various industries and sectors; education is no exception. The use of technology in education facilitates the educational process, both for class engagement and the administration process. The excellence process in educational institutions not only leads to student and teacher satisfaction but also improves the reputation of the institution in the eye of academic assessors and the public. One of the technologies which are currently applied in this industry 4.0 era is robotic process automation (RPA). RPA helps the organization streamline the business process by replacing manual effort that has low value-added, with a program that can increase effectiveness and efficiency. This paper explains the analysis and implementation of RPA in one private university. The automation is developed to automate the checking and recapitulation of students' registration and final report status in the internship process. After the implementation, the time used to perform the activities was reduced by 99.9%. Besides that, the cost associated with completing the job also could reduce by 67% in 5 years. The development of automation could help the internship department to be more productive and focus on the activity that has more value-added, such as answering and analyzing any problem that arises in the processes.

***Keywords***— *Robotic Process Automation, education, business process improvement*

# Presence System Based On Face Recognition And Body Temperature Detection

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**Abstract—** Employee attendance is an important operational process for the company because it's used for employee evaluation. The presence system must maintain the integrity and validity of the presence data. The common presence system used is fingerprint. The fingerprint mechanism required contact between the device and finger, it potentially leaves dirt on the device. The covid-19 pandemic is required social distancing to prevent the spread of the coronavirus. One of the symptoms of being infected with coronavirus is fever, so checking body temperature is the protocols that are widely used. The physical contact mechanism on the fingerprint is a risk of spreading the coronavirus, so an alternative system is needed that hasn't a physical contact mechanism and at the same time also capable of measured body temperature. The purpose of this paper is to determine the measuring body temperature. This system design method uses waterfall as a software development life cycle, C# as a programming language, the sensor with Arduino Uno as a microcontroller, and SQL Server as the database. Based on the results of research, the user interface complies with the eight golden rules and all features work according to the planned tasks.

**Keywords—** attendance, face recognition, fingerprint, presence system, waterfall, website

# Learning Media for Introduction of Traditional Weapons in Indonesia using Augmented Reality Technology

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**Abstract**— Augmented Reality (AR) is a technology that can visualize 3D objects to make them more realistic with the help of interactive digital images. This technology can be combined with various kinds of digital information so that it becomes more interesting. The Pusakaku application is an AR-based application that was created to introduce traditional weapons in Indonesia. This application is developed using the ADDIE framework, which consists of the Analysis, Design, Development, Implementation, and Evaluation stages. This framework helps in creating applications in accordance with the appropriate flow to produce an application that can be used in general. With this AR technology, it is expected to attract the attention of young people to learn various kinds of Indonesian cultural wealth in the field of traditional weapons. The application was tested before based on a phone and tablet. The result questionnaire of this application display is fairly clear and good, accompanied by traditional songs and combined with digital information containing the history of traditional weapons, which makes this AR traditional weapon more interesting.

**Keywords**— *augmented reality, traditional weapon, keris, Indonesia, culture, marker*

# Exploring the Social Networking Experiences of Third-Culture Kids in Qatar: How Does Social Media Support the Identity and Transition?

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***Abstract***— With globalization and technology increasing, there has been a rise in the number of people living cross-culturally. With this, Third-Culture Kids (TCKs) are also growing. This study aims to explore the social networking experiences and the ways social media has become part of TCKs' daily communication habits, where their identity development could be influenced. By looking at the transition and change in identity, it would be plausible to understand the importance and impact of social media on third-culture kids. The method used in this study is a qualitative method with a phenomenological design. Data was gathered by interviewing 28 third-culture kids between 17 and 25 who stayed in Qatar for at least eight years and eventually ventured out of the small bubble. The study's results showed the salient impact of social media use on third-culture kids' identity as adolescents and how it altered once they entered adulthood.

***Keywords***— *social-media, self-identity development, third-culture kids, social networking application, communication technology*

# Health Risk Early Detection using Fuzzy Logic

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**Abstract**— Good life and health are interconnected concepts. Being healthy understand to prevent chronic diseases and illnesses as well as reduces the risk of premature death and improves the quality of life. But health crises significantly impact and change the way of life, such as the COVID-19 health crisis that changes people's behavior on protecting human life, social distancing, and care of wearing a face mask. Using the fuzzy logic method and MATLAB modeling, the function of this research has two folds. First, to propose a method for an early detection tool for COVID-19. Second, the findings' objective is to design an individual health crisis detection model that uses heart rate, SPO2, body temperature, cough frequency, and systolic blood pressure through MATLAB application with fuzzy logic features. Research data and validation sources from the COVID-19 patient data. The findings conclude that the fuzzy logic design that implements fuzzy features on MATLAB can make a prediction impact of covid with heart rate, SPO2, body temperature, cough frequency, and systolic blood pressure variables on low-risk, middle-risk, and high-risk infections.

**Keywords**— *design, covid, detection, fuzzy, MATLAB*

# Development of Customer Churn Rate Dashboard for PT. Mandala Multifinance, Tbk to Improve Customer Repeat Orders

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***Abstract***— In a company that engages in consumer financing, an analysis tool or dashboard is very important to monitor the number of customers who stop using the company's products or services; if not, it will be difficult for the company to maintain customer retention. The research objective is to identify, analyze, and design a customer churn rate dashboard. Problem understanding, data understanding, data preparation, constructing models, and evaluating the findings are all part of the Cross-Industry Standard Process for Data Mining (CRISP-DM) technique employed in this study. The analysis is carried out on the company's business processes; the results of the analysis will be used to design a customer churn rate dashboard that is made using knowledge-suite analysis tools. The customer churn rate dashboard could help companies monitor customers who have stopped using the company's services or products. From the results of this analysis, companies can also predict market trends and prepare customer retention strategies so that they can maintain their competitive advantage.

***Keywords***— *CRISP-DM, customer churn rate, dashboard, knowage-suite, customer retention*

# Development of Key Performance Indicators in e-Learning Implementation in Higher Education Institutions

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***Abstract***— Companies or organizations usually use key performance indicators (KPI) as indicators to determine their performance. The company's performance achievements are reflected in the set indicators that will describe the overall performance, as well as higher education institutions can also set key performance indicators, to see their performance achievements. The use of e-learning as a tool to support teaching and learning processes to be more effective and efficient is an example of which performance needs to be measured. This article discusses how the process of developing key performance indicators is carried out through the stages of designing questionnaires and distributing questionnaires to students, data is processed using the method of factor analysis to obtain the main indicators determining performance and the method of regression analysis is also used to build performance models. obtain KPI determinants, and then develop KPI models. The results show that there are indicators of sharing knowledge, managing knowledge, understanding knowledge, and utilization knowledge as performance measurement indicators.

***Keywords***— *key performance indicator, e-learning, performance measurement, dissemination process, higher education*

# Orthogonal Persistence a Breakthrough for Scaling and Seveloping an Application in Blockchain Scenario

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**Abstract**— Blockchain technology has changed our perception of decentralized, secure data storage and administration. However, the scalability and development issues that blockchain-based applications confront remain substantial barriers to the broad use of blockchain technology. A novel concept called orthogonal persistence has emerged as a feasible alternative for improving the scalability and development of blockchain-based apps. This research looks towards orthogonal persistence as a possible breakthrough for scaling and growing blockchain systems. Data persistence in a blockchain environment is simplified by orthogonal persistence, making it easier for developers to maintain and grow the system. Orthogonal persistence has the potential to improve blockchain application efficiency and scalability while lowering design and maintenance costs. The study concludes that orthogonal persistence is a realistic technique for developing blockchain applications that may support innovation and success in this rapidly evolving technology industry.

**Keywords**— *blockchain technology, internet computer, ICP, motoko, canister smart contracts, orthogonal persistence*

# Understanding the Technology Acceptance Model of Digital Banking Usage among Generation Z: A Study on User Adoption and Satisfaction

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**Abstract—** In the past few years, Indonesia's adoption of digital financial services has grown significantly, surpassing initial estimations of previous predictions. This study aims to examine Generation Z's interest in adopting digital banking practices and explore the future of digital banking. By understanding the needs and expectations of Generation Z through their adoption of digital banking, this research provides valuable insights into digital banking services which target its market to Generation Z and younger. A survey method targeted 245 respondents categorized as Generation Z (aged 17-25) who have utilized digital banking services. The result was analyzed using the SmartPLS tool to analyze the structural equation model (SEM) and partial least squares (PLS) to test the hypotheses and explain the variance of dependent variables. The findings reveal that behavioral intentions to use digital banking services by Generation Z are primarily influenced by their attitude toward use. Specifically, perceived usefulness and social influence directly influence attitude toward use, with perceived usefulness exhibiting the most significant impact. Moreover, factors including performance expectancy, perceived security, and perceived ease of use indirectly influence the attitude toward use of digital banking by Generation Z.

**Keywords—** *digital banking, technology acceptance model, generation z*

# Crucial Factors that Influence the Emergence of Sustainable Technopreneurs: Initial Insight from Indonesian Startups

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***Abstract***— Sustainability and digital technology currently dominate entrepreneurship studies due to their significant impact on the future. Entrepreneurship involves seizing opportunities, and by applying sustainability principles and utilizing digital technology, businesses are not only focused on resource exploitation but also consider the balance of economic value, social conditions, and environmental preservation. Indonesia, as a developing country, faces the challenge of achieving sustainable development. This research explores crucial factors that lead individuals to become nascent sustainable technopreneurs. In-depth interviews were conducted with 10 founders and co-founders of startups in the sustainability field. The research findings indicate that driving factors are divided into three dimensions: personal, social, and environmental. The findings contribute to enriching entrepreneurship studies, addressing the gap in sustainable technopreneurs, and providing a foundation for stakeholders to develop effective programs and policies

***Keywords***— *digital technology, entrepreneurship, nascent entrepreneurs, sustainability*

# The Use of Interactive Digital Content as Assistive Technology for Student with ADHD

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***Abstract***— This research focuses on the use of assistive technology (AT) and the learning journey for students with attention deficit hyperactivity disorder (ADHD). It highlights the right to education for all citizens, including those with special needs, and the government's responsibility to provide appropriate education. Students with ADHD face challenges in their learning due to hyperactivity, impulsivity, and concentration difficulties. Special education services and accommodations are available under relevant laws. AT, including digital technology, plays a vital role in supporting students with disabilities. It enhances access to educational materials, facilitates participation, and promotes communication and collaboration. The proposed research aims to explore the use of AT and develop tailored strategies for students with ADHD. Individual program plans incorporating AT and educational adjustments will be considered to optimize their learning experience. By addressing their specific needs and providing a supportive environment, students with ADHD can improve their skills, independence, and academic achievements. This research aims to promote their overall well-being and integration into society.

***Keywords***— *assistive technology, interactive digital content, ADHD, digital content*

# Centralized Versus Decentralized Technology in the Financial Industry

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***Abstract—*** The main purpose of this research is to discuss the impact, potential, and risk of decentralized technology to the centralized technology finance industry. This study will give perspective to companies, organizations, the financial industry, individuals, and investors to consider what decision should they take. This study uses a systematic literature review as the research method. The stage of the methodology is by searching for studies, data extraction, quality assessment, and synthesizing data. The result of this study is there is advantage and disadvantage to using centralized and decentralized technology in the financial industry. Integrating both systems will give beneficial but there is also a risk to consider before integrating both systems so the institution must agree on rules. Investors and users need the education to use the technology. For this study, further research is needed to know how to implement decentralization into centralization technology, and how to effectively educate and distribute the information to the users.

***Keywords—*** *decentralized, centralized, financial industry, finance*

# How Fashion Live Streaming Features Affect Purchase Intention by Mediating Perceived Value and Perceived Trust

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**Abstract—** During the COVID-19 consumer's habits has changed, and one of them was the concept of live shopping, where we watched the live stream while being able to shop simultaneously. The primary purpose of this study is to determine whether live streaming functionality consisting of visibility, authenticity, and interactivity can affect consumers' purchase intent, especially in fashion products, by mediating consumer's utility value, hedonic value, and trust in Indonesia. The platform used as a reference for live shopping is TT, with the TT Live feature that provides TT Shop during live streaming. This study obtained 450 respondents who analyzed the data using SmartPLS (SEM-PLS). The study's results indicated that the live-streaming feature on fashion products had positive effect on consumer's utility value, but interactivity and authenticity did not significantly impact perceived trust. Thus, perceived trust does not mediate purchase intent. Finally, this research was conducted to provide benefits to live-streaming hosts to determine what factors can increase sales levels during live-streaming

**Keywords—** fashion live streaming, purchase intention, perceived value, perceived trust, SOR theory

# Machine Learning Implementations in Childhood Stunting Research: A Systematic Literature Review

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**Abstract—** Childhood stunting is a condition anticipated to affect the growth potential of children under the age of five. With numerous stunting researches that have been conducted, stunting datasets are now widely available to facilitate stunting research. This provides an opportunity to implement machine learning (ML) principles to produce a broader insight or a novel technique in stunting prediction. A systematic literature review is necessary to discover the landscape of machine learning implementation in the application domain as a preliminary study for creating an effective research roadmap. This paper presents a systematic literature review (SLR) of 22 curated manuscripts that focuses on identifying the ML models applied in stunting research, as well as the datasets used in such studies that were published during 2017-2022. The SLR process found that ML principles have been applied in stunting research since 2017, and the diversity of ML implementation has become more varied in 2021-2022. In terms of ML models, XGBoost and Random Forest are recognized as the two most utilized models, and stunting prediction is the most common ML implementation. The majority of stunting research utilizing ML has been conducted in Indonesia. Although national survey data has been the most commonly utilized dataset in stunting research, researchers in Indonesia have shown a preference for utilizing data from regional or independent surveys. This study will be followed by developing a classifier model for stunted children using XGBoost and Random Forest algorithms. The model will be trained on a dataset generated from StuntingDB.

**Keywords—** *Stunting, Machine Learning, Implementation, Trend, Systematic Literature Review*

# The Key Success Factors of Purchase Intention and Consumer Behavior on Short Video Application

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***Abstract***— Information systems have become one of the factors that greatly influence the company performance in sales and marketing, also improves consumer behavior. This research tries to provide a review of previous studies which also examined the short videos available on social media which is an aspect of the information system and its contribution to brand performance and consumer behavior. Using qualitative method of reviewing five years of previous studies of short videos with their effects on consumers and running businesses, this study manages to distinguish important factors of short video that influences multiple dependent variables. The result shows that short video as marketing tool improves purchase intention, influence consumer behavior, increases brand performance through brand loyalty and brand equity, and increases engagement. Short videos have proven to be a powerful tool in influencing the psychology of audience, affecting consumer behavior and generating actions that turned into an act of buying.

***Keywords***— *short video, purchasing intention, consumer behavior, brand performance, information*

# A Systematic Review of WebAssembly VS Javascript Performance Comparison

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**Abstract**— Web Assembly is one of brand-new programming languages on the web, it is equipped with complex binary format features so that it is more sophisticated and fast to load. In this paper, we collect material to compare quality performance of WASM and JS in various aspects (Runtime, Energy, Memory Usage). The performance hypothesis between WASM VS JS is depends on the type of web application you want to build. If the application requires very high performance and requires processing large data, then WASM may be a better choice. However, if the app is more focused on user interaction and view manipulation then JS may be a better fit. But after the authors do some systematic review of WASM and JS performance comparison, the authors conclude that WASM win in light application because it's faster and use less energy, but for heavy application, the authors conclude that JS is more convenient because it's significantly less memory needed than WASM, also it's unexpectedly more faster than WASM.

**Keywords**— *energy, JS, memory, performance comparison, runtime, systematic literature review, WASM*

# Analyzing the Behavioral Aspects of Implementing Green IT in an Academic Environment

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***Abstract***—Environmental awareness has recently emerged as one of the most crucial topics. As a result, various groups advocate for these technologies and research ways to promote their usage in various contexts. This study examines the factors influencing the intention and use of green technology among academics. This study integrates Price Value (PV) and Consideration of future consequence (CFC) to Theory Planned Behavior (TPB) as a theoretical basis. Two hundred five valid replies were gathered and processed through statistical analysis. The results of this study partly support the developed hypotheses. Four hypotheses developed from TPB have presented significant relationships. However, PV and CFC were not. The findings indicate that individuals in this study did not consider CFC or PV of green IT products as critical factors in their decision-making process. Findings also suggest that for implementation success, competent parties must consider the campaign to increase individual awareness and provide financial support regarding environmental policy.

***Keywords***— *Green IT adoption, Green Computing, TPB, Price Value, Consideration of future consequences*

# Analysis of Factors Affecting User Intention in Using Near Field Communication (NFC) as a Payment Method in Indonesia

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**Abstract**— Near Field Communication (NFC) technology has been widely used in mobile payment methods around the world. While this technology continues to develop, the public needs to be aware and ready to adapt to the technology. Based on this matter, researchers in this study aim to evaluate Indonesians' intention to use NFC payment. Supported by prior studies, researchers used an expanded version of the Technology Acceptance Model (TAM) to ascertain the intention of Indonesians to adopt NFC payment. The primary factors derived from TAM were Mobile Ease of Use and Mobile Usefulness. Aside from those two variables, external variables of Consumer Technology Readiness, Technology Availability, Responsiveness, Smartness, and Compatibility were also included in the research model. Researchers distributed 120 questionnaires in April 2023 across Jabodetabek using a convenience sampling technique. In order to prove the hypotheses, this study utilized SEM technique (Structural Equation Model) and SmartPLS. The result showed that Compatibility most influences Mobile Ease of Use, Responsiveness most influences Mobile Usefulness, and Mobile Usefulness most influences Intention to Use NFC Payment

**Keywords**— *NFC payment, technology acceptance model, compatibility, responsiveness, intention to use*

# The Impact of Shift-Left Testing to Software Quality in Agile Methodology: A Case Study

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***Abstract***— The point of Agile Methodology is continuous improvement, delivering a small feature quickly without sacrificing the feature quality; every sprint must be better than the previous sprint, and better can be fewer bugs, faster development, and testing. We will present how we reduce production bugs by customizing our sprint iteration. As we know, bugs are unavoidable, there is no software engineer that can make software without a bug; however, we can reduce bugs in production if we can find bugs in lower environments as early as possible. The case study in this paper was taken from one of technology company in Indonesia, the activity was done by the Quality Engineer (QA) Team. We will show that shift-left testing can help us reduce bugs in production. Testing is part of agile methodology, and the main idea of shift-left testing is to move testing early and could be done by any team member, not only QA. We include shift-left testing in our agile methodology for one year in 2022 and compare the result in the previous year.

***Keywords***— *software quality, software testing, agile, shift left testing*

# Ensuring Success in Quick Commerce by Evaluating Its Application Development Capability Maturity Using COBIT 2019

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**Abstract—** In the digital era, the demand for quick access to goods (q-Commerce) has driven retail companies to develop online shopping applications, aiming to attract more consumers. To cater to the demands of q-Commerce, specialized mobile applications that prioritize fast delivery and user-friendly experiences are crucial. However, developing and maintaining these applications present challenges in terms of speed of development and security. This research focuses on a retail company, PT X, with a q-Commerce application serving 3.5 million active users monthly. The research aims to assess PT X's capability maturity level in application development governance using the COBIT 2019 Capability Maturity Model. Additionally, the study investigates the differences in assessment methods between COBIT 2019 and previous versions. The findings contribute to understanding in which level of capability maturity that companies can achieve in developing quick commerce applications with a large user base. Findings of this research provides an overview for PT X to initiate the necessary initial steps to comply with the good application development according to COBIT 2019 standard. This research also highlights to future researchers that COBIT 2019 is primarily a framework for enterprise-level assessment and need to be adjusted to be suitable for measurements below the enterprise level.

**Keywords—** IT Governance, Capability Maturity Level, IT Audit, COBIT 2019

# Social Media Marketing Activities to Tie-in Brand Commitment: A Brand Experience Mediation

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**Abstract—** Achieving brand loyalty is one of the main objectives for businesses in the highly competitive and dynamic market of today. This study investigates the connections between social media marketing activity, brand commitment, and brand experience in a local cosmetics market. Responses from 275 users of cosmetics were gathered using a structured questionnaire, and structural equation modeling was used to evaluate a conceptual framework. For a specific cosmetic brand under consideration (Somethinc), the investigation shows that brand experience mediates the connection between social media marketing and brand commitment among consumers. The article deepens our understanding of the Social Media Marketing Activities (SMMA) construct by examining how brand commitment is positively impacted by SMMA and how brand experience mediates this relationship. The results from our sample lend credence to the idea that creating SMMA influences consumer commitment either directly or indirectly through brand experience. The current study investigates the impact of SMMA on brand experience and loyalty while taking into consideration the expanding relevance and importance of such activities as well as its symbolic benefits. In recent research, the size, share, growth, segmentation, trend, industry forecast, and key players in the Indonesian cosmetics market were thoroughly discussed. However, little study has been done on Indonesia's competitiveness in the cosmetics sector. According to this study, managers should maximize SMMA and the brand experience dimension to increase brand commitment and foster long-term relationships.

**Keywords—** activities of social media marketing, cosmetic industry, brand experience, brand commitment, somethinc

# Consumer Satisfaction and Purchasing Behavior Through Online Food Delivery Services App

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**Abstract**— Ordering food using an application becomes the answer to people's needs. Several OFD app services in Indonesia have their customers. The purpose of this study was to analyze consumer purchasing behavior and satisfaction in using food order & delivery service applications. In this study, the effect of digital marketing is also measured related to consumer purchasing decisions. There were 400 respondents in this research (aged 14-26 years; 49.8% male and 50.2% female). A questionnaire consisting of e-servqual (21 questions), digital marketing (10 questions), and Usability System Scale (SUS; 10 questions) was distributed to respondents. In the e-servqual variable result, the importance values result on all dimensions were  $> 4.3$  while the performances were  $> 3.8$  (90% -91% compatibility). The SUS result is 70 for general application or was perceived as Good. Results for the digital marketing variable showed that 72% of the respondents agreed to a strong agree that digital advertising and information on social media affected buying food through food-ordering applications. Spearman's rank showed there was a significant relationship between digital marketing and users satisfaction levels ( $r=0.26$ ; at  $p=0.05$ ), however, there is no sufficient evidence for the relationship between digital marketing and apps' usability.

**Keywords**— *consumer behavior, digital marketing, e-servqual, usability system scale (SUS)*

# Security Risks and Best Practices for Blockchain and Smart Contracts: A Systematic Literature Review

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***Abstract***— The rise of blockchain technology and smart contracts has brought widespread attention due to their capacity to transform multiple industrial sectors through decentralized, transparent, secure transactions. However, despite their promise to revolutionize various fields worldwide, lingering concerns regarding security risks impede their adoption rate. Addressing these concerns is crucial now more than ever; therefore, we conducted a comprehensive literature review within our study's scope that focused on published papers between 2014-2023 centered around security risks concerning blockchain and smart contracts. Our systematic approach using the PRISMA checklist analyzed nine categorized research model-based primary studies while recognizing vulnerabilities in smart contract development and providing best practices to mitigate such issues. These findings benefit both researchers and practitioners as they showcase how acknowledging these vulnerabilities can further develop into exploring more significant aspects of blockchain technology's security issues and smart contract development processes. Our study contributes significantly by expanding knowledge in this field while providing novel insights valuable for individuals involved in designing or implementing blockchain technologies.

***Keywords***— *blockchain, smart contracts, security risks, vulnerabilities, standardization*

# Improving SMS Spam Detection through Machine Learning: An Investigation of Feature Extraction and Model Selection Techniques

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**Abstract**— When it comes to SMS, the topic of spam is a big obstacle that requires urgent attention. The majority of SMS messages that fall under the category of spam are commercial communications, which are obviously illegal and unethical, followed by phishing scams and messages that may disturb the user's peace of mind. Users may find this to be extremely inconvenient as it consumes energy to erase those messages, slows down websites, and may even infect computers with viruses. We must therefore distinguish between SMS messages that are spam and those that are not in order to prevent this. We are recognizing this in this project utilizing machine learning algorithms. In this paper, we will talk about the algorithms we employ, compare them all to the dataset we use, and finally select the algorithm that will be most effective at determining which SMS messages fall under the spam category. Based on comparisons of precision and accuracy, we choose the optimum algorithm, then for the results of the research in our paper, we found that the best non-pretrained machine learning model was GRU with the best feature extractor being GloVe, with an accuracy of 91.9171% and precision of 91.9187%. However, the pretrained machine learning model BERT still outperformed the non-pretrained model with an accuracy of 99.0166% and precision of 99.0179%.

**Keywords**— *spam, SMS, spam in SMS, machine learning*

# Exploring the Impact of Feature Data Normalization and Standardization on Regression Models for Smartphone Price Prediction

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**Abstract**— Smartphone has become a necessity and the most accessible for every individual and is mainly used for communication. Smartphone price is higher than the previous years because of the new features provided. Smartphone Price Prediction will be using machine learning to predict the smartphone price with the provided feature. The dataset will be obtained through web-scraping with 14 features that consist of categorical and numerical features. Categorical features consist of Brand, Chipset, CPU, GPU, Screen Type, Resolution, and Total Camera, while numerical features consist of RAM, Weight, Storage, Screen Size, Pixel Density, battery capacity, and Price for the target. The model that is proposed for the study will be a decision tree regressor, random forest regressor, k-nearest neighbor regression, and multilayer perceptron regression using two pre-processing data methods that is data normalization and data standardization. The result of the research is data normalization is the most impactful pre-processing data on regression models in terms of performance and error rates. Random forest regressor with no scaling performs better than other models with a score of 0.10425 and 0.97552 for MAPE and  $R^2$  respectively.

**Keywords**— *smartphone price prediction, data normalization, data standardization, machine learning, regression*

# Enhancing Passenger Satisfaction in JABODETABEK: A Comparative Study of the Effectiveness of Electric Money and QR Code Payment for KRL Commuters

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**Abstract—** Payment methods for public transportation have slowly changed since COVID-19 occurred in Indonesia, the Indonesian government made regulations in the form of using cash to become cashless. This has increased the Electronic Money Payment method and the QR-Code payment method, especially for Indonesian KRL transportation. This study aims to examine which factors influence passenger satisfaction for both E-Money payments and QR-Code payments. This study examines the factors that can increase JABODETABEK KRL user satisfaction in using Electronic Money Payment and QR-Code Payment based on four factors: Ease of use, Payment Speed, Service Security, and Usefulness. This study uses quantitative methods and questionnaires to gather data from the passengers about ease of use, payment speed, service security, and usefulness. The research result on 404 samples showed that service security and usefulness is the most influence user satisfaction in transacting using Electronic Money and Service security is the most influences user satisfaction in transacting using the QR-Code and QR-Code payment is the most satisfying payments for passengers because of their high service security.

**Keywords—** *KRL Indonesia, E-Money Payment, QR-Code, SEM-PLS, Quantitative method*

# Consumer Decision-Making Criteria for Online Food Delivery Platforms: A Case Study in Jabodetabek Indonesia

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**Abstract—** Digitalization has been affecting the Food & Beverage (F&B) Industry. Today's phenomenon of easy accessibility to online services makes consumers inclined to buy their needs through online platforms because it is more straightforward and more accessible, including the appearance of Online Food Delivery (OFD) such as GoFood, GrabFood, and ShopeeFood. The aim(s) of this research is to identify the weighting of consumer's perspectives regarding the criteria for choosing OFD Platform in Jabodetabek, identify what criteria are the most impactful in choosing the OFD Platform, and identify which OFD is selected by the customers based on the criteria using Analytic Hierarchy Process (AHP) Method. The result based on SuperDecision app as the data analysis tool shows that the main criterion is Service Quality, and the most chosen sub-criteria in Service Quality is Restaurant Ratings. Meanwhile, the Technology's main criterion is Easy Access to OFD App Features. Furthermore, the OFD platform mainly selected by the targeted samples is GoFood, based on OFD customers in Jabodetabek.

**Keywords—** AHP, decision making, over choice, online food delivery

# Factors That Influence Consumers in Using Online Investment Platforms - Systematic Literature Review

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***Abstract***— Technology has advanced to the point where investing activities can be done online. People are encouraged to use online platforms for investing because the process is easy and pleasant. It helps the customer invest anywhere and anytime. These benefits and many factors can affect the customer's decision. Every customer has a different reason and motivation for using online investment platforms. This research aims to identify the benefits, challenges, and factors that encourage customers to use online investment platforms. The method used in this study is SLR – Systematic Literature Review. The findings of this study revealed 90 factors from seven frameworks that influence users' willingness to invest on online investing platforms. Based on analysis from the selected paper in the last five years, the frequently used factors in the measurements are investor characteristics, perceived ease of use, and trust. In addition, frameworks for measuring the factors that affect consumer intentions, such as TAM and UTAUT, were discovered in this study. Furthermore, there are many investment platforms, each with its benefits and challenges. The advantages and difficulties that users may encounter are also identified. This study's findings are significant for future studies to understand consumers' adoption of online investment platforms.

***Keywords***— *online investment platforms, online investment applications, SLR, systematic literature review, P2P lending*

# Sentiment Analysis of The Tourist Destination Using Support Vector Machine Algorithm on Twitter Post

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***Abstract***— Sentiment analysis is an effective approach in identifying and analyzing user perceptions of digital applications such as social media to optimize the marketing of products and services in accordance with market demand. Social media nowadays has an enormous effect on decision-making. Social media allows users to be able to find out the reactions of other users to the information that is being hotly discussed. The problem is the large amount of data related to people's preferences for tourist attractions, especially on social media, so to process it manually requires time, energy, and even a lot of money. The algorithm used is the Support Vector Machine while the feature selection we use is Particle Swarm Optimization with Discrete Binary Particle. While particle swarms are patterned with optimizers so they are not able to stand alone, it must be followed by other algorithms that must carry out the learning process first. The accuracy value obtained as a benchmark in finding the best test example for sentiment classification problems. The outcome showed some improvement in the accuracy of 0.09006 from 0.87267 to 0.96273 after the implementation of the Particle Swarm Optimization. The conclusion showed that feature selection Particle Swarm Optimization was able to increase accuracy.

***Keywords***—*sentiment analysis, support vector machine, particle swarm optimization*

# Collective Memory in Digital Marketing Format Contributes to Recognizing Benyamin Sueb as an Ambassador of Betawi Culture

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***Abstract***— Benyamin Sueb Park exists with the aim of preserving collective memory through Betawi history and culture from works of art and the life journey of a figure from Benyamin Sueb. However, the number of visitors who attended Benyamin Sueb Park was not as expected. This challenge can be answered using information technology in the form of digital marketing which can help promote through social media channels. Digital innovation and virtual settings, on social media platforms, can dramatically increase a museum's competitive advantage and potential to attract new visitors. By using a qualitative methodology combined with a theoretical approach to media transfer or transmediality, this study examines the components that must be considered in a strategy to maintain Benyamin Sueb's character and identity as an innovative and progressive ambassador for Betawi culture.

***Keywords***—benyamin sueb, collective memory, digital marketing, transmediality, ambassador betawi culture

# Business Process Reengineering and an Omnichannel e-Commerce System Implementation for the Online Stores of a Pet Supply Company in Indonesia

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***Abstract***— The rapid and abrupt shifts in the marketplace have posed challenges to the survival of businesses. Moreover, it also immensely contributes to the prominent rise of online shopping worldwide. This has thus stimulated companies to remodel their business processes to expeditiously adapt to changes and survive. This paper proposed a business process reengineering for the B2C business model of a company that specializes in providing pet products. Data collection of the current business processes and potential problems are collected through interviews and observations. Then, the Jeston and Nelis Business Process Management (BPM) framework is employed as the guideline to redesign business processes. The business process reengineering is supported by technology solutions of the omnichannel e-commerce system, and three evaluation surveys of the system are conducted to measure and learn the user perspectives and ensure that the application has the value of streamlining the business processes.

***Keywords***— *business process reengineering, business process management, omnichannel e-commerce system*

# Testing Approach for IoT System (case study: air quality monitoring system)

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***Abstract—*** The Internet of Things (IoT) was evaluated as part of this study. The IoT system in this study is the air quality monitoring system. The system consists of three layers, three end devices with air quality monitoring sensors as the perception layer, the LoRaWAN network as the network layer, and the monitoring website as the presentation layer. Before being made available to the public, IoT hardware and software must undergo testing. For IoT systems, there are no established standards or quality criteria. This study's goal is to evaluate the methodology for an air quality monitoring system. Website speed is measured using Pingdom tools. The website received a performance grade of B. Pingdom offers advice for enhancing website performance. Sucuri is utilized as a security test tool to evaluate the website's security, and consequently, no malware was discovered. The latency and data dependability are monitored to assess the system's performance fully. The outcome demonstrates that all system components consistently and accurately receive data with a latency of less than 1 s.

***Keywords—*** IoT, performance, quality, security, testing

# Comparative Analysis of Binary and Interpolation Search Algorithms on Integer Data Using C Programming Language

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**Abstract**— To perform data search, there are various algorithms that have been developed, such as binary search and interpolation search. There are various views on these two algorithms, regarding which one is better than the other. From the various views that have emerged, this study aims to find out which algorithm is more efficient in terms of time complexity and memory complexity using Big-O notation, as well as its execution time in the C programming language. This research was conducted with 6 datasets consisting of 3 datasets with uniform data types and 3 datasets with non-uniform data types. Each dataset type consists of 1 million, 10 million, and 100 million data. The results show that the binary search algorithm is more efficient to use rather than interpolation search on datasets that are not uniformly distributed or the data type is unknown. While the interpolation search algorithm is more efficient to use rather than binary search on datasets that are known to be uniformly distributed.

**Keywords**— *binary search, interpolation search, time complexity, space complexity, execution time*

# Assessment of E-Ticketing Technology in Concert Website: A Review of Benefits, Profits, and Customer Satisfaction

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***Abstract***— The main objective of this research is to identify how e-tickets will benefit both companies and customers. This study also examines the benefits that will be received by the company and focuses on customer satisfaction with the presence of e-tickets to watch concerts. The problem that is happening at this time is that music concerts are growing so big and there are also more and more fans of concerts. If you continue to use traditional methods such as queuing at the ticket counter, it will take a long time and be less efficient. The existence of a ticket purchase information system can be done using the website which will later get e-tickets to be exchanged when the concert is held. This study uses a systematic literature review as a research method. The methodological stages in this research are planning, implementation, and reporting. From this research it can be seen how much previous research has discussed e-tickets and identified previous research. The results of this study are that previous research has mostly discussed the relationship between e-ticketing and customer satisfaction. The use of information systems in business can be in the form of a website created by the company. E-ticketing in concert ticket sales is important and beneficial for customers who want to go to concerts and also makes companies earn more profits. For further research, more in-depth research can be carried out on how the company handles website ticket sales that experience errors due to heavy traffic

***Keywords***— *e-ticket, concert, benefit, profit, customer satisfaction*

# Semantic Literature Review on Non-Fungible Token: Expansion Area of Usage & Trends

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***Abstract***— Blockchain, Metaverse & NFT are technologies that were booming during the Pandemic. As a derivative product of blockchain, the Non-Fungible Token (NFT) is one of the technologies that has attracted the most interest from investors and the public because of its potential benefits and has always been closely associated with the Metaverse as a main purposes research of the NFTs. This paper is to explore the possibilities and provide an overview of the current use of NFT technology so that it can provide insight for further research & gap with the big picture that it is trying to present in this paper. However, after exploring further related to NFT in this research, it was found that the problem that most people are trying to solve through NFT is related to the topic of Decentralization & Web3 not as a Metaverse main backbone.

***Keywords***— *non-fungible token, trends, blockchain, metaverse, decentralization, web3*

# Analysis and Evaluation of User Interest Factors on Intention to Use Digital Bank

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***Abstract***— Everything is now digital, and technology is becoming more advanced. For example, during the COVID-19 pandemic, people used cashless payments more frequently for all transactions. This makes digital banks significantly attractive and gives their customers a unique experience. This is because customers who use digital banks are able to use all banking services via a mobile device. Therefore, users can access digital banking services from anywhere. This research was conducted to determine public interest in using digital banks in Indonesia. This research uses quantitative methods on data from questionnaires from 205 respondents who are digital bank users in Indonesia collected through distributing questionnaires through social media. This research was conducted to find out what can raise user interest in using a digital bank. This study examines the relationship between 6 variables with intention to use digital banks: Trust, Perceived Ease of Use, Social Influence, Satisfaction, Curiosity and Reward. The results obtained are that all variables have an effect except Trust and Social Influence.

***Keywords***— *digital bank, intention to use, reward, trust, user interest*

# Brain Tumor Detection and Localization from MRI Images Using Deep Learning Methods

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**Abstract**— Brain tumors are a significant health concern due to their potential to develop into cancer. With increasing cases and a high mortality rate, there is a critical need for more effective tools to aid in tumor identification. Deep learning-based methods have shown promise in detecting tumors and accurately localizing their positions and boundaries within the brain. This paper presents a unique computational experiment that simultaneously addresses both tasks using deep learning techniques. By leveraging the power of deep learning, this research aims to contribute to the development of advanced tools for improved brain tumor identification and diagnosis. The first task focuses on detecting the presence of tumors by examining various pretrained deep convolutional neural networks (CNNs) on publicly available MRI datasets. Through fine-tuning, the InceptionResNetV2 and VGG16 models achieve an impressive 99% detection accuracy on binary MRI images. The second task involves obtaining the precise position and boundaries of the tumor using three different CNN-based semantic image segmentation techniques: FCN, UNet, and Res-UNet. The computational experiment reveals that Res-UNet outperforms the other methods, yielding a high dice coefficient of 0.903 and intersection of union (IOU) of 0.825. Overall, this research showcases the potential of deep learning in advancing brain tumor identification and diagnosis.

**Keywords**— *brain tumor, detection and localization, MRI scans, pretrained deep CNN, semantic segmentation*

# Twitter Sentiment Analysis with Maximum Entropy and Naïve Bayes Using N-gram Approach

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**Abstract**— Finding out what people think and feel has always been common regarding social and political opinions, products, and services experiences. Due to the sheer amount of information on the internet, different machine learning algorithms are implemented to classify information better. The Maximum Entropy and Naive Bayes employing the n-grams approach will be assessed in this research study along with their accuracy, recall, f-1 score, precision, and time complexity. Instead of the customary product and service review, this study will investigate the opinions of Twitter users regarding the Death Penalty. In comparison to prior literature, the experiment's findings show improved accuracy. The findings reveal that Maximum Entropy with n-grams performs better when compared to Naïve Bayes with n-grams, with an average accuracy result of 92.67% in classifying the death penalty data. However, the Naïve Bayes using n-grams outperform Maximum Entropy regarding time complexity with an average of 69.83 milliseconds on an average input length of 97.98 Kb. The trade-off is when the basis is accuracy, the Maximum Entropy with n-grams is recommended. But regarding time complexity, the Naïve Bayes using n-gram is favored for smaller input length.

**Keywords**— *sentiment analysis, n-grams, Naive Bayes, Maximum Entropy, accuracy, time complexity*

# Deep Learning for Music: A Systematic Literature Review

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**Abstract—** Recently, Artificial Intelligence development and implementation are becoming faster and more popular. Artificial Intelligence has appeared to help humans in their daily activities. Several examples that are currently hype are Chat-GPT, and AI Art. With the emergence of applications like Chat-GPT many people have started using applications that have Artificial Intelligence in it. However, there are still rare applications or research that discuss the implementation of Artificial Intelligence or deep learning in music. Therefore, this research will conduct a systematic literature review (SLR) on Deep Learning in music. In this systematic literature review we will research and answer three research questions. Those research question are, What kind of deep learning architecture that most widely used for developing, classifying, and making music; What implementations of deep learning can be done in music, Whether the existence of Artificial Intelligence / Deep learning can help musicians or composers in making music. Predetermined research questions will be answered using the Kitchenham & Cochrane method. From the results of the analysis that has been carried out we concluded that the deep learning methods that are widely used for training deep learning in music are CNN and RCNN, While the implementation of deep learning in music is used for classification and recommendation systems. For conclusion in this paper, we conclude that deep learning can be used to help musicians and composers in creating music.

**Keywords—** *artificial intelligence, music, deep learning, music application*

# User Experience Analysis on Camp404 Academy E-Learning System

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***Abstract***— This research aims to understand the user experience and define the problems users face while accessing the Camp404 Academy online learning website. The study is based on the high percentage of participants who still need to complete the Bootcamp activities through the available online learning website, reaching 83% of all participants. Of the participants who participated in the survey, 71% stated that they still need to complete the Bootcamp activities due to difficulties using the online learning website. This research includes four processes on the Camp404 Academy online learning website: the registration process, program access process, class access process, and learning material access process. This research uses the design thinking method, which consists of five stages: Empathize, Define, Ideate, Prototype, and Test. This research produces a recommendation design based on the needs of Camp404 Academy users. The recommendation design then undergoes a testing process. It is found that the success rate of the recommendation design compared to the current design increases from 63.25% to 93.83% of questions being able to be answered by respondents (answers can be found) as well as a decrease in the number of questions that cannot be answered by respondents (responses not found) from 36.75% to 6.17%. PT Digital Innovation Campus can consider the results of this research in developing the user experience of the Camp404 Academy online learning website.

***Keywords***—user interface, user experience, design thinking, e-learning, usability testing

# User Experience Analysis of Indonesia Train Booking Mobile Application Using User Experience Questionnaire (UEQ) and Usability Testing

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**Abstract**— Transportation service providers have implemented technology in this digital era to strengthen their businesses, including a local Indonesian train company that launched its ticket booking mobile application. However, observations of the mobile application show low ratings, with a score of 1.6 on the App Store and 3.3 on Google Play. In response, more in-depth research was conducted to analyze the user experience and evaluate the usability of the mobile application. The research utilized the User Experience Questionnaire (UEQ) method to obtain quantitative results and Usability Testing to get qualitative results. Based on the research methods employed in this research, the UEQ survey garnered 242 respondents, while 15 participants completed the Usability Testing assessment. The UEQ result showed that novelty has the weakest score of +0.738 out of 3 out of all aspects. At the same time, Usability Testing resulted in a considerably low satisfaction percentage of 76.9% and a high error rate of 31%. The evaluation implies that enhancing the user interface and user experience should be given priority, with particular emphasis on improving the train ticket search feature, considering its crucial role within the mobile application. Moreover, Usability Testing revealed that certain users struggle with using this feature. Implementing the recommendation can serve as an opportunity to establish a benchmark for other ticket-booking mobile applications, aiming to enhance the mobile application's quality and create more enjoyable experiences for users.

**Keywords**— *train ticket booking, user experience (UX), user experience questionnaire (UEQ), usability testing*

# User Experience Evaluation of the Booking Website using System Usability Scale and Usability Testing (Study Case Sports Arena)

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***Abstract***— Saraga is a website that aims to assist users in searching, finding, and booking sports arenas according to the availability of time, location, and facilities needed. This website has sufficient features and information related to sports arenas and facilities. The preliminary survey of 31 respondents showed that 38.7% gave a score of 2 out of 5 for the sports arena booking system. Users find it difficult to choose a sports arena because the process is on separate pages. For users to have an easier time using the sports arena booking system, it is necessary to conduct a user experience evaluation by measuring the level of usefulness through usability testing and system usability scale to gauge user satisfaction with the sports arena booking system. Based on the results of the system usability scale analysis of 63 new respondents, it is known that 54% of respondents gave an awful score. However, usability testing results show an appropriate category for aspects of learnability at 65.71%, effectiveness at 62.85%, efficiency at 63.29%, memorability at 70%, and errors at 24% in the category of less good. Therefore, improving the sports arena booking system's functionality, features, and content is recommended.

***Keywords***— *user experience, usability testing, system usability scale, booking system, sport arena*

# Factors Influencing Customer Purchase Interest in Social Commerce in Indonesia

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**Abstract**— Social Commerce is the activity of selling products on social media, starting with product search, and making payments on social networks. Emerged the phenomenon of fast-growing Social Commerce when Indonesia is facing the covid virus in 2020 where everyone cannot carry out their activities as usual also many traders closed their shops because of this. To meet their needs many traders have changed the concept of selling to Social Commerce where traders can sell online from home during the covid virus and customers can also buy everything they need online from looking for products to transactions. Therefore, researchers want to quantitatively examine what factors make customers want to transact in social commerce, where researchers distribute 470 questionnaires. Out of 470 researchers get as many as 406 respondents and after that researchers immediately process data using SmartPLS. Based on the result, the author found that Trust and Competitive Price significantly impact Purchase Intention. Besides that, Transaction Safety and Information Quality also significantly impact Trust.

**Keywords**— COVID-19, social commerce, quantitative, SmartPLS

# Telemedicine Acceptance in Malaysia's Healthcare System: Systems Quality and Users Behaviour Matter

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***Abstract***— Telemedicine has offered a new way for a remote medical consultation between patients and doctors. While it has been acknowledged that telemedicine has contributed positively towards the quality of global healthcare systems, in some regions users have been reluctant in adapting to remote medical consultancy. Studies have shown telemedicine acceptance has been poor as a result of rejection among the users which has taken its toll on its great potential to healthcare system. This study seeks to establish factors contributing to patients' acceptance towards telemedicine. An acceptance model was developed with a set of hypotheses using the variables identified from the study of literatures. A survey was conducted among Malaysian public who have patronized both private and public medical care to determine their attitudes towards telemedicine and their willingness to embrace this new approach in seeking medical care. The results of the survey have demonstrated that system's quality and users' behaviour play important roles in the acceptance of telemedicine.

***Keywords***— *health informatics, technology acceptance, behavioural science, telemedicine*

# Implementation of Artificial Intelligence Based Image Creation Technology for Conceptual Ideas in 3D Visual Modeling

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**Abstract—** The arts and creative industry are confronted with a challenge due to the rapid development of digital technology known as AI (Artificial Intelligence) Art. The creative process of AI thinking involves the combination, transformation, and explanation of creativity. The use of AI Art technology poses ethical concerns and questions the appropriateness of its utilization by designers/artists, while also raising moral considerations about the role of artists/designers in society. This presents both a problem and an opportunity for the creative industry to explore recommendations for the creative process by integrating AI as a tool to support 3D modeling production. Plato's philosophy of art, it is a process of imitating the real world, contingent upon the evaluation and reconstruction of artistic concepts. This research primarily focuses on the implementation of AI Art concepts in the realm of 3D modeling, by introducing an evaluation and construction process that yields innovative digital art forms. The research adopts an exploratory sequential mixed method approach, consisting of two phases: the first qualitative phase involves the collection of AI Art data, analysis, evaluation, and designing of 3D models, while the second phase focuses on validating the data by measuring individual responses to AI Art, aiming to generate objective interpretations of AI Art. The outcome of this study proposes a framework for 3D modeling that leverages AI Art as a fundamental concept for artistic creation.

**Keywords—** *AI art, concept, idea, model 3D, visual*

# Analysis of the Use of E-stickers in Chat Conversations for Higher Education Students

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***Abstract***— Online messaging applications are seeing an increase in popularity of e-stickers with vibrant and interesting sentiments, especially among students. These e-stickers were developed to allow people to communicate their feelings more obviously in online chat conversations. To find out why individuals nowadays want to utilize e-stickers in communication, research was done. It is necessary to respond to the following study question: "What variables drive individuals to use e-stickers in chat conversations?" The solution to this question might come from a few different hypotheses. By employing a survey to gather data from college students, this study assesses their sticker-using experiences. To collect information from our target participants, we use Google Forms. The association between each aspect that affects people's inclination to utilize e-stickers is also explained using a study model. We organized the data we gathered into tables to make it easier to read. Tables were made to show the results of Google Forms, composite reliability, average variance extracted (AVE), significance of the indicators, and SmartPLS application results. The conclusions we reached were based on the findings from the results and discussion, as well as their correlation with our hypotheses and what we had learned before conducting this research.

***Keywords***— *sticker, chat, communication, online, message*

# Predicting Depressive Symptoms of Swipe-based Online Dating Applications Users with Ghosted Experience

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***Abstract***— Previous research has shown that being ghosted can harm the mental health of online dating application users. However, there is scarce data on the Indonesian population. This study aims to test the moderating effect of automatic thoughts on the role of ghosted experiences in predicting depressive symptoms of swipe-based online dating applications user in Indonesia. A correlational analysis of 173 online dating application users aged 18-29 showed a weak to moderate association between the frequency of ghosted experiences, automatic thoughts, and depressive symptoms. However, regression analysis results showed that automatic thoughts did not moderate the experience of being ghosted in predicting depressive symptoms. Additionally, automatic thoughts directly predict higher depressive symptoms of ghosted online dating application users. Implications for this study in developing online dating applications that support users' well-being were discussed.

***Keywords***— *automatic thoughts, ghosted experiences, depressive symptoms, online dating*

# Determining Satisfaction, Loyalty, and Intention to Continue Using Social Commerce

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**Abstract**— Social media and Web 2.0 technologies are combined to create a new sort of e-commerce called "social commerce," which has a collaborative function in creating content that transforms the information age into an era of participation, all Indonesian people are familiar with social commerce because it is increasingly widespread and the many social commerce platforms they use. Therefore, this study examines the continued desire to use social commerce using the expectation confirmation model (ECM) and the DeLone and McLean information system success model (D&M IS). We used the partial least squares - structural equation model (PLS-SEM) to analyze 322 survey responses to evaluate and validate the suggested theoretical model. Research question for this research do the variables discussed in this study affect the intention to continue? This study has fourteen (14) hypotheses. Our results show that first, we found a positive effect of perceived satisfaction influenced by confirmation of use. The results provide useful insights for comprehending ongoing plans to use social commerce. We can better identify the primary elements impacting the continued intention to use social commerce by integrating the D&M IS success and ECM models. The proposed research model presents implications and recommendations for application developers although it has some limitations.

**Keywords**— *social commerce, social media, Partial Least Square, Structural Equation Modelling, ECM, D&M IS, satisfaction, continuance intention*

# Key Success Factor of Marketing Intelligence in Higher Education: Systematic Literature Review

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***Abstract***— Marketing Intelligence (MI) is the process of collecting and applying information to formulate effective marketing strategies. Currently, the information on MI at XYZ University still does not fully describe the user's needs and it can be improved so that its use can be successfully used by end-users. The research question is what key success factors are needed to build marketing intelligence in higher education. The objective of this study is to ascertain the critical success factors of marketing intelligence needed by universities. This study uses a qualitative research method, namely SLR conducting a Systematic Literature Review (SLR) that involves a comprehensive analysis of marketing intelligence. This research produces several factors that determine the success of marketing intelligence, consisting of Technology; Strategic, Tactical, Operational; Small and Medium Enterprise (SME)'s Performance; Predictors and Consequences; Customer Satisfaction and Loyalty; Environment; Concept, Overview; Sales Forces; External Intelligence; Internal Information; Talent Management; Individual Sources; Information Sources; Personal Factors; and Organizational. The impact of this research is that universities that aim to develop and implement marketing intelligence can pay attention to technology, personal factors, and strategic/tactical/operational variables which are the 3 critical variables for building marketing intelligence.

***Keywords***— *marketing intelligence, critical success factor, higher education*

# Manufacturing A Low-cost Telegram and Optical Character Recognition-based Indoor Air Quality Monitoring Data Logger

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***Abstract***— Urban air is frequently contaminated with CO, CO<sub>2</sub>, VOC, HCHO, PM 2.5, and PM 10. Rural regions are at a lower risk than those near roads and industrial areas that produce emissions. Air pollutants negatively affect its inhabitants' health, particularly the respiratory system. Most people will spend more time indoors, requiring a method for monitoring indoor air quality (IAQ). Urban communities need IAQ monitoring instruments as an early warning system for their health. This research seeks to produce inexpensive IAQ that can be utilized by all levels of society, particularly urban communities. This research utilizes a qualitative, design-thinking-based methodology. The research diverged from Empatize, which asserts that urban communities require a method for determining the local air quality. Moreover, it is determined at the define stage that IAQ monitoring, which includes a data log feature, is still comparatively expensive, so a solution is developed at the ideate stage. Creating a prototype is the next step in realizing the specified solution. In this investigation, they decided to use IAQ monitoring, which is relatively inexpensive but lacks log data storage. The author uses the ESP32-cam microcontroller to capture the screen display device, and the resulting image is sent to a telegram and processed with optical character recognition (OCR) to generate a data log. The results of prototype testing are utilized for prototype development.

***Keywords***— *air pollutant, health, IAQ, respiratory system, urban*

# Analysis of Bedroom Ventilation and Relative Humidity using CAMS Technology and Air Fan Supply in Sawojajar 2 Area Residential

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***Abstract***— The air quality index in various big cities in Indonesia is getting worse daily. One of the reasons is the increasing number of factories and vehicles used daily. On the other hand, many families worry about the air's cleanliness. This study aims to monitor and analyze bedroom ventilation and its relative humidity using Complete Air Management System (CAMS) technology. It provides indoor air quality (IAQ), and its technology manages the AC, supply fan, and IAQ remote controllers simultaneously in the house and integrated. A supply air fan has the function of filling a room with clean air, constantly supplying filtered air, and preventing polluted air from outside from entering. This study employs a mixed method of qualitative and quantitative methodologies; the qualitative method is based on observation, while the quantitative way is based on data log. Moreover, a common issue during this research was a lack of air ventilation, which caused the room to be humid and the temperature to be too high, so it did not match the standard room temperature. The idea is to install air conditioners, a supply of air fans, and CAMS to make the area more comfortable when in use.

***Keywords***— *air supply, bedroom, CAMS, technology, ventilation*

# Kabisa App: iOS-Based Application for Learning Sundanese Script with Game-Based Learning Implementation

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***Abstract***— Sundanese script is one of the cultural heritages that originates from West Java. However, this culture is being forgotten and abandoned due to the lack of interest and difficulty in learning Sundanese script. This study aims to develop a game-based learning application for Sundanese script called Kabisa App, which is specifically designed to facilitate users in learning Sundanese script easily and enjoyably. The agile methodology is used in the development process, which is done iteratively. Kabisa App is built using the Swift programming language with the SwiftUI framework for the user interface. The results of the user assurance testing show that Kabisa App successfully helps students learn Sundanese script in a fun and easy way. This proves that game-based learning applications can help students learn Sundanese script in an enjoyable way and contribute to the preservation of Sundanese script.

***Keywords***— *Sundanese, script, language, education, application, iOS-based*

# The Research Journey Retrospective on Management Information Systems in Indonesia

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***Abstract***— Researchers and research institutions from Indonesia's affiliated countries continue to support and develop research in management information systems with an entrepreneurial spirit. This study uses bibliometric retrospectives to visually map and analyze research trends in management information systems in Indonesia. Secondary data from Scopus was combined with bibliometric approaches for this study. Utilize the Scopus tool to evaluate search results and the VOS Viewer program to analyze and visualize data. This study analyzed 414 scientific documents published from 1989 to 2022. The study found that Bina Nusantara University and Dachyar, M. were the most productive organization and researchers on management information systems from Indonesia. One group of collaborating researchers from Indonesia researcher was represented on the maps. This study offers a grouping of management information systems research subjects based on discovering a body of knowledge accumulated over thirty-three years of publishing: Database management, Information technology, Information management, Knowledge management, Engineering management, and System management, as DIIKES research themes.

***Keywords***— *bibliometric, entrepreneurship, management information systems, research themes, research mapping*

# User Experience Evaluation of Duolingo using User Experience Questionnaire (UEQ)

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***Abstract***— Duolingo is an educational language learning website that aims to provide language certifications across the globe. It uses soft colors and rounded shapes to radiate friendliness. In addition, they use a mascot, which is a green owl, to enhance the emotional aspect of the website and be a company for the user along their journey. This research aims to test the interaction design of this website and determine the quality of the website. One of the features in Duolingo is the Duolingo English Test, which can substitute other English Proficiency Test. In this study, User Experience Questionnaire (UEQ) is used to measure the User Experience (UX) level for the website. UEQ is a swift and a practical way to measure User Experience (UX) dimensions. This research successfully assessed and evaluated the User Experience (UX) dimensions and was able to indicate in which dimensions of Duolingo needs improvement. The research conducted has shown that Duolingo successfully provide excellent user experience on most of the indicators, Attractiveness, Stimulation, Perspicuity, Dependability, and Efficiency with mean scores of 1.948, 1.771, 1.693, 1.493, and 1.450. While the Novelty with 0,829. This means that Duolingo needs to improve in their Novelty indicator more.

***Keywords***— *UI/UX, duolingo, education, website, UEQ*

# Global Patent Landscape of Decision Support System in The Business: An Overview

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***Abstract***— The study of decision support systems in business and entrepreneurial ecosystems continues to grow and play an essential role. However, few studies have not comprehensively reviewed decision support system studies from the patent perspective. This research attempts to review the global patent landscape and the main trends of patents on decision support systems in business. Research using patent landscapes analysis was intended to clarify data visualization, identification, and analysis. This study uses 6,713 patent documents and 3,492 simple patent families over 35 years from the Lens.org database. The study results reveal increased trends regarding developments to patent activity related to decision support systems in the business. There were business opportunities that business parties could use to the potential for increasing patent filings. The CPC codes that dominate decision support system patents in the business were G (physics). The United States was the most prolific country regarding owners and inventors.

***Keywords***— *decision support systems, entrepreneurship, business, patent landscape analysis, patent*

# Image Classification of The Fertility Level of Chili Using Convolutional Neural Network

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***Abstract***— Potential exports from Indonesia's economy include agricultural products. Red chilies, especially the curly red chili, are one possible horticultural product that might be produced. For the longest time, the process of sorting chili by various firms in the processing sector, chili exporters, and chili farmers has traditionally been done manually and includes several human resources as the decision-maker. The process of sorting chili manually has many disadvantages, such as the long time required, human visual limitations, and the psychic conditions of the observer. The development of machine learning image processing technology makes it possible to sort agricultural products and plantations automatically. One of the deep machine learning methods techniques is VGG16 models from the Convolutional Neural Network method which currently has the most significant result in image recognition is VGG16 models. The classification accuracy value obtained is 93.3% with kernel size 3x3 and batch size 32 at epochs 50 using the RGB input image.

***Keywords***— *CNN, chili classification, VGG16, finetuned*

# Sampatti Personal Financial Management Application Development Integrated with Indonesian Stock Market Data

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***Abstract***— The rapid advancement of financial technology allows users to make financial transactions more easily. However, users must be careful about their spending habits, especially in the post-pandemic era. The negative financial situation during the pandemic forced consumers to use support measures, but only a small group of financially literate individuals took advantage of them. Financial literacy has been found to have a positive impact on personal financial management. Previous research also emphasizes the importance of understanding how to manage personal finances and control one's financial affairs in order to feel competent and confident in managing finances. The purpose of this study is to introduce a personal financial management system that we have developed by integrating several financial sources. Along with the increasing interest in investing in Indonesia, researchers are motivated to develop a personal financial management application that utilizes data from the Indonesian stock market. So, this system will empower users to manage their finances by enabling them to record income, expenses and investments. An Agile methodology was used for the development of these applications, with the researchers defining the use cases, database structure, API, and user interface before customizing them to meet user needs. The development process results in a simple two-part web-based application, consisting of a back-end and a front-end. Users have the option to host and utilize this application for personal purposes. However, further research is still needed to assess the acceptability, usability, and benefits of the application being developed.

***Keywords***— *application development, web-based application, Personal financial management, Indonesia stock market*

# Privacy and Security in The Use of Voice Assistant: An Evaluation of User Awareness and Preferences

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***Abstract***— Recently, voice assistants have become increasingly popular with millions of users relying on them to complete daily tasks and access information. While it may be convenient to use, some may question its security and are concerned about their privacy. While the users are attracted to the beneficial services provided by voice assistants, they are risking their personal information. This study aims to evaluate user awareness regarding the privacy and security aspects of voice assistants, and their preferences for future development of voice assistants. The literature review in this study obtained three vulnerabilities of privacy and security in the use of voice assistants and the countermeasures that can be taken. The user-centric countermeasures to mitigate the vulnerability of voice assistants were chosen for analysis by systematically evaluating 151 relevant journal and conference articles from 6 databases and 52. To evaluate user awareness and preferences regarding the use of voice assistants, a User Experience Questionnaire with a total of 37 participants who have experience in using voice assistants was done. The results showed that the participants were aware of the voice assistant's vulnerability and were concerned that their data might be misused.

***Keywords***— *privacy, security, privacy and security, voice assistant, user awareness, user preferences*

# Designing a Web-based Career Assessment Test

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**Abstract**— Employees are one of the most important assets of a company. Therefore, it needs to be maintained both in number and quality. However, this is not easy to do by HRD (Human Resources Development), especially in recruiting employees. In the process of recruiting, employees must be aligned with the needs of the company. Therefore, an assessment test is needed to facilitate recruiting appropriate employees. Various types of tests are carried out using company recruitment standards. It makes HRD difficult because the need for a recurring summons process on the candidate takes days until the process is complete. This system is designed as a web-based application using a Laravel framework to carry out an assessment process on prospective employees which includes the assessment test scale based on MBTI (Indicator Type of Myers-Briggs), SDS (Independent Search), and Disk (Domination, Influence, Stability, Stability, Stability, awareness). Researchers collected data to get the UAT (User Acceptance Test) and produced twenty-one representatives from the Human Resource Development (HRD) division; it was concluded that 97.1% agreed to use a web-based career assessment test for the recruitment process.

**Keywords**— *web-based application, laravel framework, career assessment test, MBTI, SDS, DiSC*

# Digital Artwork Marketplace Web Application Design using Blockchain Technology

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***Abstract***— This research was conducted to apply other ways of transacting modern digital art using blockchain technology. This technology can help artists easily sell their works of art by verifying the ownership of digital art, where previously only physical art could do it. The use of NFT (Non-Fungible Tokens) in publishing digital artworks in a digital marketplace media platform can be a solution for the copyright of work in the future for artists in Indonesia. The developed Marketplace platform applies the Polygon Matic blockchain technology and a smart contract from a third party, namely MetaMask, to secure and process every transaction that occurs to provide security and convenience in digital commerce.

***Keywords***— *marketplace, web application, blockchain, web3*

# Design and Development of Personalized Pregnancy Health Assistant Application

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***Abstract***— According to the Indonesian Ministry of Health, the number of maternal deaths increased from 4,221 deaths in 2019 to 4,627 in 2020. One of the factors supporting the high maternal mortality rate in Indonesia is due to the low level of knowledge of pregnant women about health conditions and solutions to health problems during pregnancy. Therefore, the main purpose of this paper is to propose a design of mobile and wearable applications that can help to reduce these problems. Using the iterative design thinking methodology, the output of this paper is a personalized pregnancy health assistant application design that utilizes artificial intelligence and IoT technology.

***Keywords***— *health assistant, artificial intelligence, IoT, mobile application, wearable application*

# Application Deployment Strategy Comparison at PT. XYZ

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**Abstract**— In software development, we can see the update or renewal of the version. The bearer does this for updating or improving the program. The process requires a transition time that causes downtime on the application. For some companies, if the application experiences downtime will cause large losses like PT. XYZ. The company buys and sells cars whose sources of strength in the application are available 24 hours to conduct transactions. The company wants to implement a safe development strategy to reduce downtime. This research was conducted to compare the availability of applications that use the Canary and Blue-Green development approach so that PT. XYZ can choose a strategy that suits the needs of its products. This study uses quantitative methods; the data will be analysed to see the application's effectiveness in each service. From the test results, the response time value of development using a canary shows a smaller value than the response time produced by action using blue-green. The spread using canary development has the advantage of maintaining the availability of applications and reliability without failing this test.

**Keywords**— *application product, software industry, deployment strategy, user satisfaction*

# Music Genre Classification using Support Vector Machine Techniques

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**Abstract**— The classification of musical genres is crucial for enhancing music lovers' listening experiences, considering the vast amount of music available worldwide. This study conducted an in-depth analysis on a dataset obtained from Kaggle, which comprised detailed information on various music genres and their associated features. The dataset was grouped into four genres: pop, rap, rock, and hip-hop. To perform genre classification and compare the accuracy and F1 score, several machine learning algorithms, such as SVM Linear, SVM RBF, SVM Poly, and SVM Sigmoid, were employed. The team identified the most significant features that contributed to the classification process. The results of the study revealed that the SVM Linear algorithm outperformed other SVM kernels in regard to accuracy and F1 score. This finding indicates that SVM Linear is the most effective algorithm for classifying music genres in the dataset under investigation. The results of this study have important ramifications since they provide light on musical genre classification and the potential application of machine learning methods to improve genre identification precision. In addition, this study may have applications for music streaming services, recommendation engines, and other music-related software, providing users with a more personalized and enjoyable music listening experience.

**Keywords**— *classification, music, genre, support vector machine, SVM, accuracy, F1 score, computer science*

# Determinants of User Satisfaction on Interest of Smartwatch Usage After Covid-19

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**Abstract**— The objective of this study is to investigate the factors influencing user interest in adopting smartwatches, particularly in the context of the Covid-19 pandemic. Employing a quantitative descriptive research approach, the study analyzed a sample of 140 respondents, drawing inspiration from the methodology utilized by Hair et al. in 2019. The outcomes of the research shed light on two critical variables that play a crucial role in shaping user interest. First and foremost, consumer innovation emerged as a key factor, exhibiting a significant and favorable impact on user pleasure. This suggests that individuals who perceive smartwatches as innovative and cutting-edge are more likely to derive pleasure from using them. Secondly, perceived utility also displayed a positive and considerable effect on user happiness. Users who perceived smartwatches as highly useful and practical tools reported higher levels of happiness associated with their utilization. This emphasizes the importance of incorporating features and functionalities that cater to users' needs and preferences. Notably, even after the Covid-19 outbreak, perceived usefulness and consumer innovation both continued to have an impact. The pandemic has undoubtedly reshaped consumer behavior and preferences, but these variables continue to play a pivotal role in driving interest in smartwatch adoption. In conclusion, this study contributes valuable insights into the determinants of user interest in smartwatches amidst the backdrop of Covid-19. As technology and user demands continue to evolve, understanding these factors becomes increasingly crucial for businesses and developers seeking to design smartwatches that captivate and satisfy their target audience.

**Keywords**— *consumer innovativeness, perceived of usefulness, user satisfaction, intention to use Smartwatch*

# Exploring the Relatedness of Educational Technology in Enhancing Study Performance

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***Abstract***— The research design is to explore about support from perceived relatedness and students satisfied on the individual performance of online learning. The research spotlight on the behavior users regarding to e-learning, where the users is experienced student on e-learning. There were 663 users whose data was collected through online questionnaires. Data from users is processed using the Structural Equation Model with SmartPLS. The study results show that there is a relationship from perceived relatedness to increasing the satisfaction and performance of students learning. Student achievement is important because it can mediate and support study performance. Relatedness supports well the behavior of users related to adaptation to e-learning. Empathy, friendliness, affiliation and caring from students are considered in the evaluation of perceived relatedness. Studies on education technology reinforce the sustainable of academic performance through online learning concepts.

***Keywords***— *education technology, relatedness, e-learning*

# Bibliometric Analysis of Trend in Metaverse Research

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**Abstract**— Metaverse is currently going to be a popular topic. This study aims to investigate the research trends in metaverse topics to provide a new point of view for future research direction. This study performed a bibliometric analysis systematic literature review by reviewing the specific term in the Scopus database. The data were obtained from publish or perish app and analyzed using the VOSviewer Software. This research article was limited from 2018 – 2022, and 119 were analyzed using the VOSViewer Software. The result shows that the metaverse topic is increasing very fast in 2022. The most popular term in the title and abstract combination are Experience, Study, Application, and Education, which indicates the opportunity for future research, trend, and topic that the public and researchers are interested in. Meanwhile, the keyword of a metaverse in education is still limited, which opens new opportunities to be discussed in the future.

**Keywords**— *metaverse, bibliometric, publish or perish, VOSviewer, experience, study, application, education*

# Keywords That Are Oftenly Searched by Students on Daily Uses That Leads to Information That Is Potentially Banned by SafeSearch

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***Abstract***— This study, conducted by the researchers, presents a comprehensive analysis of keywords searched by internet users using the search bar. Utilizing qualitative methods and probability sampling, the research reveals that many internet users are under-aged and are exposed to inappropriate keywords leading to content that is not suitable for their age. Additionally, the study provides valuable data on age-based keyword preferences, offering insights into users' search behavior. Addressing the concerning issue, the researchers propose tightening the safe search program and blocking all websites that lead to such unsuitable content. The researchers express deep concern that underage exposure to inappropriate content could have detrimental effects on their future behavior, potentially leading to tragic consequences. Despite the researchers' expectation that search engines would already implement effective measures, the study findings indicate that most ads or redirect links associated with submitted keywords are not yet blocked by search engines. This highlights the urgency of enhancing safe-searching measures to ensure a safer online environment for underage internet users.

***Keywords***— *safe searching, search engines, keywords, underaged teenagers, adult contents*

# Image Processing Implementation to Classify Coffee Fruit Ripeness using K-Nearest Neighbor (KNN) Algorithm

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**Abstract**— Coffee is one of the plantation crops that has long been a cultivated plant in Indonesia. The classification of coffee fruit maturity manually still has several weaknesses and requires a long process, has low accuracy and is inconsistent, this is because the determination is made subjectively by coffee farmers. As for the classification of coffee fruit maturity levels automatically, it can be faster with objective determination, therefore the use of image processing is relatively easier, faster, and based on a quantified descriptive assessment to determine coffee maturity. Image Processing is a method used to process or manipulate images in 2-dimensional form. In the classification process, there are many methods used to obtain classification of objects based on training data. One of the algorithms used for the classification process is K-Nearest Neighbor (KNN). KNN is a classification technique for objects based on training data that is the closest or has similar characteristics to the object. KNN includes supervised learning algorithms, where the results of the new query instance are classified based on the majority of the categories in K-Nearest Neighbors (K-NN). The finding indicated that class classification of ripe and unripe were 88,24% and 100% respectively with 93,33% accuracy level.

**Keywords**— *Coffee, Image Processing, K-Nearest Neighbor (KNN)*

# Evaluation of Indorelawan.org Website in User Experience Perspective using User Experience Questionnaire (UEQ)

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**Abstract—** A lot of organizations now provide online services to assist their customers in the digital age. This includes websites that facilitate volunteering, such as Indorelawan.org. Nevertheless, despite the huge number of online platforms, it is not always simple and comfortable for people to use them. Users may experience issues with unclear information and unattractive website design. This user dissatisfaction tends to be caused by a user experience that is unsuitable for usage on the website. This paper aims to enhance the user experience (UX) on the Indorelawan website with the purpose of attracting and obtaining a larger number of volunteers in Indonesia. In this research we will identify problems and barriers experienced by users when using the website, as well as to devise strategies and necessary improvements to enhance the UX. This study used the instrument User Experience Questionnaire (UEQ) survey for evaluate the website Indorelawan.org's user experience (UX). UEQ is a mechanism used to determine and evaluate whether Indorelawan.org meets user expectations in terms of UX. Using UEQ responses from users of Indorelawan.org, it was determined that the platform fulfilled users' needs and expectations in every category. The analysis result is classified into 5 categories, with Indorelawan.org placing highest in the attractiveness category. But the novelty category on the indorelawan.org website is lacking and needs to be improved. Overall, indorelawan.org website has a good User Experience and it can help user feel at ease when utilizing the website.

**Keywords—** *volunteer, user experience, UEQ, website*

# Analysis and Design of Android-based Mobile Tire Change Applications

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**Abstract**— This study aims to design an application for inputting digital tire change processes by storing tire change history and providing digital document reports according to company standard formats. Based on the current tire replacement process, one of the coal mining contractor companies has not been able to collect data optimally which hinders tire damage analysis and preparation of preventive strategies. For starters, the design of this application is focused on the big size off-the-road tire (OTR) replacement process. The research method begins with collecting data through literature studies, comparing it with similar applications, observing and interviewing informants in order to obtain the required information. The system design uses the Unified Modeling Language (UML). The application is designed by considering the eight golden rules, testing every function of the application, and evaluating the usability of the user experience using the Nielsen's model method. The test results for each function illustrate that the application successfully fulfills every task tested, meets the requirements for a productive, interactive and easy-to-understand application by users according to the eight golden rules. It can be concluded that the application can be an option for recording tire changes, storing and displaying tire replacement history, and providing reports in the form of digital documents according to company standards.

**Keywords**— *tyre change, e-application, coal mining, digital document reports*

# The Impact of the Starbucks Mobile Application Loyalty Program on Customer Loyalty

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**Abstract**— This study was inspired by the successful business methods of Starbucks, the world's largest coffee retailer. Starbucks' revenue-boosting approach is the sale of membership cards. Instead of purchasing purchases, people are fueling their Starbucks accounts. Starbucks is not a bank, Starbucks gives no interest, but the customers enjoy depositing their money in Starbucks cards. Lately, Starbucks has integrated its membership card with the mobile application, making it easier for customers to do transactions. SEM analysis tools are used in this quantitative research strategy. Data was gathered online from 101 Starbucks Card holders in the Jabodetabek area in Indonesia. Data was collected using the Purposive Sampling approach in January 2023. The statistical method used in this study was Structural Equivalence Modeling (SEM) with Smart PLS 4.0. This study aims to identify the elements that influence Starbucks consumers' loyalty. The sampling method employed was Purposive sampling. There are eight variables and nine hypotheses in this research. This study found that two of the nine hypotheses, Privacy and Security Concerns to Utilitarian Value and Customer Satisfaction to Continued Intention, had no effect.

**Keywords**— *starbucks card, system quality, customer satisfaction, continued intention, customer loyalty*

# Gen-Z Awareness of Data Privacy Using Social Media

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***Abstract***— This research paper investigates Gen-Z's awareness of data privacy and social media usage. With the increasing dependence on technology and social media, it is crucial to understand the extent to which the younger generation is aware of the potential risks and vulnerabilities associated with sharing personal information online. This research uses Structural Equation Modeling (SEM) with SMART-PLS as a tool to process the data collected from Google Forms online and taken on January 2023. The data was collected using Purposive sampling with respondents from Indonesia. The variables that are included in this research, namely: Perceived Security, Security Awareness, Trust in social media, Privacy Control, Benefit, Self-Disclosure, and Privacy Concerns. The calculated data is based on 100 respondents, 54% are male, and 46% are female, who have used social media. The result of this research shows that out of seven variables, six of them have a significant hypothesis. The hypothesis testing result found all hypotheses are significant, except the relation between Privacy Control has a significant impact on Self-Disclosure.

***Keywords***— *perceived security, security awareness, trust in social media, privacy control, self-disclosure, privacy concern*

# Analyze and Predict Car Accidents using Different Machine Learning Algorithms

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***Abstract***— Traffic accidents can occur from various factors, ranging from the driver themselves to problems with the vehicle. Road and traffic accidents are the most significant factor of fatalities in the world. Most of the causes of accidents are the drivers themselves. Poor physical and mental conditions can significantly impact how to drive. The driving experience is also important; the longer the driver has been driving, the more professional he will be, and vice versa. Smart City solutions can predict the severity of accidents and give information to the authorities in order to reduce the number of fatalities. This paper investigates the factors that may lead to an accident on the road. By looking at data collected from traffic-related accidents and then visualizing it to make it easy to analyze; then, from this data, we will predict the causes of traffic accidents so they can be avoided. The best algorithm based on accuracy, MAE and RMSE is Random Forest Classifier with 0.8461, 0.1663 and 0.4376, respectively.

***Keywords***— *Traffic accident, prediction algorithm, machine learning*

# Dependency on AI-Based Writing Tools in English Learning: Implications for Human-Computer Interaction

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***Abstract***— This study investigates the reliance of English learners on AI-based writing tools and the repercussions for human-computer interaction (HCI). Through survey and interview administered to a sample of English learners, this study investigates their reliance on AI tools, its impact on their writing skills, and their attitudes toward these technologies. The results disclose a significant reliance on AI tools among participants, with the majority relying on them for writing assignments and having doubts about their writing ability without them. The findings emphasize the potential benefits of AI tools for enhancing learners' writing skills and boosting their confidence. However, they also raise concerns about overdependence, decreased participation in face-to-face learning, and addiction to these technologies. The research highlights the need for a balanced incorporation of AI tools in language learning. The study contributes to the field of Human-Computer Interaction (HCI) by providing insights into user experiences and promoting informed decision-making regarding the incorporation of AI-based writing tools in language learning contexts.

***Keywords***— *AI-based writing tools, Dependency, English learning, Human-computer interaction*

# Fast-Moving Consumer Goods (FMCG) Sustainable Strategies: Minimizing Waste in Cereal Packaging Process

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**Abstract—** Nowadays, competitive global manufacturing and service industries require companies to adopt sustainable business practices to provide high-quality products and services at an affordable price, particularly in the Fast-Moving Consumer Goods (FMCG) industry. The purpose of this study is to enhance the efficiency of the mono carton packaging process in an FMCG food cereal and snack company by identifying the largest waste through the application of the Value Stream Mapping (VSM) method. VSM is utilized to depict the flow of the packaging process from raw materials to finished products. The waste data in the Packaging Department between 2021 and 2022 was analyzed to identify the packaging flow, and current state mapping was utilized to discover the causes of waste. Hence, a proposed improvement design was obtained through Future State Mapping. The findings revealed that the most significant waste occurred in Non-Value-Added activities, specifically in the form of raw material inventory and work-in-progress material areas, causing a delay of seven days. The validated questionnaire results indicated that the most common forms of waste are Inventory (42.6%) and Excess Processing (31.9%). The Value-Added Ratio (VAR) before improvement had a percentage value of 99.94%, while the VAR value became 99.55% after the enhancement.

**Keywords—** *future state mapping, sustainable strategies, value stream mapping*

# Examining the Influence of Knowledge, Social Influence, Trust and Behaviour Factors on Digital Advertisement Based on Information Security Model

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***Abstract***— In this digital age where internet users in Indonesia are experiencing growth in internet users from year to year starting from the introduction of the internet where there are more than 75% of Indonesia's population already using the internet, and one of the most frequently used is social media where users can even reach tens of millions to hundreds of millions and one important aspect of these social media tools is digital advertising where it is also their main income. Previous research reported on digital advertising is one of the biggest frauds. This is why this research explores the information security model's influence on the interest in using digital advertising. The principal goal of this research is to explore the variables of knowledge, social influence, trust, and behavior on confidentiality, integrity, and availability (the information security model) on intention to use digital advertising. This quantitative research obtained 151 respondent data and was processed using the SmartPLS application. From the results of the study, it was found that out of a total of 15 hypotheses tested 6 have a significant effect. The result of this research hopefully can be useful for readers and sellers that use or plan to use digital advertising and also as a theoretical development.

***Keywords***— *digital advertising, information security model, social media*

# User Experience Analysis on the Website of North Sumatra Province Using User Experience Questionnaire (UEQ) and Lean UX Methods

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**Abstract—** The North Sumatra Provincial Government has implemented an Electronic Based Government System by building an official website for the North Sumatra Provincial Government. However, in its implementation, several obstacles and suggestions were found from users regarding the appearance and features of the website, such as a less user-friendly interface and redundant menus that made the flow of the website difficult for users to understand. Therefore, a user experience analysis was carried out on the website to determine user ratings and provide solutions in the form of designing a new, better user interface. The methods used in this analysis are the User Experience Questionnaire (UEQ) and Lean UX. The results of the data show that all scales have a Cronbach Alpha coefficient value of less than 0.7, with details of attractiveness (0.42), perspicuity (0.39), efficiency (0.30), dependability (0.34), stimulation (0.58), and novelty (0.42). This research was conducted by interviewing five users with different backgrounds, where the success of website improvement will be assessed based on the responses or statements the users have given. The response criterion that is considered successful is if the new user interface can solve the user's problem. While users who responded disagreed and provided suggestions in the form of improvements to the new user interface, it can be concluded that the solutions that have been provided have not been able to solve the user's problems and can be corrected in the next iteration. The results obtained were in the form of improvements to the user interface design of the North Sumatra Provincial Government Website such as website flow, layout, cards, navigation, typography, and others.

**Keywords—** *E-Government, User Experience, User Interface, User Experience Questionnaire, Lean UX*

# User Experience Analysis of Social AID Assistance Data Recipient Application using User Experience Analysis Questionnaire (UEQ) and Usability Testing Method

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***Abstract***— Covid-19's impact on the global economy has caused widespread poverty, leading governments to provide social aid assistance to those affected. However, many government applications for social aid assistance recipient data must adhere more to User Experience (UX) principles. This research uses the User Experience Questionnaire (UEQ) and Usability Testing methods to evaluate social aid assistance recipient data application. Results show efficiency at 59.8%, error rate at 57.1%, and satisfaction rate at 55.4%. Improvements are necessary, particularly in the application's appearance and email verification notification after account registration. This research provides insight for governments on the importance of UX principles in creating social assistance recipient data applications and contributes to scientific knowledge in evaluating government application usability. Results can be used to improve the application's features and increase user comfort and effectiveness in obtaining social assistance.

***Keywords***— *Social aid, Recipient Data Application, Web Application, User Experience Questionnaire (UEQ), Usability Testing*

# The Influence of Financial Literacy, Financial Experience, Behavioral Finance, and Investor Awareness on The Use of Fintech Applications in Making Investment Decisions

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***Abstract***— Fintech supports product diversity, is a larger service provider, and offers improved risk management; as a result, many investors consider that fintech has the potential to transform the financial sector to be more transparent and safe. This has drawn the interest of investors in using fintech investments to reduce risk which could result in fintech growing rapidly. However, the lack of individual investors diversifying their portfolios in the fintech sector can be a concern. In Indonesia, only 22.6% of the total individual investors have utilized fintech investment platforms. This highlights the importance for all investors to understand that certain elements can influence investment decisions, even without the support of financial technology. Key factors such as financial literacy, financial experience, financial behavior, and investor awareness can significantly impact investment decision-making, regardless of fintech usage. This study utilizes a quantitative methodology, prioritizing objective measurements and statistical analysis of data obtained through questionnaires, to systematically examine the research issues. The study involved 200 respondents and the data was processed using SPSS. The findings of our research are intended to provide meaningful insights for a variety of stakeholders, including the Indonesian government, fintech associations, especially those in the mobile payments sector, and users of fintech platforms.

***Keywords***— *investment decision, financial literacy, financial experience behavioral finance, investor awareness*

# Tool Tracking System Design using Quality Function Deployment Method for Vocational Education

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***Abstract***— Currently the process of lending tools in machining laboratories still uses the traditional method. it is considered inefficient and ineffective. Therefore, implementing a more modern tool lending system is one possible solution. In this study, the design and manufacture of a tool lending system was carried out by applying Radio Frequency Identification (RFID) technology and a website-based information system. The purpose of this research is to simplify the process of lending tools and simplify the process of tracking and collecting data on tools borrowed by students. The method used in this study is the Quality Function Deployment (QFD) method to determine the priority of the user's attribute requirements that will be used in the design and development of the system. System testing is carried out using the System Usability Scale (SUS) analysis. The result of this research was to produce a tool lending system called a tool tracking system that will completely automate the tool tracking procedure. This helps to better manage the fleet of tools efficiently. The system has been successfully developed and approved for use in machining laboratories at vocational education.

***Keywords***— *Radio Frequency Identification, Quality Function Deployment, System Usability Scale, Tool Tracsusking System, Laboratory*

# What Makes Customers Satisfied and Continuance Using M-Fintech Payment? The Multidimensional Investigation of Perceived Security

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**Abstract**— The perception of security when consumers use the m-fintech payment application impacts satisfaction and continuance intention. However, data security threats and legal breaches have made consumers skeptical about the continuance of m-fintech payments. Therefore, this study aims to analyze the perceived security factor as a form of consumer satisfaction and the desire to continue using it with the support of confirmation behavior. This study uses a quantitative method by surveying 357 m-fintech payment users in Jabodetabek. All collected data has been processed, cleaned, and analyzed utilizing variance-based Structural Equation Modeling statistics. The research finding has proven that all hypotheses are accepted. Perceived security significantly affects confirmation, satisfaction, and continuance intention. A confirmation significantly affects satisfaction, and satisfaction significantly affects the continuance intention of m-fintech payment. The originality of this research measures perceived security formatively. The conclusions of this analysis serve as information for the digital central currency bank (CDBC) development plan based on the security level.

**Keywords**— *Perceived Security, Satisfaction, continuance intention, confirmation, m-fintech payment, PLS-SEM Higher Order Construct*

# The Effect of Using Mobile Applications, Using Social Media, Using E-Commerce, and Having IT Knowledge on The Performance of SMEs

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***Abstract***— SME performance is a measure to assess the performance or results achieved by small or medium enterprises over a certain period. Currently, many SMEs have adopted information technology to improve their performance, but some research shows that SMEs still have low performance. The low performance of SMEs is a problem statement in this research. Thus, this study aims to find the relationship between factors related to information technology that affect the performance of SMEs. The factors to be tested are the use of mobile applications, the use of social media, the use of e-commerce, and IT knowledge by SMEs related to their performance. The research method uses a quantitative approach by collecting data from 137 SMEs in several cities in Indonesia, such as Jakarta, Bogor, Tangerang, Medan, Aceh, Pontianak, and several other cities. A total of 16 questions were distributed to 137 UKM owners via Google Form. The collected data is processed with SPSS to see the relationship between variables. The results of data processing show that the use of e-commerce and IT knowledge influence the implementation of SMEs. IT knowledge is the aspect that has the most influence on the entry into force of SMEs. Because having IT knowledge is the factor that most influences the performance of SMEs, the output of the paper is equipped with use case diagrams and user interface designs for knowledge management systems, so that IT knowledge for SMEs increases.

***Keywords***— *SME performance, mobile application, social media, IT knowledge*

# Intelligent Monitoring and Diagnosing Capability in Healthcare: Systematic Literature Review

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**Abstract**— Recently, Artificial Intelligence (AI) development has become more advanced and has been extensively used in various kinds of necessities in healthcare, supporting medical workers in many cases. AI can be used for monitoring and diagnosing because of the AI's ability to find solutions by using patterns that have been trained from datasets. Thus, this research reviewed the related research papers about AI role in the healthcare field, which focused on monitoring and diagnosing diseases. This study collected many relevant studies from various academic database sources, such as Google Scholar, Springer, IEEE Xplore, PubMed, Semantic Scholar, and Scopus Elsevier by using PRISMA 2009 (Preferred Reporting Items of Systematic reviews and Meta-Analyses) guidance. Our review discovered that AI can be helpful in certain areas of expertise, such as infectious disease using algorithms such as neural networks, fuzzy clustering networks, and Naïve Bayesian network; cancer using algorithms such as SVM, regression, and random forest classifier; COVID-19 using algorithms such as Naïve Bayesian Network, 3D CNN segmentation models, and ResNet-based models; and other diseases. In this review, the implementation of AI in healthcare brings both benefits and drawbacks. From the benefits side, AI can be very impactful by enhancing patient treatment and reducing costs. Meanwhile, on the downside, AI has some problems, such as a lack of information that makes the AI model not represent the real data. Because of that, AI will not replace medical workers in five years but only fill the role of support for them in monitoring and diagnosing, allowing them to concentrate on the most critical areas. Based on result analysis, assorted needs appear to exist to upgrade the implementation of AI in the healthcare field to support human health resources. This research suggests that AI researchers should be focused on specific fields in the healthcare field, especially in the diagnosing and monitoring fields, to find new insights.

**Keywords**— *healthcare, diagnosing, monitoring, machine learning, deep learning*

# Customer Experience Perspective on Quick Response Code Indonesia Standard Payment Method

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***Abstract***— Following the trend of QR code as a payment method, Bank Indonesia and Indonesian Payment System Association (ASPI) launched a national integrated QR code payment system called Quick Response Code Indonesia Standard (QRIS). The use of QRIS has been growing since August 17, 2019, although it is still far from the target user base and Indonesia's entire population. This research aims to analyze factors that influence people's intention to use QRIS from the customer experience perspective. This research uses Information Systems Success Model (ISSM) and other variables, using a quantitative method by questionnaire to collect data for people who use QRIS in Indonesia. The data is analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM), with Smart PLS as the statistical tool. The results show that Service Quality (SEQ), Perceived Transaction Speed (PTS), and Optimism (O) have a significant relationship with Customer Experience (CE). Moreover, CE has proven to impact the Intention to Use (IU). These results can be taken into consideration for the stakeholders to develop QRIS in the future and achieve the goal to increase more users.

***Keywords***— QRIS, ISSM, customer experience, partial least squares structural equation modeling

# Coffee Distribution Model with Blockchain Technology to Increase The Transparency of Local Coffee Distribution

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***Abstract***— Coffee is a popular drink all over the world. Its composition and characteristics are influenced by several factors, such as geographical and plant origin, harvesting and roasting conditions, and the brewing method used. With the increasing consumption of coffee, the demand for its high quality and authenticity naturally increases as well. Unfortunately, at the same time, there is a lot of counterfeiting of coffee due to the lack of distribution transparency to support coffee sales, and this is a problem that becomes an issue in this research. The low transparency of coffee distribution is one of the crucial problems faced by the coffee industry. This problem arises because there is no transparent and accountable coffee distribution monitoring mechanism. On the other hand, blockchain technology can make transactions with high transparency and data security. Therefore, as a solution to the problem of coffee counterfeiting, we offer the adoption of distribution and sales using blockchain technology to increase the transparency of coffee distribution from coffee farmers to customers. The research method uses a qualitative approach by identifying problems through literature reviews and interviews with stakeholders involved in coffee distribution. The result of this research is a conceptual model of coffee distribution using blockchain technology. At the end, a simulation with sample data will be shown using the blockchain algorithm.

***Keywords***— coffee, blockchain, distribution, transparency

# The Influence of Knowledge Management Systems in Corporate University in Triggering Knowledge Innovation in Higher Education: A Case Study Approach

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**Abstract**— In the Industry 4.0 era, employees were demanded to perform more than repetitive tasks since the complexity and dynamic of products and processes in the organization increased. The demands require employees with superior competencies to generate innovation so that the organization can remain competitive in its industry. Answering those challenges, this paper aims to investigate how Knowledge Management System implementation inside Corporate University will trigger knowledge innovation in the organization. Quantitative methods were implemented to gain results in this study. A questionnaire with a Likert scale via Google form was distributed to 129 team leaders in the innovation award at Bina Nusantara University. Structural Equation Modelling Partial Least Square (SEM PLS) through the SmartPLS application was utilized to analyze and test the hypothesis of this study. The result of this study found there was a positive relationship between the implementation of a Knowledge Management System and knowledge innovation in the organization.

**Keywords**— *knowledge management system, KM implementation, knowledge innovation, working environment*

# Implementation of Extreme Programming In Web Profile Development As an Effective Promotional Media

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**Abstract**— PT INOVASI AKSELERASI KREASINDO (IAK) is a service company that provides digital solutions, especially in designing and building websites. At this time, Client PT. IAK has a target to be able to become a Wedding Organizer (WO) that can reach all regions in Indonesia by embracing many vendors who are also spread out. With the current system conditions, it will be difficult for Client PT. IAK to realize that goal, because it still uses a conventional system so that the introduction of WO products is not efficient in terms of information dissemination in many regions, costs for promotion and time. The purpose of making a company profile website PT IAK so that potential customers and the wider community can find out information about the services and services provided by the company. The application design and development method use Extreme Programming (XP), which consists of the stages: Planning, Design, Coding, Testing, and Software Additions. This approach enables the realization of client satisfaction goals while accelerating the pace of the system's development process. As well as using Laravel as a Framework and black box testing that focuses on the functionality side, and testing is based on the user's point of view to find inconsistencies in the software. Based on the research results in the form of a web profile application (maritory-web), the author draws the conclusion that the design of web applications at this company can have an impact on the dissemination of information to potential customers so that the promotion process becomes easier and more effective.

**Keywords**— *Web profile, Extreme Programming, media, promotion, maritory*

# Assessment to Determine The Best Employees using Simple Additive Weighting Method

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**Abstract**— The most valuable resource of a company is its workforce. Therefore, it is necessary to give rewards to employees to maintain work enthusiasm. Giving a reward to the best employee is one way for companies to show appreciation to their employees and maintain a positive level of employee competition. The employee performance appraisal process was done manually which can be very subjective, ineffective, and inefficient. Therefore, it is necessary to create an employee performance appraisal system that can be applied to assist the management in selecting the best employees. The system is implemented using the simple additive weighting (SAW) method well known for solving multi-attribute decision-making (MADM) problems and for its ability to be used in the assessment process with predetermined standards. The data needed in this study are employee data, assessment weights, and assessment criteria as inputs for calculating the simple additive weighting model. The calculation results are then sorted in descending order. The system development was conducted using the waterfall methodology. This system was built on Bootstrap MVC technology. For system testing, we used a company's employee appraisal data for December 2022. The system is tested using the black box testing method. The black box test results obtained a success rate of 100%, and user acceptance testing obtained an average percentage success rate value of 95.67%. Based on the simulation results, the system can sort nine employees with the lowest score of 43.88 and the highest score of 83.29. The testing results led to the conclusion that this employee appraisal system is acceptable and can be used to evaluate employee performance in the organization.

**Keywords**— *simple additive weighting, employee, web application, data analytics*

# STUDINUS: A Comprehensive E-Learning Platform for Academic Enthusiasts

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**Abstract**— Online education has acquired prominence in higher education, particularly in light of the COVID-19 pandemic. Higher education institutions have investigated various online technologies, such as learning management systems, discussion forums, and video conferencing, to meet the learning objectives of online students. To facilitate effective learning, however, additional materials or tutorials from external sources are frequently required. In response to this demand, our team developed "STUDINUS," a web-based application designed to sell lecture notes and course materials to high school and college students. STUDINUS provides features to improve the administration of academic activities, including the organization of study materials, the monitoring of academic progress, and the facilitation of connections between peers and professors. This study concentrates on the development of an E-Learning website that enhances communication and enriches the learning experiences of students, as well as improves the learning quality. In the testing phase of the initiative, five individuals were chosen to participate in Black Box Testing. They were tasked with registering on the website and testing its numerous features. In order to evaluate the functionality of adding books to the server, we uploaded sample notes in PDF format and submitted old volumes. There were no reported issues with the search for science and English study material notes during the testing procedure. The forum's usability and simplicity were evaluated and determined to be adequate. User feedback regarding the website and its features will influence the project's ongoing development and enhancement.

**Keywords**— *E-learning, open discussion, subscription model, Digital E-book, web-based*

# Development of Internet of Things System for Smart Fishery in Ornamental Fish Farming

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**Abstract**— Based on data owned by the Ministry of Maritime Affairs and Fisheries of the Republic of Indonesia, the freshwater ornamental fish sector is a significant contributor to the Indonesian economy. In 2020, the export value of freshwater ornamental fish will reach USD 111 million. In addition, the ornamental fish farming sector can also be said to be one of the sectors that has low maintenance and operational costs. This is inversely proportional to the conditions in the market which make the freshwater ornamental fish sector has high demand. However, some of the obstacles that are still being experienced by cultivators include the difficulty of conducting regular coaching and the difficulty of supervising all monastic places, which are not small in number. This research is expected to be able to solve the problems of freshwater ornamental fish cultivators by producing a solution in the form of an IoT tool that can monitor, and control freshwater ornamental fish cultivation sites connected to mobile applications. With this research, cultivators can carry out all operational activities that are usually done manually one by one, now they can be done using a mobile application on their respective smartphones. What cultivators can do is monitor the potential for Hydrogen contained in the culture water media, monitor the temperature of the water media, so that they can control the feeding of the freshwater ornamental fish and control the lighting in each aquarium media for freshwater ornamental fish cultivation. In addition, it can later be developed based on this research which can produce monitoring tools in real time visual images using a camera.

**Keywords**— *fishery, sustainable yield, internet of things, ecosystem*

# Adaptation of Digital Disruption Sources by News and Non-News Radio in Jakarta

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***Abstract***— The research aims to construct the adaptation of digital disruption sources by the news and non-news radio in Jakarta in acquiring audiences for the sake of business continuity. The research has an interpretive approach, a constructive paradigm, and a qualitative descriptive method. The research objects are two popular news radio stations in Jakarta, namely Elshita FM and RRI, and three non-news radio stations that are widely listened to namely Prambors FM, Hard Rock FM, and Jak FM. Primary data collection was carried out using semi-structured interviews with radio managers who were the object of the research. In addition to primary data, this research also utilizes secondary data such as radio applications, websites, and social media radio which are the object of research. The data analysis technique used follows the six stages of qualitative by Creswell. Data reliability was carried out in four procedures, namely checking the results of interview transcripts, ensuring that there were no floating definitions or meanings, and discussing the codes in the coding process with the research team. The research found that not all sources of digital disruption have been adapted by the news and non-news radio in Jakarta. A source of disruption that has not been adapted is the use of 3D printing. This is because broadcast radio is not a manufacturing company that produces equipment that requires three-dimensional printing.

***Keywords***— *adaptation, audiences, digital, disruption, news, radio*

# Designing Service Oriented Architecture Model in Sehatin Application with a Domain Driven Design Approach

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***Abstract—*** Technology is required to be a solution in dealing with various fields that are negatively affected by the spread of the Covid-19 virus, one of which is in the health sector. There is a change in people's behavior who previously did not exercise to Started the habit of exercising during the pandemic and exercising at home (home workout) became the most popular type of exercise done. There are so many Home workout Application has been developed with their unique features but this makes people have to open many applications according to their needs so it is less effective. This research aims to design service oriented architecture model for home workout applications in this case Call a 'sehatin' application, that can help people to use various features in one integrated platform, The method used in designing the service oriented architecture (SOA) model uses the Domain Driven Design (DDD). The results obtained are the integration of several integrated home workout applications, the system can provide services according to the applications needed, so that the applications can be used by the public to access data service in a situation more efficient.

***Keywords—*** Design, Integrated Application, Service Oriented Architecture, Microservices, Domain Driven Design

# Fundamental Components of Microlearning for Sustainable Quality Education: A Systematic Literature Review

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***Abstract***— E-learning was disrupted by a new concept of education named microlearning that carried various digital learning materials in convenient learning paths that were customizable according to users' necessity by using digital application. The competitive advantage of microlearning has been published but caused ubiquitous bias definition. This study aims to identify and analyze fundamental components of existing microlearning research and implementations in e-learning platforms. 42 research articles from SCOPUS database were collected from 2018 to 2022. They were reviewed to discover fundamental components of microlearning that must be considered in its implementations. The result of this study uncovered “Content's variety” the most fundamental components. In contrast, this study finds that advance technology is the least discussed but required in supporting specific usage of microlearning. Limitation of this study lies on the determination of database and keyword usage and the methodology. This study recommends to consider combination of microlearning components to concept a specialized microlearning for sustainable quality education.

***Keywords***— *fundamental component, microlearning, systematic literature review, sustainable, quality education*

# IoT Architectural Design for Household Water Quality Control

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***Abstract***— Access to clean and safe water is essential for daily needs and the overall well-being of society. However, the water quality in Indonesia falls below health standards, leading to various health and environmental issues. To address this challenge, this research proposes the implementation of simple water filters in households combined with the utilization of Internet of Things (IoT) technology for real-time water quality monitoring. The system involves filtering the water supplied by the Public Water Supply (PDAM) using activated carbon, zeolite, and silica sand as filtration components. The filtered water is then stored in household water storage tanks. Within the tank, a turbidity sensor measures water cloudiness, while a pH sensor detects the pH level. These sensors are connected to a microcontroller, which communicates with a cloud database through a Wi-Fi module. A mobile application provides users with real-time monitoring of water quality, displaying turbidity and pH values on a dashboard. Device effectivities are measured by controlled experiments. This IoT-based household water quality control system aims to improve water quality, enhance monitoring capabilities, and promote healthier water consumption practices.

***Keywords***— *water filtration, Internet of Things (IoT), real-time monitoring, pH sensor, turbidity sensor*

# Classification of Corn Leaf Diseases using Loss-Fused Convolutional Neural Network

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**Abstract**— In Indonesia, corn is the second most important commodity after rice. However, its cultivation has substantial challenges, particularly pests and illnesses. Work must be done to stop the disease from spreading if these challenges are to be solved. Utilizing the symptoms and indicators detected on corn plant leaves, classifying leaf diseases is one technique to improve diagnosis accuracy. The CNN method has recently been used in research on classifying illnesses on corn leaves. The CNN method often employs the softmax loss (cross-entropy) loss function. A downside of the softmax loss is that there are significant intra-class variances. To reduce intra-class variances, the center loss is proposed. According to research, accuracy is higher when using a loss-fused convolutional neural network (LF-CNN), a CNN model that combines two separate loss functions (softmax loss and center loss) than when using a single softmax loss. As a result, the Loss-Fused Convolutional Neural Network (LF-CNN) approach was used in this study to carry out the classification. This method increases accuracy by combining two separate loss functions in the CNN model. The LF-CNN model's for accuracy, sensitivity, and specificity findings were 94.15%, 82.72%, and 96.08%, respectively. This demonstrates that the LF-CNN method outperforms the standard CNN method, which has an accuracy of 92.85%, in diagnosing illnesses on corn leaves.

**Keywords**— *image classification, convolutional neural network, loss-fusion, corn leaf diseases*

# Evaluation of IT Governance with BAI Domain at Senior High School Using Cobit 5

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**Abstract**— This study's objective is to evaluate the system's level of maturity by adopting the COBIT Framework 5. The COBIT Framework is one of the ISACA-issued frameworks that defines the concept of information technology governance. The BAI (Build, Acquire, and Implement) domain is the subject of this investigation. The BAI domain is one of the COBIT 5 Framework domains responsible for program and project management, description of needs, identification of solutions, building change availability and capacity, change acceptance and transition, knowledge, assets, and configuration. This study employs qualitative methods to perform literature reviews and question-and-answer sessions, and then collects quantitative analytical data through the formulation of statements or inquiries. There were 5 respondents who responded to the statement, and they implemented the system. The BAI domain of the CBT Examination System in Jakarta's Senior High School XYZ has been calculated and determined to be at level 4, indicating that the system is functioning appropriately. There are subdomains with a lower maturity level in BAI01, BAI02, BAI03, BAI04, BAI06, BAI07, and BAI08, specifically at a rate between 3.8 and 3.96. Additionally, BAI05, BAI09, and BAI10 contain subdomains with a higher level of maturity, with a value range of 4.07 to 4.15. All BAI subdomains culminate at level 4, the system's maturity level, with a value of 3.93. Level 4 indicates that the level of development for Managed and Measurable is fairly good. It can also provide recommendations for improvements, such as paying attention to project management methods before beginning implementation, being able to estimate the time required for the implementation process, and paying attention to the role of trained stakeholders.

**Keywords**— *information technology governance, COBIT 5, build, acquire, implement*

# Semantic Question Answering on Learning Management System User Experience Analysis for Improvement

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***Abstract***— Binus University has created an online learning platform called Binusmaya to help with teaching and learning using various channels. However, they haven't checked if it's working well since they made it in 2014. As technology has improved, more people are using the platform. So, this research did a survey to find out how well it works in with User Experience Questionnaire and Semantic Question Answering methods in terms of attractiveness, perspicuity, efficiency, dependability, stimulation, and novelty. The survey found that the top three challenges with the LMS are stimulation 37% (problems with how it works), dependability 20% (concerns about security and fairness), and attractiveness 17% (it looks boring). To fix these problems, they suggest regular maintenance, better security, a scheme to report unfairness, and improving the design to make it more interesting.

***Keywords***— *emantic question answering, LMS, UEQ, improvement*

# Implementation of Augmented Reality for Solar System Subject in Primary School

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***Abstract***— This study investigates the implementation of Augmented Reality (AR) technology in elementary school education to enhance students' learning experience about the Solar System. The study adheres to the ADDIE instructional design model, which involves five stages: Analysis, Design, Development, Implementation, and Evaluation. A specific Android-based AR application, named SolAR System, is developed, enabling students to interact with 3D objects and gain knowledge about the planets through an immersive approach. The study incorporates a needs analysis and performance analysis, employing observation methods to gather relevant data. Evaluations are conducted to assess the application's validity, practicality, and effectiveness, employing measures such as pre-tests and post-tests. An experimental study involving 30 primary school students is conducted, demonstrating a notable improvement in their understanding of the Solar System, thereby indicating the effectiveness of AR as an educational tool. However, challenges pertaining to device accessibility and school policies concerning smartphone usage are identified during the implementation phase. In conclusion, this research affirms that AR can significantly enhance students' learning experience regarding the Solar System and recommends future development of AR applications for other mobile operating systems, such as IOS.

***Keywords***— *Augmented Reality, Solar System, Education*

# An Evaluation of Integrating ERP System to Develop a Strategy Business

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**Abstract—** The digital changes business patterns that require companies by using an integrated system for strategic decision-making. ERP system is one technological innovation that enable to have a competitive advantage. But the fact is that only a few companies have succeeded in implementing the ERP system. The objective of this research is to integrate the ERP system with business strategy in implementing ERP systems. The research focuses on developing an ERP system integration model for implementing the SAP ERP success. The methodology is based on previous research for the ERP implementation. This research examines quantitative data to determine indicators using entropy and conducts case studies in the industry. The research results prove that the management support indicator is an essential factor in integrating ERP systems to develop the company's strategic business. The output research is the design of the integration model development of the ERP system.

**Keywords—** *business strategy, ERP implementation, integration, process business, SAP*

# Sustainability in Elementary School: The Prototype and Evaluation of XR-based Learning to Achieve Quality Education

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**Abstract—** This paper aims to find out how to prototype XR-based learning which can be easy and interesting for elementary school children, and how is the evaluation process of the prototype; this research employs the EON-XR platform to design the prototype and uses UEQ (User Experience Questionnaire) method to evaluate the prototype; the authors determine two research questions then explains the answers by showing the example of the prototype. The evaluation result refers to the UEQ data analysis tool formula; the result is that the highest point is on the attractiveness and stimulation scale followed by the efficiency, dependability, and novelty scale, and the lowest point is on the perspicuity scale. The originality of the research, this study provides the prototype and the evaluation result using UEQ guidelines to find out the extent of student engagement and experience while using teaching materials on the EON-XR platform. This can help educators, especially teachers, in determining the best way to teach students by utilizing an XR-based learning technology platform to achieve sustainable and quality education.

**Keywords—** *user experience, UX research, UX design, extended reality, sustainability, elementary school, quality education*

# Enhancing BISINDO Recognition Accuracy through Comparative Analysis of Three CNN Architecture Models

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***Abstract***— This paper aims to develop an effective and efficient system for hand gesture recognition of Indonesian Sign Language (BISINDO) using a comparative analysis of three CNN architectures. The Python programming language is used as the development environment, together with the free edition of Google Colab. Google Colab provides a free online platform for coding and experimentation. PyTorch is used as a framework for training models, exploiting its Python programming language capabilities. and comprised 8,792 pictures of 200 by 200 pixel dimensions, divided A CNN-based technique is used, consisting of convolutional layers with ReLU activation, a comparison of three possible CNN designs from the detected image, and max pooling to constantly minimize dimensions, parameters, and computations within the network. The acquired findings show the CNN model is accurate after training and testing, with different accuracy rates.

***Keywords***— *CNN, SVM, Densenet121, Shufflenet, Hand Sign, BISINDO*

# The Analysis of B2B Sales Information System using SERVQUAL Model (A Case Study Approach)

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**Abstract**— The purpose of this research was to analyze a B2B sales information system at ABC Company. The analysis was based on the current problems found within the B2B sales transaction business process from the customer’s perspective, and the result of the analysis was to design a web-based sales information system that could better support the B2B sales transaction activities. It was to be expected that through the design of this web-based sales information system, B2B customers of the company would be able to place orders and access important information by themselves without relying on the salesman, and the employees also could access information and handle B2B customers’ orders based on their own roles in the system.

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

# The Evaluation of Trust Towards The Intention to Use of Blockchain-Based Crowdwork Systems (Case Study of Creative Industry)

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***Abstract***— Current crowdwork research still has issues related to trust. Workers and employers do not know each other, so problems related to trust will arise. This trust issue will influence the desire to use the crowdwork system. This study will evaluate trust in the intention to use blockchain-based crowdwork systems in creative industries. The methodology used is a quantitative approach (questionnaire) which is distributed to 200 respondents consisting of workers and employers. After that, testing the inner and outer models was carried out. The results obtained are technology, risk, and reputation which have the greatest impact on trust. The use of blockchain technology can minimize risks when using a crowdwork system, such as data that cannot be changed, data tracing can be done, and so on. The rating and review features are also important to be able to find out the user's reputation in the system.

***Keywords***— *trust, intention to use, crowdwork system, blockchain, creative industry*

# Analysis the Influence Factors of Intention to Use NFT Application

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***Abstract***— Non-Fungible Token (NFT) is a cryptographic asset and each unit is distinct from other assets in its own right. Cryptocurrency is an important element of NFT transactions. In 2022, cryptocurrency has experienced a tremendous decline, but the number of NFT transactions had significantly increased. According to a previous studies, NFT has its own popularity and followers. In this case, this research was carried out to examine the information quality model-based NFT's actual content in order to determine the elements that can affect the intention to use aspects. 207 respondents completed the survey, but only 198 were used to process the data. This study used the quantitative method with the structural equation modeling and partial least square (SEM-PLS) methodologies. It was discovered that knowledge and motivation were two factors that did not affect the intention to use, while the other five did. This study identified 91.3% as a strong influencing factor (R<sup>2</sup>). This study is very beneficial to a variety of sectors, particularly those involved in NFT and digital marketing (trending advertising).

***Keywords***— Non-Fungible Token, Information Quality, Enjoyment, Trending Advertising, Trust

# Implementation of Password Manager to Improve Data Security for Social Media Account

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***Abstract***— Social media has become one of the wider community's most widely used types of applications recently. Along with the increasing number of social media users, the level of data security of social media users should be addressed. One strategy to improve the security of social media user data is to use a password manager. This research aims to find out and explain the effectiveness of using a password manager to improve data security for social media account users. This study uses a quantitative method by distributing online questionnaires on January 2023 and obtaining data from as many as 136 respondents in the Jabodetabek area (cities in Indonesia). The data was collected using the purposive sampling method. Seven hypotheses show the correlation among eight variables: Personal Propensity to Trust (PPT), Initial Trust (IT), Structure Assurance (SA), Firm Reputation (FR), Attitude (AT) in a password manager, Perceived Usefulness (PU), Perceived Ease of Use (PEU), Intention to Use Password Manager (IU). The result found that all hypotheses are significant except the Perceived Ease of Use (PEU) variables, which do not significantly affect Attitude (AT) in a password manager.

***Keywords***— *password, security, social media, password manager, data security*

# Social Media Influence on Social Justice

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***Abstract***— The development of the era that makes technology more sophisticated and makes it easier for humans to interact with each other remotely, namely social media which has had several impacts on human life. One of the impacts is the ease in upholding justice carried out by social media users/the public in ongoing cases. Action that embodies treating all people with fairness, respect, dignity, and generosity are namely social justice. The methods that are used to find research models are doing literature review and combining the existing models. Influence is when someone does something and people are following someone to do that. The social media intensity or how often people using their social media are related to the influence of social media to social justice because when people using social media often, they might be also seeing cases of social justice in social media more often. The more often they see the more they are likely to see the cases and speak up if needed. This research is using the SmartPLS software to help analyze the research model to data to know the valuable result Partial Least Squares - Structural Equation Modeling (PLS-SEM) method. This research also uses online questionnaires as a survey to collect data and analyze the data that has been collected. The result from data collecting is 126 respondents. The data show that there are 2 significant paths: Personality Traits on Social Media Intensity and Other-User Engagement Behavior on Social Media Intensity, where Personality Traits were the most significant variables.

***Keywords***— *social justice, social media, influence, social media intensity, other user engagement behavior*

# The Country's Implementation and Adoption of Standardized Health Terminologies to Promote Interoperability: A Systematic Literature Review

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***Abstract***— Modern healthcare systems demand comprehensive information systems but face obstacles during adoption. Organizational and structural complexity, especially decentralized systems, challenges the integrated management and sharing of data across information systems. Interoperability is critical to address these issues effectively in heterogeneous and distributed environments. However, different medical terminology hinders interoperability within health information systems. To address this, a systematic literature review examined various medical terminology standards for national interoperability. From 790 articles, 12 were selected according to PRISMA guidelines with inclusion and exclusion criteria. Standard health terminology is critical to achieving interoperability, and many countries have adopted it, although some have required adaptation to accommodate local contexts. Data models, governance, and maintenance of standards are equally important in achieving national interoperability. In addition, standardized health terminology promotes consistency and uniformity in terminology, which is beneficial for decision-making by stakeholders in the health system.

***Keywords***— *Systematic Literature Review, National Interoperability, Medical Terminology, Implementation Standard Data*

# User-Generated Content (UGC) Influences on Purchase Intention Using Mobile Food Ordering Apps (MFOAs)

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***Abstract—*** User-Generated Content (UGC) is a marketing strategy frequently employed by companies that pay influencers or even regular people to create and upload social media content about a product. This method is commonly believed to be more effective than using celebrities to advertise a product, as most people consider user-generated content more natural and trustworthy. They were additionally supported by the exponential development of social media users over the past decades. In the past few years, Mobile Food Ordering Applications (MFOA) have also increased in popularity alongside the advancement of technology. It is due to the convenience of obtaining sustenance without traveling elsewhere. This research is conducted to ascertain the impact of user-generated content on the sales of mobile food ordering applications. As a statistical method, the study employs Structural Equation Modeling with the aid of SmartPLS. This study also utilizes SPSS to identify and eradicate data outliers. Only 106 of the 148 data collected through the purposive sampling method are eligible for use in this study. From January to February 2023, a questionnaire was distributed to individuals residing in Indonesia. This study has six variables, and seven hypotheses had significant influences.

***Keywords—*** mobile food ordering application, user generated content (UGC), online purchase intention

# Credit Risk Prediction System For MSME Loan Process

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**Abstract—** BPR XYZ is one of the BPR (Rural Bank) located in West Java - Indonesia, that has two primary businesses, which are: (1) collecting funds from customers in the forms of savings and deposits and (2) providing loans to customers. BPR XYZ successfully disbursed approximately more than IDR 300 billion micro-loans to the Micro, Small and Medium Enterprise (MSME) segment and will keep increasing gradually in 2022. Their Non-Performing Loan (NPL) rate in 2021 was above 5% (five percent), more significant than the national standard, and most likely to increase in 2022. This happens because many of their MSME customers cannot pay the debt. This study will conduct predictive analysis using Naïve Bayes and K-Nearest Neighbors algorithm (K-NN) to predict the NPL. From our experiments using historical data and five classes of NPL, we found that naïve bayes do not perform well, with average accuracy just only 19%; meanwhile, K-NN obtains a performance of 59%. Random Forest gained 52%, and SVM with 48%. We tried to restructure the NPL classification label to only two classes with these results. We got better results where K-NN algorithm gained the best performance with an accuracy level of 74%.

**Keywords—** credit risk, CRISP-DM, naïve bayes, KNN, random forest, SVM

# Model of Customer Relationship Management Systems Evaluation Using Factor Analysis

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***Abstract***— Relationship with customers is one of the most crucial factors in business continuity and development. Many current businesses have started delving into Customer Relationship Management (CRM) to establish and maintain their sales and customer relationships. This research was conducted on one retail company that implements CRM but experiencing a gap in their unit sales performance between their targeted sales and the realization. This study aims to analyze the gaps causing factors using Factor Analysis Method, constructing a suitable regression model, and proposing the company's necessary strategy. The research was conducted quantitatively using a questionnaire from 264 respondents. The result of this study showed that there are five causing factors which are CRM Reliability, Underutilization of CRM, CRM Capability, CRM Unpreparedness, and Customer Relation Quality, as well as forming a regression model of the company's CRM performance.

***Keywords***— *customer relationship management, evaluation, factor analysis, performance, regression model*

# Analysis of Factors Influencing Customers Decisions to Use Digital Bank Applications in Indonesia

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***Abstract***— In recent times, there has been a surge in the number of newly-established banks offering digital banking services via mobile applications. Such services are intended to facilitate financial transactions for customers. All services provided by digital banks are exclusively based on mobile applications, which enable customers to perform all financial transactions within the application. Despite the numerous advantages of digital banking, many customers remain hesitant to use it due to various factors, including attitude, trust, and subjective norms concerning digital banking applications. The objective of this study is to investigate the variables that determine and impact customers adoption in using digital banking services on mobile applications, this research utilizes the Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB), and Structural Equation Modeling (SEM) with the statistical software SmartPLS as analytical tools. The collected data will be processed, and the outcomes of the investigation will illustrate the acceptance of the research hypothesis and establish a substantial impact on the variables within the research methodology. As a result, it will become evident that the variables of subjective norm, attitude toward use, and perceived trust have an influence on customers inclination to use digital banking applications for conducting various financial transactions online.

***Keywords***— *digital banking, subjective norm, trust, attitude, mobile application*

# LonelyScape: Increasing Attractiveness of Escape Room Game using Augmented Reality Technology

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**Abstract**— Escape Rooms have emerged as one of the most popular real-world games, captivating individuals worldwide in search of leisure activities. This research paper outlines the development of LonelyScape, an innovative gaming experience that combines physical props with virtual elements within an engaging 3D environment. LonelyScape challenges players' problem-solving skills while providing an entertaining and immersive adventure. By utilizing augmented reality (AR) technology, the gameplay becomes interactive, ensuring a high level of engagement. The creative development process involved the use of Xcode, ARKit, RealityKit, and SwiftUI, employing the Rapid Application Development (RAD) methodology to achieve an intuitive gameplay design. In this study, we delve deeper into the subject by presenting existing studies on similar AR-based escape room games, along with a detailed overview of LonelyScape's gameplay design structure. Through beta testing involving nine participants, LonelyScape's entertainment value was affirmed, as it successfully kept players engaged throughout their journey. The evaluation of the testing, utilizing the UEQ scales, indicated that the measure of attractiveness received the highest value with a mean of 1.78, surpassing the other measures. This categorization as 'good' when compared to the benchmark demonstrates the positive reception of LonelyScape.

**Keywords**— *escape room, augmented reality, mobile game*

# An Evaluation of MyPertamina Mobile Application with Unified Theory of Acceptance and Use of Technology (UTAUT) Method

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**Abstract**— The purpose of this research is to analyze the level of acceptance of information technology from users of the MyPertamina mobile application and what variables affect users in order to user can adopt the mobile application. In thi study, Unified Theory of Acceptance and Use of Technology (UTAUT) and one moderate variable, Voluntariness of Use (VoU), were used to evaluate the correlation between the variables. Purposive sampling has been used to test the relationship with total 405 respondents out of 432 respondents who meet the criteria. The data was examine using PLS-SEM method. This analysis convey that Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC) towards Behavioral Intention (BI) have positive results while Voluntariness of Use (VoU) has negative results towards Behavioral Intention (BI). Final recommendation for this study are adding new payment methods and developing help center features.

**Keywords**— *MyPertamina, Evaluation, PLS, SEM, UTAUT*

# Utilization of Wokwi Simulation Application in Supporting Internet of Things Learning (IoT)

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***Abstract***—This research examined the development of Internet of Things (IoT) learning materials using the Wokwi simulation application as a solution for students who have difficulty purchasing hardware for practicum. IoT allows objects to send data over the internet without the assistance of humans or computers. The survey results on 27 respondents revealed that students responded positively to the Wokwi application, with a total index of 83.2% and a very agree interval score. In the practical part of the POSI (Portable Operating System Interface) class, the Wokwi application can assist students in learning IoT well.

***Keywords***—Wokwi Simulator, Internet of Things

# Analysis of Student's Interest using Discord Application as an Alternative Media Learning

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***Abstract***—Since its introduction to the public in May 2015, Discord has gained immense popularity among gamers as a communication platform for team-based gaming. However, it has also found favor among students who utilize it for collaborative learning, group discussions, and project management. This study aims to investigate the motivations and preferences of students in using Discord for their learning activities, as well as to identify the advantages and challenges associated with its usage. With its comprehensive features, Discord has emerged as an alternative communication medium within educational contexts. Consequently, this research seeks to evaluate students' level of interest and willingness to adopt Discord as an alternative medium for learning. Data for this study will be collected through a straightforward questionnaire. Among the variables examined, Social Media Literacy and Perceived Behavioral Control were found to significantly influence user attitude. Furthermore, user attitude was found to have a significant impact on the intention to use social media.

***Keywords***—*Discord, Media Learning, Alternative Media Learning, Social Media*

# Analysis of User Experience on Short Video Services: Instagram Reels and Tiktok Comparison

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***Abstract***—Rapid development of internet and technologies has contributed much to the quality of human's daily life. One of the breakthrough innovations is the implementation of the video streaming platform distributed over internet. With the resurgence of online video streaming platform, sharing video has never been easier. Therefore, users can easily share, comment, and like other video that different users uploaded. Brand awareness and customer trust could be significantly enhanced by means of short form videos as elements of online user experiences. Nowadays, there are many short form video streaming platforms on the internet like Instagram Reels and TikTok. This paper discusses the importance of user experience on Instagram Reels and TikTok. Every application needs to have some uniqueness so they can stand out and keep retention of their users. The User Experience Honeycomb was utilized in the form of quantitative research as a factor the user experience influencing on the user satisfaction. The major factors effecting user satisfaction were identified to help Instagram Reels and TikTok improve their user experience.

***Keywords***—*quantitative research method, user satisfaction, technology acceptance model, honeycomb user experience, linear regression*

# Smart Mobility Recommendation for Ibu Kota Nusantara (New Capital City of Indonesia)

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***Abstract***—The Republic of Indonesia has one important agenda, the development of Ibu Kota Nusantara as a new capital city. Presidential Regulation Number 63 of 2022 is the legal basis used as reference for this project. The development of the IKN includes several aspects, one of which is smart mobility. The research purpose is to provide recommendations for IKN Authority regarding smart mobility design that can be used as a benchmark. The design recommendations given focus on bus-based public transportation. Qualitative method used in this research. The research instruments used were interviews and Systematic Literature Review (SLR). Data analysis is carried out by benchmarking against parties, regions or countries that have implemented the concept of smart mobility in their transportation system. Smart mobility subsystems that can be developed to support transportation in the IKN environment are Smart Traffic Monitoring, Route Optimization, Accident Detection and Infrastructure Monitoring (Parking, Lights, Road Anomaly), Traffic Management System, Traffic Information System, Traffic Safety System, Smart Parking, Monitoring System Smart Vehicles, Smart Roads, Optimal Route Planner, Emergency Handling, Public Transit Priority, Adaptive TSCS, ITSCS, Passenger Information System, Smart Navigation System.

***Keywords***—*smart mobility, smart transportation, ibu kota nusantara*

# Utilization of Augmented Reality for Introducing Tongkonan Toraja Traditional House

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**Abstract**—This paper discusses the implementation of Augmented Reality (AR) as a form to introduce the culture of Tongkonan Toraja House that holds cultural and historical values of the Toraja tribe. However, many people have an absence of understanding about Torajan culture. The purpose of this AR is to obtain knowledge and recognition by giving experiences and interactions through virtual representation of the Tongkonan Toraja House. Development uses the Waterfall approach, starting with using good 3D models, designing the layout, implementing the marker, adding interactivity, testing, and maintenance of the application. The analysis of User Experience Questionnaire (UEQ) as a measurement method obtains positive evaluations by entering data from 27 respondents. The positive evaluations were obtained of the Tongkonan Toraja AR, which its values surpass 0,8. Stimulation aspect indicates a good level of excitement from the users with the mean value of 2.204, the highest mean value among other aspects. On the contrary, Efficiency received the lowest mean value of 1.981, despite the fact that its mean value is above 0.8 which indicates positive evaluation. The UEQ dimensions are categorized into attractiveness, pragmatic quality, and hedonic quality. Pragmatic quality received the lowest score, while hedonic quality obtained the highest score, with attractiveness falling in between. Overall, the findings demonstrate positive user evaluations of the Tongkonan Toraja AR across dimensions, with Stimulation receiving particular praise and Efficiency showing potential for enhancement. These results indicate that the AR experience is generally well-received, providing valuable insights for further improvements and development.

**Keywords**— *Augmented Reality (AR), Tongkonan Toraja Traditional House, User Experience Questionnaire (UEQ), Cultural Heritage, South Sulawesi*

# Design and Development Anonymous Social Media as a Safe Platform for Sexual Harassment Incidents

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***Abstract***—Cases of sexual harassment still frequently occur in the neighborhood. Cases of sexual harassment have also increased to date. based on data from the 2022 Annual Records, that in the last 10 years (2010-2020), the number of sexual harassments against women has increased, starting from 105,103 cases in 2010 to 299,911 cases in 2020 or an average increase of 19.6% per the year. Therefore, this paper aims to create a mobile platform that provides a place to tell stories and can be used to report safe incidents for survivors of sexual harassment. By using the Design Thinking Method which includes the stages of empathize, define, ideate, prototype, and testing, it is hoped that the results of this paper can be a major contributor to reducing the number of cases of sexual violence and upholding justice for victims of sexual violence.

***Keywords***—*sexual harassment, sexual harassment survivor, anonymous social media*

# Software Metrics for Container-Based Applications: Systematic Literature Review

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***Abstract***—Containerization has become a popular approach in application development in applications development and deployment, many benefits we can get such as improved scalability, portability, and resource efficiency. Container-based applications, utilizing technologies like Docker and Kubernetes, have transformed the packaging, deployment, and management of software from the desktop environment to the cloud platform. In this context, software metrics approach plays a good role in evaluating the characteristics and performance of container-based applications, ensuring that developers and operators are on the same page. This article explores the importance of software metrics in optimizing the software lifecycle of container-based applications, addressing the unique challenges they present, and highlighting the potential benefits of leveraging metrics to improve performance and efficiency. Our finding Performance Metrics and Availability Metrics is the most metrics that the most measure by applications owner, relevant studies and industry practices, this study aims to provide insights and recommendations to effectively measure and optimize region-based software systems.

***Keywords***—*containerization, container-based applications, software metrics*

# Improving E-Loyalty through E-Word of Mouth in SVoD Service Providers

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***Abstract***—This COVID-19 has triggered increasingly fierce competition in the Indonesian subscription video on demand (SVoD) market. As a result, customer loyalty has become a crucial aspect that SVoD providers must prioritize. This research intends to investigate the effect of electronic word of mouth or e-word of mouth (EWoM) on electronic loyalty (ELY) and the mediating effect of e-word of mouth to the effect of e-service quality and brand image on electronic loyalty (ELY). This study adopts a cross-sectional survey method and a quantitative approach. Data was collected through questionnaires distributed to 120 respondents (SVoD service users) using purposive or judgment sampling technique. SmartPLS software (variance-based SEM) was used to process data. The findings of this study showed that e-word of mouth has a positive and significant impact on electronic loyalty (ELY), and it partially mediates the effects of electronic service quality (ESQ) and brand image on electronic loyalty (ELY). Based on these results, further analysis is conducted to discuss the theoretical and practical implications of the findings.

***Keywords***—*e-service quality, brand image, e-word of mouth, e-loyalty, subscription video on demand (SVoD)*

# Fuzzy Quality Function Deployment and Usability Testing Approach for Features Improvement of Digital Payment Apps

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***Abstract***—Digital payment application in Indonesia has grown because of their convenience and efficiency. One of the digital payment apps available in Indonesia is Finpay Money. Finpay Money apps only have a market share of 0.3% among competitors. Finpay Money wants to increase the number of market share and the number of users, by developing applications that innovative, complete features and user-friendly for every user. The method used in this research is Fuzzy Quality Function Deployment to find out what variables need to be improved by the Finpay Money application. The variables obtained are the addition of user-friendly features and applications so that it is continued with the User Persona and Usability Testing methods to determine the target user and the usable value of the Finpay Money application. There is an increase in Usability Testing results after re-prototyping. Effectiveness increased to 92.16%, efficiency to 0.093 goals/sec with 5 out of 8 tasks increasing, learnability to 77.5%, and satisfaction getting an increase in value to 81.5.

***Keywords***—fuzzy QFD, usability testing, digital payment, application, features improvement



**ICIMTECH**  
2023 International Conference on  
Information Management and Technology  
(ICIMTech)

# PROGRAM INFORMATION

## Program at a Glance

**August 24<sup>th</sup>, 2023**

*Jakarta and Malang Local Time (UTC+7)*

Agenda	Time
Registration	<b>08.30 AM – 08.45 AM (UTC+7)</b>
Opening	<b>08.45 AM – 09.25 AM (UTC+7)</b>
Keynote Speech (Session 1)	<b>09.25 AM – 10.00 AM (UTC+7)</b>
Coffee Break	<b>10.00 AM – 10.30 AM (UTC+7)</b>
Keynote Speech (Session 2)	<b>10.30 AM – 11.10 AM (UTC+7)</b>
Keynote Speech (Session 3)	<b>11.10 AM – 11.50 AM (UTC+7)</b>
Q&A	<b>11.50 AM – 12.05 PM (UTC+7)</b>
Closing	<b>12.05 PM – 12.10 PM (UTC+7)</b>
Lunch Break	<b>12.10 AM – 01.00 PM (UTC+7)</b>
Parallel Presentation (Session 1)	<b>01.00 PM – 03.00 PM (UTC+7)</b>
Coffee Break	<b>03.00 PM – 03.30 PM (UTC+7)</b>
Parallel Presentation (Session 2)	<b>03.30 PM – 05.30 PM (UTC+7)</b>

**August 25<sup>th</sup>, 2023**

*Jakarta and Malang Local Time (UTC+7)*

Agenda	Time
Parallel Presentation (Session 1)	<b>09.00 AM – 11.00 AM (UTC+7)</b>

## Keynote and Q&A Room

Agenda/Room	Link to Join	Meeting ID	Password
Keynote Session	<a href="https://tinyurl.com/icimtech2023">https://tinyurl.com/icimtech2023</a>	928 2230 5517	2023
ICIMTechQNA	<a href="https://bit.ly/icimtechqna23">https://bit.ly/icimtechqna23</a>	789 124 0743	

**Parallel Room**  
Thursday, 24<sup>th</sup> August 2023

ONSITE Binus@Malang

**Onsite Room 1**  
**(Session Chair: Dr. Richard, S.Kom., M.M)**

<b>Live Presentation:</b> <a href="https://bit.ly/ICIMTech23Onsite1">https://bit.ly/ICIMTech23Onsite1</a>	<b>Meeting ID:</b> 460 510 9855 <b>Meeting Password:</b> icimtech23
<b>01:00 PM - 03:00 PM</b>	<p><b>Knowledge Management in Business using Patent Landscape Analysis</b> Shafira Ivana Eka Putri, Agung Purnomo, Dian Utami Sutiksno, Meiryani Meiryani, Bambang Kartono Kurniawan</p>
	<p><b>The Research Journey Retrospective on Management Information Systems in Indonesia</b> Agung Purnomo, Mega Firdaus, Nur Asitah, Evaristus Didik Madjatmadja, Mulyani Karmagatri, Ellina Fahra Azzahr Azzahri</p>
	<p><b>Global Patent Landscape of Decision Support System in The Business: An Overview</b> Michelia Champaca Salsabila Irawan, Agung Purnomo, Angelie Natalia Sanjaya, Meiryani Meiryani, Sahnaz Ubud, Fairuz Iqbal Maulana</p>
	<p><b>User Experience Evaluation of Duolingo using User Experience Questionnaire (UEQ)</b> Muhammad Hafizh Raihan Daniswara, Ahmad Hafidz, Brian Marcellino, Frihandhika Permana</p>
	<p><b>Manufacturing A Low-cost Telegram and Optical Character Recognition-based Indoor Air Quality Monitoring Data Logger</b> Andi Pramono, Satrio Arif Budiman, Muchammad Farchan, Andi Baso Mappaturi</p>
	<p><b>Assessing the Effectiveness of Digital Upskilling: Evaluation Framework for GreatNusa Online Learning Platform using UTAUT Extension Model</b> I Nyoman Indra Kusuma Sukma Putra, Billy Putranda Soerjanto, Kenrick Giovanni Widjaja, Arta Moro Sundjaja</p>
<b>03.00 PM - 03.30 PM</b>	<b>BREAK</b>
<b>03:30 PM - 05:30 PM</b>	<p><b>The Impact Entrepreneurial Spirit On Technoprenurial Intention Based On Shane Theory</b> Stefanus Rumangkit, Antonius Satria Hadi</p>
	<p><b>Analysis the Influence Factors of Intention to Use NFT Application</b> Surjandy, Cadelina Cassandra, Stefanus Rumangkit, Abdullah Billman</p>
	<p><b>IoT Architectural Design for Household Water Quality Control</b> Felicia Evan, Nur Anisa, Jennifer Alexandra</p>

**Onsite Room 2**  
**(Session Chair: Devyano Luhukay, S.Kom., M.M.)**

<b>Live Presentation:</b> <a href="https://bit.ly/ICIMTech23Onsite2">https://bit.ly/ICIMTech23Onsite2</a>	<b>Meeting ID:</b> 238 846 1064 <b>Meeting Password:</b> icimtech23
<b>01:00 PM - 03:00 PM</b>	<p><b>Analysis of Student’s Interest using Discord Application as an Alternative Media Learning</b>            Willy Kristian, Ferdianto Ferdianto, Raden Ajeng Dyah Wahyu Sukmaningsih, Margaretha Ohyver</p> <p><b>The Social Learning Platforms during COVID-19 in Indonesia and Pakistan that Supported by Sustainability Technology</b>            Ulani Yunus, Bhernadetta Pravita Wahyuningtyas, Tri Adi Sumbogo, Mario Nugroho Willyarto, Ausie Nida Rahmatya, Wajid Zulqarnain</p> <p><b>Dependency on AI-Based Writing Tools in English Learning: Implications for Human-Computer Interaction</b>            Asih Zunaidah, Chandra Kurniawan Wiharja, M. Aldiki Febriantono</p> <p><b>Deep Learning for Music: Systematic Literature Review</b>            Daniel Kevin Kurniawan, Gregorius Revyanno Alexander, Sidharta Sidharta</p> <p><b>Crucial Factors that Influence the Emergence of Sustainable Technopreneurs: Initial Insight from Indonesian Startups</b>            Febby Candra Pratama</p> <p><b>Fuzzy Quality Function Deployment and Usability Testing Approach for Features Improvement of Digital Payment Apps</b>            Fransisca Dini Ariyanti, Aulia Fattah, Daffa Wardana, Khendy Buntoro</p>
<b>03.00 PM - 03.30 PM</b>	<b>BREAK</b>
<b>03:30 PM - 05:30 PM</b>	<p><b>The Country’s Implementation and Adoption of Standardized Health Terminologies to Promote Interoperability: A Systematic Literature Review</b>            Taufiq Hamzah Sitompul, Harco Leslie Hendric Spits Warnars, Meyliana, Achmad Nizar Hidayanto, Harjanto Prabowo</p> <p><b>LonelyScape: Increasing Attractiveness of Escape Room Game using Augmented Reality Technology</b>            Alya Dhiya Mardhiyyah, Vincent Vincent, Mario Gracius K.L. Gracius K.L., Frihandhika Permana, Fairuz Iqbal Maulana</p> <p><b>Analysis of Bedroom Ventilation and Relative Humidity using CAMS Technology and Air Fan Supply in Sawojajar 2 Area Residential</b>            Rossy Shalwa Ababel, Andi Pramono, Bela Ayu Safitri, Muhammad Dzaki Fuad, Yohanes Raynaldi Pereira, Ida Bagus Ananta Wijaya</p>

**Onsite Room 3**  
**(Session Chair: Fredy Jingga, S.Kom., MMSI)**

<b>Live Presentation:</b> <a href="https://bit.ly/ICIMTech23Onsite3">https://bit.ly/ICIMTech23Onsite3</a>	<b>Meeting ID:</b> 669 366 4486 <b>Meeting Password:</b> icimtech23
<b>01:00 PM - 03:00 PM</b>	<b>A Systematic Review of WebAssembly VS Javascript Performance Comparison</b> Joshua Wenata Sunarto, Angelina Quincy, Fakhira Shafa Maheswari, Quesynovich Denis Al Hafizh, Melanie Gabriela Tjandrasubrata, Mochammad Haldi Widiyanto
	<b>The Impact of Shift-Left Testing to Software Quality in Agile Methodology: A Case Study</b> Kus Andriadi, Haryono Soeparno, Ford Lumban Gaol, Yulyani Arifin
	<b>Design and Development Anonymous Social Media as a Safe Platform for Sexual Harassment Incidents</b> Lisa Mega Tanto Kusumo, Muhammad Wildan, Willy Kristian, Edward Hartanto Enrico Abadi
	<b>Development Internet of Things System for Smart Fishery in Ornamental Fish Farming</b> Adam Fahsyah Nurzaman, Muhammad Wildan, Nur Anisa
	<b>Adaptation of Digital Disruption Sources by News and Non-News Radio in Jakarta</b> Muslikhin Muslikhin, Ebnu Yufriadi, Frederik Masri Gasa, Rianto Nurcahyo, Gabrielle David Leonard Christoper
	<b>Software Metrics for Container-Based Applications: Systematic Literature Review</b> Muhammad Juan Al Qausar, Haryono Soeparno, Ford Lumban Gaol, Yulyani Arifin

**Onsite Room 4**  
**(Session Chair: Raden Ajeng Dyah Wahyu Sukmaningsih, S.T., M.Kom.)**

<b>Live Presentation:</b> <a href="https://bit.ly/ICIMTech23Onsite4">https://bit.ly/ICIMTech23Onsite4</a>	<b>Meeting ID:</b> 297 839 3102 <b>Meeting Password:</b> icimtech23
<b>01:00 PM - 03:00 PM</b>	<p><b>Learning Media for Introduction of Traditional Weapons in Indonesia using Augmented Reality Technology</b>  Deny Andriawan, Naufal Humam Risqullah Pujianputra, Marcelino Hans Setia Budi, Fairuz Iqbal Maulana, Frihandhika Permana</p>
	<p><b>Mixing Digital Intelligent with Servant Leadership for Establishing Service Quality in the Service Industry</b>  Nopriadi Saputra</p>
	<p><b>Utilization of Augmented Reality for Introducing Tongkonan Toraja Traditional House</b>  Sekar Ayu Nadita, Eileen Anindya Putri Maheswari, Kezia Angeline Santoso, Mochammad Alfito Dwi Cahyono, Frihandhika Permana</p>
	<p><b>Exploring the Impact of Feature Data Normalization and Standardization on Regression Models for Smartphone Price Prediction</b>  Marcellino Bonamutial, Simeon Yuda Prasetyo</p>
	<p><b>Improving SMS Spam Detection through Machine Learning: An Investigation of Feature Extraction and Model Selection Techniques</b>  William Siagian, Melisa Rachel Setiadi, Simeon Yuda Prasetyo</p>
	<p><b>Brain Tumor Detection and Localization from MRI Images Using Deep Learning Methods</b>  Simeon Yuda Prasetyo, Diaz D Santika</p>

**Parallel Room**  
Thursday, 24<sup>th</sup> August 2023

ONLINE

<b>Online Room 1</b> <b>(Session Chair: Dr. Eka Miranda, S.Kom., MMSI.)</b>	
Live Presentation: <a href="https://bit.ly/ICIMTech23Online1">https://bit.ly/ICIMTech23Online1</a>	<b>Meeting ID:</b> 815 070 7183 <b>Meeting Password:</b> icimtech23
<b>01:00 PM - 03:00 PM</b>	<b>Kabisa App: iOS-Based Application for Learning Sundanese Script with Game-Based Learning Implementation</b> Ricky,Abhirama Rizkia Triadi,Jeffrey Clay Setiawan,Mochammad Haldi Widiyanto
	<b>Evaluation of Indorelawan.org Website in User Experience Perspective using User Experience Questionnaire (UEQ)</b> Aileen Angelica Lee,Ananta Mahardika Rachmat,Felice,Mirza Ramadhani
	<b>Generating and Solving Mazes Using Parallel Minimum Spanning Tree Algorithms</b> N. Narayanan Prasanth, Kavitha S, Akshata A Bhat, Madhusmita Mukherjee, K. O. Vedaşree Anusha, Risheepriya S
	<b>Sampatti Personal Financial Management Application Development Integrated with Indonesian Stock Market Data</b> Alberic Aptatio Astri,Lindrianasari Lindrianasari
	<b>Development of Key Performance Indicators in e-Learning Implementation in Higher Education Institutions</b> Wahyu Sardjono, Desi Maya Kristin, Gustian Rama Putra
	<b>Model of Customer Relationship Management Systems Evaluation Using Factor Analysis</b> Wahyu Sardjono,Desi Maya Kristin,Gustian Rama Putra
<b>03.00 PM - 03.30 PM</b>	<b>BREAK</b>
Live Presentation: <a href="https://bit.ly/ICIMTech23Online1">https://bit.ly/ICIMTech23Online1</a>	<b>Meeting ID:</b> 815 070 7183 <b>Meeting Password:</b> icimtech23
<b>03:30 PM - 05:30 PM</b>	<b>Factors That Influence Consumers in Using Online Investment Platforms - Systematic Literature Review</b> Alda Arfina,Hanny Juwitasary,Michael Angelus
	<b>Privacy and Security in The Use of Voice Assistant: An Evaluation of User Awareness and Preferences</b> Alya Dhiya' Mardhiyyah, Jazlyn Jan Keyla Latif, Cuk Tho
	<b>Assessment of E-Ticketing Technology in Concert Website: A Review of Benefits, Profits, and Customer Satisfaction</b> Amelia Khairunnisa,Noerlina Noerlina,Meiryani Meiryani
	<b>Uncover Configurational Paths of Streamers' Characteristics Predicting High vs. Low Consumers' Watching Intention to TikTok Live Streaming</b> Pantas H. Silaban, Andri Dayarana K. Silalahi, Wen-Kuo Chen, Suwandi S. Sangadji, Ixora Javanisa Eunike, Febiola Panggabean
	<b>User Experience Evaluation of the Booking Website using System Usability Scale and Usability Testing (Study Case Sport Arena)</b> Andry F Hutapea, Lyocy Hotria Sitohang, Sylvia Kornelina Sihombing, Sunardi Sunardi
	<b>User Experience Analysis on the Website of North Sumatra Province Using User Experience Questionnaire (UEQ) and Lean UX Methods</b> Krisnomi Nainggolan,Kamna Natalia Siahaan,Fredrick M.T Pardosi,Sunardi Sunardi

<b>Online Room 2</b> <b>(Session Chair: Dr. Sulisty Heripracoyo, S.I.P., M.M.)</b>	
<b>Live Presentation:</b> <a href="https://bit.ly/ICIMTech23Online2">https://bit.ly/ICIMTech23Online2</a>	<b>Meeting ID:</b> 205 287 8765 <b>Meeting Password:</b> icimtech23
<b>01:00 PM - 03:00 PM</b>	<b>Robotic Process Automation to Enhance Education's Administration Process: Case of Attendance Checking and Reporting</b> Ali Gunawan, Mahaning Indrawaty Wijaya
	<b>Designing a Web-based Career Assessment Test</b> Joshua Soeng, Fitriana Isnaini, Samuel Dave Dharmadi, Arief Agus Sukmandhani, Ferdinand Ariandy Luwinda
	<b>Digital Artwork Marketplace Web Application Design using Blockchain Technology</b> Adjie Wijaya Kusuma, Arief Agus Sukmandhani, Jenny Ohliati
	<b>Application Deployment Strategy Comparison at PT. XYZ</b> Alief Darul Ikhsan, Jekson Jekson, Muhamad Iqbal, Arief Agus Sukmandhani, Ferdinand Ariandy Luwinda
	<b>Design and Development of Personalized Pregnancy Health Assistant Application</b> Shavira Andysa, Muhammad Wildan, Moh Thaha Rizieq Hentihu, Aristia Utari Putri, Willy Kristian
	<b>Music Genre Classification using Support Vector Machine Techniques</b> Arvin Yuwono, Christopher Alexander Tjiandra, Christopher Owen, Ida Bagus Kerthyayana Manuaba
<b>03.00 PM - 03.30 PM</b>	<b>BREAK</b>
<b>Live Presentation:</b> <a href="https://bit.ly/ICIMTECH2022Online2">https://bit.ly/ICIMTECH2022Online2</a>	<b>Meeting ID:</b> 925 3495 0357 <b>Meeting Password:</b> icimtech22
<b>03:30 PM - 05:30 PM</b>	<b>Keywords That Are Oftenly Searched by Students on Daily Uses That Leads to Information That Is Potentially Banned by SafeSearch</b> Ali Gunawan, Bagas Rizkyka Pinajung, Rahel Laurensia Natalie Romatua, Orseola Gratia
	<b>Analysis of the Effect of Gamification Implementation on Customer Loyalty in Online Travel Agency (OTA) Mobile Applications</b> Muhammad Wildan, Ratu Annisa Gandasari, Bening Insaniyah Al-abdillah, Wiza Teguh
	<b>Understanding the Uses and Potential of IoT with 5G Technology Compared to 4G LTE: A Systematic Literature Review</b> Ali Gunawan, Bernard Geraldo Gajon Odang, Kevin Honggiarto, Federico Linata Cahyadi
	<b>Comparative Analysis of Binary and Interpolation Search Algorithms on Integer Data Using C Programming Language</b> Bima Andri Saputra, Stevans Calvin Candra, Franis Berta Wijaya, Kristien Margi Suryaningrum, Hanis Amalia Saputri
	<b>Exploring the Relatedness of Educational Technology in Enhancing Study Performance</b> Doni Purnama Alamsyah, Bobby Siswanto, Doni Morika, Norfaridatul Akmaliah Othman, Billiam Christofer Wijaya, Putri Giyan Adinda
	<b>Bibliometric Analysis of Trend in Metaverse Research</b> Cadelina Cassandra, Mohammad Noorman Masrek, Fadhilah Aman

**Online Room 3**  
**(Session Chair: Dedy Syamsuar, S.Kom., MIT., Ph.D.)**

<b>Live Presentation:</b> <a href="https://bit.ly/ICIMTech23Online3">https://bit.ly/ICIMTech23Online3</a>		<b>Meeting ID:</b> 704 643 6702 <b>Meeting Password:</b> icimtech23	
<b>01:00 PM - 03:00 PM</b>	<b>Gamification-Based To-Do List Mobile Application Development</b> Arvendo Arvendo, Cakra Ramadhana, Emny Harna Yossy		
	<b>Ensuring Success in Quick Commerce by Evaluating Its Application Development Capability Maturity Using COBIT 2019</b> Chandra Hermawan Heruatmadja, Ford Lumban Gaol, Suhono Harso Supangkat, Benny Ranti		
	<b>User Experience Analysis of Indonesia Train Booking Mobile Application Using User Experience Questionnaire (UEQ) and Usability Testing</b> Christine Irene Lumban Tobing, Sunardi Sunardi		
	<b>Assessment to Determine The Best Employees using Simple Additive Weighting Method</b> Cornelius Mellino Sarungu, Mohamad Fatkhudin, Budiyanto		
	<b>Improving E-Loyalty through E-Word of Mouth in SVoD Service Providers</b> Darjat Sudrajat, Felia Evangelista, Nabilla Ameera Lutvia		
	<b>Enhance Sleep Duration using Smart Room based on IoT</b> Daryl Claudio, Mochammad Haldi Widiyanto		
<b>03.00 PM - 03.30 PM</b>	<b>BREAK</b>		
<b>Live Presentation:</b> <a href="https://bit.ly/ICIMTech23Online3">https://bit.ly/ICIMTech23Online3</a>		<b>Meeting ID:</b> 704 643 6702 <b>Meeting Password:</b> icimtech23	
<b>03:30 PM - 05:30 PM</b>	<b>The Effectiveness of the Online Food Delivery Application on the Person Who Lives in Boarding House</b> Evaristus Didik Madyatmadja, Debri Pristinella, Ade Siti Nirvani, Irfan Hilmansyah, Adistha Rakha Rajendra, Risma Aulia		
	<b>Image Processing Implementation to Classify Coffee Fruit Ripeness using K-Nearest Neighbor (KNN) Algorithm</b> Muhammad Farhan Hussaini, Deden Witarsyah, Dedy Syamsuar, Hanif Fakhurroja, Ahmad Luthfi, Muhammad Izman Herdiansyah		
	<b>Analyzing the Behavioral Aspects of Implementing Green IT in an Academic Environment</b> Dedy Syamsuar, Fero Triando, Maria Ulfa, Darius Antoni, Adele Mailangkay, Deden Witarsyah		
	<b>Factors Affecting Consumer Purchase Intention to using E-Commerce in Indonesia</b> Denise Brigitte Kristalin, Adinda Rahmi, Aisyah Zahra Mayada, Anderes Gui, Yuvaraj Ganesan, Muhammad Shabir Shahaudin		
	<b>User Experience Analysis on Camp404 Academy e-Learning System</b> Martina Desi Aryani, Avianti Nastiti, Gevalinda Putri Deniswara, Dina Fitria Murad, Arbai'ah Inn, Meta Amalya Dewi		
	<b>Scrutinizing Effect of Youtube Video Advertising to Increasing Advertising Value, Flow Experience, Brand Awareness, and Purchase Intention</b> Dwiki Adisaputra Koerniawan, A. Raharto Condrobimo, Hendry Hartono		

<b>Online Room 4</b> <b>(Session Chair: Dr. Erwin Halim, Spt., M.M., CBDMP, CDMS)</b>	
Live Presentation: <a href="https://bit.ly/ICIMTech23Online4">https://bit.ly/ICIMTech23Online4</a>	<b>Meeting ID:</b> 717 896 4250 <b>Meeting Password:</b> icimtech23
<b>01:00 PM - 03:00 PM</b>	<b>Social Media Marketing Activities to Tie-in Brand Commitment: A Brand Experience Mediation</b> Annisya Erobathriek, Christian Haposan Pangaribuan, Elfindah Princes
	<b>Consumer Decision-Making Criteria for Online Food Delivery Platforms: A Case Study in Jabodetabek Indonesia</b> Sambudi Hamali, Elysia Elysia Elverda, Tasliyah Athaya Nahdah
	<b>Presence System Based on Face Recognition and Body Temperature Detection</b> Yosep Setiawan, Nanda Vernanda Cerdika, Sapta Rizki Fauzi, Immanuela Puspasari Saputro, Teguh Sriwidadi, Emny Harna Yossy
	<b>Analysis and Design of Android-based Mobile Tire Change Applications</b> Adriyan Saputra, Emny Harna Yossy
	<b>Analysis Intention to Use of Smart Tourism Application with Model Extended UTAUT 2 Approach</b> Erick Fernando, Ridho Bramulya Ikhsan, Davis Roganda Parlindungan
	<b>Robotic Process Automation to Improve Education's Administration Process: Case of Students' Internship Reporting</b> Mahaning Indrawaty Wijaya, Ali Gunawan
<b>03.00 PM - 03.30 PM</b>	<b>BREAK</b>
Live Presentation: <a href="https://bit.ly/ICIMTech23Online4">https://bit.ly/ICIMTech23Online4</a>	<b>Meeting ID:</b> 717 896 4250 <b>Meeting Password:</b> icimtech23
<b>03:30 PM - 05:30 PM</b>	<b>The Impact of the Starbucks Mobile Application Loyalty Program on Customer Loyalty</b> Erwin Halim, Charles Gomarga, A. Raharto Condrobimo, Marylise Hebrard
	<b>Gen-Z Awareness of Data Privacy Using Social Media</b> Erwin Halim, Ammar Fatih Ikhsan, Joni Suhartono, Marylise Hebard
	<b>Analyze and predict car accidents using different machine learning algorithms</b> Muhammad Zacky Asy'ari, Farrel Putra Harimanto, Henry William, Samuel Albert Artanto, Chris Andrew, Muhammad Nurul Puji
	<b>Key Success Factor of Marketing Intelligence in Higher Education : Systematic Literature Review</b> Fathy Radhia, Sugiarto Hartono, Edi Purnomo Putra, Albert Budi Christian, Henricus Bambang Triantono
	<b>The Role of Trust Transfer in Facilitating Stickiness Behavior in Live Streaming: A Socio-technical Perspective</b> Wen-Kuo Chen, Fatih Yanbegi, Andri Dayarana K. Silalahi, Pantas H. Silaban, Ixora Javanisa Eunike, Serhan Demirci
	<b>Fast-Moving Consumer Goods (FMCG) Sustainable Strategies: Minimizing Waste in Cereal Packaging Process</b> Fauzi Khair, Maria Loura Christhia, Rahmat Sabani, Gesang Catur Pribadi

<b>Online Room 5</b> <b>(Session Chair: Prof. Dr. Evaristus Didik Madyatmadja, ST., M.Kom., M.T)</b>	
Live Presentation: <a href="https://bit.ly/ICIMTech23Online5">https://bit.ly/ICIMTech23Online5</a>	<b>Meeting ID:</b> 971 260 9420 <b>Meeting Password:</b> icimtech23
<b>01:00 PM - 03:00 PM</b>	<b>STUDINUS: A Comprehensive E-Learning Platform for Academic Enthusiasts</b> David Fernando Aristan, Adrian Nathanael, Nickholas, Felix Indra Kurniadi, Riccosan Riccosan
	<b>Centralized Versus Decentralized Technology in the Financial Industry</b> Noerlina, Tirta Nugraha Mursitama, Yuli Eni, Fernando Gontani
	<b>Implementation of Artificial Intelligence Based Image Creation Technology for Conceptual Ideas in 3D Visual Modeling</b> Ferric Limano
	<b>Semantic Literature Review on Non-Fungible Token: Expansion Area of Usage &amp; Trends</b> Gede Indra Raditya Martha, Harco Leslie Hendric Spits Warnars, Harjanto Prabowo, Meyliana Meyliana, Achmad Nizar Hidayanto
	<b>Twitter Sentiment Analysis with Maximum Entropy and Naïve Bayes Using N-gram Approach</b> Guilbert Nicanor A. Atillo, Bobby D. Gerardo, Ruji P. Medina
	<b>User Experience Analysis of Social AID Assistance Data Recipient Application using User Experience Analysis Questionnaire (UEQ) and Usability Testing Method</b> Haris Pratama Putra J, Sulfikar Sulfikar, Sunardi
<b>03:00 PM - 03:30 PM</b>	<b>BREAK</b>
Live Presentation: <a href="https://bit.ly/ICIMTech23Online5">https://bit.ly/ICIMTech23Online5</a>	<b>Meeting ID:</b> 971 260 9420 <b>Meeting Password:</b> icimtech23
<b>03:30 PM - 05:30 PM</b>	<b>Sentiment Analysis of The Tourist Destination Using Support Vector Machine Algorithm on Twitter Post</b> Helen Helen, Roy Kurniawan
	<b>The Influence of Financial Literacy, Financial Experience, Behavioral Finance, and Investor Awareness on The Use of Fintech Applications in Making Investment Decisions</b> Hesti Kartika, I Gusti Made Karmawan, Toto Rusmanto
	<b>Tool Tracking System Design using Quality Function Deployment Method for Vocational Education</b> Ibnu Ferianto, Dwima Septiar Priambada, Randy Putra Afani, Taufik Roni Sahroni
	<b>Knowledge and Perceived Security as Driven The Continuance Use of Mobile Fintech Payments</b> Ridho Bramulya Ikhsan, Yudi Fernando, Erick Fernando, Anderes Gui, Ahmad Fakhrorazi, Ika Sari Wahyuni-TD
	<b>What Makes Customers Satisfied and Continuance Using M-Fintech Payment? The Multidimensional Investigation of Perceived Security</b> Ridho Bramulya Ikhsan, Yudi Fernando, Vini Maryani, Anderes Gui, Ahmad Fakhrorazi, Ika Sari Wahyuni-TD
	<b>The Effect of Using Mobile Applications, Using Social Media, Using E-Commerce, and Having IT Knowledge on The Performance of SMEs</b> inayatulloh inayatulloh, Santi Arafah, Alim Murtani, Rahmat Kurniawan, Sri Rezeki Widya Ritonga, Putri Nazly, Santi Rizki

<b>Online Room 6</b> <b>(Session Chair: Sudiana, S.Kom., M.M.S.I, CDMS)</b>	
<b>Live Presentation:</b> <a href="https://bit.ly/ICIMTech23Online6">https://bit.ly/ICIMTech23Online6</a>	<b>Meeting ID:</b> 208 250 3948 <b>Meeting Password:</b> icimtech23
<b>01:00 PM - 03:00 PM</b>	<b>Coffee Distribution Model with Blockchain Technology to Increase The Transparency of Local Coffee Distribution</b> Inayatulloh
	<b>Considering Factor For Cloud Accounting Adoption in SME: A Systematic Literature Review</b> Jessica Felicia Bachtiar,Desi Maya Kristin,Ignatius Edward Riantono
	<b>Determining Satisfaction, Loyalty, and Intention to continue Using Social Commerce</b> Abimanyu Ramadhan,Jovan Charles,Yakob Utama Chandra
	<b>Intelligent Monitoring and Diagnosing Capability in Healthcare: Systematic Literature Review</b> Pradanajati Aryawibowo, Alvian Faiz Hidayanto, Yeremia Marcellius Toemali, Anderies, Karli Eka Setiawan, Alexander Agung Santoso Gunawan
	<b>Orthogonal Persistence a Breakthrough for Scaling and Seveloping an Application in Blockchain Scenario</b> Kevin Herman Otnieliem, Ida Bagus Kerthyayana Manuaba
	<b>Customer Experience Perspective on Quick Response Code Indonesia Standard Payment Method</b> Laksamana Kusuma, Anderes Gui, Kevin Deniswara
<b>03.00 PM - 03.30 PM</b>	<b>BREAK</b>
<b>Live Presentation:</b> <a href="https://bit.ly/ICIMTech23Online6">https://bit.ly/ICIMTech23Online6</a>	<b>Meeting ID:</b> 208 250 3948 <b>Meeting Password:</b> icimtech23
<b>03:30 PM - 05:30 PM</b>	<b>Enhancing Passenger Satisfaction in JABODETABEK: A Comparative Study of the Effectiveness of Electric Money and QR Code Payment for KRL Commuters</b> Vandersen Ophius Flines,William Boeytan Kasman,Lyanita, Nuril Kusumawardhani Soeprapto
	<b>The Influence of Knowledge Management Systems in Corporate University in Triggering Knowledge Innovation in Higher Education: A case study approach</b> Lydiawati Kosasih Asalla,Marisa Karsen,Agustinus Bandur,Elidjen Elidjen,Harjanto Prabowo,Marisca Revani Putri
	<b>Development of Customer Churn Rate Dashboard for PT. Mandala Multifinance, Tbk to Improve Customer Repeat Orders</b> Antonius Suharmono, Robert Alan Dipaleksana Bell, Tajghina Qatrunnada Firdaus, Meta Amalya Dewi, Ikhsan Septian Caesar
	<b>Implementation of Extreme Programming In Web Profile Development As an Effective Promotional Media</b> Dearista Amalia, Rahmat Gumilar, Yefta Satria Utama, Meta Amalya Dewi
	<b>How Fashion Live Streaming Features Affect Purchase Intention by Mediating Perceived Value and Perceived Trust</b> Michael Bala Koban, A. Raharto Condrobimo, Enggal Sriwardiningsih
	<b>Analysis of User Experience on Short Video Services: Instagram Reels and Tiktok Comparison</b> Michael Siek,Fakhran Hartmanda Fariz

**Online Room 7**  
**(Session Chair: Nuril Kusumawardhani Soeprapto Putri, S.T., M.K.M.)**

<b>Live Presentation:</b> <a href="https://bit.ly/ICIMTech23Online7">https://bit.ly/ICIMTech23Online7</a>		<b>Meeting ID:</b> 813 147 5621 <b>Meeting Password:</b> icimtech23	
<b>01:00 PM - 03:00 PM</b>	<b>Smart Mobility Recommendation for Ibu Kota Nusantara (New Capital City of Indonesia)</b> Mitsal Shafiq Sulasno, Yudho Giri Sucahyo		
	<b>Factors Influencing Customer Purchase Interest in Social Commerce in Indonesia</b> Montela Livanto, Ryan Christianto Giri, Muhammad Rizky Ardiansyah, Hanny Juwitasary		
	<b>Purchasing power analysis using K-means Algorithm</b> Kintan Julia Raihanum, Mulyani Karmagatri		
	<b>Exploring the Social Networking Experience of Third-Culture Kids in Qatar: How Does Social Media Support the Identity and Transition?</b> Nabilah Fairuz Shofa, Ferane Aristrivani Sofian		
	<b>Understanding the Technology Acceptance Model of Digital Banking Usage among Generation Z: A Study on User Adoption and Satisfaction</b> Nicholas Irwin, Kevin Kurniawan, Andrew Alesandro, Natalia Limantara		
	<b>Designing Service Oriented Architecture Model in Sehatin Application with a Domain Driven Design Approach</b> Nilo Legowo, Erin Erin, Eugenius Hansel Lee, Merryta Djakaria		
<b>03.00 PM - 03.30 PM</b>	<b>BREAK</b>		
<b>Live Presentation:</b> <a href="https://bit.ly/ICIMTech23Online7">https://bit.ly/ICIMTech23Online7</a>		<b>Meeting ID:</b> 813 147 5621 <b>Meeting Password:</b> icimtech23	
<b>03:30 PM - 05:30 PM</b>	<b>The Use of Interactive Digital Content as Assistive Technology for Student with ADHD</b> Nuril Kusumawardhani Soeprapto Putri, Marisa Karsen, Hanny Juwitasary, Pingkan C. B. Rumondor, Desi Maya Kristin		
	<b>Predicting Depressive Symptoms of Swipe-based Online Dating Applications Users with Ghosted Experience</b> Brigita Kristanti, Nuril Kusumawardhani Soeprapto Putri, Pingkan Cynthia Belinda Rumondor		
	<b>Collective Memory in Digital Marketing Format Contributes to Recognizing Benyamin Sueb as an Ambassador of Betawi Culture</b> R.A. Diah Resita I. Kuntjoro-Jakti, Ade Ariyani Sari Fajarwati, Inda Ariesta		
	<b>Predicting Over The Top Services Movies and Shows Success using Machine Learning</b> Ratu Annisa Gandasari, Muhammad Wildan, Bening Insaniyah Al-Abdillah, Adam Fahsyah Nurzaman, Nur Anisa		
	<b>Fundamental Components of Microlearning for Sustainable Quality Education: A Systematic Literature Review</b> Reza Rahutomo, Siti Elda Hiererra, Yulyani Arifin, Muhamad Nanang Suprayogi, Bens Pardamean		
	<b>Machine Learning Implementations in Childhood Stunting Research: A Systematic Literature Review</b> Reza Rahutomo, Gregorius Natanael Elwirehardja, Mahmud Isnain, Faisal Asadi, Bens Pardamean		

<b>Online Room 8</b> <b>(Session Chair: Yakob Utama Chandra, SE., MMSI, CDMS, CBDMP, CDAP)</b>	
<b>Live Presentation:</b> <a href="https://bit.ly/ICIMTech23Online7">https://bit.ly/ICIMTech23Online7</a>	<b>Meeting ID:</b> 813 147 5621 <b>Meeting Password:</b> icimtech23
<b>01:00 PM - 03:00 PM</b>	<b>The Effect of Virtual laboratory Perceived on the Interest of Indonesian and Malaysian Students</b> Mariko rizkiansyah, Indra prawira, Arleen Ariestyani, Siti Nahdiah, Riana Jogi Ahdaereni, Wan azfarozza Bt Wan Athmar
	<b>Consumer Satisfaction and Purchasing Behavior Through Online Food Delivery Services Apps</b> Michael Gautama, Grisvian Irvan Budiman, Rida Zuraida
	<b>User Experience Evaluation on Nucleus Farma Website using System Usability Scale</b> Ferena Titan Naturesa, Rifdah Diah Atika, Ghea Aldilla Ayu, Riyan Leandros
	<b>Semantic Question Answering on Learning Management System User Experience Analysis for Improvement</b> Riyan Leandros, Willy Saputra, Bambang Dwi Wijanarko, Dina Fitria Murad, Haikal Andrean, Selma Meldiyana
	<b>Telemedicine Acceptance in Malaysia's Healthcare System: System Quality and User Behaviour Matter</b> Rohaini Ramli, Hasniza Yahya
	<b>Implementation of Augmented Reality for Solar System Subject in Primary School</b> Muhammad Thalenta Dirgantara Deha, Roy Jones Santoso, Cuk Tho
<b>03.00 PM - 03.30 PM</b>	<b>BREAK</b>
<b>Live Presentation:</b> <a href="https://bit.ly/ICIMTech23Online7">https://bit.ly/ICIMTech23Online7</a>	<b>Meeting ID:</b> 813 147 5621 <b>Meeting Password:</b> icimtech23
<b>03:30 PM - 05:30 PM</b>	<b>Analysis and Evaluation of User Interest Factors on Intention to Use Digital Bank</b> Fendy Tio, Sandi Sanjaya, Natalia Limantara
	<b>Analysis of Factors Affecting User Intention in Using Near Field Communication (NFC) as a Payment Method in Indonesia</b> Sannya Vanessa, Hilda Adelia Ahmad, Raihan Fabian, Santo Fernandi Wijaya
	<b>An Evaluation of Integrating ERP System to Develop a Strategy Business</b> Santo Fernandi Wijaya, Jansen Wiratama, Verri Kuswanto
	<b>Security Risks and Best Practices for Blockchain and Smart Contracts: A Systematic Literature Review</b> Semi Yulianto, Harco Leslie Hendric Spits Warnars, Harjanto Prabowo, Meyliana, Achmad Nizar Hidayanto
	<b>The Analysis and Evaluation of User Experience Factors on using Video-on-Demand</b> Yakob Utama Chandra, Miguel Ercan Jo, Ricky Muliawan, Steven Tanjaya
	<b>Analysis of the Use of E-stickers in Chat Conversations for Higher Education Students</b> Yakob Utama Chandra, Sultan Ardiyansyah

**Parallel Room**  
Friday, 25<sup>th</sup> August 2023

ONLINE

## Online Room 1

(Session Chair: Raden Ajeng Dyah Wahyu Sukmaningsih, S.T., M.Kom.)

Live Presentation: <a href="https://bit.ly/ICIMTech23Onsite3">https://bit.ly/ICIMTech23Onsite3</a>	Meeting ID: 669 366 4486 Meeting Password: icimtech23
09:00 AM - 11:00 AM	<p><b>The Key Success Factors of Purchase Intention and Consumer Behavior on Short Video Application</b> Shinta Agathalia, Yakob Utama Chandra</p>
	<p><b>Enhancing BISINDO Recognition Accuracy through Comparative Analysis of Three CNN Architecture Models</b> Billy Nicholas Panggiri, Steven Yap, Garry Darian, Yohan Muliono, Simeon Yuda Prasetyo</p>
	<p><b>Implementation of Password Manager to Improve Data Security for Social Media Account</b> Erwin Halim, Tabitha Dwiangraini, Drajad Wiryawan, Marylise Hebrard</p>
	<p><b>Social Media Influence on Social Justice</b> Nelson Susanto, Irsyad Nuryatama, Stephan Ardy, Andres Cello, Fernaldy Owen, Tanty Oktavia</p>
	<p><b>The Impact of Hybrid Learning on Learning Quality for Higher Education Institution</b> Daffa Ramadhani, Farrelino Athar Nasution, Ferdinand Brahmana Ariffin, Muhammad Rayhan Athariq Bayuputra, Yansen Riady, Tanty Oktavia</p>
	<p><b>Health Risk Early Detection using Fuzzy Logic</b> Teguh Prasandy, Joni, Indrajani, Yi Ying, Indra Kusumawardhana</p>

## Online Room 2

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

Live Presentation: <a href="https://bit.ly/ICIMTech23Onsite2">https://bit.ly/ICIMTech23Onsite2</a>	Meeting ID: 238 846 1064 Meeting Password: icimtech23
09:00 AM - 11:00 AM	<p><b>Testing Approach for IoT System (case study: air quality monitoring system)</b> Theresia Herlina Rochadiani, Haryono Soeparno, Ford Lumban Gaol, Yulyani Arifin</p>
	<p><b>User-Generated Content (UGC) Influences on Purchase Intention Using Mobile Food Ordering Apps (MFOAs)</b> Erwin Halim, Tiffany Angelene Dharsono, Sudiana Sudiana, Marylise Hebrard</p>
	<p><b>CREDIT RISK PREDICTION SYSTEM FOR MSME LOAN PROCESS</b> Tuga Mauritsius, Ignasius Kenny Bagus Purwadi, Adhi Wirahardi, Andrew Franico Hutasoit</p>
	<p><b>An Evaluation of MyPertamina Mobile Application with Unified Theory of Acceptance and Use of Technology (UTAUT) Method</b> Veronica, Stephanie Surja</p>
	<p><b>Utilization of Wokwi Simulation Application in Supporting Internet of Things Learning (IoT)</b> Mochammad Haldi Widiyanto, Vito Hafizh Cahaya, Maria Artanta Ginting</p>
	<p><b>Analysis of Factors Influencing Customers Decisions to Use Digital Bank Applications in Indonesia</b> Vladislav Saint Kachiev, Yulia Magdalena</p>

**Online Room 3**  
**(Session Chair: Dr. Sugiarto Hartono,S.Kom., MMSI.)**

<b>Live Presentation:</b> <a href="https://bit.ly/ICIMTech23Online8">https://bit.ly/ICIMTech23Online8</a>	<b>Meeting ID:</b> 801 136 8358 <b>Meeting Password:</b> icimtech23
<b>09:00 AM - 11:00 AM</b>	<b>The Analysis of B2B Sales Information System Using SERVQUAL Model (A Case Study Approach)</b> Sugiarto Hartono, Faizah Shahudin, Agri Adriel Bororing, Tommy Hendrawan
	<b>The Evaluation of Trust Towards The Intention to Use of Blockchain-Based Crowdwork Systems (Case Study of Creative Industry)</b> Sugiarto Hartono,Harjanto Prabowo,Meyliana Meyliana,Achmad Nizar Hidayanto
	<b>Ensemble Learning for Mobility-Aware of Edge User</b> Gilang Raka Rayuda Dewa, Wahyu Fadli Satrya, Ria Aprilliyani
	<b>Business Process Reengineering and an Omnichannel e-Commerce System Implementation for the Online Stores of a Pet Supply Company in Indonesia</b> Steven Limois, Win Ce
	<b>Evaluation of IT Governance with BAI Domain at Senior High School Using Cobit 5</b> Yulius Denny Prabowo, Erick Fernando, Jullend Gatc

**Online Room 4**  
**(Session Chair: Dr. Adele Bernadet Lingkan Mailangkay, S.T., MMSI)**

<b>Live Presentation:</b> <a href="https://bit.ly/ICIMTech23Onsite4">https://bit.ly/ICIMTech23Onsite4</a>	<b>Meeting ID:</b> 297 839 3102 <b>Meeting Password:</b> icimtech23
<b>09:00 AM - 11:00 AM</b>	<b>Determinants of User Satisfaction on Interest in Smartwatch Usage After Covid-19</b> Adele Mailangkay
	<b>Image Classification of The Fertility Level of Chili Using Convolutional Neural Network</b> Richard Salim,Ahmad Nurul Fajar
	<b>Sustainability in Elementary School: The Prototype and Evaluation of XR-based Learning to Achieve Quality Education</b> SITI ELDA HIERERRA, Yohannes Kurniawan, Satrya Mahardhika, Prasetya Cahya Saputra, Moh Thaha Rizieq Hentihu
	<b>Classification of Corn Leaf Diseases using Loss-Fused Convolutional Neural Network</b> Rima Tri Wahyuningrum,Denaya Mahabah Yousi,Ari Kusumaningsih