# ICIST 2022 BLU

INTERNATIONAL CONFERENCE ON INNOVATION
IN SCIENCE AND TECHNOLOGY

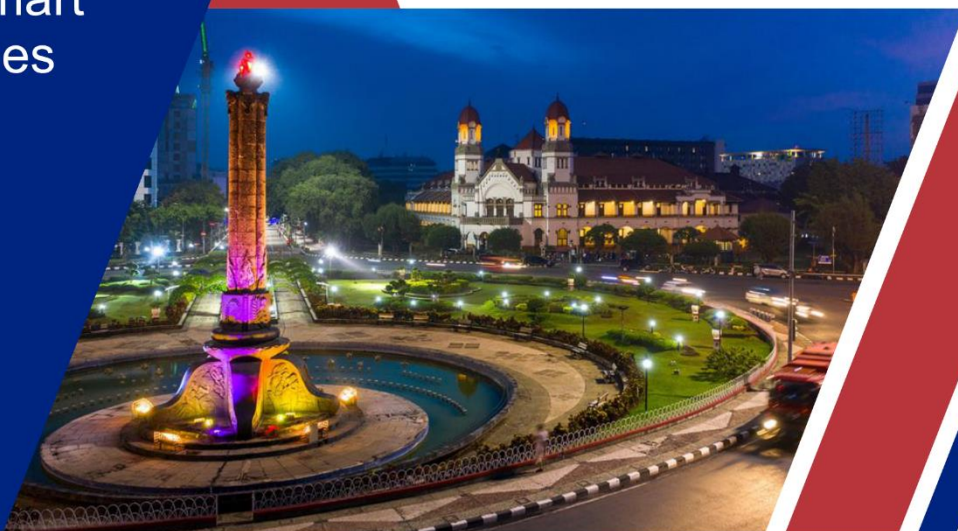## The 4th International Conference on Innovation in Science and Technology

Innovation and
Creativity within
Sustainable
and Smart
Societies

# PROGRAM BOOK



## SEMARANG • DECEMBER 14 - 16, 2022

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# The 4ᵗʰ International Conference
# on Innovation in Science and Technology

## Semarang
## December 14 – 16, 2022

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# MESSAGE FROM GENERAL CHAIR

On behalf of the Organizing Committee and as General Chairs of the 2022 International Conference on Innovation in Science and Technology (ICIST 2022), we would like to welcome you to Semarang, Indonesia, either in person or virtually. The theme of the conference is 'Innovation and Creativity within Sustainable and Smart Societies'. ICIST is the flagship technical conference organized by Politeknik Negeri Semarang. This year, ICIST is co-organized by the Research Center for Community-centric Systems in Tokyo Metropolitan University, National Defence University of Malaysia, and the Politeknik Energi dan Mineral Akamigas.

The conference aims to provide a forum for research scientists, engineers, educators, and practitioners throughout the world to learn, share knowledge, publish, and disseminate the most recent innovations and developments, ideas, and applications in all fields of science, technology, economics, business, and management. The keynote addresses and invited talks at ICIST 2022 will be presented by distinguished scientists and engineers.

A unique feature of ICIST 2022 is the opportunity for authors to publish a paper in a peer-reviewed journal. ICIST 2022 offers a fast publication schedule while maintaining rigorous peer review. Papers submitted to ICIST 2022 undergo a regular ICIST 2022 and peer-reviewed journal review. ICIST 2022 received 217 submissions from 15 countries in response to our open call for papers for the conference. Out of these, the technical program committee and the editors of the relevant journals, made the ultimate decision to select 101 articles for the technical program, which is organized into six parallel sessions.

Such an inspiring program could not be constructed without the enthusiastic support of outstanding colleagues. We would like to thank the members of the technical program committee, the journal editors, and the reviewers for their professional and timely reviews of a number of papers. A special word of appreciation is extended to the members of the technical program committee who organized technical sessions to arouse intellectual curiosity. Additionally, we would like to thank the members of the organizing committee for their seamless assistance. Obviously, a successful conference would not be possible without the participants, to whom we would like to extend our sincere appreciation for presenting at the conference, sharing their thoughts, and contributing to the community. We would also like to convey our gratitude to our generous sponsors.

Due to the coronavirus situation, not all participants will be able to attend the conference in Semarang. However, we look forward to meeting you all in the virtual space by bringing everyone into accord with a goal of advancement and transformation to foster an innovative culture

Assoc. Prof. Dr. Kurnianingsih
Politeknik Negeri Semarang, Indonesia.
**General Chair**

Assoc. Prof. Dr. Eri Sato-Shimokawara
Tokyo Metropolitan University, Japan.
**General Co-Chair**

Dr. Nur Diyana Kamarudin
National Defence University of Malaysia, Malaysia.
**General Co-Chair**

Dr. Asepta Surya Wardhana
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# Politeknik Negeri Semarang
## WELCOME REMARK

Dear ladies and gentlemen,

Welcome all attendees, both in person and online, to the 2022 International Conference on Innovation in Science and Technology (ICIST 2022),

ICIST is the flagship conference of Politeknik Negeri Semarang. The first ICIST was a face-to-face meeting that took place in 2019, but the second and third ICISTs had to be held entirely online due to the coronavirus pandemic. This year is the fourth ICIST to be organized in hybrid format. Past ICISTs have been published in the proceedings. This year is the first time that ICIST has worked with 14 journals. Papers submitted to ICIST 2022 undergo a regular ICIST 2022 and peer-reviewed journal review, and then the accepted and presented papers will be published in the journals. This will be a good platform for research scientists, engineers, educators, and practitioners throughout the world to learn, share knowledge, publish, and disseminate the most recent innovations and developments, ideas, and applications in all fields of science, technology, economics, business, and management.

On this occasion, I would like to express my gratitude to all journal editors for their outstanding support and collaboration. In addition, I would like to thank all of the organizing committee members for their hard work and coordination in making this conference a success in Semarang. I would like to thank all the sponsors for being so generous and sponsoring ICIST 2022. I would also like to say welcome to Semarang, the capital of the province of Central Java, which is located precisely in the center of the northern seaboard of the fertile and densely populated island of Java and is famous for its numerous historical places. Semarang, like Venice in Italy, is traversed by many rivers in the middle of the city; thus, the Netherlands dubbed this city Veneti van Java, or The Venice of Java.

I wish the ICIST 2022 tremendous success, and I do hope all of you will have an enjoyable and valuable experience at the ICIST 2022 in Semarang, Indonesia.

Thank you.

Prof. Dr. Totok Prasetyo, ASEAN.Eng
Director, Politeknik Negeri Semarang, Indonesia

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# Tokyo Metropolitan University
## WELCOME REMARK

Welcome to ICIST 2022

It is our great pleasure to welcome you to ICIST 2022, the 4th International Conference on Innovation in Science and Technology. Recently, we have to deal with difficult social problems such as elderly care, social rehabilitation, pandemics, and educational issues. The importance of community-centric systems is increasing as a new paradigm in such a society. Information and communication technology, artificial intelligence technology, and robot technology have been widely introduced to improve the quality of life (QOL), while ICT can bind the relationship in the social community for increasing the quality of community (QOC) from the viewpoint of humanity and sociology. The coupled improvement of QOL and QOC enables to solve difficult social problems. In Tokyo Metropolitan University, the Research Center for Community-centric Systems (RC-CcS) was established in 2015 to deal with those social problems from the interdisciplinary point of view, and the research project on International Interfaculty Initiative in Computational Systems Care started in 2019. Furthermore, Graduate School of Systems Design, Tokyo Metropolitan University made an agreement with Politeknik Negeri Semarang (POLINES) to enhance the research collaboration on 20th April, 2020. This time, the partnership agreement was made between RC-CcS and POLINES on 1st August 2022 to collaborate in the implementation of ICIST 2022.

On behalf of the RC-CcS, as a co-organizer, we would like to express our sincere gratitude to the organizer, POLINES, the co-organizers, National Defence University of Malaysia, Malaysia and Politeknik Energi dan Mineral Akamigas, Indonesia, all committee members, technical sponsors, and technical supporters to organize this international conference, and extend our heartfelt welcome and thanks for joining ICIST 2022 to all participants. The aim of ICIST 2022 is to bring together researchers and practitioners from around the world to discuss the latest advances in the interdisciplinary and trans-disciplinary fields of science, technology, economics, business, and management. We hope this international conference will provide participants with the great opportunities for the information exchange to explore new researches, to develop new research scenarios, and to create new research collaboration.

Prof. Dr. Naoyuki Kubota
Director, Research Center for Community-centric systems,
Tokyo Metropolitan University, Japan

Prof. Dr. Yasufumi Takama
Vice Director, Research Center for Community-centric systems,
Tokyo Metropolitan University, Japan

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# National Defence University of Malaysia
## WELCOME REMARK

Bismillahirrahmanirahim,
Assalammualaikum warahmatullahi wabarakatuh and Salam Sejahtera.

First and foremost, it is my great pleasure to welcome all of our distinguished conference delegates; speakers, presenters, and participants to the 4th International Conference on Innovation in Science and Technology (ICIST 2022). As an Honorary Chair of this prestigious academic conference, I would like to express my deepest gratitude to Politeknik Negeri Semarang, Indonesia (POLINES) for the tremendous support they have provided as host for this conference. Additionally, I would like to extend my gratitude to the co-organizers, the Faculty of Defense Science and Technology (FSTP), National Defence University of Malaysia (UPNM), Tokyo Metropolitan University, Japan, and Politeknik Energi dan Mineral Akamigas, Indonesia without whose strong support this conference would not have been a success. Apparently, it is not an easy work to plan and organize a conference that will be held on a hybrid platform and whose participants will come from both within and outside of the country.

The cutting-edge theme for ICIST 2022 this year is "Innovation and Creativity within Sustainable and Smart Societies." It serves to meet the present demand for digital innovation across a range of fields of study and industry sectors. The goal of ICIST 2022 is to provide research scientists, engineers, educators, and practitioners from around the world with a forum where they can learn, share knowledge, publish, and disseminate the most recent innovations and developments, ideas, and applications in all areas of science, technology, economics, business, and management.

I strongly believed that this conference will allow for the evaluation and dissemination of research quality, fostering the establishment of a scientific community that could aid in the expansion of the country's economy. The advancement of ICT will always have a significant impact on how it can be employed to successfully transform the national agenda, including bringing business and academia into the context of research and commercialization while changing the educational system to meet the pressing needs of producing the critical, creative, and innovative resources the nation needs. This time, we are focusing on sustainable development and the discovery of the state-of-the-art technologies to fulfil present and future needs in the framework of growth and contribution to the nation, society, and environment via empowering Fourth Industrial Revolution (IR4.0).

In addition to information sharing and idea exchange, I also hope that ICIST 2022 will create prospects for research collaborations amongst institutions engaged. I humbly extend a warm greeting to all of you on behalf of the organizer to ICIST 2022. I wish a successful and rewarding day to everyone who will be present at the conference. Congratulations once again to the participants and thank you.
Wassalamualaikum warahmatullahiwabarakatuh.

Lt Jen Datuk Hasagaya Abdullah
Vice Chancellor, National Defence University of Malaysia, Malaysia.

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## Politeknik Energi dan Mineral Akamigas
## WELCOME REMARK

Assalamualaikum Warohmatullahi Wabarokatuh.

It's an Honour to us, "PEM Akamigas," to be part of the ICIST program this year. Ladies and gentlemen, PEM Akamigas is a vocational higher education institution in oil and gas under The Ministry of Energy and Mineral Resources of Indonesia since 1966. Our vision is to be the best Energy and Mineral Polytechnic in Indonesia with International Standards.

ICIST program is very beneficial to us as dissemination of research for our lecturers and as enable to broaden our network around global scientific environment and community. We would like to express our sincere gratitude and appreciation for the ongoing excellent cooperation between POLINES and PEM Akamigas. Hopefully, this program will continue in the future to bring more benefits for both of us.

Thank you for your attention and please enjoy this annual symposium program.
Wassalamualaikum Warahmatullahi Wabarokatuh

Dr. Erdila Indriani
Director, Politeknik Energi dan Mineral Akamigas, Indonesia

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| Ballroom | December 14th, 2022 |
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| Keynote Speaker 1 | 10.00 - 11.00 |

### Prof. Dr. Naoyuki Kubota
**Tokyo Metropolitan University**

# Topological Intelligence and Topological Twin

**Abstract** :
Recently, various concepts on cyber-physical systems and digital twin have been proposed and discussed with the integration of information, intelligence, communication, and robot technologies. We often have to extract topological features and structures from given or measured big data to simulate a real-world phenomenon in the cyber world and to conduct multiscale and multiphysics simulations. Therefore, we proposed the concept of topological twin. The aim of topological twin is to (1) extract topological structures hidden implicitly in the real world, (2) reproduce them explicitly in the cyber world, and (3) simulate and analyze the real world in the cyber world. While we have to deal with the physical dynamics in the microscopic level, we have to deal with spatiotemporal qualitative relationships between objects, people, culture, and knowledge in the macroscopic level. Furthermore, we need a mesoscopic integration method connecting microscopic and macroscopic topological features. The topological twin plays the important role in extracting and connecting structures hidden in real world from the mutliscopic point of view. We can extract topological features and structures from big data, that are used as topological big data in different level of analysis. Furthermore, we need a multiscopic approach to deal with inference, learning, search, and prediction based on topological and graphical data as the methodology of topological intelligence. In this talk, first, we introduce the concept of multiscopic topological twin. Next, I explain various types of topological mapping methods, unsupervised learning methods, and graph-based methods related with topological intelligence. One of them is Growing Neural Gas (GNG) that can dynamically change the topological structure composed of nodes and edges. One important advantage of GNG is in the incremental learning capability of nodes and edges according to a target data distribution, but the computational cost of standard GNG is very expensive. Therefore, we proposed a method of multi-scale batch-learning GNG called Fast GNG. Next, we show the comparison result of Fast GNG with other methods. Furthermore, we show several experimental results of topological intelligence in trailer living laboratory, robot partners and mobility support robots. Finally, we discuss the applicability and future direction of multiscopic topological twin.

**Biography** :
Prof. Dr. Naoyuki Kubota is currently a Professor in the Department of Mechanical Systems Engineering, the Graduate School of Systems Design, and Director of Community-centric System Research Center, Tokyo Metropolitan University, Japan. He graduated from Osaka Kyoiku University in 1992, received a master's degree from Hokkaido University in 1994, and received a doctoral degree from Nagoya University, Japan, in 1997. He was an Assistant Professor and

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Lecturer at the Department of Mechanical Engineering, Osaka Institute of Technology, Japan, from 1997 to 2000. In 2000, he joined the Department of Human and Artificial Intelligence Systems, the School of Engineering, Fukui University, Japan, as an Associate Professor. He joined the Department of Mechanical Engineering, the Graduate School of Engineering, Tokyo Metropolitan University, Japan, as an Associate Professor in 2004. He was an Associate Professor from 2005 to 2012, and a Professor from 2012 at the Graduate School of Systems Design, Tokyo Metropolitan University, Japan. He was a Visiting Professor at University of Portsmouth, UK, in 2007 and 2009, and was an Invited Visiting Professor at Seoul National University from 2009 to 2012, and others. His current interests are in the fields of topological mapping, coevolutionary computation, spiking neural networks, perception-based robotics, robot partners, and informationally structured space. He has published more than 500 refereed journal and conference papers in the above research fields. He received the Best Paper Award of IEEE IECON 1996, IEEE CIRA 1997, MHS 2011, WAC 2012, HSI 2016, and so on. He was an associate editor of the IEEE Transactions on Fuzzy Systems from 1999 to 2010, the IEEE CIS Intelligent Systems Applications Technical Committee, Robotics Task Force Chair from 2007 to 2014, IEEE Systems, Man, and Cybernetics Society, Japan Chapter Chair from 2018 to 2021, Vice Director, Tokyo Biomarker Innovation Research Association, Japan since 2020, and others.

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| Ballroom | December 14th, 2022 |
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| Keynote Speaker 2 | 11.00 - 12.00 |

### Lt Kdr Assoc. Prof. Ts. Dr. Mohd Norsyarizad bin Razali
**National Defence University of Malaysia**

# Efficient Energy Consumption in Extending Wireless Sensor Networks (WSNs) Lifetime

**Abstract** :
Wireless Sensor Networks (WSNs) have gained a great deal of attention owing to their wide applications in multifarious situations and established the recent technological revolution. Two important challenges in WSNs are coverage and network lifetime. The latter, where to extend the lifetime of the network, is the most attractive issue recently. This task which required an amount of energy is done by sensor nodes, which distributed in remote locations and powered by a limited capacity of batteries has caused a limitation in both the lifetime and the performance of the WSNs. The preliminary reviews and surveys have provided a few solutions for this issue and can be classified into two main categories; energy optimization which has been addressed and discussed widely in this field of study and energy-wasting avoidance.

**Biography** :
Lt Kdr Assoc. Prof. Ts. Dr. Mohd Norsyarizad bin Razali is an associate professor in Computational Mathematics at the National Defence University of Malaysia, and serves as Dean of Defence Science and Technology Faculty. He received Ph.D and M.Sc from Universiti Teknologi Malaysia. Prior to his current field, he had ten years of experience as the Weapon, Electrical and Electronics Engineering Officer in the Royal Malaysian Navy. His research interests include numerical computing, parallel computing, optimization, scheduling, wireless sensor networks, underwater acoustics, and sustainable & renewable energy. He is a PI for a RM6 million worth research grant in Wave Energy Converter from Ministry of Energy and Natural Resource, Malaysia.

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Keynote Speaker 3

December 15th, 2022

08.30 - 09.30

# Prof. Dr. Hadiyanto

**Universitas Diponegoro**

# Recent Developments in Biodiesel Productions

**Abstract** :

The increasing energy demand encourages the search of new energy or renewable energy to replace the conventional fossil fuels. Biodiesel has attracted substantial interest as a potential substitute to the currently non-renewable fuels due to its biodegradability and environmentally benign nature. Biodiesel can be produced from multiple sources by different production processes among which transesterification is the most widely exploited process. This article reviews the developments of biodiesel production from heterogenous catalyst in enhancing the reaction and also the use of multi-feedstock production in order to solve the shortage of raw materials. This review also further describes optimization in biodiesel production and process intensification which may increase the conversion yield of biodiesel.

**Biography** :

Prof. Dr. Hadiyanto is a Full Professor in Chemical Engineering, Faculty of Engineering, Universitas Diponegoro with the expertise in the field of Bioprocess Engineering. He has received his MSc Biotechnology (2003) and PhD Food Process Engineering (2007) from Wageningen University, The Netherlands. He was also a research scientist at NIZO Food Research BV Netherlands (2007-2009), Research Associate at Process Intensification Group at TU DELFT Netherlands (2010), visiting research fellow at KU Leuven Belgium (2011), Kyoto University (2012). He established the Center of Biomass and Renewable Energy at Universitas Diponegoro and leads over 10 staffs and students to conduct research focusing on the biomass and bioenergy production. He is working with several research projects both national and international collaborations in the bioprocess engineering area. He published over a hundred of peer reviewed papers, and sits on numbers of Editorial Board of international journals. He is currently the Editor in Chief of International Journal of Renewable Energy Development (IJRED)-a Scopus/ESCI indexed journal. He is also actively involved in Sustainable Energy and Environmental (SEE) Forum, Indonesian Accreditation Board for Engineering Education (IABEE), Member of European Algae Biomass Association (EABA). Currently, he is a Vice Dean of Academic and Student Affairs, School of Postgraduate Study, Diponegoro University (2019- present)

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| Ballroom | December 15th, 2022 |
| Keynote Speaker 4 | 09.30 - 10.30 |

### Prof. Dr. Muhammad Mukhlisin
**Politeknik Negeri Semarang**

# Analysis of Slope Stability and Debris Flow Run-out

**Abstract** :

Rainfall that triggers debris flow may be defined according to both empirical and physical thresholds. Empirical thresholds are based on historical analysis of the relationship between rainfall and debris flow events, and are a fundamental element of existing real-time warning systems. The most commonly used combinations of rainfall parameters are antecedent rainfall, and the duration, intensity, and cumulative amount of rainfall. To study rainwater infiltration into soil, an understanding of the hydraulic properties of soil is required. Among the soil hydraulic properties, hydraulic conductivity $K$, a measure of water movement in soil, has been frequently analyzed for its effects on slope stability. The soil water retention model is affected by saturated soil water content $q_s$ and residual soil water content $q_r$, in which the difference between $q_s$ and $q_r$ is the effective soil porosity (ESP). This study presents a numerical model that estimates the rainwater infiltration into unsaturated slopes, the formation of a saturated zone, and the resultant change in slope stability. This model is then used to analyze the effects of soil porosity parameters (*i.e., $q_s$, $q_r$, and ESP*), on slope failure and the moisture condition of the corrupted material. The effects of antecedent rainfall, initial wetness of the slope, soil thickness, and slope gradient are also analyzed in this study.

Results of simulations with different ESP input data showed that, when the surface soil of a slope has a larger ESP value, the slope has a greater capacity for holding rain water, and delays the infiltration of water into the sub-surface layer. As a result, the increase of pore water pressure in the sub-surface layer is delayed. In this manner, a larger ESP value for the surface layer contributes to a delay in slope failure occurrence. Under a weak storm condition, slope failure tends not to occur if the surface soil has a larger ESP value. However, it was also found that a greater ESP value tends to increase the water content of the corrupted matter, which may result in the occurrence of debris flow, and in long distance transport of the debris. Therefore, under conditions of a greater ESP value, greater damage may be expected once slope failure occurs.

**Biography** :

Prof. Dr. Muhammad Mukhlisin is a Professor in the Department of Civil Engineering, Politeknik Negeri Semarang, Indonesia. He received the Bachelor of Engineering degree in civil engineering from Diponegoro University, Semarang, Central Java, Indonesia in 1992 and the Master of Engineering in Hydro Engineering from Gadjah Mada University, Yogyakarta, Indonesia in 1999. He obtained PhD degree from Kyoto University in 2005 under JICA (Japan International Cooperation Agency) scholarship program. From 2008 to 2014, he was a visiting lecturer in Department of Civil and Structural Engineering, Faculty Engineering and Built Environment, Unversiti Kebangsaan

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Malaysia (UKM) Malaysia and Department of Civil Engineering, Faculty of Engineering, King Mongkut's University of Technology Thonburi (KMUTT) Thailand on February 2020. Since February 2018 He has been appointed as the Head of International Office of Politeknik Negeri Semarang. He has published more than 180 papers on journals and conferences related to water resources, environmental and natural disaster issues including a number of keynote speakers and special lectures.

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| Ballroom | December 14th, 2022 |
| --- | --- |
| Invited Speaker | 13.00 - 13.40 |

### Assoc. Prof. Dr. Eri Sato-Shimokawara
**Tokyo Metropolitan University**

# Human robot interaction base on considering internal condition and individuality

**Abstract** :
Human-robot interaction and communication have become more important according to becoming widespread social robots that are active in daily life. This talk focuses on multimodal interaction, one of the important features of human-robot interaction towards the natural communication between humans and robots. Generally, multimodal data deal individually or comprehensively, but the data correlate with each other. To realize multimodal interaction regarding their correlation, we have been researching the integration of knowledge framework which combines fragmentary multimodal information and recognizes estimation of the human internal state of mind considering individual differences. Individual differences are one of the key factors in understanding the internal state, which is expressed in different ways. However, the data obtained from each person is limited, so we focus on correlation and similarity among their expression from the estimation accuracy. Our proposed methods restore it as the weight of multimodality. Differences in the expression way of the internal state mean the perception of robot expression is also different. Estimating a human internal condition is the viewpoint from robot to human, then I talk about robot expression considering individuality of human perception as a viewpoint from human to robot. This talk presents and discusses the individual traits relevant to the perception of robot expression which is conducted with multimodality.

**Biography** :
Assoc. Prof. Dr. Eri Sato-Shimokawara received her B.E., M.E., and D.E. in Systems Engineering Science from Tokyo Metropolitan Institute of Technology in 2002, 2004, and 2007. She was a Research Fellow of Japan Society for the Promotion of Science (JSPS) from 2004 to 2007. She was the Faculty of Systems Design of Tokyo Metropolitan University, as an Assistant Professor from 2007 to 2022. She has been an Associate Professor in the Faculty of Systems Design of Tokyo Metropolitan University, Japan, since 2022. Her current research interests include human-machine interactions, multimodal interactions, soft computing, and intelligent robotics. She is a member of the Institute of Electrical and Electronics Engineers (IEEE), the Institute of Electronics Information and Communication Engineers (IEICE), the Japan Society for Fuzzy Theory and Intelligent Information (SOFT), and the Japanese Society for Artificial Intelligence (JSAI).

## PROGRAM AT GLANCE

| December 14th, 2022 | Program |
|---|---|
| 07.30 - 08.30 | Registration – Ice Breaking and Networking |
| | **Opening Ceremony** |
| 08.30 - 08.35 | Welcome to ICIST 2022 |
| 08.35 - 08.40 | Singing the National Anthem of Indonesia (Indonesia Raya) |
| 08.40 - 08.45 | ICIST 2022 Report - General Chair, Assoc. Prof. Dr. Kurnianingsih |
| 08.45 - 08.50 | Welcome Remark - Director of Politeknik Negeri Semarang, Prof. Dr. Totok Prasetyo |
| 08.50 - 09.05 | Congratulatory Speech - Governor of Central Java, H. Ganjar Pranowo, S.H., M.I.P |
| 09.05 - 09.15 | Signing MoA |
| 09.15 - 09.20 | Ceremonial Opening |
| 09.20 - 09.30 | Traditional Dance Performance: Semarang Hebat |
| 09.30 - 09.35 | ICIST 2022 Orientation - Program Chair, Dr. Amin Suharjono |
| 09.35 -09.45 | Photo Session |
| 09.45 - 10.00 | Coffee Break |
| | **Main Session** |
| 10.00 - 11.00 | Keynote Speech 1 Prof. Dr. Naoyuki Kubota, Tokyo Metropolitan University, Japan |
| 11.00 - 12.00 | Keynote Speech 2 Lt Kdr Assoc. Prof. Ts. Dr. Mohd Norsyarizad bin Razali, National Defence University of Malaysia |
| 12.00 - 13.00 | Lunch Break |
| 13.00 - 13.40 | Invited Speech Assoc. Prof. Dr. Eri Sato-Shimokawara, Tokyo Metropolitan University, Japan |
| 13.40 - 13.50 | Industry Session 1 Muhammad Ari Wibowo, PT. Jaya Arnikon, Indonesia. |
| 13.50 - 14.00 | Industry Session 2 Muhammad Shandy, PT Airmas Sinergi Informatika (Ayooklik Jateng), Indonesia. |
| 14.00 - 14.15 | Break Room Transition |
| 14.15 - 15.15 | **Paralel Session 1** |

| Room 1 | Room 2 | Room 3 | Room 4 |
|---|---|---|---|
| Chair : Dr. Faridah Hanim K. | Chair : Dr.Siti Noormiza M | Chair : Prof. Dr. Eri-Shimokawara | Chair : Dr. Asepta Surya W. |

| | |
|---|---|
| 15.15 - 15.30 | Coffee Break |

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| 15.30 - 16.30 | **Paralel Session 2** | | | |
|---|---|---|---|---|
| | Room 1 | Room 2 | Room 3 | Room 4 |
| | Chair : Dr. Faridah Hanim K. | Chair : Dr. Siti Noormiza M. | Chair : Prof. Dr. Eri-Shimokawara | Chair : Dr. Asepta Surya W. |
| 16.30 - 17.30 | **Paralel Session 3** | | | |
| | Room 1 | Room 2 | Room 3 | Room 4 |
| | Chair : Irfan | Chair : Dr. Yusmar Ardhi Hidayat | Chair : Dr. Yusuf Dewantoro H | Chair : Dr. Garup Lambang Goro |

| December 15th, 2022 | Program | | | |
|---|---|---|---|---|
| 07.30 - 08.30 | Registration – Ice Breaking and Networking | | | |
| 08.30 - 09.30 | Keynote Speech 3<br>Prof. Dr. Hadiyanto, Universitas Diponegoro, Indonesia | | | |
| 09.30 - 10.30 | Keynote Speech 4<br>Prof. Dr. Muhammad Mukhlisin, Politeknik Negeri Semarang, Indonesia | | | |
| 10.30 - 10.45 | Coffee Break | | | |
| 10.45 - 11.45 | Paralel Session 4 | | | |
| | Room 1 | Room 2 | Room 3 | Room 4 |
| | Chair : Dr. Prayitno | Chair : Dr. Yusmar Ardhi Hidayat | Chair : Dr. Garup Lambang Goro | Chair : Dr. Dwiana Hendrawati. |
| 11.45 - 12.30 | Lunch Break | | | |
| 12.30 - 13.30 | Paralel Session 5 | | | |
| | Room 1 | Room 2 | Room 3 | Room 4 |
| | Chair : Dr. Prayitno | Chair : Dr. Yusmar Ardhi Hidayat | Chair : Dr. Garup Lambang Goro | Chair : Dr. Dwiana Hendrawati. |
| 13.30 - 14.30 | Paralel Session 6 | | | |
| | Room 1 | Room 2 | Room 3 | Room 4 |
| | Chair : Dr. Prayitno | Chair : Dr. Yusmar Ardhi Hidayat | Chair : Dr. Garup Lambang Goro | Chair : Dr. Dwiana Hendrawati. |
| 14.30 - 14.45 | Coffee Break | | | |
| 14.45 - 15.30 | Closing Ceremony<br>Best Presenter Aword<br>Closing Statement Vice Director Politeknik Negeri Semarang, Indonesia.<br>Dr. Eni Dwi Wardihani | | | |

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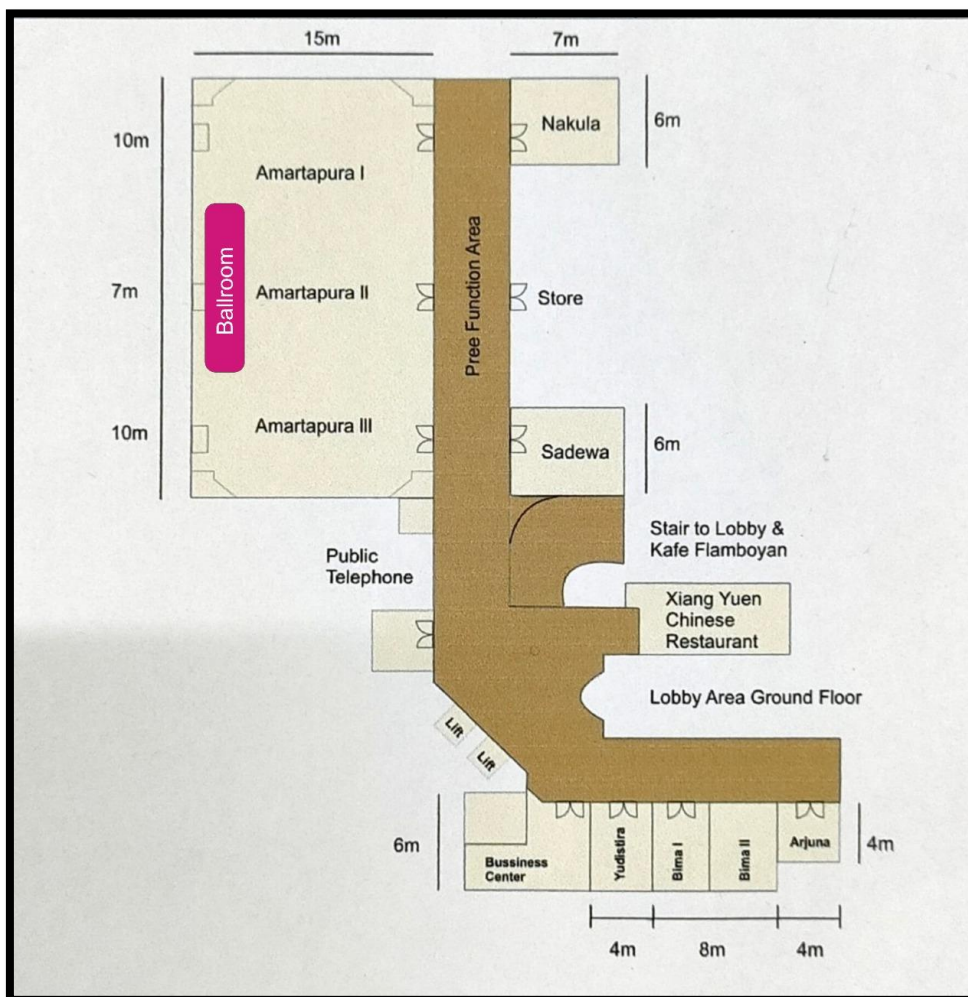
# CONFERENCE INFORMATION

## Oral Presentation

**Offline**: Please go into the session room at least 15 minutes before the session starts and identify yourself to the session chair. Present your work for 7 minutes and each presentation will be followed by a real-time Q&A session.

**Online**: All oral papers registered online will be presented via Zoom at the time indicated in the program. Please enter the online zoom meeting room 15 minutes before the session starts. Each presenter shall use the provided ICIST virtual background during the presentation. During your scheduled session time, you will be required to be present to answer Questions from attendees. All oral sessions will follow a similar structure to how they are held in a typical physical conference format.

1) The Session Chair will introduce each presenter
2) The Conference organizers will play the pre-recorded presentation (10 minutes maximum) for the audience
3) Once the presentation has concluded, the Session Chair will facilitate a live Q&A period (5 minutes maximum) with the audience, so please do not leave the meeting room until the end of the session.
4) Please ensure each presenter fill in the attendance form. The link will be shared at the end of each session.
5) Process repeats for each subsequent paper in the session.

For our convenience in moving participants to the breakout room, please use the following name format :

**PaperID_RoomNo_Name.**

## Time assignment including discussion is as follow

Keynote  : 45 minutes (talk), 15 minutes (Q&A)

Invited    : 30 minutes (talk), 10 minutes (Q&A)

## Lunch

Lunch will be provided to all participants (offline).

Location  : Pree Function Area

Time       : December 14 and 15, 12:00 - 13:00

# PRESENTATION SESSION

| **Parallel** Session 1 ---------(OFFLINE)---------- December 14th, 2022 |
|---|
| 14.15 – 15.15 |

## Room 1
**Chair : Dr. Faridah Hanim Khairuddin**

| | | |
|---|---|---|
| 01 | **Improving Badminton Player Detection Using YOLOv3 with Different Training Heuristic**<br>*Muhammad Abdul Haq[1]; Norio Tagawa[1]*<br>[1]Tokyo Metropolitan University, Japan. | **JOIV**<br>Vol.07 No.02,<br>June 2023 |
| 02 | **Detection of Fake News in Indonesia Using Various Machine Learning Techniques**<br>*Liliek Triyono[1]; Prayitno[1]; Mosiur Rahaman[2]; Tri Raharjo Yudantoro[1]; Idhawati Hestiningsih[1]; Sukamto[1]*<br>[1]Politeknik Negeri Semarang, Indonesia; [2]Asia University, Taiwan. | **JOIV**<br>Vol.07 No.03,<br>September<br>2023 |
| 03 | **Computational of Concrete Slump Model Based on H2O Deep Learning Framework and Bagging to Reduce Effects of Noise and Overfitting**<br>*Stefanus Santosa[1]; Yonathan P. Santosa[1]; Garup Lambang Goro[1]; Wahjoedi[1]; Jamal Mahbub[1]*<br>[1]Politeknik Negeri Semarang, Indonesia. | **JOIV**<br>Vol.07 No.03,<br>September<br>2023 |
| 04 | **Determining the Rice Seeds Quality Using Convolutional Neural Network**<br>*Sidiq Syamsul Hidayat[1]; Muhamad Cahyo Ardi Prabowo[1]; D Rahmawati[2]; Liliek Triyono[1]; Farika Tono Putri[1]*<br>[1]Politeknik Negeri Semarang, Indonesia; [2]Jember State Polytechnic, Indonesia. | **JOIV**<br>Vol.07 No.02,<br>June 2023 |
| 05 | **Hemp-Alumina Composite Radar Absorption Reflection Loss Classification**<br>*Muhlasah Mara[1]; Budi Basuki Subagio[1]; Efrilia Marifatul Khusna[1]; Hutama Arif Bramantyo[1]; Bagus Satrio Utomo[2]*<br>[1] Politeknik Negeri Semarang, Indonesia; [2]IU International University of Applied Sciences, Germany. | **JOIV**<br>Vol.07 No.02,<br>June 2023 |

## Room 2
**Chair :  Dr. Siti Noormiza Makhtar**

| | | |
|---|---|---|
| 01 | **Priority Scheduling Implementation for Exam Schedule**<br>*Muhammad Irwan Yanwari[1]; Anton Satria Prabuwono[2]; Tri Raharjo Yudantoro[1]; Nurseno Bayu Aji[1]; Wiktasari[1] ; Slamet Handoko[1]*<br>[1]Politeknik Negeri Semarang, Indonesia; [2] King Abdulaziz University, Saudi Arabia. | **IJIS**<br>Vol.05 No.02,<br>February<br>2023 |
| 02 | **User Acceptance for Multitask IoT Monitoring and Controlling System for Salt Ponds**<br>*Tri Raharjo Yudantoro[1]; B N Hamida[1]; Eka Febriyanti[1]; Wiktasari[1]; Suko Tyas Pernanda[1]; Anton Satria Prabuwono[2]*<br>[1]Politeknik Negeri Semarang, Indonesia; [2]King Abdulaziz University University, Saudi Arabia. | **IJIS**<br>Vol.06 No.01,<br>August 2023 |

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| 03 | **The Addition of Adaboost to the Use of the C4.5 Algorithm to Improve the Accuracy of Classification of Study Interests**<br>*Sirli Fahriah [1]; Nur Diyana Kamarudin[2]; Liliek Triyono[1]; Adhy Rizaldy[3]*<br>[1]Politeknik Negeri Semarang, Indonesia; [2]National Defence University of Malaysia, Malaysia; [3]Universitas Islam Negeri Alauddin, Indonesia. | **IJIS**<br>Vol.06 No.01, August 2023 |

| 04 | **SPAM (Smart Patient Monitoring System) Using Structural Similarity Index Measurement**<br>*Aisyatul Karima[1]; Sirli Fahriah [1]; Afandi Nur Aziz Thohari[1]; Sukamto[2]; Mohd Faizal Abdollah[3]*<br>[1]Politeknik Negeri Semarang, Indonesia; [2]Universitas Diponegoro, Indonesia; [3]Universiti Teknikal Malaysia Melaka, Malaysia. | **IJIS**<br>Vol.05 No.02, February 2023 |

| 05 | **Heart Rate and Body Temperature Tracking Application Based on Fuzzy Logic**<br>*Afandi Nur Aziz Thohari[1]; Aisyatul Karima[1]; Angga Wahyu Wibowo[1]; Kuwat Santoso[1]; Mohd Faizal Abdollah[2]*<br>[1]Politeknik Negeri Semarang, Indonesia; [2]Universiti Teknikal Malaysia Melaka, Malaysia. | **IJIS**<br>Vol.06 No.01, August 2023 |

## Room 3
### Chair : Assoc. Prof. Dr. Eri Sato-Shimokawara

| 01 | **Low Complexity Versatile Video Coding (VVC) for Live Video Communication**<br>*Alexander V Bukit [1,2]; Suwadi[1]; Wirawan[1]*<br>[1] Institut Teknologi Sepuluh Nopember, Indonesia; [2]Sekolah Tinggi Teknologi Angkatan Laut, Indonesia. | **JESTEC**<br>Vol.18 No.01, February 2023 |

| 02 | **Health Protocol System: Face Mask Detection Using Deep Transfer Learning**<br>*Nurseno Bayu Aji[1]; Liliek Triyono[1]; Kurnianingsih[1]; Mardiyono[1]; Tri Raharjo Yudantoro[1]; Wahyu Caesarendra[2,3]*<br>[1]Politeknik Negeri Semarang, Indonesia; [2]Universiti Brunei Darussalam; [3]Diponegoro University, Brunei Darussalam. | **JESTEC**<br>Vol.18 No.02, April 2023 |

| 03 | **The Evaluation of Seismic Hazards for Semarang City Using A Probabilistic Approach**<br>*Garup Lambang Goro[1]; Aiun Hayatu Rabinah[1]; Baiq Heny Sulistiawati[1]; Nor Puji Lestari[1] ; Vemi Widoanindyawati[1]; Suparman[1]*<br>[1]Politeknik Negeri Semarang, Indonesia. | **JESTEC**<br>Vol.18 No.02, April 2023 |

| 04 | **Design and Construction of Atlas Copco Bracket Set Type Le/Lt Lt 5-30 to Support Train Railbus Compressor Module**<br>*Ampala Khoryanton[1]; Kunto Purbono[1]; Sriharmanto[1]; Padang Yanuar[1]; Timosius Angggit Kristiawan[1]; Chandra Wahyu Setiawan[1]*<br>[1]Politeknik Negeri Semarang, Indonesia. | **JESTEC**<br>Vol.18 No.02, April 2023 |

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**05**  **A Recommender System Utilizing Crowdsourcing for Village-Owned Enterprises Product Recommendation**
*Kurnianingsih[1]; Muhammad Dafi Hisbullah[1]; Galang Ekayudha Permana[1]; Angga Wahyu Wibowo[1]; Mardiyono[1]; Afandi Nur Aziz Thohari[1]; Muttabik Fathul Lathief[1]; Eri Sato-Shimokawa[2]*
[1]Politeknik Negeri Semarang, Indonesia; [2]Tokyo Metropolitan University, Japan.

**JESTEC**
Vol.18 No.02,
April 2023

| **Room 4** |
|---|
| **Chair : Dr. Asepta Surya W.** |

**01**  **Customer Satisfaction Assessment System on Transactions E-Commerce Product Purchases Using Sentiment Analysis**
*Amil Ahmad Ilham[1]; Anugrayani Bustamin[1]; Eugenius Wahyudiarto[1]*
[1]Hasanuddin University, Indonesia.

**IJASEIT**
Vol.13 No.03,
June 2023

**02**  **Study Towards a Flapping Robot Maintaining Attitude During Gliding**
*Muhammad Labiyb Afakh[1]; Hidaka Sato[1]; Naoyuki Takesue[1]*
[1]Tokyo Metropolitan University, Japan.

**IJASEIT**
Vol.13 No.03,
June 2023

**03**  **Mobile Skin Disease Classification Using MobileNetV2 and NASNetMobile**
*Idhawati Hestiningsih[1]; Afandi Nur Aziz Thohari[1]; Kurnianingsih[1]; Nur Diyana Kamarudin[2]*
[1]Politeknik Negeri Semarang, Indonesia; [2]National Defence University of Malaysia, Malaysia.

**IJASEIT**
Vol.13 No.04,
Agust 2023

**04**  **Misred: a Low Cost IoT-Enabled Platform Based on Heterogeneous Wireless Network for Flood Monitoring**
*Amin Suharjono[1]; Mohd Rizal Mohd Isa[2]; Muhammad Mukhlisin[1]; Bambang Supriyo[1]; Muhammad Anif [1]; Roni Apriantoro[1]; Eni Dwi Wardihani[1]*
[1]Politeknik Negeri Semarang, Indonesia; [2]National Defence University of Malaysia, Malaysia.

**IJASEIT**
Vol.13 No.03,
June 2023

**05**  **Transformer-Based Deep Learning for COVID-19 Prediction Based on Climate Variability in Indonesia**
*Kurnianingsih[1]; Anindya Wirasatriya [2]; Lutfan Lazuardi[3]; Adi Wibowo[2]; Nurseno Bayu Aji[1]; Beno Kunto Pradekso[3] ; Sigit Prasetyo[4]; Eri Sato-Shimokawa[5]*
[1]Politeknik Negeri Semarang, Indonesia; [2]Diponegoro University, Indonesia; [3]Universitas Gadjah Mada, Indonesia; [4]Solusi247, Indonesia; [5]Tokyo Metropolitan University, Japan.

**IJASEIT**
Vol.13 No.03
June 2023

# PRESENTATION SESSION

| **Parallel** Session 2 ----------(OFFLINE)---------- December 14th, 2022 |
|:---:|
| 15.30 – 16.30 |

## Room 1

### Chair : Dr. Faridah Hanim Khairuddin

| 01 | **Student's Performance Prediction Based on Demographic Profiling Using Data Mining Approach** | JOIV |
|---|---|---|
| | *Nursyuhadah Alghazali binti Muhammad Zahruddin[1]; Nur Diyana binti Kamarudin[1]; Ruzanna binti Mat Jusoh[1]; Aisyah binti Abdul Fataf[1]* | Vol.07 No.02, June 2023 |
| | [1]National Defence University of Malaysia, Malaysia. | |

| 02 | **Curing Type Effect of Twenty Eight Days Compressive Strength Study Based on Fly Ash Geopolymer Concrete at Nine Hundred Degree Celcius** | JESTEC |
|---|---|---|
| | *Fransisca Maria Farida[1]; Catur Setyawan Kusumohadi[1]; Johannes Jusuf Wibisono[2]; Adang Surahman[3]* | Vol.18 No.01, February 2023 |
| | [1]Universitas Negeri Jakarta, Indonesia; [2]Rexaudia, Indonesia; [3]Institut Teknologi Bandung, Indonesia. | |

| 03 | **The Effect of Graphene-Epoxy Coatings on Anticorrosion Performance for Heat Exchanger** | JESTEC |
|---|---|---|
| | *Hafid Suharyadi[1]; Toegas Soegiarto[1]; Asepta Surya Wardhana[1]; Mukhamad Faeshol Umam[2]* | Vol.18 No.02, April 2023 |
| | [1]Politeknik Energi dan Mineral Akamigas, Indonesia; [2]University of Malaya, Malaysia. | |

| 04 | **Analysis of Propagation Characteristics in Unmanned Aerial Vehicle (UAV) System** | IJASEIT |
|---|---|---|
| | *Eni Dwi Wardihani[1]; Tiara Nira Sari[1]; Thomas Agung Setyawan[1]; Hany Windri Astuti[1]* | Vol.13 No.04, Agust 2023 |
| | [1]Politeknik Negeri Semarang, Indonesia. | |

| 05 | **Hand-Object Interaction Based on Visual Attention Using Multiscopic Cyber-Physical-Social System** | IJAIN |
|---|---|---|
| | *Adnan Rachmat Anom Besari[1]; Azhar Aulia Saputra[2]; Wei Hon[2]; Kurnianingsih[3]; Naoyuki Kubota[2]* | Vol.09 No.02, July 2023 |
| | [1]Politeknik Elektronika Negeri Surabaya (PENS) Indonesia; [2]Tokyo Metropolitan University, Japan; [3]Politeknik Negeri Semarang, Indonesia. | |

## Room 2

### Chair : Dr. Siti Noormiza Makhtar

| 01 | **Research Framework of Knowledge Sharing in Collaborative E-Commerce** | JESTEC |
|---|---|---|
| | *Syarifah Bahiyah Rahayu[1]; Siti F. Aslah[1]; Tengku M. T. Sembok[1]* | Vol.18 No.02, April 2023 |
| | [1]National Defence University of Malaysia, Malaysia. | |

| 02 | **Surfactants Evaluation for Chemical Flooding-Enhanced Oil Recovery: Comprehensive Screening with Laboratory Tests** | JESTEC |
|---|---|---|
| | *Erdila Indriani; Pradini Rahalintar[1]; Yusuf Ghani Fauzi[1]* | Vol.18 No.02, April 2023 |
| | [1]Politeknik Energi dan Mineral Akamigas, Indonesia. | |

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| 03 | The Effect of 3D Printing Filament Extrusion Process Parameters on Dimensional Accuracy and Strength Using PLA-Brass Filaments<br>*Mahros Darsin[1]; Gaguk Jatisukamto[1]; Danar M. Ramadhan[1]; Mochamad E. Ramadhan[1]; Robertoes K. K. Wibowo[1]; Hari A. Basuki[1]; Dwi Djumhariyanto[1]; Moch. A. Choiron[2]*<br>[1]Universitas Jember, Indonesia; [2]Universitas Brawijaya, Indonesia. | JESTEC Vol.18 No.01, February 2023 |
|---|---|---|
| 04 | Behaviour Analysis of People with Autism Using IoT - A Conceptual Study<br>*Mohammed Marrauwi[1]; Aznida Abu Bakar Sajak[1]; Eiadyafi[2]*<br>[1]Universiti Kuala Lumpur, Malaysia; [2]University of Technology Sydney, Australia. | JESTEC Vol.18 No.01, February 2023 |
| 05 | Performance of Acidity Nutrient Automation Using MQTT Protocol in Dutch Bucket System Hydroponic<br>*Helmy[1]; Arif Nursyahid[1]; Muhlasah Mara[1]; Subuh Pramono[2]; Eni Wardihani[1]*<br>[1]Politeknik Negeri Semarang, Indonesia; [2]Universitas Sebelas Maret, Indonesia. | JESTEC Vol.18 No.02, April 2023 |

| Room 3 |
|---|
| **Chair : Assoc. Prof. Dr. Eri Sato-Shimokawara** |

| 01 | IoT Based Leak Detection Systems Using Point Pressure and Mass Balance Method: An Experimental Study<br>*Chalidia Nurin Hamdani[1]; Wildan Afif Rafsanjani[1]; Roni Triyanto[1]; Heru Triyanto[1]; Astrie Kusuma Dewi[1]; Asepta Surya Wardhana[1]*<br>[1]Politeknik Energi dan Mineral Akamigas, Indonesia. | JESTEC Vol.18 No.01, February 2023 |
|---|---|---|
| 02 | Design of Prototype Gas Detection System Based on Fuzzy Logic in Chemical Warehouse<br>*Asepta Surya Wardhana[1]; Novan Akhiriyanto Akhiriyanto[1]; Haris Buston Nawawi [1]*<br>[1]Politeknik Energi dan Mineral Akamigas, Indonesia. | JESTEC Vol.18 No.01, February 2023 |
| 03 | Design and Performance Evaluation of Analytic-Tuning PID on Boost Converter for 200 WP Photovoltaic<br>*Dwiana Hendrawati[1]; Brainvendra Widi Dionova[2]; Kurnianingsih[1]; Asepta Surya Wardhana[3]; Sahid[1]; Totok Prasetyo[1]; Mohammed N. Abdulrazaq[4]*<br>[1]Politeknik Negeri Semarang, Indonesia; [2]Jakarta Global University (JGU), Indonesia; [3]Politeknik Energi dan Mineral Akamigas, Indonesia; [4]Gulf University, Bahrain. | JESTEC Vol.18 No.02, April 2023 |
| 04 | Design of Control System Temperature on Cooling Tower Based on PLC<br>*Astrie Kusuma Dewi[1]; Natasya Aisah Septiani[1]; Asepta Surya Wardhana[1]; Chalidia Nurin Hamdani[1]; Achmad Munir[2]*<br>[1]Politeknik Energi dan Mineral Akamigas, Indonesia; [2]Institut Teknologi Bandung, Indonesia. | JESTEC Vol.18 No.02, April 2023 |

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| | | |
|---|---|---|
| **05** | **Big Data Analytics for Relative Humidity Time Series Forecasting Based on LSTM Network and ELM**<br>*Kurnianingsih[1]; Anindya Wirasatriya[2]; Lutfan Lazuardi[3]; Adi Wibowo[2]; I Ketut Agung Enriko[4]; Wei Hong Chin[5]; Naoyuki Kubota[5]*<br>[1]Politeknik Negeri Semarang, Indonesia; [2]Diponegoro University, Indonesia; [3]Universitas Gadjah Mada, Indonesia; [4]Institut Teknologi Telkom Purwokerto & PT Telkom Indonesia, Indonesia; [5]Tokyo Metropolitan University, Japan | **IJAIN**<br>Vol. 9 No. 2<br>July 2023 |

| Room 4 |
|---|
| **Chair : Dr. Asepta Surya W.** |

| | | |
|---|---|---|
| **01** | **Optimization of Savonius Turbine Towards Different Inner Blade Position to Increase Turbine Performance**<br>*Yusuf Dewantoro Herlambang[1]; Wahyono[1]; Budhi Prasetiyo; Suwarti[1]; Wahyu Sulistiyo[1]; Marliyati[1]*<br>[1]Politeknik Negeri Semarang, Indonesia. | **POLIMESIN**<br>Vol.21 No.01,<br>February 2022 |
| **02** | **Investigation Performance of a 3 kW Micro Hydro Power Plant (MHP) Using an Undershot Waterwheel with Different Electrical Load**<br>*Yusuf Herlambang[1]; Bono[1]; Gatot Suwoto[1]; Suwarti[1]; Baktiyar Mei Hermawan[1]; Wahyu Sulistyo[1]; Marliyati[1]*<br>[1]Politeknik Negeri Semarang, Indonesia. | **POLIMESIN**<br>Vol.21 No.01,<br>February 2022 |
| **03** | **Design Analysis of Hydraulic Lifter Spreader Assy LRT Using Finite Element Method**<br>*Ampala Khoryanton[1]; Farikah Tono Putri[1]; Sugeng Irianto[1]; Gutomo[1]; Novan Setya Aji[1]*<br>[1]Politeknik Negeri Semarang, Indonesia. | **POLIMESIN**<br>Vol.21 No.01,<br>February 2022 |
| **04** | **Design and Implementation of Feed Rate Control System on Loss in Weght Feeder Using Programmable Logic Controller**<br>*Asepta Surya Wardhana[1]; Chalidia Nurin Hamdani[1]; Astrie Kusuma Dewi[1]; Javier Umar Ravy[1]; Ferro Aji; Dwiana Hendrawati[2].*<br>[1]Politeknik Energi dan Mineral Akamigas, Indonesia; [2]Politeknik Negeri Semarang, Indonesia. | **POLIMESIN**<br>Vol.21 No.01,<br>February 2022 |
| **05** | **Evaluation of Tubing Diameter Size and Bean Size to Optimization of Well Production Rate**<br>*Arya Dwi Candra[1]; Gunawan Ardiansah[1]; Muhammad Firmansyah Hafidzullah[1]; Rakha Reswara[1]; Paradongan Siahaan[1]; Dies Elita Budiyanti[1]; Zainal Abidin[1]*<br>[1]Politeknik Energi dan Mineral Akamigas, Indonesia. | **POLIMESIN**<br>Vol.21 No.01,<br>February 2022 |

# PRESENTATION SESSION

| **Parallel** Session 3 ----------(OFFLINE)---------- December 14th, 2022 |
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| 16.30 – 17.30 |

## Room 1

### Chair : Dr. Amin Suharjono

| 01 | *Physicothermal and Topography Analysis of Polyurethane Modified Bitumen with Rediset for WMA Application* | JETS Vol. 55 No.01, January 2023 |
|---|---|---|

*Faridah Hanim Khairuddin[1]; Siti Zubaidah Mohd Asri[1]; Noor Aina Misnon[1]; Nur Izzi Md Yusoff [2]; Auni Diyana Fadzil[2]; Ku Zarina Ku Ahmad[1]*
[1]National Defence University of Malaysia, Malaysia; [2]Universiti Kebangsaan Malaysia, Malaysia.

| 02 | **COVID-19 Social Distancing Tracking and Monitoring System (SDMOS-19)** | JOIV Vol.07 No.03, September 2023 |
|---|---|---|

*Nurafrina Arrysya Binti Abdullah[1]; Nur Diyana Kamarudin[1]; Siti Noormiza Makhtar[1]*
[1]National Defence University of Malaysia, Malaysia.

| 03 | **(PANDEMIC Covid-19): A Shooter Game for Education - the Impact Measurement of War Games on Virus Eradication Lessons for Students** | JOIV Vol.07 No.02, June 2023 |
|---|---|---|

*Angga Wahyu Wibowo[1]; Aisyatul Karima[1]; Afandi Nur Aziz Thohari[1]; Kuwat Santoso[1]; Eri Sato-Shimokawa[2]*
[1]Politeknik Negeri Semarang, Indonesia; [2]Tokyo Metropolitan University, Japan.

## Room 2

### Chair : Dr. Yusmar Ardhi Hidayat

| 01 | **Don't Be Afraid to Change: A Study of Mediation Variables** | JDM Vol.14 No.1, Maret 2023 |
|---|---|---|

*Endang Sulistiyani[1]; Mellasanti Ayuwardani[1]; Bayu Setyo Nugroho[1]; Iwan Hermawan[1]; Aimi Anuar[1]; Stefani Mutiara Rosinda Siagian[1]*
[1]Politeknik Negeri Semarang, Indonesia.

| 02 | **Developing Business Start-up to Promote Job Creation: An Entrepreneurship Perspective in Pandemic Era** | JDM Vol.14 No.1, Maret 2023 |
|---|---|---|

*Sartono[1]; Iwan Hermawan[1]; Jusmi Amid[1]; Agus Suwondo[1]; Devani Nariratya Putri[1]*
[1]Politeknik Negeri Semarang, Indonesia.

| 03 | **Non-Invasive Blood Sugar Level Monitoring Using Artificial Intelligence for Diabetic Mellitus Patients** | IJIS Vol.06 No.01, August 2023 |
|---|---|---|

*Slamet Handoko[1]; Muhammad Irwan Yanwari[1]; Sukamto[1]; Saniya Rahma Pratiwi[1]; Fanny Rachmawati[1]; Liliek Triyono[1]; Idhawati Hestiningsih[1]; Sukamto[2]; Eri Sato-Shimokarawa[3]*
[2]Politeknik Negeri Semarang, Indonesia; [2]Universitas Diponegoro, Indonesia; [3]Tokyo Metropolitan University. Japan.

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## Room 3

### Chair : Dr. Yusuf Dewantoro Herlambang

| | | |
|---|---|---|
| 01 | **Monitoring and Controlling Automatic Tobacco Dryer Using Refrigeration System Based on PLC and SCADA**<br>*Syahid[1]; Mochamad Muqorrobin[1] ; Yusnan Badruzzaman[1] ; Aggie Brenda Vernandez[1] ; Akhmad Jamaah[1]*<br>*Politeknik Negeri Semarang, Indonesia* | **POLIMESIN**<br>Vol.21 No.01<br>August 2023 |
| 02 | **Three Phase Distribution Transformer Monitoring Equipment Based on Internet of Things (IoT) and SCADA**<br>*Yusnan Badruzzaman[1]; Revi Alvin Razaqi[2]*<br>[1]Politeknik Negeri Semarang, Indonesia; [2]PT PLN (Persero) ULP Rambipuji, Indonesia. | **INFOTEL**<br>Vol.15 No.01,<br>February 2023 |
| 03 | **Prototype of Cascade Level and Flow Control System on Steam Drum Based on IoT**<br>*Astrie Kusuma Dewi[1]; Chalidia Nurin Hamdani[1]; Natasya Aisah Septiani[1]; Pujianto Pujianto[1]; Andhika Darussalam[2]*<br>[1]Politeknik Energi dan Mineral Akamigas, Indonesia; [2]PT Indofood Fortuna Makmur, Indonesia. | **INFOTEL**<br>Vol.15 No.01,<br>February 2023 |

## Room 4

### Chair : Dr. Garup Lambang Goro

| | | |
|---|---|---|
| 01 | **Optimization of the Performance of Steam Turbine SCSF-31.2" 6 Stages Axial Exhaust in "X" Geothermal Power Plant (PLTP "X")**<br>*Hernawan Novianto[1]; Zakiy Kamikho Harfy[1]; Shultoni Mahardika[2]; Sujono[1]; Ayende[1]*<br>[1]Politeknik Energi dan Mineral Akamigas, Indonesia; [2]Qomaruddin University, Indonesia. | **POLIMESIN**<br>Vol. 21 No.1<br>February 2022 |
| 02 | **Effect Of Modular Portable Clamp On Electrical Heat Traces For Wellhead Icing Prevention**<br>*Arya Dwi Candra[1]; Pradini Rahalintar[1]; Akba Gushari[1]; Muhammad Aulia Fikri[1]; Novlian Adonia Borolla[1]; Zulfan[1]; Zainal Abidin[2]*<br>[1]Politeknik Energi dan Mineral Akamigas, Indonesia; [2]Central Processing Plant Gundih, PT Pertamina EP Asset 4. | **POLIMESIN**<br>Vol.21 No.01,<br>February 2022 |
| 03 | **Performance Analysis Cooling Tower Type Induced Draft with PVC Plate Filling Material**<br>*Mochamad Rizky Pradana[1]; Astrie Kusuma Dewi[1]; Natasya Aisah Septiani[1]; Asepta Surya Wardhana[1]; Muhammad Ramdhan[2]; Wendy Triadji Nugroho[3]*<br>[1]Politeknik Energi dan Mineral Akamigas, Indonesia; [2]PT. Kilang Pertamina Internasional & PT Pertamina (Persero), Indonesia; [3]Curtin University, Australia. | **POLIMESIN**<br>Vol.21 No.01,<br>February 2022 |
| 04 | **Mixture of Molybdate and Ethoxylated Fatty Amines as Corrosion Protection in SAW Weld Joints of API 5L X-52 Pipeline Steelin 3.5% NaCl Solution: Electrochemical Study**<br>Hery Tristijanto[1]; *Mochammad Noer Ilman[2]; Priyo Tri Iswanto[2]*<br>[1]Politeknik Negeri Semarang, Indonesia; [2]Universitas Gadjah Mada, Indonesia | **POLIMESIN**<br>Vol.21 No.01,<br>February 2022 |

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| **Parallel** Session 4 ----------(ONLINE)---------- December 15th, 2022 |
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| **10.45 - 11.45** |

### Room 1

**Chair : Dr. Prayitno**

| 01 | **The Essential Factors and Trend Development of IoT Smart Box** | IJIS |
|---|---|---|
| | *Meyliana[1]; Surjandy[1]; A. Raharto Condrobimo[1]; Henry Widjaja[1]; Wiedjaja Atmadja[1]; Rudy Susanto[1]; Bruno Sablan[2]* | Vol.05 No.02, February 2023 |
| | [1]Bina Nusantara University, Indonesia; [2]University of Florida, USA. | |

| 02 | **The Implementation of Business Process Blockchain Technology Based of MSCWR smartbox Model** | IJIS |
|---|---|---|
| | *Meyliana[1]; Surjandy[1]; A. Raharto Condrobimo[1]; Henry Widjaja[1]; Bruno Sablan[2]* | Vol.06 No.01, August 2023 |
| | [1]Bina Nusantara University, Indonesia; [2]University of Florida, USA. | |

| 03 | **Illuminance Color Independent in Remote Photoplethysmography for Pulse Rate Variability and Respiration Rate Measurement** | JOIV |
|---|---|---|
| | *Suryasari[1]; Aminuddin Rizal[1,2]; Sri Kusumastuti[2]; Taufiqqurrachman[3]* | Vol.07 No.03 September 2023 |
| | [1]Universitas Multimedia Nusantara, Indonesia; [2]Politeknik Negeri Semarang, Indonesia; [3]Badan Riset dan Inovasi Nasional, Indonesia. | |

| 04 | **A Combination of Transfer Learning and Support Vector Machine for Robust Classification on Small Weed and Potato Datasets** | JOIV |
|---|---|---|
| | *Faisal Dharma Adhinata[1]; Nur Ghaniaviyanto Ramadhan[1]; Nia Annisa Ferani Tanjung[1]; Muhammad Dzulfikar Fauzi[2]* | Vol.07 No.02 June 2023 |
| | [1]Institut Teknologi Telkom Purwokerto, Indonesia; [2]Institut Teknologi Telkom Surabaya, Indonesia. | |

### Room 2

**Chair : Dr. Yusmar Ardhi Hidayat**

| 01 | **Aerodynamic Characteristics of Fluid Flow On Multiple-Element Wing Airfoil NACA 43018 With Leading-Edge Slat And Plain Flap** | JESTEC |
|---|---|---|
| | *Setyo Hariyadi Suranto Putro[1]; Bambang Junipitoyo[1]; Nyaris Pambudiyatno[1]; Sutardi Sutardi[2]; Wawan Widodo[2]* | Vol.18 No.01, February 2023 |
| | [1]Politeknik Penerbangan Surabaya, Indonesia; [2]Institut Teknologi Sepuluh Nopember, Indonesia. | |

| 02 | **Flexural Strengthening Behavior of Reinforced Concrete Beams Using One Layer of Cold Formed Steel Plate** | JESTEC |
|---|---|---|
| | *Heri Kasyanto[1]; Ambar Susanto[1]; Susilahadi Susilahadi[1]; Ahmad Solih[1]* | Vol.18 No.01, February 2023 |
| | [1]Politeknik Negeri Bandung, Indonesia. | |

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| 03 | **American Call Option Pricing with Variable Maturity Dates Using Binomial Method**<br>*Emy Siswanah[1]*<br>[1]Universitas Islam Negeri Walisongo Semarang, Indonesia. | **JESTEC**<br>Vol.18 No.02,<br>April 2023 |
|----|----|----|
| 04 | **Interface Shear Strength and the Soil Softening Effect on the Soil-Geocomposite Drainage Layer System Stability**<br>*Maidiana Othman[1]; Jestin Jelani[1]; Siti Khadijah Che Osmi[1]; Norzaima Nordin[1]; Zuliziana Suif[1]; Nordila Ahmad[1]*<br>[1]National Defence University of Malaysia, Malaysia. | **JESTEC**<br>Vol.18 No.01,<br>February 2023 |

### Room 3
#### Chair : Dr. Garup Lambang Goro

| 01 | **The Investigation on Heat Radiated in the Patrol Vessel's Main Engine Enclosure**<br>*Noh Zainal Abidin[1]; Rashdan Saad[1]; Mohd Rosdzimin Abdul Rahman[1]; Farizha Ibrahim[1]; Zulkifly Mat Radzi[1]; Raja Khairul Afnizan Raja Zainal Abidin[1] ; Abd Rahim Mat Sarip[1] ; Arman Ariffin[2]*<br>[1]National Defence University of Malaysia, Malaysia; [2]Tentera Laut Diraja Malaysia, Malaysia. | **JESTEC**<br>Vol.18 No. 02,<br>April 2023 |
|----|----|----|
| 02 | **Simulation Investigation of the Effect Increasing the Number of Slots on a Narrow Wall Slotted Waveguide Antenna for Portable Coastal Radar**<br>*Yusnita Rahayu[1]; Budi Kurniawan[1]; Yussi Perdana Saputera[2]*<br>[1]Universitas Riau, Indonesia; [2]Universitas Islam Nusantara, Indonesia. | **JESTEC**<br>Vol.18 No.01,<br>February 2023 |
| 03 | **Comparison of blast pressure profile for military and commercial explosive with different point of initiation**<br>*Fakroul Ridzuan Hashim[1]; Khairol Amali Bin Ahmad[1]; Mohammed Alias Yusuf [1]*<br>[1]National Defence University of Malaysia, Malaysia. | **JESTEC**<br>Vol.18 No.02,<br>April 2023 |
| 04 | **Artificial Intelligence Approach for Automatic Multiclass Skin Diseases Identification**<br>*Nur Afny Catur Andryani[1]; Filbert H. Juwono[2]; Posma Janius Sianturi[3]*<br>[1]Bina Nusantara University, Indonesia; [2]University of Southampton Malaysia, Malaysia; [3]Tanri Abeng University, Indonesia. | **JESTEC**<br>Vol.18 No.02,<br>April 2023 |

### Room 4
#### Chair : Dr. Dwiana Hendrawati

| 01 | **The Analysis of Factors Affecting Behavioral Intention and Behavior Usage of E-Wallet Using Meta-UTAUT Model (Unified Theory of Acceptance and Use of Technology)**<br>*Muhammad Malik Hakim[1]; Alissa Nida Afifah[1]; Guruh Aryotejo[2]*<br>[1]Universitas Diponegoro, Indonesia; [2]Diponegoro University, Indonesia. | **IJASEIT**<br>Vol.13 No.03,<br>June 2023 |
|----|----|----|
| 02 | **Improving Accuracy of Cloud Images Using DenseNet-VGG19**<br>*Gita Fadila Fitriana[1]; Amalia Beladinna Arifa[1]; Agi Prasetiadi[1]; Faisal Dharma Adhinata[1]; Nur Ghaniaviyanto Ramadhan[1]*<br>[1]Institut Teknologi Telkom Purwokerto, Indonesia. | **IJASEIT**<br>Vol.13 No.03,<br>June 2023 |

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| 03 | **An AHP-Simulation Based Method for Fund Allocation at Faculty**<br>*Ruzanna Mat Jusoh[1]; Fatin Amirah Ahmad Shukri[1]; Sharifah Aishah Syed Ali[1]; Fazilatulaili Binti Ali[1]*<br>[1]National Defence University of Malaysia, Malaysia. | **IJASEIT**<br>Vol.13 No.03, June 2023 |
|----|----|----|
| 04 | **Modeling Critical Success Factors (CSFs) of Mobile Game Applications for Military Training**<br>Amalina Farhi Ahmad Fadzlah[1]; Norshahriah Abdul Wahab[1]; Suresh Thanakodi[1]; Mohd Norsyarizad Razali[1]; Muhammad Lazim Talib[1]; Muhammad 'Afif Mohd Asri[1]<br>[1]National Defence University of Malaysia, Malaysia. | **IJASEIT**<br>Vol.13 No.03, June 2023 |

## PRESENTATION SESSION

| **Parallel** Session 5 ---------(ONLINE)---------- December 15th, 2022 |
|----|
| **12.30 - 13.30** |

| **Room 1** |
|----|
| **Chair : Dr. Prayitno** |

| 01 | **A Hybrid ROS-SVM Model for Detecting Target Multiple Drug Types**<br>*Nur Ghaniaviyanto Ramadhan[1]; Azka Khoirunnisa[1]; Kurnianingsih[2]; Takako Hashimoto[3]*<br>[1]Institut Teknologi Telkom Purwokerto, Indonesia; [2]Politeknik Negeri Semarang, Indonesia; [3]Chiba University of Commerce, Japan. | **JOIV**<br>Vol.7 No.3, September 2023 |
|----|----|----|
| 02 | **An Analysis of Small Ruminant Breed Lineage Prediction Using Deep Learning Technique**<br>*Mohammad Farizshah Ismail Kamil[1]; Nor Azliana Akmal Jamaludin[1]; Mohd Rizal Mohd Isa[1]*<br>[1]National Defence University of Malaysia, Malaysia. | **JOIV**<br>Vol.07 No.03, September 2023 |
| 03 | **A Framework for Malay Computational Grammar Formalism Based-On Enhanced Pola Grammar**<br>*Hassan Mohamed[1]; Nur Aisyah Abdul Fataf[1]; Tengku Mohd Tengku Sembok[1]*<br>[1]National Defence University of Malaysia, Malaysia. | **JOIV**<br>Vol.07 No.02, June 2023 |
| 04 | **The Impact of Online Learning on NDUM Student's during Covid-19 impact of online learning on ndum**<br>*Sari Nashikim Radin Iskandar[1]; Mohammad Adib Khairuddin[1]; Mohd Rizal Mohd Isa[1]; Sharifah Aishah Syed Ali[1]; Mohd Afizi Mohd Shukran[1]; Kamaruzaman Maskat[1]; Syarifah Bahiyah R[1]*<br>[1]National Defence University of Malaysia, Malaysia. | **JOIV**<br>Vol.07 No.02, June 2023 |

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## Room 2

**Chair : Dr. Yusmar Ardhi Hidayat**

**01** **Helicopter Ditching Incident Analysis: Classification of Risk Factor**
*Adenen Shuhada Binti Abdul Aziz[1]; Mohamad Abu Ubaidah Amir Abu[1]; Roshamida Abd Jamil[1]; Iqbal Shamsudheen[1]; Ainul husna Binti Abdul Rahman[1]; Nur Afiqah binti Rosly[1]*
[1]National Defense University of Malaysia, Malaysia.

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**02** **Preliminary Investigation of CBR Value Utilizing Crushed Coconut Shell as Additive in Silty Sand**
*Jestin Jelani[1]; Zuliziana Suif; Maidiana Othman[1]; Nordila Ahmad[1]*
[1]National Defence University of Malaysia, Malaysia.

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**03** **Concept Development of Inclinometer for Real-Time Data Collection in Slope Movement Detection**
*Aina Syahirah Ahmad Ishak[1];Jestin Jelani[1] ; Zuliziana Suif[1]*
[1]National Defence University of Malaysia, Malaysia.

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Vol.18 No.01,
February 2023

**04** **Correlating and Modelling the Performance of PE-4 and Commercial Explosion (Emulex) using Artificial Intelligent**
*Fakroul Ridzuan Hashim[1]; Khairol Amali Bin Ahmad[1]; Mohammed Alias Yusuf[1]*
[1]National Defence University of Malaysia, Malaysia.

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## Room 3

**Chair : Dr. Garup Lambang Goro**

**01** **Telemedicine Sign Language Classification for Covid-19 Patients with Disability Based on LSTM Model**
*Maria Seraphina Astriani[1] ; Marcell Alvianto[1]*
[1]Bina Nusantara University, Indonesia.

**JESTEC**
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**02** **Comparison Performance Analysis of Attendance System in LOS and NLOS Conditions Using LORA, FSK, and OOK Modulation**
*Yusnita Rahayu[1]; Yofan Hakiki[1] ; Syah Alam[2]*
[1]Universitas Riau, Indonesia; [2]Universitas Trisakti, Indonesia.

**JESTEC**
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**03** **The Effectiveness of Multi-Sensor Systems in Monitoring Pollution Levels**
*Ade Silvia Handayani[1]; Nyayu Latifah Husni[1]; Ahmad Taqwa[1]; Wahyu Caesarendra[2,3]*
[1]Politeknik Negeri Sriwijaya, Indonesia; [2]Universiti Brunei Darussalam; [3]Diponegoro University, Brunei Darussalam.

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**04** **Success Strategy for the Trans Jogja to Leverage Its Services Post COVID-19 Pandemic Using Kano Model**
*Andrean Emaputra[1]; Achmad Odyk Akbar Nagara[1]; Argaditia Mawadati[1]; Eka Sulistyaningsih[1]*
[1]Institut Sains Dan Teknologi AKPRIND, Indonesia.

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## Room 4

**Chair : Dr. Dwiana Hendrawati**

| 01 | Experimental Study of Different Materials on Electromagnetic Damping Characteristics<br>*M.F. Mohd Yusoff[1]; A.M. Ahmad Zaidi[1]; S.A. Firdaus Ishak[1]; M.K. Awang[1]; MF Md Din[1]; A. Mukhtaruddin[1]; A.M. Ishak[1]*<br>[1]National Defence University of Malaysia, Malaysia. | **IJASEIT**<br>Vol.13 No.03,<br>June 2023 |
|---|---|---|
| 02 | Performance of ShuffleNet and VGG-19 Architectural Classification Models for Face Recognition in Autistic Children<br>*Melinda[1]; Maulisa Oktiana[1]; Yudha Nurdin[1]; Indah Pujiati[1]; Muhammad Irhamsyah[1]; Nurlida Basir[2]*<br>[1]Syiah Kuala University, Indonesia; [2]Universiti Sains Islam Malaysia, Malaysia. | **IJASEIT**<br>Vol.13 No.03,<br>June 2023 |
| 03 | Effect of Borax on Very High Calcium Geopolymer Concrete<br>*Trio Pahlawan[1] ; Johannes Tarigan[1] ; Januarti Jaya Ekaputri[2] ;  Amrinsyah Nasution[3]*<br>[1]University of North Sumatera, Indonesia; [2]Institut Teknologi Sepuluh November, Indonesia; [3]Institut Teknologi Bandung, Indonesia. | **IJASEIT**<br>Vol.13 No.03,<br>June 2023 |
| 04 | The Impact of Real Traffic from Twitter for 5G Network Deployment<br>*Alfin Hikmaturokhman[1]; Kalamullah Ramli; Muhammad Suryanegara[2]; Raden Deiny Mardian[2]; Amir Musa Baharsyah[1]; Muntaqo Alfin Amanaf[1]; Muhammad Abdi[1]; Yuyun Dwi Wijayanti[1]*<br>[1]Institut Teknologi Telkom Purwokerto; [2]Universitas Indonesia, Indonesia. | **IJASEIT**<br>Vol.13 No.04,<br>Agust 2023 |

## PRESENTATION SESSION

**Parallel** Session 6 ----------(ONLINE)---------- December 15th, 2022

**13.30 - 14.30**

## Room 1

**Chair : Dr. Prayitno**

| 01 | Classification of EEG Signal Using Independent Component Analysis and Discrete Wavelet Transform Based on Linear Discriminant Analysis<br>*Melinda Melinda[1]; Maulisa Oktiana[1]; Yunidar[1]; I Ketut Agung Enriko[2,3]*<br>[1]Syiah Kuala University, Indonesia; [2]Institut Teknologi Telkom Purwokerto. Indonesia; [3]PT Telkom Indonesia, Indonesia. | **JOIV**<br>Vol.07 No.03,<br>September 2023 |
|---|---|---|
| 02 | LoRaWAN for Smart Street Lighting Solution in Pangandaran Regency<br>*I Ketut Agung Enriko[1]; Fikri Nizar Gustiyana[1]; Kurnianingsih[2]*<br>[1]Telkom University, Indonesia; [2]Politeknik Negeri Semarang, Indonesia. | **JOIV**<br>Vol.07 No.02,<br>June 2023 |
| 03 | Simulation Study on Hypervelocity Penetration of Lab Scaled Shape Charge Mechanism<br>*Khairul H Kamarudin[1]; Ahmad Mujahid Ahmad[1]; Mohamad Faizal Abdullah[1]*<br>[1]National Defence University of Malaysia, Malaysia. | **JETS**<br>Vol.54 No.06,<br>December 2022 |

| 04 | **Pixel Value Graphical Password Scheme: A Clustering Algorithm Time Consumption Experiment for Passpix Similarity Classification** *Mohd Sidek Fadhil Mohd Yunus[1]; Mohd Afizi Mohd Shukran[1]; Norshahriah Wahab[1]; Syarifah Bahiyah Rahayu; Amalina Farhi Ahmad Fadzlah[1]* [1]National Defence University of Malaysia, Malaysia. | **JETS** Vol.55 No.01, January 2023 |

### Room 2
**Chair : Dr. Yusmar Ardhi Hidayat**

| 01 | **Ranking the Days of the Week Throughout the Pandemic Based on Daily Insights of a Company Using Analytical Hierarchy Process** *Fazilatulaili Binti Ali[1]; Naqibah Sharail Affendi; Sharifah Aishah Syed Ali[1]; Ruzanna Mat Jusoh[1]* [1]National Defence University of Malaysia, Malaysia. | **JESTEC** Vol18 No.01, February 2023 |
| 02 | **Performance of Bamboo Reinforced Interlocking Soil-Cement Block Wall Under Impact Loading** *Siti Khadijah Che Osmi[1]; Muhammad Faizzuan Ikmal Mohd Fazully[1]; Hapsa[1]; Maidiana Othman[1]; Nursyafikah Hafizi[1]; Suriyadi Sojipto[1]* [1]National Defence University of Malaysia, Malaysia. | **JESTEC** Vol.18 No.01, February 2023 |
| 03 | **Assessing the Stability of the Reconstructed Pinis Design (RPD) Based on the Terengganu Tradition** *Mohamad Abu Ubaidah Amir Abu Zarim[1]; Wan Ikhlas Wan Mohtar [1]; Mohd Najib Abdul Ghani Yolhamid[1]; Mohd Norsyarizad Razali[1]; Roshamida Abd Jamil[1]; Mohd Azzeri Mohd Naiem[1]; Che Husna Azhari [2]* [1]National Defence University of Malaysia, Malaysia; [2]Universiti Kebangsaaan Malaysia, Malaysia. | **JESTEC** Vol.18 No.02, April 2023 |
| 04 | **Analysis of Ship Motion Onboard a Vessel X During Navigation and Manoeuvres** *Farizha Ibrahim[1]; Mohamad Abu Ubaidah Amir Abu Zarim[1]; Mohd Norsyarizad Razali[1]; Zulkifly Mat Radzi[1]; Noh Zainal Abidin[1]; Ainul husna Binti Abdul Rahman[1]* [1]National Defence University of Malaysia, Malaysia. | **JESTEC** Vol.18 No.02, April 2023 |

### Room 3
**Chair : Dr. Garup Lambang Goro**

| 01 | **Customer Engagement, Customer Equity, and Their Influence on Consumer Repurchase Intention in E-Commerce Mobile Applications** *Selsy Dwiviolita[1]; Sri Zuliarni[1]* [1]Politeknik Negeri Batam, Indonesia. | **JDM** Vol.14 No.01, Maret 2023 |
| 02 | **The Analysis of Leverage, Return on Assets, and Firm Size on Tax Avoidance** *Astriyani Paramita[1]; M. Noor Ardiansah[2]; Raissa Arham Delyuzar[1]; Arif Dzulfikar[1]* [1]Politeknik STMI Jakarta, Indonesia; [2]Politeknik Negeri Semarang, Indonesia. | **AAJ** Vol.11 No.01, Maret 2023 |

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| 03 | **The Study of COVID-19 Health Protocol Standards in Construction Industry of Indonesia**<br>*Ratih Dewi Shima[1]; Iris Mahani[1]; Krishna Suryanto Pribadi[1]; Kevin Andika Hartono[1]*<br>[1]Bandung Institute of Technology, Indonesia. | **JETS**<br>Vol.54 No.06,<br>December 2022 |
| 04 | **Preliminary study: Readiness of WLAN Infrastructure at Malaysian Higher Education Institutes to support Smart Campus Initiative**<br>*Roziyani Rawi[1]; Mohd Rizal Mohd Isa[1]; M. N. Ismail[1]; Aznida Abu Bakar Sajak[1]; Azmi Mustafa [1`]*<br>[1]National Defence University of Malaysia, Malaysia. | **JOIV**<br>Vol.07 No.04,<br>December 2023 |

## Room 4
### Chair : Dr. Dwiana Hendrawati

| 01 | **Performance Assessment of Malaysian Fossil Fuel Power Plants: A DEA Approach**<br>*Ahmad Shafiq Abdul Rahman[1]; Sharifah Aishah Syed Ali[1]*<br>[1]National Defence University Malaysia, Malaysia. | **IJRED**<br>Vol.12 No.01,<br>February 2023 |
| 02 | **Fatigue Detection Using Decision Tree Method Based on PPG Signal**<br>*Ilham Ari Elbaith Zaeni[1]; Arya Kusumawardana[1]*<br>[1]Universitas Negeri Malang, Indonesia. | **INFOTEL**<br>Vol.15 No.01,<br>February 2023 |
| 03 | **Estimation of Confidence in the Dialogue Based on Eye Gaze and Head Movement Information**<br>*Cui Dewen[1]; Matsufuji Akihiro[1]; Liu Yi[1]; Eri Sato-Shimokawa[1]; Toru Yamaguchi[1]*<br>[1]Tokyo Metropolitan University, Japan. | **EMITTER**<br>Vol.10 No.02,<br>December 2022 |
| 04 | **Human Activity Prediction with Human-Object Oriented Graph Neural Network for Homecare Robot**<br>*Mohamad Yani[1]; Nao Yamada[1]; Naoyuki Kubota[1]; Chyan Zheng Siow[1]*<br>[1]Tokyo Metropolitan University, Japan. | **IJAIN**<br>Vol.09 No.02,<br>July 2023 |

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## VENUE AND ACCOMMODATION

**Grand Candi Hotel**
Jl. Sisingamangaraja No.16
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Website : https://grandcandihotel.com/

The conference venue Grand Candi Hotel offers Special Rates for ICIST 2022 participant in different categories of rooms (Deluxe, Executive Club, Executive Suite)



Located in Semarang, Grand Candi Hotel is on the boardwalk, within a 5-minute drive of Akademi Kepolisian (Akpol) and Kariadi Hospital Semarang. This 5-star hotel is 4.1 mi (6.6 km) from Paragon City Mall Semarang and 3.4 mi (5.5 km) from Lawang Sewu. Make yourself at home in one of the 198 air-conditioned rooms featuring minibars and LCD televisions. Complimentary wired and wireless Internet access keeps you connected, and cable programming provides entertainment. Bathrooms have complimentary toiletries and bathrobes. Conveniences include phones, as well as safes and desks. Enjoy a range of recreational amenities, including an outdoor pool, a spa tub, and an outdoor tennis court. Additional amenities at this hotel include complimentary wireless Internet access, concierge services, and wedding services.

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# COVID-19 PRECAUTIONS

**Keeping you safe from Covid-19**

ICIST 2022 is commited to keeping attendees safe through measures implemented in line with the Indonesian Government policy. The Indonesian Government has Implemented New border Security Measures as a Precaution against New Covid-19 Strains. As the situation is evolving, for more information, please visit www.imigrasi.go.id

ICIST 2022's organizing committee is closely monitoring the Covid-19 pandemic and will advice participants accordingly closer to the event date about the conference format as well as any measures that will be implemented.

Measures that might be in place during the event include Pre-Event Testing for all attendees, quarantine upon arrival, social distancing and mask wearing.

Participants should monitor their health and should not travel to Semarang if they:

1. Have not been vaccinated;
2. Have symptoms of COVID-19;
3. Are diagnosed or suspected to have COVID-19 infection in the last 21 days before departing for Semarang; or
4. Had close contact with any person with COVID-19 in the last 14 days before departing for Semarang. Close contact means:
   - Providing care for a COVID-19 patient, including in healthcare or family/social setting;
   - Staying in the same place as a person with COVID-19 (e.g. household members); or
   - Close (i.e. less than 2 metres) and prolonged contact (15 minutes or more) with a person with COVID-19 (e.g. shared a meal).