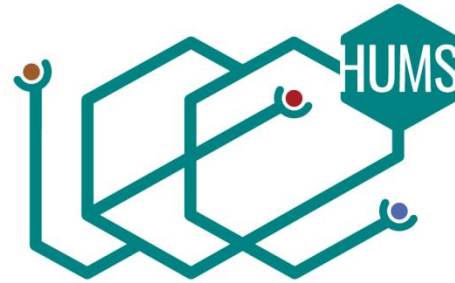
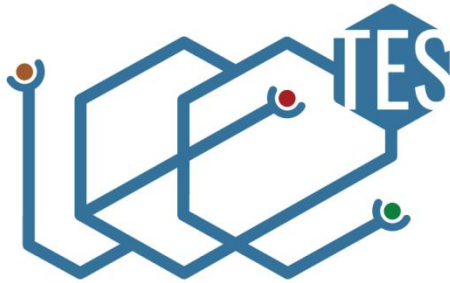




UNIVERSITAS
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1ST INTERNATIONAL CONFERENCE ON EMERGING ISSUES
IN TECHNOLOGY, ENGINEERING AND SCIENCE
&
1ST INTERNATIONAL CONFERENCE ON EMERGING ISSUES
IN HUMANITY STUDIES AND SOCIAL SCIENCE

1-2 JULY 2021
VIRTUAL CONFERENCE

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Message from the Rector

Honorable Keynote Speaker, Mr. Ignasius Jonan, former Minister of the Energy and Mineral Resources, and previously Minister of the Transportation Ministry of the Republic of Indonesia, we are greatly honored to have you with us this morning.

Distinguished keynote speakers, Prof. Ahmad M. Ramli (represented by Indra Maulana, SH. LLM., Head of the Legal and Cooperation Division, Ditjen PPI, Ministry of Communication and Information Technology), Prof. John Silke, Dr. Ferry Sandra, Prof. Takayuki Arai, Prof. Young Ho Kim, Prof. Susy Tjahjani, Prof. Pim Martens, Dr. Dwinita Larasati, Prof. Chien-Hsu Chen, Prof. Wilson Bangun and Prof. Marcellia Susan, as well as all participants in the international conferences being held here.

A very good morning and best wishes to you all and good evening to our colleagues in the US. Greetings and a warm welcome to Maranatha Christian University (MCU), Bandung, Indonesia.

I am delighted to be here with you today for the opening of the first MCU international conferences. These are:

- (i) The International Conference on Emerging Issues in Technology, Engineering, and Science, and
- (ii) The International Conference on Emerging Issues in Humanity Studies and Social Sciences, with the themes of:
 - a. Digital Ecosystems for Sustainable Health and Community Development towards an Intelligent Society, and
 - b. Innovations for Sustainable Community Development - Research and Practices.

We would like to thank the many participants from countries across the different continents: the USA, the UK, the Netherlands, Germany, Taiwan, Malaysia, and Indonesia. Thank you for joining us.

These first international conferences will serve as a platform to enable speakers and participants to share their research results, drawn from up-to-date research work, to initiate and strengthen further collaboration.

My sincere hope is that what we accomplish today will be beneficial towards establishing collaboration among all the participants of these conferences.

I hereby declare the first international conferences at MCU in 2021 officially open.

God bless you all. Thank you!

Prof. Ir. Sri Widiyantoro, MSc., PhD., IPU.

Rector of Maranatha Christian University



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Message from General Chair

On behalf of the committee members, it is a great pleasure to welcome you all to our first two international conferences:

Emerging Issues in Technology, Engineering, and Science (ICE-TES) and,
Emerging Issues in Humanity Studies and Social Sciences (ICE-HUMS).

ICE-TES and ICE-HUMS are twin events which serve our passion in balancing technology and humanity issues in the world of science, and share the core values of our university: Integrity, Care & Excellence (ICE).

This year's theme for both conferences focuses on the United Nations' Sustainable Development Goals (SGD), which emphasize the following aspects: ICE-TES (Digital Ecosystem for Sustainable Health & Community Development: Towards the Intelligent Society) and ICE-HUMS (Innovations for Sustainable Community Development: Research and Practices). We believe research and initiatives that has pragmatic and multidisciplinary/interdisciplinary approaches allows us to unravel fundamental problems and answer related questions regarding sustainable development.

The logistics of both of the First ICE-TES and ICE-HUMS 2021 conferences consist of two general and five-scientific keynote speakers. Special tracks are designed in each conference which cover recent developments in: ICE-TES (technologies, engineering, medical, and dentistry), ICE-HUMS (psychology, languages & cultures, economics, arts & design, and laws). The ICE-TES tracks received 82 submissions and 52 accepted full papers, involving authors from five countries and corresponding to an acceptance rate of 63.4%. At the same time, the ICE-HUMS has received 130 submissions and accepted 76 full papers, involving authors from four countries, corresponding to an acceptance rate of 58.4%. All submitted papers were peer-reviewed on the basis of their significance, state-of-the-art contributions, and technical qualities.

Since we are still in the midst of COVID-19 pandemic, the conference has been organized virtually. The organizing committee has been working intensively to ensure that the scientific sessions will be valuable and engaging for all presenters and attendees. The parallel session format is a mix of pre-recorded and synchronous engagement through in-person live videos and question and answer sessions.

We would like to express our sincere appreciation to all the keynote speakers, committee members and reviewers for their dedication. Last, but certainly not least, we would like to offer many thanks to all authors who submitted their papers and all participants who registered to join this conference. We believe that ICE-TES and ICE-HUMS 2021 will be an inspiring academic occasion and will become a great platform for many ideas as well as research initiatives in the scientific community. Have an inspiring conference!

Dr. Hapnes Toba, M.Sc., General Chair of ICE-TES and ICE-HUMS 2021

Dr. Wahjoe Widowati, M.Si., General Co-chair of ICE-TES 2021

Joni, Ph.D., Ak., CA., CPSAK., General Co-chair of ICE-HUMS 2021



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Prof. Marcellia Susan, Maranatha Christian University, Indonesia

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Virtual Conference Instructions

General Information

ICETES-ICEHUM 2021 is a virtual conference which uses konfrenzi as its platform. There will be a co-host, a Session Chair, presenters, and guests for each session. The co-host and the Session Chair will be the persons in charge of facilitating the use of technology and coordinating the session and manage the Q&A respectively.

Session instructions

1. Beginning of the Session

- The Session Chair will introduce the presenter and then the technical assistant (or student) will play the video recording that the presenter has submitted. It will be followed by live Q&A.
- The duration of all presentation types is as follow:
 - Keynote speech: (20 minutes).
 - Recorded presentation (video) = max. 10 minutes per session.
 - Live Q&A = max. 5 minutes.
 - For opening and closing ceremonies, both ICE-TES and ICEHUMS participants can use the link below:

INTERNATIONAL CONFERENCE ON EMERGING ISSUES – ICE HUMS

Time: This is a recurring meeting Meet anytime

Join Zoom Meeting

<http://gg.gg/ICEHUMS>

Meeting ID: 858 132 1255

Passcode: ICE



2. Prior to the session

- The co-host will prepare the designated Go To Webinar session (10 minutes before the Session) and begin recording (2 minutes before the Session).
- The Session Chair introduces the session (1 minute before the Session).
- The participants of ICE-TES and ICE-HUMS can use the links below to access each event separately, except for the opening and closing ceremonies (we use ICE-HUMS link only).

INTERNATIONAL CONFERENCE ON EMERGING ISSUES – **ICE HUMS**

Time: This is a recurring meeting
Meet anytime
Join Zoom Meeting
<http://gg.gg/ICEHUMS>
Meeting ID: 858 132 1255
Passcode: ICE



INTERNATIONAL CONFERENCE ON EMERGING ISSUES – **ICE TES**

Time: This is a recurring meeting
Meet anytime
Join Zoom Meeting
<http://gg.gg/ICETES>
Meeting ID: 869 481 9461
Passcode: ICE



3. End of the Session

- Before ending the session, the Session Chair will fill out the evaluation form.



Virtual Conference using Konfrenzi Platform

The global COVID-19 pandemic, which is still occurring to date, has resulted in impediments to the holding of scientific/academic conferences in Indonesia. One alternative solution to this problem is to hold virtual conferences by utilizing online information and communication technology. This onference can be accessed via the link: <https://konfrenzi.com/link/WM9CqjF>. In general, there are two types of virtual conferencing, which are briefly described below.

1. Synchronous Virtual Conference (SVC)

The implementation of the SVC is very similar to a traditional conference, except that the presentation sessions go completely online; thus, the physical meeting is eliminated. The presenter's talk time is still limited as usual (a session moderator is needed), and the interaction with the audience (questions and answers) must also be instantaneous. The point is, everything (presentations and questions and answers) is carried out in real time via the internet / online. Some of the popular applications that can be used for example are ZOOM, Google Meet, Skype, WebEx, and many other applications as well. Since it is implemented in real time with a very limited time, many technical problems might occur in VirtualConf SVC. The problems might be a slow or even intermittent presenter / audience internet connection, technical difficulties with laptop / smartphone cameras, problems with mic / speaker, background noise, laptop hangs suddenly, gadget runs out of battery, and so on. These problems might result in ineffective presentation sessions.

2. Asynchronous Virtual Conference (AVC)

The implementation of AVC is different from traditional conferences. The concept is quite simple, namely physical meetings are eliminated and all presenters make video recordings of their presentations instead. The video is then uploaded to the internet by each presenter, so that other conference participants can watch and listen to the presentation video. Then, the interaction with the audience is carried out online, through an online question and answer forum. The committee opens access to view video presentations and opens a question and answer forum for a rather long period of time, for example for one week. Thus, even if the presenter / audience experiences



technical problems at a certain point in time, this will not be too much of a problem, because the presentation video can be viewed again at any other time, and also the question-and-answer interaction can be held at any time within one week. Thus presentation sessions can be very effective. There are quite a number of conferences that have been held virtually / online, even a few years ago (especially in Europe and America) before the outbreak of the COVID-19 outbreak, both with the SVC and AVC methods. We can find many articles on the internet discussing the advantages and disadvantages of each method (SVC and AVC) and taking valuable lessons from their various experiences. Based on these articles, we recommend implementing VirtualConf with the AVC method rather than SVC. The Konfrenzi platform can be used for the implementation of VirtualConf both SVC and AVC. Konfrenzi can be directly used for SVC implementation, where the stages are exactly the same as traditional conferences. Especially for the implementation of AVC, we have recently complemented our system by adding new features in the form of a Presentation Video Embedding (YouTube-based) and also an Online Question & Answer Forum. AVC features are available in the Premium and Ultimate license packages, and not available in the Standard license package. We hope the brief information is useful to make you familiar with Konfrenzi.com.

Guidelines for Scientific Video presentation

A. Rules for Scientific Presentation

1. Every scientific presentation will be in a form of a recorded video (maximum duration 10 minutes) followed by a live Q&A (maximum duration 5 minutes).
2. Thus, every presenter should prepare his/her recorded presentation in a form of a video file (one file such as .mp4) of maximum 10 minutes. He and she also has to record the content of the presentation using Microsoft Power Point in English with maximum file size 100 MB and upload it to YouTube. Please submit the link YouTube file into the Konfrenzi system.
3. Audiences are not allowed to record, download, copy, or edit the presentations.

B. Tips for preparing video file for scientific presentation

1. Before recording your presentation, please prepare the following items:
 - a. Microsoft PowerPoint Presentation slides.
 - b. Laptop/computer.



- c. Microphone.
2. To record your voice and make sure the video is audible. Please connect the microphone/headset to your laptop/computer.
 3. Since your voice will not be recorded while you switch the pages, you will have to finish your words before you go to the next page.
 4. Hyperlinks are not available for the recorded presentation; thus, if you would like to play videos, please embed them directly in the slides.



Instruction for Session Chairs/Presenters/Attendees

Session Chairs

A session chair will be responsible for:

- Introducing the session, and then each author/paper-title before playing the video.
- Observing and taking notes of questions from Q&A panel during the presentation playback.
- Reading the questions to the presenter during the Q&A period with absolutely no delay on the allocated Q&A slots.
- Concluding the session and filling out the evaluation form.
- Making sure the session starts and finishes on time.

Notes for the Session Chair:

- Please join the session at least 15 minute in advance by clicking a link that Organizer will provide via email.
- Please check and test your microphone once joined so that the session can start on time.
- Please turn on your video to engage the attendees during the sessional introduction and Q&A.
- Please turn off the video when the video is played so that the attendees can focus on the talk video.
- Please make sure to ask the questions verbally and according to the FIFO time they were first submitted.
- Please feel free to ask some of your question when there are not many questions from the audience.
- If the attendee needs to clarify their question, the Session Chair may unmute the attendee who placed the question to make clarifications.
- Please be mindful of the Q&A time limits! Any delays on the predetermined slots of each session will push other sessions behind.



Presenters

- Please join at least 15 minutes before your designated time slot by clicking the link that the organizer will send you via email.
- Please be present during the video playback as well as the Q&A session.
- During the replay of the presentation video, your microphone will be muted during the video playback and you are encouraged to keep an eye on the attendees' questions.
- At the end of the pre-recorded presentation, your microphone will be unmuted and please open your webcam to engage well when answering questions.
- If the time does not permit you to answer some of the questions, you may want to discuss the answer off-line.
- You may stay in the session as an attendee when not presenting.

Attendees

- Since webinars are intended to be "listen-only," the organizer will mute all webinar participants by default.
- To make sure the virtual conference runs smoothly and productively, following the introduction and the video presentation, the conference chair will moderate a brief Q&A session.
- All attendees are welcome to ask questions during the replay of the presentation video by typing your question in the given chat box.
- Since the time is limited, the Session Chair will select and ask the questions during the Q&A session.
- You will be unmuted if you would like to elaborate your questions by virtually raising hand; however, the limited Q&A duration, attendees may want to discuss with the author(s) off-line.
- You do not need to announce yourself when arriving or leaving a Session.



Conference Schedule

The program schedule will be set in Western Indonesia Time (WIB or GMT+7).

Please adjust your time to be in line with WIB or GMT+7. Please visit <http://time.bmkg.go.id/> to get more information about WIB.

ICE-TES Timetable

Day 1: Thursday, 1 July 2021

Day 1 (1 July 2021)		
	Activities	Description
08.50-09.00	Pre-event	Video
09.00-09.30	Opening ceremony	Prof. Ir. Sri Widiyantoro MSc. PhD. IPU Dr. Hapnes Toba, M. Sc., IPM
09.30-10.00	General Keynote Presentation	Prof. Ahmad M. Ramli
10.00-10.30		Drs. Ignasius Jonan, M.A.
10.30-11.00	Paper presentation 1	a maximum of 15minutes for each presenter
11.00-11.30		
11.30-12.00		
12.00-12.30		
12.30-13.00		Break Time
13.00-13.30	Keynote Presentation	Prof. John Silke
13.30-14.00		drg. Ferry Sandra, PhD.
14.00-14.30	Paper presentation 2	a maximum of 15minutes for each presenter
14.30-15.00		
15.00-15.30		

Day 2: Friday, 2 July 2021

Day 2 (2 July 2021)		
	Activities	Description
08.50-09.00	Pre-event	Video
09.00-09.30	Keynote Presentation	Prof. Takayuki Arai
09.30-10.00		Prof. Young Ho Kim
10.00-10.30		Prof. Dr. dr. Susy Tjahjani, M.Kes
10.30-11.00	Paper presentation 3	a maximum of 15 minutes for each presenter
11.00-11.30		
11.30-12.00		
12.00-12.30		
12.30-13.00		Break Time
13.00-13.30	Paper presentation 4	a maximum of 15minutes for each presenter
13.30-14.00		
14.00-14.30		
14.30-15.00	Closing Ceremony	Closing remark and best paper announcement
15.00-15.30		



ICE-HUMS Timetable

Day 1: Thursday, 1 July 2021

Day 1 (1 July 2021)		
Activities		Description
08.50-09.00	Pre-event	Video
09.00-09.30	opening ceremony	Prof. Ir. Sri Widiyantoro MSc. PhD. IPU Dr. Hapnes Toba, M. Sc., IPM
09.30-10.00	General Keynote Presentation	Prof. Ahmad M. Ramli
10.00-10.30		Drs. Ignasius Jonan, M.A.
10.30-11.00	Paper presentation 1	a maximum of 15minutes for each presenter
11.00-11.30		
11.30-12.00		
12.00-12.30		
12.30-13.00		Break Time
13.00-13.30	Keynote Presentation	Prof. Pim Martens
13.30-14.00		Dr. Dwinita Larasati, M.A.
14.00-14.30	Paper presentation 2	a maximum of 15minutes for each presenter
14.30-15.00		
15.00-15.30		

Day 2 : Friday, 2 July 2021

Day 2 (2 July 2021)		
Activities		Description
08.50-09.00	Pre-event	Video
09.00-09.30	Keynote Presentation	Prof. Chien-Hsu Chen
09.30-10.00		Prof. Dr. Drs. Wilson Bangun, M.Si.
10.00-10.30		Prof. Dr. Dra. Marcellia Susan Karnadi, M.T.
10.30-11.00	Paper presentation 3	a maximum of 15 minutes for each presenter
11.00-11.30		
11.30-12.00		
12.00-12.30		
12.30-13.00		Break Time
13.00-13.30	Paper presentation 4	a maximum of 15 minutes for each presenter
13.30-14.00		
14.00-14.30		
14.30-15.00	Closing Ceremony	Closing remark and best paper announcement
15.00-15.30		



ICE-TES Timetable

Paper Presentation 1

Day 1: Thursday, 1 July 2021

ROOM A at 10:30-12:00

Artificial Intelligence, Big Data, IoT, Robotics, Multimedia and Game	Authors	Title
ABS-037	Ratnadewi Ratnadewi, Aan Damawan Hangkawidjaja, Agus Prijono, Rudy Wawolumaja, Kartika Suhada, Maria Christine Sutandi, Andrew Sebastian Lehman, Elty Sarvia and Kervin Lusiano	Naïve Bayes Classification of Nominal Value Detection System with Entropy, Contrast, Correlation, Energy, Homogeneity and Rupiah Paper Legality Detection, 2004-2021 RGB
ABS-047	Joseph Sanjaya, Mewati Ayub, Hapnes Toba	Comparative Study of Convolutional Neural Networks-Based Algorithm for Fine-Grained Car Recognition
ABS-063	Muliady Muliady, Tien Sze Lim, Voon Chet Koo, and Nathaniel Pius Winata	Estimation of Paddy Leaf Nitrogen Status Using a Single Sensor Multispectral Camera
ABS-065	Novie Theresia Br. Pasanbu, Erwani Merry, Kalya Icasia, Jordan Eliezer, Che-Wei Lin, Febryan Setiawan	Taekwondo Poomsae-3 Movement Identification by using CNN
ABS-076	Semul Tjharjadi	Design and Implementation of A Path Finding Robot Using Modified Trémaux Algorithm
ABS-091	Marvin Chandra Wijaya	Priority Petri Net Multimedia Model For Non-Deterministic Events of Multimedia Presentations

Day 1: Thursday, 1 July 2021

ROOM B at 10:30-12:00

Bio informatics, Medical and Veterinary Science	Authors	Title
ABS-005	Hanna Sari Widya Kusuma, Hartini Tiono, Philip Onggowidjaja, Selonan Susang Obeng, Wahyu Widowati, Cintani Dewi Wahyuni, Cahyaning Riski Wijayanti, Muhamad Aldi Maulana, Aditya Rinaldy, Rizal Rizal	Anti-inflammatory Activity Screening of Pineapple (Ananas comosus) Core Extract in Lipopolysaccharide-induced RAW264.7 Cell Line
ABS-008	Wahyu Widowati, Rita Tjokropranoto, Cindy Damayanti, Hanna Sari Widya Kusuma, Aditya Rinaldy, Rizal Rizal	Potential of Black Tea (Camellia Sinensis (L.) O. Kuntze) Extract as Anti-oxidant, Skin Anti-aging
ABS-009	Ervi Afifah, Hartini Tiono, Philips Onggowidjaja, Selonan Susang Obeng, Wahyu Widowati, Cintani Dewi Wahyuni, Cahyaning Riski Wijayanti, Muhammad Aldi Maulana, Tri Handayani, Rizal Rizal	Luteolin Possess Anti-Inflammatory Effect on LPS induced RAW 264.7 Cell Lines
ABS-029	Julia Windi Gunadi, Diana Krisanti Jasaputra, Decky Gunawan, Ludovicus Edwinanto, Kwee Limdawati, Harijadi Pramono, Adrian Suhendra, Ghita Sariwidyantry, Hanna Goenawan, Ronny Lesmana	The Effect of Different Intensities of Treadmill Exercise on FGF23 Gene Expression in Gastrocnemius and Soleus Muscles of Wistar Rats
ABS-038	Ermi Girsang, Chrismis Novalinda Ginting, I Nyoman Ehrich Lister, Cahyaning Riski Wijayanti, Wahyu Widowati, Rizal Rizal	Antioxidant Properties of Salacca zalacca (Gaertn.) Voss Peel Ethanolic Extract Compared to Chlorogenic Acid
ABS-043	Tiur Gantini, Hans Christian	Analyse Protein Model of the SARS-CoV-2 Virus Using Data Mining Methods

Day 1: Thursday, 1 July 2021

ROOM C at 10:30-12:00

Bio informatics, Medical and Veterinary Science	Authors	Title
ABS-067	Didik Priyandoko, Wahyu Widowati, Cintani Dewi Wahyuni, Hanna Sari Widya Kusuma, Rizal Rizal	Antioxidant Properties of Soybean (Glycine max) Extract and Its Compounds
ABS-083	Dian Ratih Laksmiawati, Diah Ika Pratami, Wahyu Widowati, Hanna Sari Widya Kusuma, Cahyaning Riski Wijayanti, Cintani Dewi Wahyuni, Ervi Afifah3, Rizal Rizal	Significance of Antioxidant Properties of Curcuma longa L. and Curcuma xanthorrhiza rhizomes
Dental Science and Advanced Dentistry	Authors	Title
ABS-034	Vinna Kurniawati Sugiaman, Henry Yonatan Mandalas, Ethan Yeshael Tanamal, Nathalia Cahya Calista, Natallia Pranata	The Effect of Agarwood Leaves Ethanol Extract on Porphyromonas Gingivalis Growth Inhibition and in Vitro Cytotoxicity Assay on Fibroblast
ABS-087	Aprianisa Obsidiary Daisy Tangan, Hendra Polii and Rosalina Intan Saputri	Comparison of Two Dental Age Estimation Methods: the London Atlas and the Schour & Massler Atlas in 3-23 Years Old Indonesian
ABS-095	Rudy Djuanda, Eliza Madyanty, Almira Angganini Witjaksono, Vinna Kurniawati Sugiaman, Natallia Pranata	The Effect of Apple Vinegar as an Irrigation Solution to Dental Root Canal Microstructure



Paper Presentation 2

Day 1: Thursday, 1 July 2021

ROOM D at 14:00-15:30

Electrical, Electronics, Computer Engineering and Science	Authors	Title
ABS-049	I Gede Made Karma, I Ketut Gede Darna Putra, Made Sudarna and Linawati	The Color Dissimilarity Based Method Among Other Segmentation Methods: a Comparison
ABS-054	Sodikin- Hendramawati Aski Safarizki	Safety Driving Behavior of Adolescents Pre-Ownning Driving License (SIM)
ABS-064	Erwani Merry Sartika, Novie Theresia Br. Pasanbu, Richard Setiawan, Reynaldy Felicius Gunawan, Dion Melvern Siswanto, Che-Wei Lin, and Febrian Setiawan	Virtual Reality Stimulants of Motor Ability through the Virtual Reality-Based Game
ABS-094	Zainal Anfin- Linda Fitri	Implementation of Battery Energy Storage System at Cirata PV Solar Floating for Reducing the Electricity Cost Production on Jamali Grid
Process Automation, Scheduling and Adaptive Industrial Engineering	Authors	Title
ABS-068	Novie Theresia Br Pasanbu, Vivi Anisandhy, Christina, Elty Sarvia, Rainisa Maini Heryanto, Erwani Merry Sartika, Audyati Gany, Olga Catherina Pattipawaej, Richard Setiawan, Jessica	Design of Bilateral Hand Movement Device
ABS-081	Winda Halim, Rainisa Maini Heryanto, Santoso, Christina, Erwani Merry Sartika, Audyati Gany, Andrew Sebastian Lehman, Anggie Ervany Haryono, Vieri Candhya Wigayha	Experimental Design of Driving with Distractions at Urban Area using Simulator Driving

Day 1: Thursday, 1 July 2021

ROOM E at 14:00-15:30

Geo informatics, Building Structure, Landscape and Architecture	Authors	Title
ABS-021	Robby Yussac Tallar1 , Teofilus Sawang1	Experimental Study on Velocity Profiles due to Ecological Barriers
ABS-025	Cut Talitha Salsabila Nurapili, Robby Yussac Tallar, Alexander Yovan Suwono	Comparative Study of Riprap Model Design for Scour Protection of Bridge Pier
ABS-026	Daud Rahmat Wiyono, Roi Milyardi, Yosafat Aji Pranata, Robby Yussac Tallar	The Experimental Study of Optimum Thickness on Riprap Layer Design
ABS-027	Daud Rahmat Wiyono1 , Roi Milyardi2 , YosafatAji Pranata3 and Robby Y Tallar3	The Effect of Seismic Masses in Calculation of 17th Building Structures
ABS-030	Deni Setiawan1 , and Stefanny Abigail	Identification of Risk Factors for Delayed Time Schedule in Summarecon Serpong Playfield Preschool Project

Day 1: Thursday, 1 July 2021

ROOM F at 14:00-15:30

Geo informatics, Building Structure, Landscape and Architecture	Authors	Title
ABS-033	Roi Milyardi1 , Deni Setiawan2 and Tri Octaviani Sihombing3	Flood Risk Assessment of Heritage Building in Semarang City
ABS-052	Jeffrey Limas Lim, Ayomi Dita Rarasati, and Mohammad Ichsan	Identification of Risks in Making Decision for Overseas Expansion by Indonesian State-Owned Construction Enterprise
ABS-053	Rumasoreng W.A.K .Karyadi , and Nindyawati	Pull-Out Resistance of Glued-In Rod Embedded Parallel to Grain in Laminated Bamboo with Two Edge Distance Variations
ABS-066	Marwahyudi, S Sangadji, Halwan Alfisa Saifullah, SA. Kristiawan	Experimental Study of Shear Strength of <i>Purus Lobang Berkait</i> (PLB)-Masonry Wall
ABS-073	Noek Sulandari, Cindrawaty Lesmana, Cindy Maria Setyana	Engineering Education: Measuring the Relationship Between Knowledge and Confidence to the Student Performance
ABS-097	Ferlina Sugata, Nathalia Yunita Sugiharto, Nina Nurviana, Seriwati Ginting, Isabella Isthipraya Andreas, Shirly Nathania Suhanjoyo, Andi A. Hamzah and Heddy Heryadi	Bio-Cord as an Ecotechnological Wastewater Treatment for Productive and Attractive Urban Open Spaces



Paper Presentation 3

Day 2: Friday, 2 July 2021

ROOM G at 10:30-12:00

Health informatics, Public Health, and Clinical Research	Authors	Title
ABS-016	July Ivone, Stella T Hasianna and Victor Yohanes S, Vilva Ruthy W	Relationship between Low Birth Weight (LBW), Birth Length, Basic Immunization History and Stunting in Children Age 9 - 60 Months in Kabupaten Purwakarta
ABS-040	Nur Ika Haniastuti, Nike Susanti, Hana Apsari Pawestri and Kartika Dewi Puspa	Application of Freeze-thaw Harvest for SARS-CoV-2 PCR EQA Panel Material
ABS-046	Charissa Lazarus, Khamelia Malik	Suicide and Narcissistic Personality Traits: a Review of Emerging Studies
ABS-058	Elty Sarvia, Elizabeth Wianto, Erwin Ardianto Halim, Elvira Natalia	Expected Variables to Design Sleeping Facilities for the Elderly Based on the Potential Stakeholders Point of View
ABS-093	Wahyu Widowati, Teresa Lihana Wargasetia, Fanny Rahardja, Rimonta F Gunanegara, Hanna Sari Widya Kusuma, Seila Arumwardana, Cintani Dewi Wahyuni, Aditya Rinaldy, Cahyaning Riski Wijayanti, Tri Handayani, Rizal Rizal	Potential of Wharton's Jelly Mesenchymal Stem Cells as an Alternative Candidate for Covid-19 Therapy

Day 2: Friday, 2 July 2021

ROOM H at 10:30-12:00

Software Engineering, Information and Communication Technology	Authors	Title
ABS-011	Apriliana Fajri Wibowo, Yova Ruldeviyani	Factors Affecting Success of Team Members in Indonesia Scrum Implementation
ABS-013	Erwin Ardianto Halim, Monica Hartanti, Maresha Caroline Wijanto, Yosepin Sri Ningsih, Hendra Setiawan, Yudita Royandi, Yunita Setyoningrum, Berti Alia Bahaduri, Aulia Wara Arimbi Putri	The Application of Digital Module Design of East Sumba Woven Fabric on Interior Accessories
ABS-057	Bayu Rima Aditya, Dina Fitria Murad, Oscar Kamalim, Aditya Permadi, Andrisyah, Fathul Jannah, and Irawan Nurhas	The Use of Technology in Indonesian K-6 Education during Covid-19 Pandemic: a Review
ABS-060	Febrina Anastasha, Teddy Marcus Zakaria	Build Software of Information Management Community Service Events
ABS-096	Bernard Renaldi Suteja, Wilfridus Bambang Triadi Handaya	User Interactions Analysis on a Moodle-based online Learning Management System during Pandemic

Paper Presentation 4

Day 2: Friday, 2 July 2021

ROOM I at 13:00-14:30

Nutrigenomics and Food Science	Authors	Title
ABS-019	TE Pramudito, EGA Putri, E Paluphi, G Florencia, MR Gunawan, MP Pratiwi and Y Yogiara	Bioactivity of Soybean Tempeh Against Diarrhea Associated Pathogen is More Correlated with the Number of Total Bacteria than Specific Major Bacterial Phylum
ABS-031	Diana Krisanti Jasaputra, Julia Windi Gunadi, Penny Setyawati Martoso, Larissa, Yenny Noor, Ima Permanasari Gani, Erik Dwikurnia Saiman, Desman Situmorang, Andi Haryanto	Effects of Herbal Ingredients (Allium Sativum, Punica granatum, Curcuma longa, Curcuma xanthorrhiza) on FATP3 Gene Expression in Aorta of High Fat Diet-fed Rats: a Preliminary Study
ABS-055	Sri Wulandari, Makhmudun Ainuri and Anggoro Cahyo Sukartiko	Biochemical Characteristics of Ground Robusta Coffee under Various Postharvest Technologies and Processing Parameters
ABS-092	Deni Rahmat, Wahyu Widowati, Etik Mardiyati, Eny Kusnini, Abdi Wira Septama, Yati Sumiyati, Mita Restinia, Syaikhurizal El Muttaqien, Cintani Dewi Wahyuni, Hanna Sari Widya Kusuma, Muhammad Aldi, Tri Handayani, Rizal Rizal	Substantially Improved Antioxidant Activity of Modified Polymeric Nanostructure Entrapping Curcumin

Day 2: Friday, 2 July 2021

ROOM J at 13:00-14:30

Machine Learning, Edge Computing, Deep and Federated Learning	Authors	Title
ABS-032	Hendra Bunyamin, Hapnes Toba, Meyliana, and Roro Wahyudiansih	Breast Cancer Histopathological Image Classification Using Progressive Resizing Approach
ABS-082	Natalia Hartono	Multi-objective Bees Algorithm for Feature Selection
ABS-089	Audyati Gany, Meilan Jimmy Hasugian, Erwani Merry Sartika, Novie Theresia Br. Pasanbu, Hannah Georgina	Eye Abnormality Automatic Detection Using Deep Learning based Model



ICE-HUMS Timetable

Paper Presentation 1

Day 1: Thursday, 1 July 2021

ROOM K at 10:30-12:00

Family, Gender and Intergenerational Issues	Authors	Title
ABS-26	Jeanyfer, Eva Tuckyta Sari Sujatna, Susi Yuliawati, Trisnowati Tanto	Female Representation in <i>Legenda</i> Tangkuban Perahu: a Transitivity Analysis
ABS-36	Afifah Z. Sari, Destie N. Ramadhan, Minerva Patricia, Pingkan C. B. Rumondor, Farah M. Djalal	How do Indonesians perceive Marriage? Semantics Analysis of Marriage as a Concept and its Relation with the Well-Being
ABS-50	Abd Rahman, Sri Rum Giyarsih, Sigit Herumurti BS	Desire to Have Children Assessed from Socioeconomic Context Post Disaster in Palu
ABS-59	O.Irene Prameswari Edwina, Tesselonika Sembiring, Cindy Maria, Jean Esparanci	Family Resilience: Traits, Positivity, and Close Relationship in Adolescents
ABS-60	Ria Wardani, Ira Adelina, Heliany Kiswantomo	Predicting Retention: Sociodemographic, Motivational, and Perceived Social Support Factors
ABS-64	Fenty Lidya Siregar, Henni, Silvanni Comara	The Representation of Gender in Gamer's Politically Correct Bedtime Stories: a Critical Stylistic Analysis

Day 1: Thursday, 1 July 2021

ROOM L at 10:30-12:00

Financial Models, Accounting, Marketing and Economic Growth	Authors	Title
ABS-20	Tan Ming Kuang, Lidya Agustina, and Yani Monalisa	Using Educational Game for Improving Students' Knowledge and Interest in Investing in the Capital Market
ABS-24	Apriani D.R. Atahau, Imanuel Madea Sakti, Cheng-Wen Lee, Andrian D. Huruta	Green Microfinance and Renewable Energy: Empowering the Role of Women in Rural Areas
ABS-34	Yenni Merlin Djajalaksana and Doro Edi	Utilization of Digital Marketing after Covid-19 Pandemic in Indonesia Businesses
ABS-41	Moh Farid Najib	Assessing Business Performance of the Traditional Market Trader: the Role of Buyer-Supplier Relationship and Dynamic Capabilities
ABS-51	Maya Malinda, Asni Harianti, Yolla Margaretha, Henky Lisan Suwarno, Kaleb Immanuel Yahya, Miki Tjandra	Comparison of Financial Literacy for Micro, Small and Medium Enterprises Entrepreneurs at Bojong Soang upon Using Financial Planning Application "SAKA (peSAK Abdi)"
ABS-57	Rhosalina Damayanti, Adrian Izaak Rompis and Aprina Nugrahesthy Sulistya Hapsari	Testing the Internal Control of Simda Application in Effort to Improve Public Accountability

Day 1: Thursday, 1 July 2021

ROOM M at 10:30-12:00

Financial Models, Accounting, Marketing and Economic Growth	Authors	Title
ABS-62	Rima Kusuma Rini, Nanda Ayu Wijayanti	Does Socioeconomic Factors drive Peer to Peer Lending? Analysis in Indonesia
ABS-65	Christina Wirawan	Bibliometric Analysis of Product-Service System Related to Life Cycle
ABS-77	Elvira Luthan, Yulia H. Yeni, Eri Besra	Analysis of Factors Affecting the Sustainability of Village-Owned Enterprise in the Province of West Sumatera
ABS-80	Ita Salsalina Lingga	The Importance of Internal Control on Accounting Information System's Quality: Survey on Banking Sector
ABS-99	Ilham Pranata, SeTin SeTin	The Roles of Organizational Politics and Fairness in the Relationship between Relative Performance Evaluation and Managerial Performance
ABS-110	Marcellia Susan, Jacinta Winarto, Agus Anbowo, Yusuf Osman Raihin, Martalena, Herlina, Herman Kambono, Enny Prayogo	Sustaining Customer Loyalty in Higher Education



Paper Presentation 2

Day 1: Thursday, 1 July 2021

ROOM N at 14:00-15:30

Financial Models, Accounting, Marketing and Economic Growth	Authors	Title
ABS-135	Rifal Hijira, SeTin SeTin	The Interactive Effects of Superior Trust and Subordinate Involvement in Decision Making on Budget Gaming and Budget Value
ABS-139	Michael Christian, Lasmary RM Girsang, Henilia Yulita	Measuring Ease of Use Aspects of Shopee Usage Behaviour During Pandemic Using the PLS-SEM Approach
Psychological, Education and Social Resources in the New Normal	Authors	Title
ABS-75	Yuspendi, Trisa Genia C. Zega, Indah Soca R. Kuntari, Lie Fun Fun, and Ida Ayu N. Kartikawa	The Role of Adult Attachment and Spiritual Well-Being Towards Wife's Marriage Satisfaction in the Muslim Community of Bandung
ABS-109	Imelda Junita, Fanny Kristine, Sherlywati, Rizki Muhamad Sidik	Potential Relationship between Students' Satisfaction on University Attributes and Positive or Negative Word-of-Mouth (WOM) and Its Correlation with their Recommendations
ABS-115	Purnama E.D. Tedjokoesoemo, Poppy Firtatwentya Nilasari, and Sriti Mayang Sari	Addressing The Independent Learning Curriculum (<i>Kurikulum Merdeka Belajar</i>) as a Form of Positive Disruption to Empower the Community
ABS-134	Robert O. Rajagukguk, Candra Sinuraya, Jane Savitri, Kristin Rahmani, Stephanie Andamani	Model of Student Identity Development by Chickening Theory

Day 1: Thursday, 1 July 2021

ROOM O at 14:00-15:30

Hybrid Approaches to Create Sustainability in Arts and Design	Authors	Title
ABS-8	Elizabeth Wianto, Monica Hartanti	The Role of Sustainable Packaging Design for West Java Local Products
ABS-16	Ariesa Pandanwangi- Dewi Isma Aryani- Belinda Sukapura Dewi- Ismet Zaenal Effendi- Wawan Suryana- MikiyEndro Santoso- Leonardo- Beni Sasmito	Spiritual Value: a Mythological Figure in Keraton Kanoman Cirebon
ABS-40	Christine Claudia Lukman, Krismanto Kusbiantoro, Irena Vanessa Gunawan, Lois Denissa, Eliati Djakania, I Nyoman Natanael, Grace Caroline Sahertian, Wenny Anggraini Natalia	Multidiscipline Hybrid Approach in Art and Design Education to Support the Sustainability of Batik Cimahi
ABS-46	Greysia Susilo, S.E., S.Sn., M.Hum., Veila Venisia	Changes in Interior Design Programming at Residential after Covid-19 Pandemic
ABS-82	Lois Denissa	JFC Timeless Uses Hybrid Codes in Costumes for Reaching Sustainable Identity
ABS-87	Isabella Isthiyaya Andreas, Shirley Nathania Suhanjoyo, Andi Aulia Hamzah, Ferlina Sugata, Nathalia Yunita Sugiharto, Nina Nurviana, Heddy Heryadi, and Seriwati Ginting	The Improvement of <i>Jamu</i> Appeal Using Creative Sales Strategy and Contemporary Design

Day 1: Thursday, 1 July 2021

ROOM P at 14:00-15:30

Hybrid Approaches to Create Sustainability in Arts and Design	Authors	Title
ABS-105	Ratnadewi, Agus Prijono, Ariesa Pandanwangi, and Andrew Sebastian Lehman	Preservation of the Tasikmalaya <i>Batik</i> Motif with Turtle Graphics
ABS-121	Ariesa Pandanwangi, Ratnadewi, Agus Prijono	Local Potential as the Source of <i>Batik</i> Design Using Turtle Graphics
ABS-151	Hayu Puspasari Saputri	Arumawa II: New Normal and Sustainable Café Concept in Turirejo, Malang, East Java
ABS-152	Elizabeth Susanti Gunawan, Krismanto Kusbiantoro and Sugiri Kustedja	Transformation of a Chinese Cultural Heritage House in Bandung: Towards Sustainability
ABS-153	Kezia Clarissa Langi, Dian Widiawati, Setiawan Sabana, and Tusita Metadevi Jayamangalani Suprpto	Development of Weaving Craft Motif Designs as a Diversification Attempt for Nias Local Souvenir Products
ABS-154	Petrus Gogor Bangsa- Wening Udasmoro, and Christian Budiman	Self-taught Online Graphic Designer in Salaman, Magelang: Between Art Work, Decent Work and Vulnerable Work



Paper Presentation 3

Day 2: Friday, 2 July 2021

ROOM Q at 10:30-12:00

Law and Legal Systems for Sustainable Development	Authors	Title
ABS-9	Johannes Ibrahim Kosasi- Yohanes Hermanto Sirait	Urgency in Using Indonesia Language on Business Contracts and Potency of Investment Dispute (the Study of Supreme Court Decision Number 601 K/ Pdt/2015)
ABS-10	Tresnawati	Corporate Social and Environmental Responsibility Regulation and Implementation in Indonesia: Contribution for Sustainable Development or Legalized Robbery?
ABS-15	Rahel Octora , Fauzan Hanif M.	Financial Exploitation by Spouse, a Crime in Private Space (an Overview Based on Indonesian Legal System)
ABS-53	Ida Sumarsih	Study of Stock Ownership Nominee Agreement in Mining Business to People's Welfare that is Aligned for Sustainable Development Goals
ABS-70	Reggiannie Christy Natalia	Part Time Working Arrangement in Omnibus Law as Part of Sustainable Development and How it is Implemented in Developed Countries
ABS-108	Agus Setiawan, Hamis Wiguna, Pan Lindawaty Suherman Sewu	Good Faith Principle and Legal Protection over Parties Related to Fiduciary Certificate in the Constitutional Court Decision in Indonesia after the Constitutional Court Decision Number 18/PUU-

Day 2: Friday, 2 July 2021

ROOM R at 10:30-12:00

Mental Health, Human Resources, Leadership and Well-being	Authors	Title
ABS-22	Missiliana Riasnugrahani, Meta Dwijayanthi, Cindy Maria	Calling and Work Engagement in Priest: the Moderating Role of Social Support
ABS-23	Susanti Saragih, Meily Margaretha, Sherlywati	The Role of Calling and Job Crafting on the Promotion of Employee Engagement for Organizational Sustainability
ABS-28	Hasna Fauziati Zakkiyah, Stella, Farah Mutiasari Djalal, & Yosef Dedy Pradipto	What does Sejahtera mean to you? The interpretation of Sejahtera based on money-saving habit, happiness, and life satisfaction
ABS-58	Ida Ayu Nyoman Kartikawati, Lie Fun Fun , Lisa Imelia, Stephanie Andamani	Teacher Self Efficacy and Work Engagement: the Mediating Role of Psychological Well Being
ABS-63	Heliany Kiswantomo & Theofanny	Neuroticism and Subjective Well-Being in Faculty of Psychology Student
ABS-66	Leonardus Dewa Hardana, Rayini Dahesihsari	Internal Change Agents' Strategies to Deal with Boundary in Organizations in Indonesia

Day 2: Friday, 2 July 2021

ROOM S at 10:30-12:00

Mental Health, Human Resources, Leadership and Well-being	Authors	Title
ABS-091	Pingkan C. B. Rumondor , Elien Rosalie, Syifa Fauziah, Adriana Ginanjar, Claudia Chiarolanza, Ashley K. Randall	Perceived Individual, Partner, and Community Stressors Related to Covid-19 Quarantine in Indonesia: a Qualitative Study
ABS-094	Efnie, Indrianie	Brain Respiration to Overcome Stress People Who Live with HIV (ODHIV)
ABS-101	Rhea Griselda- Olivia Gunawan- Laksmi Kusuma Wardani	The Interior of Medium-Scale Business Tiara Handicraft in Surabaya with Accessible Design Principle for Mentally and Physically Disabled Employees
ABS-102	Mutiara Ramadhita Roesad, Pingkan Cynthia Belinda Rumondor	Happily Married in the Absence of a Child: Marital Satisfaction of Voluntary and Involuntary Childless Individuals
ABS-136	Ka Yan, Priska Analya	Gratitude Journal, Expressive Writing and Mindfulness
ABS-138	Henlia Yulita, Vincencius Farrel Jonathan, Yustinus Yuniarto, Michael Christian, Eko Retno Indriyarti, Suryo Wibowo	The Role of Affective Commitment in Mediating the Relationship between Authentic Leadership and Organizational Learning at Chicken-Based Food Processing Company in Indonesia

Day 2: Friday, 2 July 2021

ROOM T at 10:30-12:00



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Mental Health, Human Resources, Leadership and Well-being	Authors	Title
ABS-155 ABS-159	Ni Luh Ayu Vivekananda, Evi Ema Victoria Polii Erwin Permana, Widarto Rachbini, Wasi Widayadi, Rukun Santoso	Perma - a Multidimensional Framework of Well-Being in Indonesian Adults The Dimensions of Transformational Leadership and Their Impacts on the Performance of Construction Business during Covid-19 Pandemic
Psychological, Education and Social Resources in the New Normal	Authors	Title
ABS-39	Ira Adelina, Vida Handayani, Maria Yuni Meganini	Systematic Literature Review on Mindset and the Benefits in Living New Normal Life
ABS-52	Tery Setiawan, Indah S.R. Kuntari, and Indah Puspitasari	Human Development Index in Indonesia: Are We in Line with SDGs and How Much Have We Grown?
ABS-54	Ellen Theresia, Marissa Chitra Sulastra and Serena Wijaya	Role of Parental Stress in Parenting Practice in Parents of Middle Childhood Children

Paper Presentation 4

Day 2: Friday, 2 July 2021

ROOM U at 13:00-14:30

Religion, Language and Humanity Issues in Sustainable Communities	Authors	Title
ABS-2	Anton Sutandio, Ph.D.	Indonesian Film Industry amidst the Covid-19 Pandemic: an Observation on Sustainability Efforts
ABS-27	Trisnowati Tanto, Sri Iriantini	Local Wisdom in Indomie and Demae Icechou Video Advertisements: a Multimodal Analysis
ABS-38	Mohamad Makincoiri, Mulyana	The Influences of Song Lyrics "Jagad Anyar Kang Dumadi" on the Productivity of Traditional Artists in Yogyakarta: a Critical Discourse Analysis
ABS-43	Selvia, M.Hum., Yohan Yusuf Arifin, M.His., Septerianie Sutandi, M.TCSOL.	Representation of Political, Social, and Cultural Phenomena in Biopics of Chinese Indonesian Figures Using Historical Approach
ABS-67	Brian L. Djumaty: Nina Putri Hayam Dey	Food Sustainability in Local Wisdom Perspective of the Indigenous People Dayak Tomun Lamandau
ABS-73	Dexon Pasanbu, Bagus Takwin, Pim Marten	The Role of Religious Orientation and Ethical Ideologies in Environmental Concerns amongst Teachers and School Staff in East Java, Indonesia

Day 2: Friday, 2 July 2021

ROOM V at 13:00-14:30

Religion, Language and Humanity Issues in Sustainable Communities	Authors	Title
ABS-78	Vera Budi Lestari Sihotang	Tangos' Therapy: Health Behavior as the Result of Normalizing Power in Medicating Symptoms of Malaria on the Community of Sebesi Island
ABS-84	Maryani	The Perceptions of Indonesian University Students on the Use of Extensive Reading in English Grammar Class
ABS-90	Xuc Lin, Mariana, Fu Ruomei	Raising Environmental Awareness Through Teaching Chinese as a Second Language at University
ABS-95	Huriyah	Local Religions and Contested Civic Space in Indonesia: a Case Study of Sunda Wiwitan community in Cigugur
ABS-103	Irsanti Widuri Asih, Heru Nugroho, Budiawan	New Constellations of Power and Resistance in the Platform Economy: Study of Gojek
ABS-104	Devi Riskianingrum- Herry Yogaswara	The Recalled of Disaster Memory on Sebesi Island: a Historical Perspective

Day 2: Friday, 2 July 2021

ROOM W at 13:00-14:30

Religion, Language and Humanity Issues in Sustainable Communities	Authors	Title
ABS-106 ABS-113	Olivia Gunawan- Rhea Griselda- Diana Thamrin Rizki Theodorus Johan, S.S, M.A, Sonny Angjaya, S.S, M.Hum.	The Influences of Chinese Culture on Historical Buildings in Surabaya Healing Through Acting: the Therapeutic Effect through Online Monologue Performance
ABS-132	Julianti Kasih1, Yenni Merlin Djajalaksana2 and Doro Edi3	Digital Interactions in Church Communities Attributable to COVID-19 Pandemic
ABS-156	Ulyna Dewi	Phonics Instruction for Young Learners in EFL Context: a Comparative Review
ABS-158	Muhammad Syafar, Helmy Faizi Bahrul Ulumi	Social Entrepreneurship Pesantren-Based to Support Rural Development in the Era of Covid-19 Pandemic (Case Study in District of Lebak, Banten Province, Indonesia)



Keynote Speakers



Ignasius Jonan

Former Minister for Energy & Mineral Resources of Indonesia (2016-2019), former Minister of Transportation (2014-2016) and former CEO of the Indonesian government-owned railway company, PT Kereta Api Indonesia (PT. KAI) which he preside from 2009 to 2014. Born in Singapore, Jonan received his Bachelor's degree in Accounting from Airlangga University, Surabaya in 1986, and M.A. in International Relations and Affairs from the Fletcher School of Law and Diplomacy and Tufts University in 2005. He started his professional

career in the banking sector, holding a managing director role in the American banking and financial services corporation, Citigroup. Right now, he is Independent Commissioner at PT Unilever Indonesia and PT Industri Jamu dan Farmasi Sido Muncul, Tbk.

Abstract

"World Order after Pandemic?"

The world must move on from neoliberalism after the pandemic. According to World Economic Forum Founder Klaus Schwab Free-market fundamentalism has eroded worker rights and economic security, triggered a deregulatory race to the bottom, and prompted the emergence of massive new global monopolies. So as COVID-19 shakes the globe, it's time to re-evaluate some sacred cows. In the decades after WWII, the world made huge strides towards eradicating poverty, reducing childhood mortality, increasing life expectancy and expanding literacy. Capitalism, trade and international cooperation drove these changes, and must be defended. We must also remain focused on the Fourth Industrial Revolution and digital technology. Recent advances have given us the tools to confront the crisis through vaccines, new treatments and personal protective equipment. But it's time to confront outdated aspects of the global economy. Chief among these is the neoliberal ideology which supports free markets, financial deregulation and fiscal austerity. We must rethink what we mean by 'capital', whether financial, environmental, social or human. Today's consumers do not just want cheaper, better goods and services. Instead, they expect companies to contribute to the common good. There is a demand for a new kind of approach: stakeholder capitalism. Where businesses work to improve the state of the world, and not just shareholder profits. How do you think we can make the world a fairer place?



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Prof. Dr. Ahmad M. Ramli, SH, MH, FCBArb

Born in Bandung on July 4, 1961, Prof. Dr. Ahmad M. Ramli, SH, M.H., FCBArb is Professor of Legal Studies, University of Padjadjaran who has experiences more than 10 years as Echelon I on several government agencies. In October 2016, he was appointed as Director General of Post and Information Technology, Ministry of Communications and Information Technology. He pursued education by completing the Bachelore, Master and Doctoral Program of Law (cumlaude)

at Padjadjaran University and Visiting Scholar Program at the University of California Berkeley United States, as well as some International training of Intellectual Property Rights. When he was a grand-student, he has been named by the Ministry of Education and Cultural Affairs as Exemplary Student of University of Padjadjaran in 1985.



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Prof. John Hendry Silke

Prof. John Hendry Silke was born on 6th March 1968. He pursued his undergraduate education at King's College, University of London and Churchill College, University of Cambridge. He then continued his education at the Institut für Molekularbiologie II, University of Zürich. Currently, he is a professor & theme leader in The Walter and Eliza Hall Institute. He is also adjunct associate professor at La Trobe University, Melbourne. Furthermore, he is an editorial board member in Cell Death & Differentiation Journals and reviewing editorial board in Science Signalling

Journals. Lastly, he is also a consultant in Anaxis. He has 168 publications with H-Index 65.

Abstract

TNF - "Quid Custos Ipsos Custodiet" Juvenal - Who Will Guard the Guards

Tumor necrosis factor (TNF) is an inflammatory cytokine that, upon binding to its receptor TNFR1, can drive cytokine production, cell survival, or cell death and is a major component of an organism's anti-pathogen repertoire. It is a major guardian against infection, but when its regulation goes awry it can result in chronic inflammatory diseases that are a huge health burden. My lab tries to understand, using a combination of genetics and molecular biology, how TNF signalling is regulated with the hope that this will lead to new therapeutic opportunities. In the first part of my talk I will discuss a recently published study¹ describing a new auto-inflammatory syndrome that results from loss of one level of regulation. And in the second I will discuss unpublished work that has led to the identification of a new type of post-translational modification that limits the ability of TNF to induce cell death and which may help it guard against viral infections, including coronavirus.

¹Lalaoui et al, 10.1038/s41586-019-1828-5; Mutations that prevent caspase cleavage of RIPK1 cause autoinflammatory disease, Nature 2020.





Prof. Takayuki Arai

Prof. Takayuki Arai was born on November 12, 1966. He pursued his undergraduate education at Faculty of Science and Technology, Sophia University. He then continued his education at Faculty of Science and Technology, Sophia University. Currently, he is a professor at the Department of Information and Communication Sciences, Sophia University, 7-1 Kioi-cho, Chiyoda-ku, Tokyo, Japan. He is also a member of academic societies such as International Speech Communication Association (ISCA), The Institute of Electrical and Electronics Engineering (IEEE), The Institute of Electronics, Information and Communication Engineers, Japan (IEICE), The

Acoustical Society of America (ASA), The Acoustical Society of Japan (ASJ), etc.

Abstract

What is a Speech Chain and How Can This Concept Be Applied to the Various Areas of Speech Communication in an Intelligent Society?

The concept of “Speech Chain” introduced by Denes and Pinson is widely used to interpret speech communication systems. The concept was originally aimed at human speech communication: a speaker first forms a message in his/her brain, the message is transformed into an acoustic signal that is sent to a listener, and the listener decodes the signal back into the original message. This simple situation can be extended to many scenarios. The acoustic signal can be fed into a telephone and transmitted over a telephone network. In human-computer communication, the speaker can be a speech synthesis system or the listener can be an automatic speech recognition system. For people who have lost the ability to talk, a speech synthesis system can improve their quality of life, and for people who have impaired hearing, an automatic speech recognition system can be a saviour. Communication with others is crucial as we live with other people in a society. As societies transform into intelligent societies, it is even more important to investigate speech communication systems from a scientific point of view and develop relevant applications in accordance with scientific findings. In this talk, the speech production mechanism will first be reviewed by using a set of vocal-tract models. Then, Speech Chain variations will be introduced for various areas in speech communication. Finally, application of the Speech Chain concept to an intelligent society through our “My Voice” project will be shared.

Keywords: Speech Chain, Speech Communication, Speech Production, Speech Perception, Vocal-tract Models, My Voice Project





Prof. Young Ho Kim Ph.D.

Prof. Young Ho Kim Ph.D. is a Professor College of Pharmacy in Chungnam National University, Daejeon 305–764, Korea.. He completed all of his education in College of Pharmacy, Seoul National University, Korea. He received several awards, such as Gasan Kwangdong Haksooldaesang in 2019, Good Teacher's Award (Chungnam National University) in 2018, and Haksooldaesang (Korean Society of Pharmacognosy) in 2016. He has 675 papers published and HIndex Scopus 66

Abstract

Bioactive Components from Ginseng-Like Medicinal Plants

Ginseng-like medicinal plants worldwide and plant-originated adaptogens have very similar phytochemical and pharmacological properties. Several members are belonging to the Araliaceae, the ginseng family of flowering plants, and economically very important in Asian country including Korea, Japan and China. In our ongoing research for Araliaceae family plants, we focused on the phytochemical constituents and their pharmacological activities from *Panax ginseng*, *Acanthopanax koreanum*, *Kalopanax pictus* and *Dendropanax morbiferus*.

P. ginseng is a perennial plant and popular traditional herbal medicine that has been used to increase vitality, prolong life, enhance the resistance of the human body and have various beneficial effects, such as anti-fatigue, anti-stress, anti-anxiety, anti-inflammatory, and anti-depression. From the several parts of ginseng roots, leaves and flower buds, many new dammarane-type saponins were isolated and evaluated on pharmacological activities including effects on the intracellular radical scavenging, the growth of HL-60 human leukemia cells, the lipopolisaccharide (LPS)-induced interleukin (IL)-12 production in bone marrow-derived dendritic cells, and the myocyte contraction, respectively.

A. koreanum is an indigenous plant in Korea and used for arthritis, rheumatism, lameness, high blood pressure and as a tonic. Several pimarane-type diterpenoids and lupane-type triterpenoids were isolated from roots, stems and leaves of *A. koreanum*. They were tested inhibitory effects on the LPS-stimulated production of pro-inflammatory cytokines in bone marrow-derived dendritic cells.

K. pictus is a deciduous tree growing in East Asian countries. The stem bark of *K. pictus* has been used in traditional medicine to treat rheumatic arthritis, neurotic pain, and diabetes mellitus. The anti-inflammatory activity of isolated compounds was evaluated through inhibition of a TNF α -induced NF- κ B luciferase reporter and by attenuation of TNF α -induced pro-inflammatory gene (iNOS and COX-2) expression in HepG2 cells.

D. morbiferus, an endemic species in South Korea, has been used as an alternative traditional medicine for several diseases, such as headache, dysmenorrhea, infectious disorders, and skin disorders, for a long time. The extract of *D. morbiferus* leaves significantly inhibited tyrosinase activity and melanin formation in MSH-induced B16-F10 cells. It reduced melanogenesis-related protein levels, such as microphthalmia-associated transcription factor (MITF), TRP-1, and TRP-2, without any cytotoxicity

This report provides scientific support to the therapeutic use of ginseng-like medicinal plants and rationale for further studies on the application of these medicinal plants and their chemical components in medical use.





Ferry Sandra

Ferry Sandra is a lecturer in Faculty of Dentistry, Trisakti University and an adjunct lecturer at the Faculty of Pharmacy, Padjadjaran University as well as the Faculty of Medicine, University North Sumatra. Apart from being a lecturer, he is also the editor in chief of the Indonesian Journal of Cancer Chemoprevention and a consultant at Prodia. He pursued his undergraduate education in Dentistry, University of Indonesia. Then, he continued his education at Oral and Maxillofacial Surgery, Kyushu University and Molecular and Cellular Biochemistry, Kyushu University. He has published 80 scientific papers over the last 10 years.

Abstract

Development of Dental Pulp Stem Cell and Its Application

Role of dental stem cells continues throughout life. The stem cells do not play a role in tooth development merely, but in tooth homeostasis and repair as well. Several types of dental stem cells, including dental pulp stem cell (DPSC), stem cell from apical papilla (SCAP), stem cell from exfoliated deciduous teeth (SHED), periodontal ligament stem cell (PDLSC) and stem cell from dental follicle (DFSC) have been investigated. Among these stem cells, DPSC is of the most well investigated. DPSC has been suggested as valuable seed cells for various pulp tissues regeneration, including blood vessels, nerves and hard tissues. Isolated DPSC was reported to express cluster of differentiation (CD)117, and have a high growth rate. However in the dental pulp regeneration, besides the stem cell, the tissue regeneration would also require infection control and biomaterial/scaffold. Infection could induce inflammatory signalling which would down-regulate the differentiation capacity of DPSC. Therefore the inflammatory signalling should be inhibited, so that the capacity of DPSC could be restored. Biomaterial as an important aspect, have been developed so that high numbers of DPSC could be produced and delivered at the targeted area/tissue. Exploration of the natural and synthetic biomaterials have been reported so far. Besides the dental pulp regeneration, DPSC has been explored to form/regenerate other tissues, in the dental surrounding or even distance parts. In bone regeneration, DPSC could form bone nodule on the third week culture. This highly bone forming capacity should be useful for articular or even maxilla/mandible regeneration. Due to its high capacity in nerve regeneration, DPSC has been developed to produce nerve tissue, including facial nerve and inner-ear hair cell. In the clinical trial scheme, DPSC is being investigated for treatment of acute Ischemic stroke. And due to current pandemic situation, DPSC is also being investigated for its safety and efficacy on severe COVID-19 cases.





Prof. Susy Tjahjani

Prof. Dr. Susy Tjahjani, dr., M.Kes was born on Bandung, 5 September. She pursued her undergraduate education in Medicine, Maranatha Christian University. Then, she continued her education at Padjadjaran University. Currently, she is a professor in Parasitology at Medical Faculty, Maranatha Christian University. Apart from professor, she also appointed as Chair of Maranatha Christian University Senate, assessment team for lecturer/assistant professor/associate professor/promotion, research reviewer of LLDikti IV and Maranatha Christian University,

and assessment team of BKD. She has published 3 books. Her latest book was published in 2020 with the title: Penelitian Biomedik dan Ilmu Kedokteran (Book Chapter). She has also published 18 scientific articles in journal over the past 10 years.

Abstract

Free Radicals and Antioxidants in Covid-19

Covid-19 is an acute infection via droplets into respiratory tract which causes pandemic condition and might go to severe disease attacking multiple organ. Its pathogenesis is closely related with hyperinflammatory, oxidative stress, and hemoglobinopathy condition and these ones are very closely correlated each other. This review might have a benefit in considering anti oxidant in the study of handling covid-19. Ineffectiveness of the respiratory system by invasion of the virus via ACE2 receptor which is rich in pneumocyte 2 is not only caused by the destroyed alveolar cell but also from the AT2 overproduction which causes hyperinflammatory condition as well as oxidative stress. Overproduction of AT2 is caused by ACE2 binding with viral spike protein which reduces ACE2 activation and inhibits conversion of AT2 to other type of angiotensin (angiotensin 1-7). AT2 binds to AT1R and stimulates NADPH oxidase to produce anion superoxide and it continues to produce mitochondrial ROS and damages mitochondria so that very little ATP to be produced. AT2 is also a potent proinflammatory mediator and might stimulate prostaglandin and VEGF to increase vascular permeability, and also might upregulate adhesion molecules (VCAM 1, P-selectin, and ICAM 1) on vascular endothelial cells and smooth muscle cells, activate monocytes to adhere, stimulate TNF alpha, IL6, IL8, ROS production. The ROS might activate also NF- κ B with further detrimental impact i.e. endothelial as well as organ dysfunction.

On the other side Covid might cause hemoglobinopathy leading to inefficient hemoglobin in transporting oxygen and also might release toxic free iron and produce ROS. Several antioxidants including natural ones are very interesting and might work against this oxidative stress in various mechanism of action such as a direct scavenger, via Nrf2 etc. The role of pro-oxidant and antioxidant in Covid-19 would be present in this seminar.

Key words: Covid-19, oxidative stress, antioxidants



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Prof. Dr. Pim Martens

Born in June 29, 1968 at Heerlen, The Netherlands, Prof. Dr. Pim Martens has a PhD in applied mathematics and anthrozoology and holds the chair 'Sustainable Development' at Maastricht University. He is the Founding Director of the Maastricht University Graduate School of Sustainability Science (MUST), and initiated the M.Sc. program Sustainability Science and Policy. Prof. Martens is project-leader and principal investigator of several projects related to sustainability science and education, in the context of human-animal relationships, and environmental (climate) change and health. Pim Martens is member of the Editorial Boards of the scientific journals BioScience,

Sustainability: The Journal of Record, and Current Opinion in Environmental Sustainability. Furthermore, he serves as a member of the Advisory Board of the Life Science Zurich Graduate School, the Advisory Board (StAB) of the Natural Resources Institute in Finland, and the Executive Board House of Animals. For 9 years, he has been the director of the International Centre for Integrated assessment and Sustainable development (ICIS), Maastricht University, and was member of the Dutch Health Council. Finally, Dr. Martens is a Fulbright New Century Scholar within the programme 'Health in a Borderless World' and winner of the Friedrich Wilhelm Bessel-Forschungspreis. Pim Martens has been a Leverhulme professor at Aberystwyth University, Wales, a research professor at ETH Zürich, Switzerland and Leuphana University Lüneburg (Germany), and visiting scholar at the London School of Hygiene and Tropical Medicine (UK), Harvard University (USA), Heidelberg University, (Germany), ETH Zürich (Switzerland), Aberystwyth University (Wales), Leuphana University Lüneburg (Germany), and Shandong University (China).

Abstract

Our Sustainability Challenges: Climate Change, Biodiversity and Health for All

Our dominant current socio-economic and political systems have become decoupled from the larger ecology of life, and our relationship with our natural environment and the animals within has changed dramatically. This has led to various outbreaks of vector-borne and zoonotic diseases – with COVID-19 as the hard lesson learned (or not?). In this lecture, Pim Martens, Professor of Sustainable Development at Maastricht University, will discuss the complexities and connections between our own well-being and that of the animals with whom we live, and global environmental changes like climate change and biodiversity loss.



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Dr. Dwinita Larasati, S.Sn., M.A

Born in Jakarta, 28 December 1972, Dr. Dwinita Larasati, S.Sn., M.A is a industrial designer, lecturer, researcher at Man & Industrial Product Design Research Group, Industrial Design Program, Faculty of Art and Design, Institut Teknologi Bandung (ITB), Indonesia. She pursued her undergraduate education at Design, Industrial Design Department, Institute of Technology Bandung (ITB), Indonesia in 1991-1997. She continued her master's education in Design Research / Industrial Design, Postgraduate Program, The Design Academy, Eindhoven, The Netherlands in 1998-1999. She pursued her doctoral education at Delft University of Technology, The Netherlands and graduated in 2007. She has published 12 journals and is now an Advisory Council Member in West Java Creative Economy & Innovation Committee (KREASI Jabar).

Netherlands in 1998-1999. She pursued her doctoral education at Delft University of Technology, The Netherlands and graduated in 2007. She has published 12 journals and is now an Advisory Council Member in West Java Creative Economy & Innovation Committee (KREASI Jabar).

Abstract

Co-Designing Our Common Future: from Sporadic Activism to Strategic Actions

In growing dense urban areas, community development mainly attempts to cope with issues around population growth and its impacts, such as disparity, poverty, access to basic services and infrastructure, mobility, solid waste management, and matters related to environmental qualities. In the case of Bandung City, whose dynamics are determined by its youth that dominates the demography, community development has taken various shapes; among which are initiatives that created numerous prototypes of urban solutions, which eventually managed to influence regulations and government policy at the city level. These practice-based improvements have led to the formulation of methods and concepts that keep being adjusted for acuity and relevance. This discussion covers the process of how a cross-community forum in Bandung utilises design thinking method and urban acupuncture concept in intervening public spaces and in conducting participatory development; how it maps crucial stakeholders to achieve common goals; and how its actions have elevated to another level, when the forum grew into a national-level hub that also contributes to the creative economy sector at the global level.



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Prof. Chien-Hsu Chen Ph.D

Prof. Chien-Hsu Chen Ph.D is a professor at Industrial Design Department College of Planning and Design National Cheng Kung University, Taiwan. He completed his undergraduate education at Industrial Design National Cheng Kung University Taiwan. He continued his education at Computer and Information Syracuse University, NY, U.S.A and Industrial Engineering The University of Texas at Arlington, TS, U.S.A. He was once a Director General of Technology Transfer and Business Incubation Center (2017-2020). His areas of research is Interaction Design, Ergonomics and Design, and Augmented

Reality Application.

Abstract

Creative a Conceptual Design Thinking with Three Design Disciplines

Designers create product or service to satisfy customer needs and improve daily living conditions through a creation process. Conceptual design is essentially a creation process on early-stage design. This talk is going to explore the three design disciplines from product design, interaction design and service design perspective into the conceptual design process to promote creativity. We would like to create a processing of thinking to extend designers' creativity as an extension of their design. for better understanding of the creativity and creative process, the internet of things (IOT) design issue will be used to demonstrate how this thought can work on design concept.



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Prof. Dr. Wilson Bangun, S.E., M.Si.

Prof. Dr. Wilson Bangun, S.E., M.Si was born in Batukarang (Karo-North Sumatra), January 31, 1964. He is a professor at Faculty of Economics, Maranatha Christian University. He also a President of the Senate in Faculty of Economics, Maranatha Christian University and Professor Forum Leader in Maranatha Christian University. He pursued his undergraduate education at the HKBP Nommensen University, Medan (1989) and continued his master education at the University of North Sumatra, Medan (1999). He then continued his doctoral education at Padjadjaran University, Bandung and graduated in 2005. He has published five books, and his most recent book is *Pembangunan Sumber Daya Manusia: Teori dan Kasus di Indonesia dan Negara-Negara Asean Lainnya*, which published in 2021.

Abstract

Human Resource Development: a Study in Indonesia on ASEAN

Human Resource Development is a process to improve the ability (knowledge and skills) to increase individual productivity in contributing to the prosperity of a countries society. Indonesia is currently focusing on Human Resource Development to solve development problems in realizing Indonesian 2045 vision, namely to become a developed country, prosperous people, sovereign, just and prosperous. One of the government's programs is to improve the quality of human life. President Joko Widodo was speech at the MPR-RI Annual Session, August 16, 2018 emphasized that Human Resource Development is an investment to the nation's future towards advanced Indonesia. Human Resource Development is a performance measure for a country through a three-dimensional approach: a long life, healthy, knowledge, and a decent life and each dimension is represented in each indicator. Various indicators in Human Resource Development in Indonesia show progress but are still below some countries in Southeast Asia. To meet human needs through the development process from various aspects, such as the construction of relevant facilities and infrastructure. The purpose of development is to create and adapt it to the environment to achieve well-being. Human Resource Development is expected to improve the quality of work to improve the welfare of the people of a country.

Keyword: Human Resource Development, long life, healthy, knowledge, decent life



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Prof. Marcellia Susan

Prof. Marcellia Susan studied undergraduate education at the Faculty of Economics, Department of Management, Parahyangan Catholic University, Bandung. She continued her education at the Faculty of Engineering and Industrial Management, Department of Industrial Management, Bandung Institute of Technology and Doctoral Program in Business Management, Padjadjaran University, Bandung. Currently, she is a professor in Management Science at the Faculty of Economics, Maranatha Christian University, Bandung.





Abstract

Sustaining MSMEs: the Role of Financial Literacy

The economic growth of a country is supported by Micro, Small, and Medium Enterprises (MSMEs), especially for developing countries. In running their businesses, MSMEs need to make various business decisions. Some business decisions may affect the potential growth and the success of a business. The lack of MSMEs' financial knowledge often results in challenges in their operating, financing, and investing decisions. Proper financial decision-making requires an understanding of finances and the ability of money management. Ultimately, MSME owners/managers with substantial financial literacy would be able to sustain their business by managing financial resources through utilizing financial knowledge and skills



Expected Attributes to Design Sleeping Facilities for the Elderly based on the Potential Stakeholders Point of View

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Keywords: Design Aspect, Elderly, Ergonomics, Kano, Sleeping Facilities, Mann-Whitney-U.


Abstract: Adequate sleep to rest is a beneficial activity to maintain health. Therefore, the facilities that support this activity need to be appropriately designed. In accordance with the fact that after entering retirement age, the elderly are often supported by their adult children, so most of the time, the elderly's life's necessities will be handled by their child(ren). Hence, this study aims to analyze the perceptions of the two main stakeholders, namely: potential target buyers (children) and target users (parents) of sleeping facilities that can differ from one another related to the expected value. This study explores expected design attributes to achieve elderly's good sleep quality using in-depth interviews with the selected participants and get 22 valid and reliable attributes by sharing 70 pairs of children-parents using non-parametric Mann Whitney-U. Unexpectedly, these two different generations perceived the proposed attributes as similar to one another. Further analysis using the Kano method found that two attributes need to be fulfilled by design: (1) sliding the bed; (2) the lower area of the bed should be cleaned easily. These two attributes are then discussed from the perspective of Indonesian natural resource usage and habits.


1 INTRODUCTION


Indonesia, as the fourth most populous country, already entering an aging population since 2015 with its elderly population more than 7% and consistently increased to 9.92% (26.86 million people) in 2020 (McDonald, 2014). The prediction of its elderly population will become nearly 20% in 2045 (Sari et al., 2020). Significant changes in demographic proportion caused this developing country has an urgent need to set their point of view on how the society regularly works. In general, the elderly will be divide into potential and non-potential elderly (*Act of the Republic of Indonesia on welfare of the elderly (Undang-undang Republik Indonesia tentang kesejahteraan lanjut usia)*, 1998) and with a tendency of declining health condition once people get older,


then this demographic changing will directly add the burden of the productive community. Nevertheless, World Health Organization proposed the healthy aging concept which emphasizes for the elderly to live a long and healthy life despite of free of disease condition which might not be feasible for older people.

This study is a continuation from the previous study which shown that the anthropometric data for the elderly has a correlation with their living condition: community-dwelling or retirement home (Sarvia, Wianto, Yudiantyo, Apriyani, & Costa, 2021). Even though becoming old is not a disease, but once the individual reach maturity state, their physical ability inevitably will deteriorate (Castillo-Rodríguez, Onetti-Onetti, Mendes, & Chinchilla-Minguet, 2020).

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Sleeping pattern for the elderly will change as older people tend to sleep earlier but also wake earlier, more frequently during the night and experiencing fragmented sleep. Some of these changes directly relate to sleeping disorders such as snoring and obstructive sleep apnea (Wolkove, Elkholy, Baltzan, & Palayew, 2007). Other sleeping-related activities also indicating that low sleeping quality can be associated with poor cognitive performance of the elderly (Blackwell et al., 2006; Nebes, Buysse, Halligan, Houck, & Monk, 2009). Nevertheless, quality of sleep constitutes many factors, and will optimize the functional ability and quality of life (Bliwise, 1993).

Considering the urgencies to support the good quality of sleep, then this study is trying to explore the attributes to design adequate sleeping facilities. Most of the times, large-size furniture including a bed has a long time of use, sometimes furniture with specific material can be passed down to generations as they excel in quality and become a family heirloom. However, due to the change of needs for the elderly while sleeping, as well as to reduce another undesirable occasion such as falls (Sahota et al., 2014), then changing sleeping facilities while the elderly still in a potential state is arguably beneficial.

By using the preference of potential buyers and potential users (older people), then discussion related to the design of sleeping facilities for the elderly will be discussed and formulated. The target user for these specific mediated tools will be the older person which still categorized as potential elderly; therefore, the design will be distinguished with the hospital or long-term care bed.

2 METHODS

This study is an action research considering the potential user to improve the related existing product. Data collection method used in this study divided into two steps. The first step is to explore the potential attributes preferred by the elderly, caregiver, or the children of the elderly. The second step is to validate the emerged attributes from the first step. Both of the steps were using purposive and snowball sampling structure as part of a non-probability sampling technique with inclusion criteria to the Indonesian adult with an experience in taking care of the elderly or has the possibilities as the potential buyer for the designed sleeping facilities.

For the first step, we gathered data collection by: (1) in-depth interview related to the sleeping facilities of the elderly, like/ dislike aspects of their own bed,

their activities before, while wake up during the night and once wake up in the morning. (2) focus group discussion related to the preferred function of sleeping activities including its surroundings.

Combining those two data collection techniques was needed in this study. Along the way, the in-depth interview resulted in not too clear attributes, especially from the elderly who in general stated that they are already satisfied with their own sleeping facilities. Therefore, from the in-depth interview, it is found out that the answers are already saturated (Braun & Clarke, 2019). Hence, the saturation of the data was our argument to conduct different technique to explore the attributes.

All of the attributes emerged from step one, then converted into functional (positive statement) and dysfunctional (negative statement) following the Kano model. After converted into a functional and dysfunctional statement, in this study name as variables. Each variable will follow the Kano method as the selected approach to analyse attribute of features to design products or services. The Kano model is applied to identified customer needs and calculate customer satisfaction that helps to prioritize the importance of service qualities that can increase customer satisfaction in health service (Gupta & Srivastava, 2011). The identification of urgencies by customer requirements should then convert into Kano model using five expressions of: like, must be, neutral, live with/ neutral and dislike. However, for this study, we modified this model into 5 five steps of the Likert scale to enable inferential statistical analysis.

For the second step, the questionnaire was given in the form of functional-dysfunctional statements which were divided into three aspects: (1) mattress (14 variables); (2) divan/ bed (40 variables); and (3) surroundings of sleeping facilities (10 variables). Total 64 variables, divided into every 32 attributes were shared with paired children and elderly parents. The purpose of pairing the answers was to understand whether any discrepancies of preferred variables to define good sleeping facilities for the elderly

Other additional questions to add clustered group once needed also asked in form of: (1) sex; (2) education level; (3) appropriate price for elderly's single bed.

2.1 Participants

Participants in the first step of data collection were gathered by means of qualitative information. In this step, seven people were invited to join in-depth interview (four elderly and three caregiver/ adult who

has experience in taking care of the elderly) and for the additional data, focus group discussion were held separately. Each group discussion consists of 7 people (4 male, 3 female); 4 people (1 male, 3 female); 6 people (1 male, 5 female); and 4 people (4 female) not including at least one researcher as the moderator.

The second step data collected by sharing to 70 paired adult children with their parent(s) using an online questionnaire. Between February and April 2021, 70 paired Indonesian adults with their elderly parent(s) were given their consent to be recruited in this study. The age range for overall participants were 21-74 years old, with two majorities of age range 39-47 years old for 34% and 48-56 years old for 26%. The youngest elderly is with the age of 60 years old. The majority of the participants is women for 61%. Two majorities of education level were having bachelor's degree and master's degree for 48% and 21% respectively. The validity and reliability of each attribute explain in point 2.2.

2.2 Valid and Reliable Attributes

After the data was collected from 70 pairs of parent and child respondents, the validities of 64 variables (32 attributes) were tested and it was found that there were 10 invalid variables, so that the 10 invalid variables were filtered again to find their functional/dysfunctional partners to be dropped along with these invalid variables. Those 22 retained attributes (44 variables) then consider valid to be further usage (Sugiyono, 2017). Thereafter the process continues with a reliability test to make sure measurement reliability. The Alpha Cronbach obtains 0.875 and is believed as having high consistency to measures adequate sleeping facilities aspects for the elderly.

3 RESULTS AND DISCUSSION

Results and discussion of this study divided into point 3.1 for Mann-Whitney U-Test and 3.2 for classification using Kano method.

3.1 Mann-Whitney U Test

The pairs of children's and parent's answers to 44 variables (22 attributes) that passed the validity and reliability tests were tested on the distribution form of the answers obtained. The results of the data normality test using Kolmogorov Smirnov on the variable answers of the child and parent participants

showed that the data were not normally distributed ($p < 0.05$), so the proof of the hypothesis would be followed by the Mann Whitney test. The results of the Mann Whitney test on 44 variables (22 attributes) show that there is no difference in opinion between the child's partner (as a potential buyer) and the parents/elderly (as a potential user) on the variables that are important in the design of bed facilities, so it can be concluded that the opinion parent is similar with their child regarding sleeping facilities for the elderly.

The results of Mann-Whitney U Test for the attributes shows that all of the null hypothesis should be retained. Here is the point of significance of each attribute, by their aspects, as follows:

1. Four valid attributes for mattress were proven for K1_2, K1_5 with the Sig. 0.179 and 0.841 respectively.
2. Eighteen valid attributes for bed/ divan proven for R1_3, R1_4, R1_5, R1_6, R1_7, R1_8, R1_9, R1_10, R1_11, R1_12, R1_13, R1_14, R1_15, R1_16, R1_17, R1_18, R1_19, R1_20 with the Sig. 0.776, 0.525, 0.693, 0.887, 0.474, 0.054, 0.189, 0.844, 0.521, 0.961, 0.689, 0.320, 0.967, 0.810, 0.505, 0.600, 0.456, 0.618 respectively
3. Four valid attributes for surroundings were proved for L1_4 and L1_5 with the Sig. 0.405 and 0.561 respectively.

3.2 Classification of the Attributes using Kano Method

The output of the functional and dysfunctional variable statements will be calculated according to the Kano classification which is divided into 6 (six) classifications according to the exposure in Table 1.

Table 1: Kano decision matrix, modified from original form (Berger, Blauth, & Boger, 1993)

Customer Requirement	Dysfunctional (negative) statement				
	L	M	N	A	D
Functional (positive) statement	L	Q	At	At	O
	M	R	I	I	M
	N	R	I	I	M
	A	R	I	I	M
	D	R	R	R	Q

Note:

L: Like

M: Must Be

R: Reverse

O: One Dimensional

A: Acceptable

D: Do not like

Q: Questionable

I: Indifference

N: No feeling/ Neutral

At: Attractive

Kano classification was determined by Blauth's formula (Ginting, Siregar, & Ginting, 2015) with the following algorithm:

1. $(O+At+M) > (I+R+Q)$ with the result O/A/M selected by maximum value,
2. $(O+At+M) < (I+R+Q)$, with the result I/R/Q selected by maximum value,
3. $(O+At+M) = (I+R+Q)$, with the result O/A/M/I/R/Q.

Attribute classification has the purpose to divide the strong attributes to count in the next process according to the potential customers (elderly as the user, and adult children as the potential buyer). The retained attribute will be signed with M (Must Be), At (Attractive), and O (One Dimensional) while the set aside attribute is the one with sign I (Indifference), R (Reverse), and Q (Questionable).

Attributes R1_12 (The bed needs to be easy to move) and R1_13 (The bed needs to be easy to clean underneath) were the only two attributes categories as One Dimensional (O) while attributes K1_2 (The mattress is made of hard foam material) categories as Reverse (R). The other 19 attributes categories as Indifferent (I) thus will not be considered or discussed further in this study because of the inability of the

attributes to influence potential customer satisfaction (Gupta & Srivastava, 2012).

Attribute coded with K1_2 (The mattress is made of hard foam material) proven categorized as a Reverse attribute. This class can be explained as the specific requirement for the quality should not appear on the product otherwise the satisfaction will be less. The mattress is a lying mat used while sleeping. A comfortable mattress is an essential element in a good night's sleep, one of which is using an excellent and comfortable type of mattress that can improve sleeping quality, fitness, relieve pain and sleepiness during the day. Individuals differ as to the degree of mattress firmness that is associated with their best sleep. The best sleep quality is usually influenced by actigraphic motion, the number of awakenings, and how long the user awake during the night (Hogan, Edinger, Bieler, & Krystal, 2011).

However, this attribute is considered inconsistent and doubtful because the perception of the hardness of the mattresses is perceived differently, because in one of not validated variables, we also offer the statement with 'soft foam material' and proven to be not valid. Thus, the statement related to the mattress hardness should be directly tried by the participants, thus required further definition and explanation.

Table 2: Attributes tabulation of Kano's classification.

Code	Attributes	Q	At	O	I	M	R	OAtM	IRQ	Class.
K1_2	The mattress is made of hard foam material	26	11	3	38	1	61	15	125	R
K1_5	The mattress is equipped with anti-decubitus mats (dead tissue conditions due to sitting / sleeping too long)	6	33	29	55	10	7	72	68	I
R1_3	The bed is equipped with a headboard at the head	2	16	38	68	5	11	59	81	I
R1_4	The upper bed can be tilted (for an upright/reclining position, etc.)	2	32	24	70	3	9	59	81	I
R1_5	The lower bunk is tiltable (to raise the legs)	3	28	20	76	4	9	52	88	I
R1_6	The bed is equipped with a barrier on either side	4	20	16	73	6	21	42	98	I
R1_7	The bed is equipped with a handle that makes it easy to get out of bed	2	29	30	53	12	14	71	69	I
R1_8	The barrier on the right and left of the bed is made of a hard material when held	6	16	24	72	10	12	50	90	I
R1_9	The barrier on the right and left side of the bed is made of cold material when touched (example: iron)	5	9	10	78	4	34	23	117	I
R1_10	Light bed	3	21	21	75	5	15	47	93	I
R1_11	Heavy bed	3	11	7	88	4	27	22	118	I
R1_12	The bed needs to be easy to move	4	28	46	44	13	5	87	53	O
R1_13	The bed needs to be easy to clean underneath	3	26	73	19	17	2	116	24	O
R1_14	Bed with voice command for specific commands (example: raise down to lower position)	6	20	10	83	8	13	38	102	I
R1_15	The bed is equipped with a storage area for sanitary and medical equipment (water hoses, soap, towels, tensimeter, oxygen cylinders, necessities, etc.)	6	23	22	67	10	12	55	85	I
R1_16	The bed is equipped with a walking stick	6	24	12	79	8	11	44	96	I
R1_17	The bed is equipped with an electricity socket	2	18	22	74	4	20	44	96	I
R1_18	The bed is equipped with heaters	4	25	11	77	10	13	46	94	I
R1_19	Near the bed there is a bell/alarm that is easily accessible from a lying position	4	18	36	65	11	6	65	75	I
R1_20	There is a panic/emergency button	5	25	28	62	13	7	66	74	I
L1_4	The bed is equipped with a table for eating in bed	2	32	18	69	4	15	54	86	I
L1_5	There is an area to use the potty	3	23	22	65	10	17	55	85	I

Attribute coded with R1_12: The bed needs to be easy to move, one of two attributes that need to be fulfilled by the furniture and interior designer. The importance of moving the bed could emerge due to various reasons, including changing the arrangement or layout of furniture in the bedroom due to changes in the way of life (e.g., death of the spouse causing the space in the bed is often adapted or adjusted to current conditions). Additional furniture in the room (e.g., there are other items or storage for storing things), or adjustments due to replacement of old furniture for various reasons and these changes result in changes to the layout of the room because the size of new furniture does not match the size of the old furniture. Another reason why the bed finally needs to be moved easily can also occur because the needs to clean the house thoroughly frequently (e.g., for Chinese Indonesian people, annually cleaning the house, including the bed right before Chinese New Year).

Attribute coded with R1_13: The bed needs to be easy to clean underneath, which is the other attribute that needs to be fulfilled by furniture designers or service providers to consumers (elderly). The bed needs to be easy to clean underneath for comfort reasons to achieve hygienic reasons. A bed that is easy to clean underneath should, in other ways can be fulfilled when the bed is easily moved. However, not every bedroom's layout has the flexibility to move furniture when cleaning the room. The need or urgency for cleaning the room is directly related to the material used to traditionally fill the mattress, namely kapok (Java Cotton). Mattress filling materials nowadays have gradually changed by foam, spring bed, latex, and even using a special contoured material to treat the patient's decubitus condition. However, for the elderly that most of whom were born in 1960 and earlier, it is still common to use kapok as a filler for mattresses, pillows, and bolsters.

The standard preference to use kapok as the material used also correlates with Indonesia's condition as one of the largest kapok producers in the world (Mardiyati, Raden Reza Rizkiansyah, Steven Steven, Arif Basuki, & Suratman., 2016) which allows easy access or use of this material. Unfortunately, kapok, which is a natural material, has a weakness, namely, it produces visible dust particles and needs to be cleaned periodically because of the potential as a place for mites to develop. As for cleaning the cotton mattress, occasionally, the mattress will be lay under the sun and turned over. The method, although frequently done to prevent house dust mites, will expel even more dust particles into the air. The activity of laying and turning the

mattress also results in a thinner mattress design so that it is lighter to lift when compared to a spring bed type.

Once associated with bed designs that need to be easily cleaned at the bottom, the bed design for cotton mattresses is often different from bed designs for spring or latex mattresses. Bed designs for cotton mattresses in Indonesia generally use a solid wood (e.g., teak wood) or iron frame that is painted or layered, the bottom of the bed often has space, and by calculating the thickness of the mattress that ranges from 8 to 15 cm, the area at the bottom of the bed is relatively easy to clean using traditional cleaning tools. The habit of cleaning the bottom of the bed regularly done by the elderly has changed gradually with the trend of optimizing free space underneath to make it more useful because there is a reduction in a room or house with higher property prices. However, both of the attributes concern as the additional value for elderly's sleeping facilities, not must have one.

4 CONCLUSIONS

This study shows that the two generations still have the same perception about providing the best sleeping facilities for the elderly. There is no difference in perceptions of the attributes that have been previously explored in this study. However, not all attributes influence user satisfaction.

The two attributes that are still desirable in the design of sleeping facilities for the elderly related to the habits of society in Indonesia can be said to be unique and still need to be maintained well to the procurement for furniture or interior designers because the increasing number of elderly populations will lead to higher demand. Even though, in general, the use of furniture has a long service life, it cannot be denied that there are changes in the way of life of the elderly in their old age, causing the need for a readjustment of interior design both in the bedroom in general, as well as in the creation of the bed in particular.

Furthermore, paying attention to the good habits of the elderly who have been fostered since they were young and combining them with technology, materials, and designs is alleged to be maintained the quality of life of the elderly in their old age.

For further research, this study will be followed up with recommendations for the design of sleeping facilities for potential older adults by taking into account the attributes obtained and the two main attributes, namely the ease of the bed that is easily

shifted and the bottom part of which is easy to clean which most affects user satisfaction.

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