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Preface

To cite this article: 2020 *J. Phys.: Conf. Ser.* **1641** 011001

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Editorial
International Conference on Advanced Information Scientific Development (ICAISD)
2020

Taufik Baidawi et al 2020 J. Phys.: Conf. Ser.

International Conference on Advanced Information Scientific Development (ICAISD) 2020 was organized by Universitas Bina Sarana Informatika.

It was held in BSI Convention Center, Bekasi, West Java, Indonesia, event held by the Institute of Research and Community Service (LPPM) of Universitas Bina Sarana Informatika on August 6-7, 2020. ICAISD 2020 is an International Conference for sharing knowledge and research in Computer and Information Science and providing a platform for researchers and practitioners from both academia as well as industry to meet and share the cutting-edge development of Computer and Information Science research. The theme that we raised in this international seminar is: "**Scientific Information for Living Welfare**".

The background of the theme selection is related to the rapid development of science and technology in the 21st Century that has contributed to change or renewal in various fields of life, including Applied Science, Management and Artificial Intelligence. This form of activity takes the form of scientific seminars or international conferences that are held virtually or webinars consisting of plenary lectures and oral presentations. The target participants are practitioners in the field of Information Technology and Management from academics (lecturers, researchers, and students) as well as practitioners and industry as a mean of socializing progress and development in the field of Information Technology and Management to increase their understanding and use for stakeholders on national and international scale. In addition, through this conference, the participants can develop research networks and collaboration with research partners in the field of information technology and management in Indonesia and researchers from abroad.

In connection with this theme, we present four speakers as the main speakers, namely Prof. Ir. Zainal Arifin Hasibuan, MLS, Ph.D (General Chair of APTIKOM Indonesia), Prof. Dr. Gerhard Willem Weber (Poznan University of Technology, Poland), Prof. Dr. Dorien De Tombe (Delft Technical University, the Netherlands), and Prof. Dr. Herman Mawengkang (Universitas Sumatera Utara).

The committee received 214 papers via easychair.org as well, with details of 145 papers received. Of the 145 papers 65 papers in Applied Science, 28 Papers in Management and 52 papers in Artificial Intelligence.

We organized this conference virtually as follows:

The location of the ICAISD-2020 Conference was virtually using the Zoom Meeting

Topic: UBSI ICAISD 2020 "SCIENTIFIC INFORMATION FOR LIVING WELFARE" (Part 1)

Time: Aug 6, 2020 09:00 AM Bangkok

Join Zoom Meeting

<https://zoom.us/j/7326877081?pwd=TVFOR1E2YIZEUFR5Q0h5NX1EK1pKQT09>



Meeting ID: 732 687 7081

Passcode: ICAISDBEST

Topic: UBSI ICAISD 2020 "SCIENTIFIC INFORMATION FOR LIVING WELFARE" (Part 3)

Time: Aug 7, 2020 10:30 AM Bangkok

Join Zoom Meeting

<https://zoom.us/j/7326877081?pwd=TVFOR1E2YIZEUFR5Q0h5NXIEK1pKQT09>

Meeting ID: 732 687 7081

Passcode: ICAISDBEST

While the off-line event specifically for the Committee was held at the BSI Convention Center, Bekasi, West Java, Indonesia. The implementation began with the delivery of the schedule by the MC and was opened by the chairman of Aptikom (Association of Computer and Informatics Higher Education) Prof. Zainal A. Hasibuan and continued with remarks from the Rector of Universitas Bina Sarana Informatika, Dr. Mochamad Wahyudi, MM., M.Kom, M.Pd.



Figure 1. Welcoming Remarks from Rector of Universitas Bina Sarana Informatika

Plenary of Each Speaker

The keynote speakers each delivered 45 minutes of seminar material through Zoom Meetings in their respective places. As in the following table:

ICAISD 2020

INTERNATIONAL CONFERENCE ON ADVANCED INFORMATION SCIENTIFIC DEVELOPMENT

" Scientific Information For Living Welfare "

**MEETING ID : 732 687
7081**

**PASSCODE :
ICAISDBEST**

JAKARTA , 6 AGUSTUS 2020

TIME					EVENT	Screen	FOH	DESCRIPTION
09.00.00	-	09.15.00	00.15.00	15'	Registration	Music Play		
09.15.00	-	09.18.00	00.03.00	3'	VIDEO OPENING			
09.18.00	-	09.23.00	00.05.00	5'	PRAY TO GOD Session			
09.18.00	-	09.28.00	00.10.00	10'	Insert MC 1 - Opening, Introducing, Present (Mr Agus & Mrs Cicih)	Live Cam	Mic MC	Welcome Remark
09.28.00	-	09.28.30	00.00.30	30 "	BUMPER			
09.28.30	-	09.29.00	00.00.30	30 "	Insert MC 2 - Sing Together , The National Anthem Of Indonesia			
09.29.00	-	09.31.00	00.02.00	2'	INDONESIA RAYA			
09.28.30	-	09.29.00	00.00.30	30 "	Insert MC 3 - Welcome Speech by Rector	Live Cam	Mic MC	
09.29.00	-	09.29.15	00.00.15	15 "	BUMPER IN			
09.29.15	-	09.41.15	00.12.00	12'	RECTOR SPEECH			
09.41.15	-	09.41.30	00.00.15	15 "	BUMPER OUT			
09.41.30	-	09.42.00	00.00.30	30 "	Insert MC 4 - Opening Remark by Head Of LLDIKTI 3 (APTIKOM *)	Live Cam	Mic MC	Audience sdh duduk kembali
09.42.00	-	09.42.15	00.00.15	15 "	BUMPER IN			
09.42.15	-	09.56.15	00.14.00	14'	APTIKOM + OPENING			

09.56.1 5	-	09.56.3 0	00.00.1 5	15 "	BUMPER OUT			
09.56.3 0	-	09.57.0 0	00.00.3 0	30 "	insert MC 5 - Invite Keynote Speech 1	Live Cam	Mic	
09.57.0 0	-	09.58.0 0	00.01.0 0	1'	BUMPER PROFILE KEYNOTE SPEECH 1 (Prof. Ir. Zainal Arifin Hasibuan, MLS., Ph.D)			
09.58.0 0	-	10.43.0 0	00.45.0 0	45'	Keynote Speech 1 (Prof. Ir. Zainal Arifin Hasibuan, MLS., Ph.D)	Live Cam	Mic Keynote	
10.43.0 0	-	10.43.1 5	00.00.1 5	15 "	BUMPER Out			
10.43.1 5	-	10.43.4 5	00.00.3 0	30 "	insert MC 6 - Invite Keynote Speech 2	Live Cam	Mic	
10.43.4 5	-	10.44.4 5	00.01.0 0	1'	BUMPER PROFILE KEYNOTE SPEECH 2 (Prof Dr Herman Mawengkang)			
10.44.4 5	-	11.29.4 5	00.45.0 0	45'	Keynote Speech 2 (Prof Dr Herman Mawengkang)	Live Cam	Mic Keynote	
11.29.4 5	-	11.59.4 5	00.30.0 0	15'	insert MC 7- Q&A Session 1			
11.59.4 5	-	12.59.4 5	01.00.0 0	60'	BREAK TIME			
12.59.4 5	-	13.00.0 0	00.00.1 5	15 "	BUMPER Out			
13.00.0 0	-	15.00.0 0	02.00.0 0	12 0'	PARALLEL SESSION (10 Classroom) Chapter 1			
15.00.0 0	-	15.00.1 5	00.00.1 5	15 "	BUMPER			
15.00.1 5	-	15.10.1 5	00.10.0 0	10'	Music Play			
15.10.1 5	-	15.10.4 5	00.00.3 0	30 "	insert MC 9 - Invite Keynote Speech 3	Live Cam	Mic	
15.10.4 5	-	15.11.4 5	00.01.0 0	1'	BUMPER PROFILE KEYNOTE SPEECH 3 (Prof Dr Dorlen De tombe)			
15.11.4 5	-	15.56.4 5	00.45.0 0	45'	Keynote Speech 3 (Prof Dr. Dorlen De Tombe)	Live Cam	Mic Keynote	
15.56.4 5	-	15.57.0 0	00.00.1 5	15 "	BUMPER out			
15.57.0 0	-	15.57.3 0	00.00.3 0	30 "	insert MC 10 - Invite Keynote Speech 4	Live Cam	Mic	
15.57.3 0	-	15.58.3 0	00.01.0 0	1'	BUMPER PROFILE KEYNOTE SPEECH 4 (Prof Gerhard W. Weber)			
15.58.3 0	-	16.43.3 0	00.45.0 0	45'	Keynote Speech 4 (Prof Gerhard W. Weber)	Live Cam	Mic Keynote	
16.43.3	-	16.43.4	00.00.1	15	BUMPER out			

0		5	5	"	
16.43.45	-	17.13.45	00.30.00	30'	insert MC 11- Q&A Session 2
17.13.45	-	17.14.00	00.00.15	15"	BUMPER Close



Figure 2. The material delivered by Keynote Speaker: Prof Zainal A. Hasibuan (Head of APTIKOM)



Figure 3. The Presentation of Keynote Speaker: Prof Zainal A. Hasibuan
(Head of APTIKOM)



Figure 4. The Material delivered by Keynote Speaker: Prof. Dr. Herman Maweng kang
(Universitas Sumatera Utara)



Figure 5. The Material delivered by Keynote Speaker: Prof. Dr. Dorien De Tombe

(Delft Technical University, The Netherlands)



Figure 6. The Material delivered by Keynote Speaker: Prof. Dr. Gerhard W. Weber (Poznan University of Technology, Poland)

The questions asked by the participants for the keynote speaker were presented in two ways:

1. Through the chat room zoom meeting addressed to the committee to be conveyed to the keynote speaker.
2. Ask directly through zoom using the unmute feature by informing the committee in advance with the raise hand. Direct submission of questions is limited to a maximum of 5 questions for each keynote speaker.

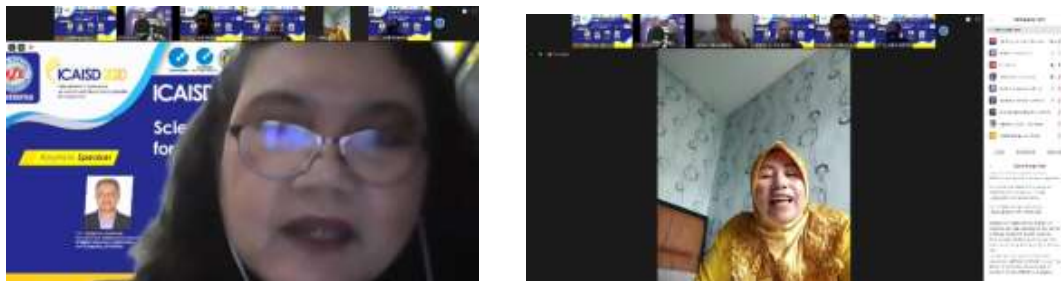


Figure 7. The Participants were delivering the Questions Addressed to Keynote speakers

The committee gave 15 minutes for each question session.

• **The participants: location and the overall attendance number expected.**

Of the 148 articles received, 145 article authors uploaded the presentation file and revision file from the author and then presented it on 6 and 7 August 2020. One of the authors of the article represented each article title in the presentation. All participants presented their research results for approximately 15 minutes per article which was divided into 10 rooms (online parallel sessions) which were assessed by the reviewer in each zoom room to determine the best presenter in each zoom room as attached to the schedule.

LIST OF SPEAKERS

Room : 1
 Category : Applied Science
 Moderator : Mr. Jimmi

Invite Link : <https://zoom.us/j/8244410030?pwd=QjRTV3RTNWtoM2UzMHM4a0xLOWVvaQT09>

ID Meet : 824 441 0030

Password : ICAISD01

Durasi : 15 Minutes/ Team

Total Durasi : 225 Minutes

Room : 2
 Category : Applied Science
 Moderator : Mrs. Rizky Mirani Desi Pratama

Invite Link : <https://zoom.us/j/6640421517?pwd=NW5VTzZ3bFFOZC8xMUlpWmdRSIRVUT09>

ID Meet : 664 042 1517

Password : ICAISD02

Durasi : 15 Minutes/ Team

Total Durasi : 225 Minutes

Room : 3
 Category : Applied Science
 Moderator : Mr. Ary Iswanto Wibowo

Invite Link : <https://zoom.us/j/3749365742?pwd=OXVwdlBiU1gwSUJzZjFncUF3NjgrQT09>

ID Meet : 374 936 5742

Password : ICAISD03

Durasi : 15 Minutes/ Team

Total Durasi : 225 Minutes

Room : 4

Category : Applied Science

Moderator : Miss Retno Rahayuningsih

Invite Link : <https://zoom.us/j/5633927839?pwd=OFhhVHhoRUkvVHF1Z3YvOGhORmFCZz09>

ID Meet : 563 392 7839

Password : ICASID04

Durasi : 15 Minutes/ Team

Total Durasi : 225 Minutes

Room : 5

Category : Artificial Intelligence

Moderator : Mrs. Wiruma Titian Adi

Invite Link : <https://zoom.us/j/9321355544?pwd=STV2WmZKUE5NbUFvamdCM0lNRjMrQT09>

ID Meet : 932 135 5544

Password : ICAISD05

Durasi : 15 Minutes/ Team

Total Durasi : 225 Minutes

Room : 6

Category : Artificial Intelligence

Moderator : Miss Dwi Puji Hastuti

Invite Link : <https://zoom.us/j/2509617265?pwd=WS95QzRWOG85VGtXMEExId2lOcUIHdz09>

ID Meet : 250 961 7265

Password : ICAISD06

Durasi : 15 Minutes/ Team

Total Durasi : 225 Minutes

Room : 7
Category : Artificial Intelligence
Moderator : Mr. Octa Pratama Putra

Invite Link : <https://zoom.us/j/3913226231?pwd=bHJyWEZzbFBaNTNrRCtjU2RBVXhhZz09>

ID Meet : 391 322 6231

Password : ICAISD07

Durasi : 15 Minutes/ Team

Total Durasi : 225 Minutes

Room : 8
Category : Applied Science, Artificial Intelligence, Management
Moderator : Mrs. Yanti Rosalinah

Invite Link : <https://zoom.us/j/9196551907?pwd=MnVpbGRcYVB0cDNwTlE0ZS92elZtUT09>

ID Meet : 919 655 1907

Password : ICAISD08

Durasi : 15 Minutes/ Team

Total Durasi : 195 Minutes

Room : 9
Category : Management
Moderator : Mr. Sayyid Khairunnas

Invite Link : <https://zoom.us/j/9288890197?pwd=MmdUUjhDdy9mWGJWSTF4cThXYlB6QT09>

ID Meet : 928 889 0197

Password : ICAISD09

Durasi : 15 Minutes/ Team

Total Durasi : 225 Minutes

Room : 10
Category : Management & Applied Science
Moderator : Mrs. Titi Dewi Rohati

Invite Link : <https://zoom.us/j/3856170963?pwd=Vm52WWlFRlhUa3dPVzhRRTV4L0F5UT09>

ID Meet : 385 617 0963

Password : ICAISD10

Durasi : 15 Minutes/ Team

Total Durasi : 195 Minutes

The Zoom Meeting application can support the ICAISD seminar to run smoothly due to travel restrictions by the Government due to the Covid-19 pandemic, so that meetings involving many people cannot be held. The zoom meeting application makes it easy to meet virtually without limiting certain areas so that the ICAISD seminar can run smoothly.

Technical obstacles in the implementation of the ICAISD-2020 conference were usually problems from participants who cannot display the presentation file, but because participants have sent / uploaded the presentation file (ppt/ pptx) previously via the icaisd.info page, the committee can help display the presentation files of the seminar participants.

The positive side of the implementation of seminars is that participants and keynote speakers can deliver seminar material without holding a meeting because the Covid-19 pandemic will make it easier for participants far away from Bekasi, West Java, Indonesia. Therefore, that it can be efficient in terms of time and travel.

This conference can be held due to the assistance of various parties. For this reason, on this occasion, we would like to thank the Rector of Universitas Bina Sarana Informatika and staffs, the Dean, the Head of the Study Program, the Head of Technology Bureau, the Head of Communication Marketing and his staffs, Advisors, Program Committee Chairs, Executive Chairs, Chair of Committee, and Co-Hosts who have participated in this conference.

Our highest appreciation is also extended to all the Organizing Committee Chair who have worked hard for the success of this conference. We are aware that there are still many shortcomings in organizing this seminar in presenting events, administrative services, and limited facilities. For that, we apologize profusely. Through this opportunity, we invite conference participants to join again in the 2nd ICAISD conference in 2021 next year. Finally, I hope that all conference's participants who attend this conference will have many benefit and useful things from this conference.

Jakarta, August 27, 2020
Chairman,

Taufik Baidawi

PAPER • OPEN ACCESS

Attachment Info for Preface

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View the [article online](#) for updates and enhancements.

You may also like

- [Background and significance of gas monitoring research in coal mines](#)
Biqing Li, Suping Jiang and Hongyan Zhang
- [Analysis of multi-sensor information fusion and knowledge discovery in coal mine gas monitoring](#)
Biqing Li, Suping Jiang and Hongyan Zhang
- [Towards a quantitative, measurement-based estimate of the uncertainty in photon mass attenuation coefficients at radiation therapy energies](#)
E S M Ali, B Spencer, M R McEwen et al.



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Location of the event

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Meeting ID: 732 687 7081

Passcode: ICAISDBEST

Topic: UBSI ICAISD 2020 "SCIENTIFIC INFORMATION FOR LIVING WELFARE" (Part 3)

Time: Aug 7, 2020 10:30 AM Bangkok

Join Zoom Meeting

<https://zoom.us/j/7326877081?pwd=TVFOR1E2YIZEUFR5Q0h5NXIEK1pKQT09>

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Figure 1. Welcoming Remarks from Rector of Universitas Bina Sarana Informatika

Plenary of Each Speaker

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ICAISD 2020
INTERNATIONAL CONFERENCE ON ADVANCED INFORMATION SCIENTIFIC
DEVELOPMENT
" Scientific Information For Living Welfare "

MEETING ID : 732 687 7081

PASSCODE :

ICAISDBEST

JAKARTA , 6 AGUSTUS 2020

TIME					EVENT	Screen	FOH	DESCRIPTION
09.00.00	-	09.15.00	00.15.00	15'	Registration	Music Play		
09.15.00	-	09.18.00	00.03.00	3'	VIDEO OPENING			
09.18.00	-	09.23.00	00.05.00	5'	PRAY TO GOD Session			
09.18.00	-	09.28.00	00.10.00	10'	Insert MC 1 - Opening, Introducing, Present (Mr Agus & Mrs Cich)	Live Cam	Mic MC	Welcome Remark
09.28.00	-	09.28.30	00.00.30	30 "	BUMPER			
09.28.30	-	09.29.00	00.00.30	30 "	Insert MC 2 - Sing Together , The National Anthem Of Indonesia			
09.29.00	-	09.31.00	00.02.00	2'	INDONESIA RAYA			
09.28.30	-	09.29.00	00.00.30	30 "	Insert MC 3 - Welcome Speech by Rector	Live Cam	Mic MC	
09.29.00	-	09.29.15	00.00.15	15 "	BUMPER IN			
09.29.15	-	09.41.15	00.12.00	12'	RECTOR SPEECH			
09.41.15	-	09.41.30	00.00.15	15 "	BUMPER OUT			
09.41.30	-	09.42.00	00.00.30	30 "	Insert MC 4 - Opening Remark by Head Of LLDIKTI 3 (APTİKOM *)	Live Cam	Mic MC	Audience sdh duduk kembali
09.42.00	-	09.42.15	00.00.15	15 "	BUMPER IN			
09.42.15	-	09.56.15	00.14.00	14'	APTİKOM + OPENING			
09.56.15	-	09.56.30	00.00.15	15 "	BUMPER OUT			
09.56.30	-	09.57.00	00.00.30	30 "	insert MC 5 - Invite Keynote Speech 1	Live Cam	Mic	
09.57.00	-	09.58.00	00.01.00	1'	BUMPER PROFILE KEYNOTE SPEECH 1 (Prof. Ir. Zainal Arifin Hasibuan, MLS., Ph.D)			
09.58.00	-	10.43.00	00.45.00	45'	Keynote Speech 1 (Prof. Ir. Zainal Arifin Hasibuan, MLS., Ph.D)	Live Cam	Mic Keynote	

10.43.00	-	10.43.15	00.00.15	15"	BUMPER Out			
10.43.15	-	10.43.45	00.00.30	30"	insert MC 6 - Invite Keynote Speech 2	Live Cam	Mic	
10.43.45	-	10.44.45	00.01.00	1'	BUMPER PROFILE KEYNOTE SPEECH 2 (Prof Dr Herman Mawengkang)			
10.44.45	-	11.29.45	00.45.00	45'	Keynote Speech 2 (Prof Dr Herman Mawengkang)	Live Cam	Mic Keynote	
11.29.45	-	11.59.45	00.30.00	15'	insert MC 7- Q&A Session 1			
11.59.45	-	12.59.45	01.00.00	60'	BREAK TIME			
12.59.45	-	13.00.00	00.00.15	15"	BUMPER Out			
13.00.00	-	15.00.00	02.00.00	120'	PARALLEL SESSION (10 Classroom) Chapter 1			
15.00.00	-	15.00.15	00.00.15	15"	BUMPER			
15.00.15	-	15.10.15	00.10.00	10'	Music Play			
15.10.15	-	15.10.45	00.00.30	30"	insert MC 9 - Invite Keynote Speech 3	Live Cam	Mic	
15.10.45	-	15.11.45	00.01.00	1'	BUMPER PROFILE KEYNOTE SPEECH 3 (Prof Dr Dorlen De tombe)			
15.11.45	-	15.56.45	00.45.00	45'	Keynote Speech 3 (Prof Dr. Dorlen De Tombe)	Live Cam	Mic Keynote	
15.56.45	-	15.57.00	00.00.15	15"	BUMPER out			
15.57.00	-	15.57.30	00.00.30	30"	insert MC 10 - Invite Keynote Speech 4	Live Cam	Mic	
15.57.30	-	15.58.30	00.01.00	1'	BUMPER PROFILE KEYNOTE SPEECH 4 (Prof Gerhard W. Weber)			
15.58.30	-	16.43.30	00.45.00	45'	Keynote Speech 4 (Prof Gerhard W. Weber)	Live Cam	Mic Keynote	
16.43.30	-	16.43.45	00.00.15	15"	BUMPER out			
16.43.45	-	17.13.45	00.30.00	30'	insert MC 11- Q&A Session 2			
17.13.45	-	17.14.00	00.00.15	15"	BUMPER Close			



Figure 2. The material delivered by Keynote Speaker: Prof Zainal A. Hasibuan (Head of APTIKOM)



Figure 3. The Presentation of Keynote Speaker: Prof Zainal A. Hasibuan (Head of APTIKOM)



Figure 4. The Material delivered by Keynote Speaker: Prof. Dr. Herman Mawengkang (Universitas Sumatera Utara)



Figure 5. The Material delivered by Keynote Speaker: Prof. Dr. Dorian De Tombe (Delft Technical University, The Netherlands)



Figure 6. The Material delivered by Keynote Speaker: Prof. Dr. Gerhard W. Weber (Poznan University of Technology, Poland)

• The Discussions, the Feasibility, Room for Q&A?

The questions asked by the participants for the keynote speaker were presented in two ways:

1. Through the chat room zoom meeting addressed to the committee to be conveyed to the keynote speaker.
2. Ask directly through zoom using the unmute feature by informing the committee in advance with the raise hand. Direct submission of questions is limited to a maximum of 5 questions for each keynote speaker.

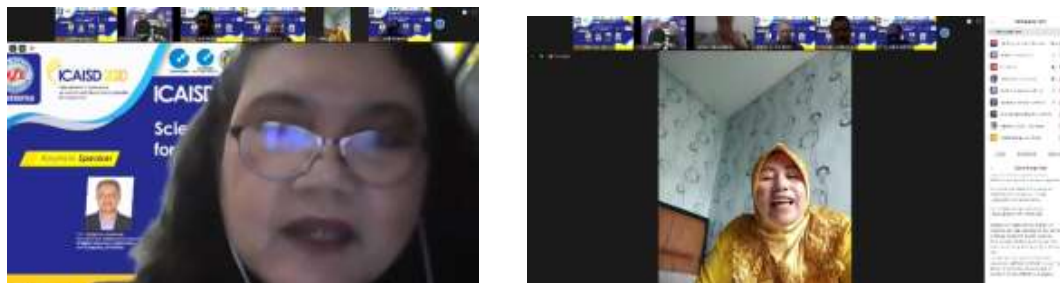


Figure 7. The Participants were delivering the Questions Addressed to Keynote speakers

The committee gave 15 minutes for each question session.

• **The participants: location and the overall attendance number expected.**

Of the 148 articles received, 145 article authors uploaded the presentation file and revision file from the author and then presented it on 6 and 7 August 2020. One of the authors of the article represented each article title in the presentation. All participants presented their research results for approximately 15 minutes per article which was divided into 10 rooms (online parallel sessions) which were assessed by the reviewer in each zoom room to determine the best presenter in each zoom room as attached to the schedule.

LIST OF SPEAKERS

Room : 1
 Category : Applied Science
 Moderator : Mr. Jimmi
 Invite Link : <https://zoom.us/j/8244410030?pwd=QjRTV3RTNWtoM2UzMHM4a0xLOWVaQT09>
 ID Meet : 824 441 0030
 Password : ICAISD01
 Durasi : 15 Minutes/ Team
 Total Durasi : 225 Minutes

(DAY 1) 06 AUGUST 2020

No.	Time	Id Easychair	Speakers	The Theme List of Full paper	DAY
1	13.00 - 13.15	13	Qudsiah Nur Azizah, Taopik Hidayat, Dwiza Riana, Tino Dwiantoro, Suhardoyo, and Saghifa Fitriana	Understanding Impact of M-banking on Individual Performance of the DeLone & McLean Method and TTF Perspective	(DAY 1) 06 AGUST 2020
2	13.15 - 13.30	15	Moh. Arie Hasan, Dwiza Riana, Sigit Swasono, Ade Priyatna, Eni Pudjiarti, Lusa Indah Prahartiwi	Identification of Grape Leaf Diseases Using Convolutional Neural Network	
3	13.30 - 13.45	19	Frieyadie, Adriana Hadi Sukmawati and Nurajijah	Combination of the SAW and TOPSIS Method For Determining The Best Marketplace Recommendations	
4	13.45 - 14.00	26	Faiza Renaldi, Meryana Putri Ramandhani, Esmeralda Djamal and Irma Santikarama	Integrated Monitoring Platform for Collaborative Youth Communities in Indonesia: A Case of e-Government Implementation for the Rural Millennial	
5	14.00 - 14.15	28	Normah, Ita Yulianti, Deny Novianti, Monikka Nur Winnarto, Ainun Zumarniansyah and Safitri Linawati	Comparison of Classification C4.5 Algorithms and Naïve Bayes Classifier in Determining Merchant Acceptance on Sponsorship Program	

6	14.15 - 14.30	29	Sari Hartini, Windu Gata, Sigit Kurniawan, Hendra Setiawan and Kadinar Novel	Cosmetics Customer Segmentation and Profile in Indonesia Using Clustering and Classification Algorithm
7	14.30 - 14.45	30	Indah Purnamasari, Frisma Handayanna, Ester Arisawati, Linda Sari Dewi, Erene Gernaria Sihombing and Rinawati Rinawati	The determination analysis of telecommunications customers potential cross-selling with classification naive bayes and c4.5
8	08.30 - 08.45	33	Tiara Eka Putri, Ridho Taufiq Subagio, Kusnadi and Petrus Sokibi	Classification System Of Toddler Nutrition Status using Naïve Bayes Classifier Based on Z- Score Value and Anthropometry Index
9	08.45 - 09.00	34	Doni Andriansyah and Lukman Nulhakim	The Application of Power Business Intelligence in Analyzing the Availability of Rental Units
10	09.00 - 09.15	36	Mercurius Broto Legowo, Steph Subanidja and Fangky Antoneus Sorongan	FinTech and Bank: Past, Present, and Future
11	09.15 - 09.30	38	Fintri Indriyani, Eni Irfiani, Frans Schadu, Syaiful Anwar and Rahmat Hidayat	The Determination of Yarn Supplier by Using the Weight Product Method
12	09.30 - 09.45	39	Syahrani, Adelia Alviyana and Tri Santoso	Sentiment analysis of facebook comments on indonesian presidential candidates using the naïve bayes method
13	09.45 - 10.00	40	Wanda Ilham, Tiara Putri, Petrus Sokibi, and Kusnadi	Application of Fuzzy Multy Attribute Decesion Making Method in Decision Making System For Determining The Provision Of Achievement Scholarship in SMP N 1 Simpati
14	10.00 - 10.15	41	Rusdiansyah, Mohammad Badrul, Tuslaela, Hendra Supendar, Nining Suharyanti and Agus Junaidi	Expert System in Clustering the Damage of a Motorcycle Matic with the K-Mean Algorithm

(DAY 2) 07 AGUST 2020

15	10.15-10.30	43	Siti Ernawati, Risa Wati, Nuzuliarini Nuris, Lita Sari Marita and Eka Rini Yulia	Comparison of Naïve Bayes Algorithm with Genetic Algorithm and Particle Swarm Optimization as Feature Selection for Sentiment Analysis Review of Digital Learning Application
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Materials & Methods (1)

- Of the many marketplace services, the authors take four marketplace services as examples for the application of the SAW and TOPSIS methods. Table 1 there are four alternative marketplaces.

Alternative	Information
A1	Shopee
A2	Tokopedia
A3	Bukalapak
A4	OLX

Figure 8. The Material delivered by One of the Participants in Room 1

LIST OF SPEAKERS

Room : 2
 Category : Applied Science
 Moderator : Mrs. Rizky Mirani Desi Pratama

Invite Link : <https://zoom.us/j/6640421517?pwd=NW5VTzZ3bFFOZC8xMU1pWmdRSiRVUT09>

ID Meet : 664 042 1517

Password : ICAISD02

Durasi : 15 Minutes/ Team

Total Durasi : 225 Minutes

DAY 1, 06 AUGUST 2020

No.	Time	Id Easychair	Speakers	The Theme List of Full Paper	DAY
1	13.00 - 13.15	45	Dany Pratmanto, Rousyati, Fanny Fatma Wati, Andrian Eko Widodo, Suleman, and Ragil Wijianto	App Review Sentiment Analysis Shopee Application In Google Play Store Using Naive Bayes Algorithm	(DAY 1) 06 AUGUST 2020
2	13.15 - 13.30	48	Dahlia Sarkawi, Suparman Hi Lawu, Anggi Oktaviani, Agus Priadi and Idah Yuniasih	Method for Calculating Children's Parenting and Self-Concept towards Student's Environmental Behaviour Using Correlational Approach	
3	13.30 - 13.45	49	Lena Magdalena and Yuni Awalaturrohman Solihah	Design of IT Governance Evaluation Using COBIT Framework through Capability Maturity in Department of Transportation Cirebon	
4	13.45 - 14.00	51	Jusuf Fadilah, Anisti, Ita Suryani, Azwar Munanjar and Agus Priadi	Brand Image of Bina Sarana Informatika: The Effect of the Use of "Obama-Like" Endorser in the Obama Version TV Advertisement towards the Brand Image of Bina Sarana Informatika (BSI)	
5	14.00 - 14.15	52	Faqih Hamami and Iqbal Ahmad Dahlan	The Implementation of Stream Architecture for Handling Big Data Velocity in Social Media	
6	14.15 - 14.30	56	Kartika Handayani, Eka Herdit Juningsih, Dwiza Riana, Sri Hadianti, Achmad Rifai and Rosi Kusuma Serli	Measuring The Quality of Website Services covid19.kalbarprov.go.id Using The Webqual 4.0 Method	

7	14.30 - 14.45	57	Fadillah Said, Khabib Astoni, Dwiza Riana and Asri Wahyuni	Analysis of Community Satisfaction Level Against the Ministry of Health's Infection Emerging Websites Using Webqual 4.0	(DAY 2) 07 AGUST 2020
8	08.30 - 08.45	58	Dinar Ismunandar, Yanto, Dwiza Riana, Fatmawati, Hylenearti Hertiana and Vito Triantori	User Satisfaction Analysis of Pikobar Covid19 Website Using the Webqual Method	
9	08.45 - 09.00	59	Fakihotun Titiani, Erni, Dwiza Riana, Cahyani Budihartanti, Syaifur Rahmatullah and Taransa Agasya Tutupoly	Analysis of User Satisfaction on Corona.Jakarta.go.id Website: Use Webqual Method 4.0	
10	09.00 - 09.15	60	Indah Suryani and Duwi Cahya Putri Buani	Stock price prediction using artificial neural network integrated moving average	
11	09.15 - 09.30	63	Achmad Fatkharrofiqi, Herman Kuswanto, Taufik Rahman, Sumarna, Felix Wuryo Handono and Hafis Nurdin	Employee attendance application using location based service (lbs) method based on android (Case Study of pt. copyright brainmatics informatics)	
12	09.30 - 09.45	64	Aliyah Kurniasih, Aloysius Kurniawan Santoso, Dwiza Riana, Abdul Rahman Kadafi, Wulan Dari and Arif Ismail Husin	TAM Method and Acceptance of COVID-19 Website Users in Indonesia	
13	09.45 - 10.00	66	Wahyu Nugraha, Muhammad Sony Maulana and Agung Sasongko	Clustering Based Undersampling for Handling Class Imbalance in C4.5 Classification Algorithm	
14	10.00 - 10.15	67	Riska Aryanti, Andi Saryoko, Agus Junaidi, Siti Marlina, Wahyudin, and Lia Nurmalia	Comparing Classification Algorithm With Genetic Algorithm In Public Transport Analysis	

15	10.15 - 10.30	79	Hardiyan, Eka Wulansari Fridayanthie, Noer Azni Septiani, Asep Sayfullloh, Allifah Kusumaningrum and Wahyudin	Efficiency Measurement of Operations Management of Clean Water Company using DEA
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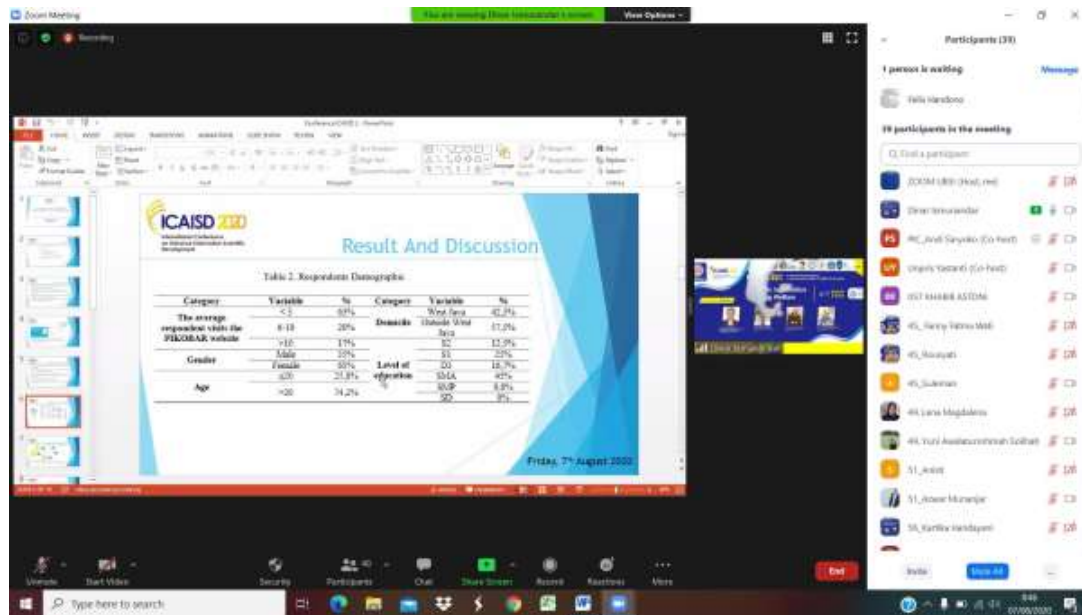


Figure 9. The Material delivered by One of the Participants in Room 2

LIST OF SPEAKERS

Room : 3

Category : Applied Science

Moderator : Mr. Ary Iswanto Wibowo

Invite Link : <https://zoom.us/j/3749365742?pwd=OXVwdlBiU1gwSUJjZjFneUF3NjgrQT09>

ID Meet : 374 936 5742

Password : ICAISD03

Durasi : 15 Minutes/ Team

Total Durasi : 225 Minutes

DAY 1, 06 AUGUST 2020

No.	Time	Id Easychair	Speakers	The Theme List of Full Paper	DAY
1	13.00 - 13.15	80	Nurajijah, Fachri Amsury, Irwansyah Saputra, Frieyadie, Daning Nur Sulistyowati and Bakhtiar Rifai	Approval of Sharia Cooperative Customer Financing Using PSO-Based SVM Classification Algorithm	(DAY 1) 06 AGUST 2020
2	13.15 - 13.30	83	Hani Harafani, Indah Suryani, Ispandi Perdana and Nur Lutfiyana	Neural Network Parameters Optimization with Generic Algorithm to Improve Liver Disease Estimation	
3	13.30 - 13.45	84	Imam Amirulloh, Iqbal Dzulficar Iskandar, Yanti Apriyani, Ai Illah Warnilah, Dini Silvi Purnia, and Mumun Surahman	Teacher Attendance Monitoring System Teaching with QR-Code and Geo Location using Android Platform	
4	13.45 - 14.00	85	Bagus Dwi Wicaksono, Dwin Indrawan, Dwiza Riana, Andi Taufik, Yamin Nuryamin and Dian Ambar Wasesha	The Influence of Pikobar Application in Suppressing the Rate of Coronavirus Spread	
5	14.00 - 14.15	86	Ahmad Nuryanto, Okki Setyawan, Dwiza Riana, Sri Hadiani, Achmad Maezar Bayu Aji and Endang Pujiastuti	Analysis of the AMARI COVID-19 application with the Technology Acceptance Model Method	

6	14.15 - 14.30	89	Edhi Prayitno, Juarni Siregar, Yumi Novita Dewi, Chaerul Bachri, Luthfi Indriyani and Samsul Ma'Arif	Use Case Points (UCP) with 3 Point in Program Evaluation and Review Technique (PERT) to Estimate Effort Software	
7	14.30 - 14.45	114	Cicik Nuraeni, Irmawati Carolina, Adi Supriyatna, Wina Widiati and Syamsul Bahri	Mobile-Assisted Language Learning (MALL): Students' Perception and Problems towards Mobile Learning in English Language	
8	08.30 - 08.45	93	Kurniawati Kurniawati, Muammar Khadapi, Dwiza Riana, Andi Arfian, Eva Rahmawati and Heriyanto	PUBLIC ACCEPTANCE OF PEDULILINDUNG I APPLICATION IN THE ACCELERATION OF CORONA VIRUS (COVID-19) HANDLING	(DAY 2) 07 AGUST 2020
9	08.45 - 09.00	94	Eka Rahmawati and Candra Agustina	Optimization of Decision Tree with PSO on Sharia Cooperative Customer Funding	
10	09.00 - 09.15	100	Andi Saryoko, Refangga Refangga, Riska Aryanti, Haryani Haryani, Sulaeman Hadi Sukmana and Samudi Samudi	Mobile Forensic In Whatsapp Messenger Use Mobiledit Forensics Express And National Institute Of Standards And Technology (NIST)	
11	09.15 - 09.30	111	Wisti Dwi Septiani, Sri Utami, Octa Pratama Putra, Noer Hikmah, Popon Handayani, dan Narti Narti	Designing of Agricultural Product e-Marketplace by using UCD method	
12	09.30 - 09.45	112	Wina Yusnaeni, Marlina Marlina, Ratih Yulia Hayuningtyas and Retno Sari	Comparison AHP-MABAC And Waspa Methods For Supplier Recommendations	

13	09.45 - 10.00	91	Nissa Madaniyah Fadhilah, Siti Fauziah, Dwiza Riana, Andrian Eko Widodo, Agus Yulianto and Besus Maula Sulthon	Influence Of Overload Information About COVID-19 Pandemic On Internet For Psychological Illnesses And Behavioral Intentions To Continue Searching For Information
14	10.00 - 10.15	115	Nur Aini Rakhmawati and Hapsari Wulandari	Analysis of Legislative Candidate's Motivation and Target in General Election 2019 Using Author-Topic Model and Node2vec
15	10.15 - 10.30	121	Haryani Haryani, Titik Misriati, Rahmat Hidayat, Diah Puspitasari, Dinda Ayu Muthia and Instiyanti Elyana	Information Technology Governance in Al Kautsar Islamic Elementary School Using COBIT 5 Framework

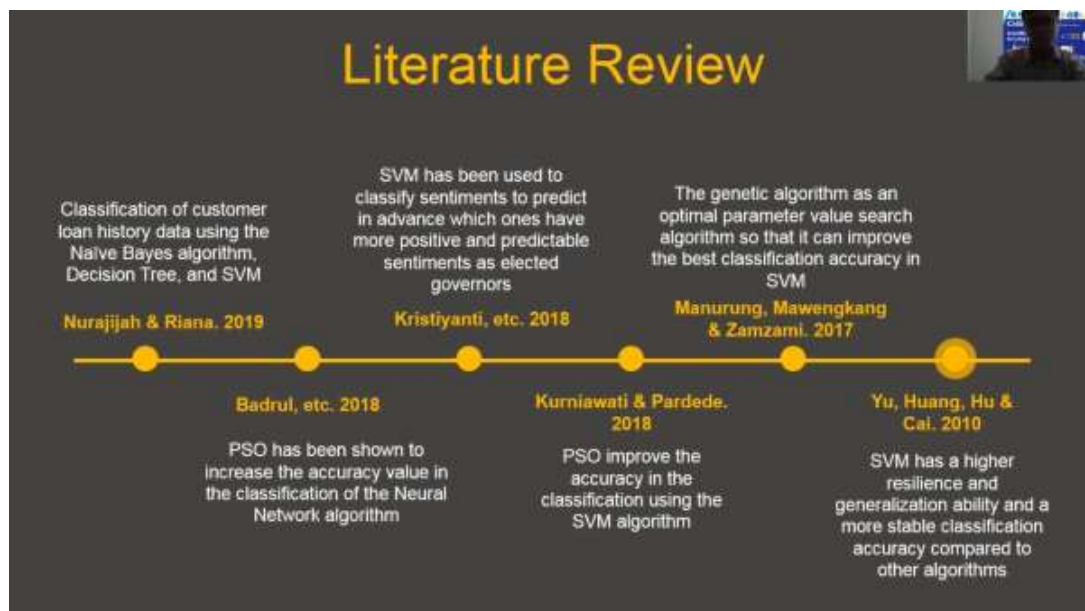


Figure 10. The Material delivered by One of the Participants in Room 3

LIST OF SPEAKERS

Room : 4
Category : Applied Science
Moderator : Miss Retno Rahayuningsih
Invite Link : <https://zoom.us/j/5633927839?pwd=OFhhVHhoRUkyVHF1Z3YyOGhORmFCZz09>
ID Meet : 563 392 7839
Password : ICASID04
Durasi : 15 Minutes/ Team
Total Durasi : 225 Minutes

DAY 1, 06 AUGUST 2020

No.	Time	Id Easychair	Speakers	The Theme List of Full Paper	DAY
1	13.00 - 13.15	123	Eko Haryadi, Dewi Yuliandari, Abdussomad Abdussomad, Diah Wijayanti, Mike Amelia, and Syafrianto Syafrianto	Maintaining The Continuity of The Company's Operation using the NIST Framework for Small and Medium Enterprises	(DAY 1) 06 AUGUST 2020
2	13.15 - 13.30	127	Panny Agustia Rahayuningsih, Reza Maulana, Windi Irmayani, Dedi Saputra and Deasy Purwaningti	Feature Dependent Naïve Bayes For Network Intrusion Detection System	
3	13.30 - 13.45	146	M Safii, Syahril Efendi, Muhammad Zarlis and Herman Mawengkang	Dynamic Model For Determining Disaster Evacuation Locations With Game Theory	
4	13.45 - 14.00	148	Dadang Priyanto, Muhammad Zarlis, Herman Mawengkang, Syahril Efendi	ANALYSIS OF SEISMIC HAZARD PREDICTION USING NON PARAMETRIC CONIC MULTIVARIATE ADAPTIVE REGRESSION SPLINES (C-MARS) METHODS	
5	14.00 - 14.15	149	Finna Windyani, P. H. Gunawan, Dede Tarwidi	Macroscopic Modelling of Pedestrian Flows Based on Conservation Law	
6	14.15 - 14.30	155	Dinar Ajeng Kristiyanti, Esty Purwaningsih, Ela Nurelasari, Ahmad Al Kaafi, Akhmad Hairul Umam	Implementation of neural network method for air quality forecasting in Jakarta region	

7	14.30 - 14.45	209	Ai Ilah Warnilah, Dini Silvi Purnia, Miftah Farid Adiwisastra, Herlan Sutisna, Ratningsih and Rian Ardianto	The Implementation of the MFEP (Multi Factor Evaluation Process) Method In Determining the Learning Model	(DAY 2) 07 AGUST 2020
8	08.30 - 08.45	168	Miftah Farid Adiwisastra, Yani Sri Mulyani, Tuti Alawiyah, Taufik Wibisono, Iqbal Dzulfikar Iskandar, and Dini Silvi Purnia	Implementation Of The Lab Rotation Model In Blended Learning Based On Student Perspectives	
9	08.45 - 09.00	169	Angga Ardiansyah, Sopian Aji, Dany Pratmanto, Sandra Jamu Kuryanti, Octa Pratama Putra, Cep Adiwihardja	The Analysis of Digital Provider Sentiment Of 'by.u' On Google Play Which Uses The Support Vector Machine (SVM) Method	
10	09.00 - 09.15	182	Achmad Baroqah Pohan , Sofian Wira Hadi, Syaifur Rahmatullah , Robi Aziz Zuama , Achmad Rifai , Deni Gunawan	Employee Performance Appraisal Using Decision Support System By AHP and TOPSIS Methods	
11	09.15 - 09.30	189	Tya Septiani Nurfauzia Koeswara, Yoseph Tajul Arifin, Asriyani Sagianto, Widarti, Sopiyan Dalis, Rizky Ade Safitri	Application of Simple Additive Weighting Method in the Selection of Achievement Employees at PT. Tata Makmur Sejahtera	
12	09.30 - 09.45	191	Rizal Amegia Saputra, Candra Agustina ,Diah Puspitasari, Kresna Ramanda, Warjiyono, Jamal Maulana Hudin, Lisnawanty, Karlana Indriani	Detecting Alzheimer's Disease by The Decision Tree Methods Based On Particle Swarm Optimization	
13	09.45 - 10.00	225	Marischa Elveny and Mahyuddin K M Nasution	Similarity Approach Based to Customer Behavior for Trade Business Metrics	



Figure 11. The Material delivered by One of the Participants in Room 4

LIST OF SPEAKERS

Room : 5

Category : Artificial Intelligence

Moderator : Mrs. Wiruma Titian Adi

Invite Link : <https://zoom.us/j/9321355544?pwd=STV2WmZKUE5NbUFyamdCM0lNRjMlQT09>

ID Meet : 932 135 5544

Password : ICAISD05

Durasi : 15 Minutes/ Team

Total Durasi : 225 Minutes

DAY 1, 06 AUGUST 2020

No.	Time	Id Easychair	Speakers	The Theme List of Full Paper	DAY
1	13.00 - 13.15	14	Elly Muningsih, Hidayat Muhammad Nur, Fabriyan Fandi Dwi Imaniawan, Saifudin, Vembria Rose Handayani and Feri Endiarto	Comparative Analysis on Dimension Reduction Algorithm of Principal Component Analysis and Singular Value Decomposition for Clustering	(DAY 1) 06 AUGUST 2020
2	13.15 - 13.30	18	Indah Ariyati, Susy Rosyida, Kresna Ramanda, Verry Riyanto, Siti Faizah and Ridwansyah	Optimization Of The Decision Tree Algorithm Used Particle Swarm Optimization In The Selection Of Digital Payments	
3	13.30 - 13.45	32	Harsih Rianto, Amrin, Rudianto, Omar Pahlevi, Paramita Kusumawardhani and Seno Sudarmono Hadi	Determining the Eligibility of Providing Motorized Vehicle Loans by Using the Logistic Regression, Naive Bayes and Decision Tree (C4.5)	
4	13.45 - 14.00	42	Henderi, Ageng Setiani Rafika, Harco Leslie Hendric Spits Warnar and Meldi Anggara Saputra	An application of mask detector for prevent Covid-19 in public services area	
5	14.00 - 14.15	47	Sri Rahayu, Nurul Qhomariyah, Jajang Jaya Purnama, Dwiza Riana, Yuni Eka Achyani, and Fattya Ariani	Swietenia Mahagoni Wood Defects Segmentation Using YIQ Color Space and Thresholding	
6	14.15 - 14.30	68	Iqbal Dzulfikar Iskandar, Noor Cholis Basjaruddin, Deddy Supriadi, Ratningsih, Dini Silvi Purnia and Taufik Wibisono	POPULAR CONTENT PREDICTION BASED ON WEB VISITOR DATA WITH DATA MINING APPROACH	

7	14.30 - 14.45	69	Irfan Mahendra, Sulistianto Sw, Astriana Mulyani, Agus Wiyatno and Oki Rosanto	Assessing E-Commerce Success from a Millennial Perspective in Indonesia
8	08.30 - 08.45	75	Nia Nuraeni, Puji Astuti, Oky Irnawati, Ida Darwati and Danang Dwi Harmoko	High Accuracy in Forex Predictions Using the Neural Network Method Based on Particle Swarm Optimization
9	08.45 - 09.00	78	Angge Firizkiansah, Bambang Kriswantara, Dwiza Riana, Aprih Widayanto, Fajar Akbar and Eko Setia Budi	The Influence of "Check The Risk of Contracting Coronavirus" Application Quality from Alodokter on the Benefits Gained by Users, to get COVID-19 Early Detection
10	09.00 - 09.15	90	Ranu Agastya Nugraha, Dwi Andriyanto, Dwiza Riana and Siti Nur Khasanah	Analysis of Factors Affecting Quality of corona.jatengprov.go.id Website Towards User Satisfaction using Webqual 4.0 Method
11	09.15 - 09.30	96	Hermanto, Antonius Yadi Kuntoro, Taufik Asra, Eri Bayu Pratama, Lasman Effendi and Ridatu Ocanitra	GOJEK AND GRAB USER SENTIMENT ANALYSIS ON GOOGLE PLAY USING NAïVE BAYES ALGORITHM AND SUPPORT VECTOR MACHINE BASED SMOTE TECHNIQUE
12	09.30 - 09.45	97	Faruq Aziz, Irmawati Irmawati, Dwiza Riana, Joko Dwi Mulyanto, Dede Nurrahman and Muhamad Tabrani	Usability Evaluation of the Website Services Using the WEBUSE Method (A Case Study: covid19.go.id)
13	09.45 - 10.00	98	Eni Heni Hermaliani, Laela Kurniawati, Tuti Haryanti, Nisa Mutiah, Aan Kurniawan, dan Bahrun Said Renhoran	Data Mining Technique to Determine the Pattern of Fruits Sales & Supplies Using Apriori Algorithm
14	10.00 - 10.15	103	Titin Kristiana, Sukmawati Anggraeni Putri, Nurmalasari Nurmalasari, Rani Irma Handayani, Nita Merlina and Norma Yunita	Association rule implementation using algorithm apriori to analyze fishing pattern in Indonesia

(DAY 2) 07 AGUST 2020

15	10.15 - 10.30	107	Ilham Kurniawan, Abdussomad Abdussomad, Muhammad Faithullah Akbar, Dede Firmansyah Saepudin, Mochammad Syamsul Azis, dan Muhamad Tabrani	Improving The Effectiveness of Classification Using The Data Level Approach and Feature Selection Techniques in Online Shoppers Purchasing Intention Prediction
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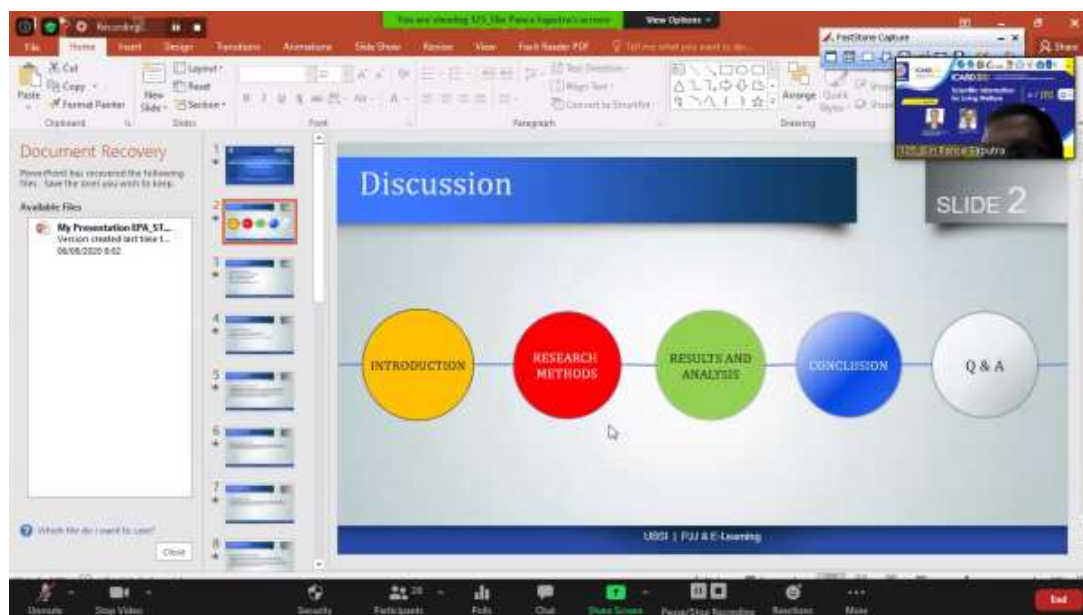


Figure 12. The Material delivered by One of the Participants in Room 5

LIST OF SPEAKERS

Room : 6
 Category : Artificial Intelligence
 Moderator : Miss Dwi Puji Hastuti

Invite Link : <https://zoom.us/j/2509617265?pwd=WS95QzRWOG85VGtXMEExd2lOcUIHdz09>
 ID Meet : 250 961 7265
 Password : ICAISD06

Durasi : 15 Minutes/ Team

Total Durasi : 225 Minutes

DAY 1, 06 AUGUST 2020

No.	Time	Id Easychair	Speakers	The Theme List of Full Paper	DAY
1	13.00-13.15	124	Siti Raftiana Putri, Tien F. Kusumasari, and Muharman Lubis	The Effectiveness of Implementing Payment Gateway for Start-up Company for Transaction	(DAY 1) 06 AGUST 2020
2	13.15-13.30	125	Elin Panca Saputra, Supriatiningsih, Supriatiningsih, Indriyanti Indriyanti and Sugiono Sugiono	Prediction of Evaluation Result of E-learning Success Based on Student Activity Logs With Selection of Neural Network Attributes Base on PSO	
3	13.30-13.45	128	Indarti Indarti, Novita Indriyani, Arief Setya Budi, Dewi Laraswati, Wina Yusnaeni and Arif Hidayat	The Classification Of Monster And Williams Pear Varieties Using K-Means Clustering And K-Nearest Neighbor (KNN) Algorithm	
4	13.45-14.00	129	Reza Maulana, Panny Agustia Rahayuningsih, Windi Irmayani, Dedi Saputra and Wanty Eka Jayanti	Improved Accuracy of Sentiment Analysis Movie Review Using Support Vector Machine Based Information Gain	
5	14.00-14.15	130	Siti Masripah, Lila Dini Utami, Hilda Amalia, Dini Nurlaela, Muhamad Ryansyah and Lestari Yusuf	Comparison of Text Mining Classification Algorithms in Interbank Money Transfer Application	
6	14.15-14.30	133	Dedi Saputra, Weiskhy Steven Dharmawan, Mochamad Wahyudi, Windi Irmayani, Juniato Sidauruk and Martias Martias	Performance Comparison and Optimized Algorithm Classification	
7	14.30-14.45	134	Diah Puspitasari, Kresna Ramanda, Adi Supriyatna, Mochamad Wahyudi, Erma Delima Sikumbang and Sulaeman Hadi	Comparison of Data Mining Algorithms Using Artificial Neural Networks (ANN) and Naive Bayes for Pretern Birth Prediction	

			Sukmana		
8	08.30 -08.45	135	Diah Puspitasari, Mochamad Wahyudi, Muhammad Rizaldy, Acmad Nurhadi, Kresna Ramanda and Sumanto Sumanto	K-Means Algorithm For Clustering The Location of Accident-Prone on The Highway	(DAY 2) 07 AGUST 2020
9	08.45 - 09.00	137	Faqih Hamami, Iqbal Ahmad Dahlan	Implementation Face Recognition Attendance Monitoring System for Lab Surveillance with Hash Encryption	
10	09.00 - 09.15	143	Hikmatulloh, Dwiza Riana, Jamal Maulana Hudin, Susilawati, Dede Wintana and Sri Hadianti	Identification of monogeneans parasite using gray level co- occurrence matrix and artificial neural network	
11	09.15 - 09.30	147	Adhelinia Afenika, Putu Harry Gunawan and Dede Tarwidi	Classification of Road Surface Quality Based on SVM Method	
12	09.30 - 09.45	153	Dwi Andini Putri, Dinar Ajeng Kristiyanti, Elly Indrayuni, Acmad Nurhadi, Denda Rinaldi Hadinata	Comparison of Naive Bayes Algorithm and Support Vector Machine using PSO Feature Selection for Sentiment Analysis on E-Wallet Review	
13	09.45 - 10.00	156	R Aulianita, LA Utami, N Musyaffa, G Wijaya, A Mukhayaroh, A Yoraeni	Sentiment Analysis Review Of Smartphones With Artificial Intelligent Camera Technology Using Naive Bayes n-gram Character Selection	
14	10.00 - 10.15	157	Hilda Amalia ,Yunita , Achmad Baroqah Pohan, Ari Puspita, Ade Fitria Lestari	Determination Wart Treatment Method Using Data Mining Technique	
15	10.15- 10.30	226	Marischa Elveny and Rahmad Syah	Identification of Diabetic Retinopathy with Retinal Fundus Imagery Using Probabilistic Neural Network	



Figure 13. The Material delivered by One of the Participants in Room 6

LIST OF SPEAKERS

Room : 7
 Category : Artificial Intelligence
 Moderator : Mr. Octa Pratama Putra

Invite Link : <https://zoom.us/j/3913226231?pwd=bHJyWEZzbFBaNTNrRCtjU2RlVXhhZz09>
 ID Meet : 391 322 6231
 Password : ICAISD07

Durasi : 15 Minutes/ Team
 Total Durasi : 225 Minutes

DAY 1, 06 AUGUST 2020

No.	Time	Id Easychair	Speakers	The Theme List of Full paper	DAY
1	13.00-13.15	207	Mahfut Mahfut	Identification and Detection Odontoglossum ringspot virus on Native Orchids Collection of Nurseries in Java, Indonesia	(DAY 1) 06 AGUST 2020
2	13.15-13.30	171	Haerul Fatah, Recha Abriana Anggraini, Deddy Supriadi, Melisa Winda Pertiwi, Ai Ilah Warnilah and Nurul Ichsan	Data mining for cryptocurrencies price prediction	
3	13.30-13.45	187	Elly Firasari, Nurul Khasanah, Umi Khultsum, Desiana Nur Kholifah, Gema Irfhamdhika, Wiwiek Widyastuty	Comparation of K-Nearest Neighbor and Naive Bayes Algorithm for the Classification of the Poor in Recipients of Social Assistance	
4	13.45-14.00	194	Dinar Ajeng Kristiyanti, Dwi Andini Putri, Elly Indrayuni, Achmad Nurhadi, Akhmad Hairul Umam	E-Wallet Sentiment Analysis Using Naïve Bayes and Support Vector Machine Algorithm	
5	14.00-14.15	195	Tika Adilah M, Hendra Supendar, Rahayu Ningsih, Sri Muryani and Kusmayanti Solecha	Sentiment Analysis of Online Transportation Service using the Naïve Bayes Methods	
6	14.15-14.30	196	Rizal Amegia Saputra, Suharyanto Suharyanto, Sri Wasiyanti, Dede Firmansyah Saefudin, Adi Supriyatna and Agung Wibowo	Rice Leaf Disease Image Classifications Using KNN Based On GLCM Feature Extraction	

7	14.30-14.45	200	Tuti Alawiyah, Agung Baitul Hikmah , Wildan Wiguna , Mira Kusmira , Herlan Sutisna , and Bambang Kelana Simpony	Generation of Rectangular Matrix Key for Hill Cipher Algorithm Using Playfair Cipher	(DAY 2) 07 AGUST 2020
8	08.30-08.45	205	Husni Faqih, Warjiyono Warjiyono, Fiola Kuhon, Sopian Aji, Angga Ardiansyah and Fandhilah Fandhilah	An Analysis & Measurement of Website Quality Using WebQual 4.0 and Importance Performance Analysis (IPA) Method (A Case Study of Kemiriamba Village Brebes)	
9	08.45 - 09.00	163	Sriyadi, Maruloh, Mochamad Nandi Susila, Andriansah, Imam Nawawi, Meiva Eka Sri Sulistyawati, Sufi Alawiyah	Motorized Vehicle Security System With Master And Slave Key Models	
10	09.00 - 09.15	208	Mahfut Mahfut	Identification of Disease and Efforts to Protect Native Orchid Plants Against Bacteria Infection in Liwa Botanical Garden	
11	09.15 - 09.30	201	Yasinta Indrianti, Sasmoko, Nor Fadila Mohd Amin, Sucianna Ghadari Rabiha, Nugroho Juli Setiadi, Agustinus Dedy Handrimurtjahjo and Muktiono Waspodo	Entrepreneurial Mindfulness Based on Artificial Intelligence	
12	09.30 - 09.45	211	Hasanul Fahmi, Syahrul Fahri, Jijon Raphita Sagala, Yuda Perwira, Yessy F A Lubis, Nurjamiyah Nurjamiyah and Mufida Khairani	USING CERTAINTY FACTOR METHOD TO DETERMINE WORK COMMITMENT GENERATION Y	

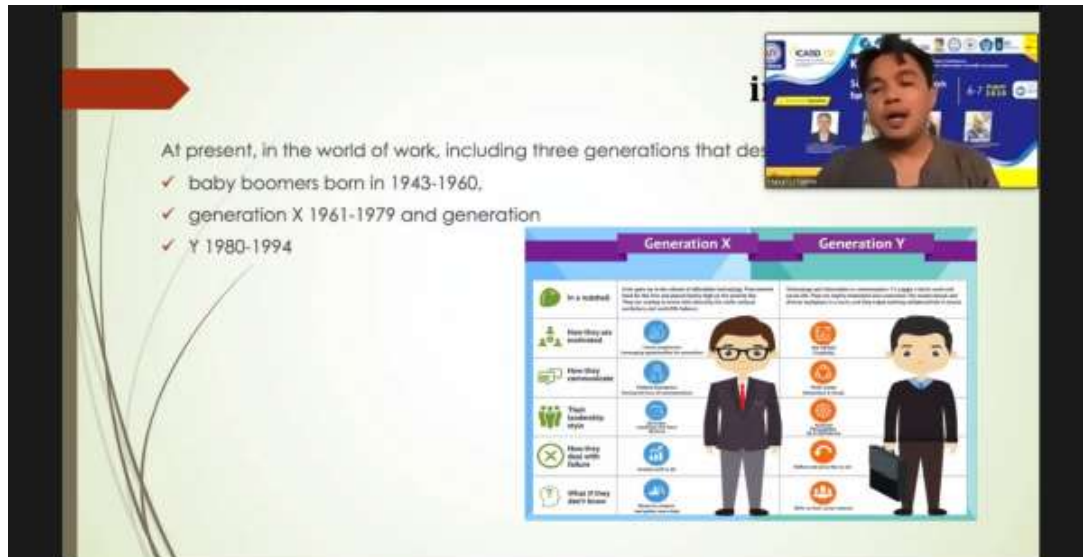


Figure 14. The Material delivered by One of the Participants in Room 7

LIST OF SPEAKERS

Room : 8
 Category : Applied Science, Artificial Intelligence, Management
 Moderator : Mrs. Yanti Rosalinah

Invite Link : <https://zoom.us/j/9196551907?pwd=MnVpbGRCYVB0cDNwTlE0ZS92elZtUT09>
 ID Meet : 919 655 1907
 Password : ICAISD08

Durasi : 15 Minutes/ Team

Total Durasi : 195 Minutes

DAY 1, 06 AUGUST 2020

No.	Time	Id Easychair	Speakers	The Theme List of Full Paper	DAY
1	13.00-13.15	199	Unifah Rosyidi, Sasmoko, Yasinta Indrianti, Sonya Rapinta Manalu, Ramot Lubis, Jurike Moniaga and Abu Yazid Bin Abu Bakar	Designing Face Recognition Teacher Wellbeing Application that Optimizes Teacher's Quality Work Life	(DAY 1) 06 AGUST 2020
2	13.15-13.30	145	Paska Marto Hasugian, Harvei Desmon Hutahaeen, Bosker Sinaga, Sriadhi and Saronom Silaban	Villages Status Classification Analysis Involving K-Means Algorithm To Support Kementerian Desa Pembangunan Daerah Tertinggal dan Transmigrasi Work Programs	
3	13.30-13.45	212	Satoshi Iwakami, Masajiko Tamega, Masajide Sanada, Michiaki Mohri, Yoshitaka Iwakami, Shuji Jimbo and Masaji Watanabe	Study of underwater topography change with measurement and analysis	
4	13.45-14.00	213	Hengki Sihotang, Syahril Efendi, Elvyawati Zamzami and Herman Mawengkang	Design and Implementation of Rivest Shamir Adleman's (RSA) Cryptography Algorithm in Text File Data Security	
5	14.00-14.15	218	Arman Andrian, Sena Ramadana, Dwiza Riana, Nicodias Palasara, Albert Riyandi and Ibnu Rusdi	User satisfaction of covid19 kota Bogor website using webqual 4.0	
6	14.15-14.30	215	Burcu Gürbüz	Hybrid approximation for solutions of high-order integro-differential equations including variable delay	

7	14.30-14.45	177	Kanis Fatama Ferdushi, Md Kamrul Hossain, Anton Abdulbasah Kamil	Production Risk with Feasible Generalized Least Square	(DAY 2) 07 AGUST 2020
8	08.30-08.45	216	Husain Husain, Muhammad Zarlis, Herman Mawengkang and Syahril Efendi	CAUSAL LOOP DIAGRAM (CLD) MODEL IN PLANNING A SUSTAINABLE SMART SHARIA TOURISM	
9	08.45 - 09.00	217	Mochamad Wahyudi, Muhammad Zarlis, Herman Mawengkang and Syahril Efendi	A New Framework of Feature Selection Approach for Sentiment Analysis	
10	09.00 - 09.15	219	Siti Julianita Siregar, Muhammad Zarlis and Zakarias Situmorang	Application and Manual Encryption Process with The Combination Algorithm of One Time Pad and Vigenere Cipher	
11	09.15 - 09.30	220	Lise Pujiastuti, Mochamad Wahyudi and Solikhun Solikhun	Analysis of Perceptron Quantum Artificial Neural Networks to Classify the Feasibility of Prospective Debtors	
12	09.30 - 09.45	224	Herman Mawengkang and Sutarman	Generalized Reduced Gradient Approach for Solving Periodic Heterogeneous Vehicle Routing Problem with Side Constraints	
13	09.45 - 10.00	228	Sri Melvani Hardi and Farhan Pramuwidiantoro Surbakti	EXPERT SYSTEM FOR DETECTION GLAUCOMA DISEASE USING CERTAINTY FACTOR METHOD	
14	10.00 - 10.15	229	Sri Hardi and Arie Triwiyono	Expert System for Diagnosing Osteoarthritis with Fuzzy Tsukamoto Method.	
15	10.15-10.30	230	Sri Hardi, Muhammad Zarlis, Syahril Efendi and Maya Silvi Lydia	Taxonomy Genetic Algorithm For Implementation Partially Mapped Crossover In Travelling Salesman Problem	

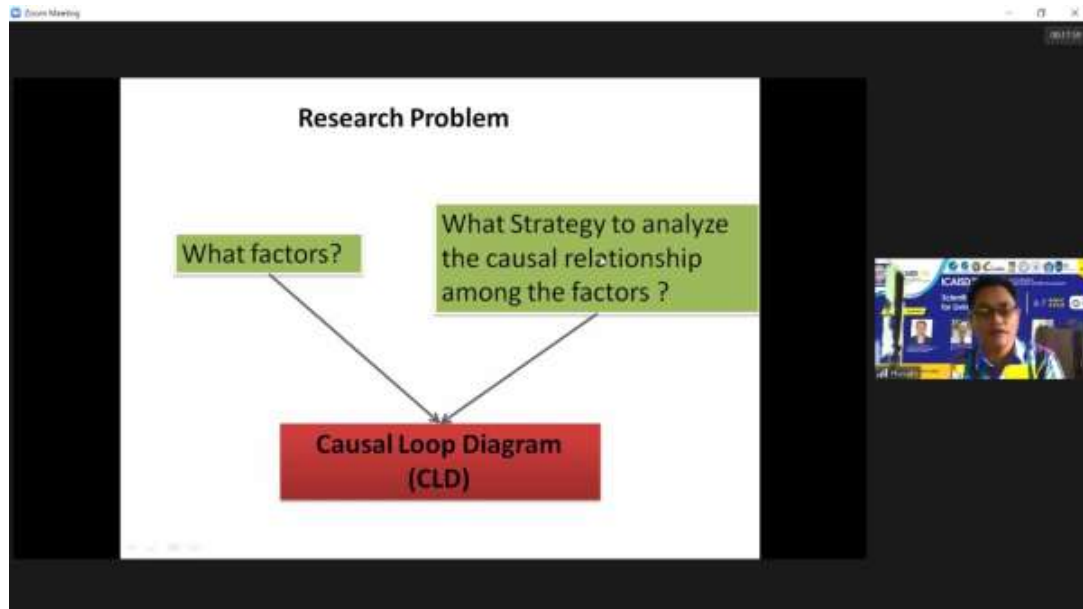


Figure 15. The Material delivered by One of the Participants in Room 8

LIST OF SPEAKERS

Room : 9
 Category : Management
 Moderator : Mr. Sayyid Khairunnas

Invite Link : <https://zoom.us/j/9288890197?pwd=MmdUUjhDdy9mWGJWSTF4eThXY1B6QT09>
 ID Meet : 928 889 0197
 Password : ICAISD09

Durasi : 15 Minutes/ Team
 Total Durasi : 225 Minutes

DAY 1, 06 AUGUST 2020

No.	Time	Id Easychair	Speakers	The Theme List of Full Paper	DAY
1	13.00-13.15	20	Andi Martias, Agni Isador Harsapranata, Ahmad Rais Ruli, Rahma Wiyanti and Rahmat Novari	Analysis Of The Role Of Internal Auditors On Control Self Assesment Of Material Planning Strategic Business Unit Engine Maintenance	(DAY 1) 06 AGUST 2020
2	13.15-13.30	54	Sabil, Suhartono, Slamet Heri Winarno, Octa Pratama Putra and Dwiymatmoko Puji Widodo	The Effect of Work Environment, Competence, and Motivation on Employee's Performance in Electronic Companies in the Industrial District of Bekasi Regency Indonesia	
3	13.30-13.45	55	Arefin Islam Sourav, Ninyikiriza Deborah Lynn and Albertus Joko Santoso	Designing a conceptual framework of a smart city for sustainable development in Bangladesh	
4	13.45-14.00	61	Devita Widyaningtyas Yogyanti, Emmita Devi Hari Putri, Citra Unik Mayasari, Atun Yulianto and M. Fathurrahman Nurul Hakim	Taking the Host Community's Control Back Towards Negative Impact of Voluntourism. Case Study in Japanese Language Course Bunka Kenkyukai, Yogyakarta Indonesia	
5	14.00-14.15	65	Vera Yanti, Sri Arfani, Eka Dyah Setyaningsih, Slamet Heri Winarno and Nur Hidayati	Competency Development Strategy for MSME Actor in The Use of ICTs in Rural and Urban Areas in An Effort Support Business Sustainability (Case Study of MSMEs in The Regency and City of Bandung Indonesia)	

6	14.1 5- 14.3 0	70	Wiwik Widiyanti, Vina Islami, Rani, Syahrir and Rosento	OVO E-Wallet as a Platform of Digital Payment in Indonesia: An Empirical Analysis	(DAY 2) 07 AGUST 2020
7	14.3 0- 14.4 5	82	Sri Harjunawati, Ida Hendarsih, Syahril Addin and Amas Sari Marthanti	EFFECT OF INFLATION, BI RATE AND NET EXPORT TO USD CENTRAL EXCHANGE RATE TO RUPIAHS IN BANK INDONESIA FOR 2005-2019	
7	08.3 0 - 08.4 5	102	Lela Nurlaela Wati, Ramdany Ramdany and Momon Momon	Benefits and Costs of Politically Connected Firms, Evidence in Indonesia	
8	08.4 5 - 09.0 0	105	Baiatun Nisa, Sulhizah Wulan Sari and Paramita Kusumawardhani	Improving English Speaking Skill through Slang Words in a Movie: the Practice of Mind-Mapping Strategy	
9	09.0 0 - 09.1 5	106	Ani Wijayanti, Amelda Pramezwary, Emmita Devi Hari Putri, Atun Yulianto, Jati Nurcahyo and Erlangga Brahmanto	Shopping Tourism Development Through Top Five Products In Yogyakarta City, Indonesia	
10	09.1 5 - 09.3 0	109	Latifah Latifah, Nurmalasari Nurmalasari, Sri Dewi Ayu Safitri and Taufik Baidawi	The Effect Of Macro Economy On Sukuk Requests In Indonesia	
11	09.3 0 - 09.4 5	113	Kurniawan Prambudi Utomo, Sinta Rukiastiandari, Isyana Emita, Faif Yusuf, Fahmi Kamal and Eneng Iviq Hairo Rahayu	Analysis of Effects on Debt Equity Ratio (DER) and Underwriter Reputation on Underpricing Phenomena in Companies Conducting Initial Public Offering (IPO) on the IDX	
12	09.4 5 - 10.0 0	116	Nurvi Oktiani, Haryani Haryani, Kartika Yuliantari, Taat Kuspriyono, Rani Kurniasari and Jimmi Jimmi	The Effect Promotion E-Commerce Toward Effectiveness Promotion By Using Attention, Interest, Desire and Action (AIDA) Methods For Adpers – Art Community Product	



Figure 16. The Material delivered by One of the Participants in Room 9

LIST OF SPEAKERS

Room : 10
 Category : Management & Applied Science
 Moderator : Mrs. Titi Dewi Rohati

Invite Link : <https://zoom.us/j/3856170963?pwd=Vm52WW1FRlhUa3dPVzhRRTV4L0F5UT09>
 ID Meet : 385 617 0963
 Password : ICAISD10

Durasi : 15 Minutes/ Team

Total Durasi : 195 Minutes

DAY 1, 06 AUGUST 2020

No.	Time	Id Easychair	Speakers	The Theme List of Full Paper	DAY
1	13.00-13.15	120	Popon Adawia, Ayu Azizah, Aprilia Puspasari, Dede Mustomi and Asep Asep	The Appropriate Calculation Cost of Goods Manufactured as Pricing Strategy for Small Sized Enterprises (SMEs)	(DAY 1) 06 AGUST 2020
2	13.15-13.30	138	Diana Tambunan, Sugeng Wahyudi, Harjum Muharam	Merger and Innovation to Improve Organization's Performance in Indonesia to Fight Industrial Revolution 4.0: Case study Merger Bank BTPN	
3	13.30-13.45	154	Ana Ramadhayanti, Pramelani, Devy Sofyanty ,Rini Martiwi	TThe Role of Team Creativity and Risk Management in Supports Startup Business Performance	
4	13.45-14.00	161	S Wardah, Taufik Baidawi	Development of Fuzzy Analytic Hierarchy Process(F-AHP) For The Selection Of Alternative New Product Development Ideas In Coconut Downstream Agroindustry	
5	14.00-14.15	162	Ana Ramadhayanti, Nurhidayati, Imelda Sari and Taat Kuspriyono	ELABORATION FACTORS OF SUCCESS IN THE APPLICATION OF COMMUNITY-BASED SOLID WASTE MANAGEMENT AND COMPOSTING TECHNOLOGY	

6	14.15-14.30	164	A R A Nalendra, R Rahayuningsih, Y Rosalinah, I Subroto, A I Wibowo, F Nelfianti	E-Learning for English for Business-Based Podcast: One of Learning Solutions Amid the Pandemic of COVID-19.
7	14.30-14.45	174	Celerina Dewi Hartati, Gustini Wijayanti, Hin Goan Gunawan, Yulie Neila Chandra	Chinese Identity in God Temple's Birthday Ceremony as a Form of Social Network
8	08.30-08.45	183	Eka Dyah Setyaningsih, Hartanti, Vera Agustina Yanti, Ratiyah, Sumanto	IMPLEMENTATION OF GOVERNMENT REGULATION NO.46 2013 AND PP NO.23 IN 2018 FOR SMALL MEDIUM ENTERPRISE BANDUNG REGENCY (CASE STUDY IN BANDUNG DISTRICT MSME)
9	08.45 - 09.00	198	Idah Yuniasih, Slamet Heri Winarno, Ida Zuniarti, and Sofyan Marwansyah	The Effect of Price, Product Quality and Customer Service Toward Customer Satisfaction on Online Buying at COVID-19 Pandemic
10	09.00 - 09.15	119	Heri Ispriyahadi and Raysa Trierdianto	ANALYSIS OF EFFICIENCY AND CHANGE OF PRODUCTIVITY IN THE INDONESIAN BANKING INDUSTRY USING DATA ENVELOPMENT ANALYSIS (DEA) AND MALMQUIST TOTAL FACTOR PRODUCTIVITY
11	09.15 - 09.30	118	Lela Nurlaela Wati, Heri Ispriyahadi, Khoirun Nisa, Mohamad Lutfi and Imam Suprpta	Financial Technology and Financial Inclusion on MSME: Mixed-Method Research Approach
12	09.30 - 09.45	142	Diah Pradiatiningtyas, Chriswardana Bayu Dewa, Lina Ayu Safitri and Sri Kiswati	The Effect of Satisfaction and Loyalty Towards Digital Payment System Users Among Generation Z in Yogyakarta Special Region.

(DAY 2) 07 AGUST 2020

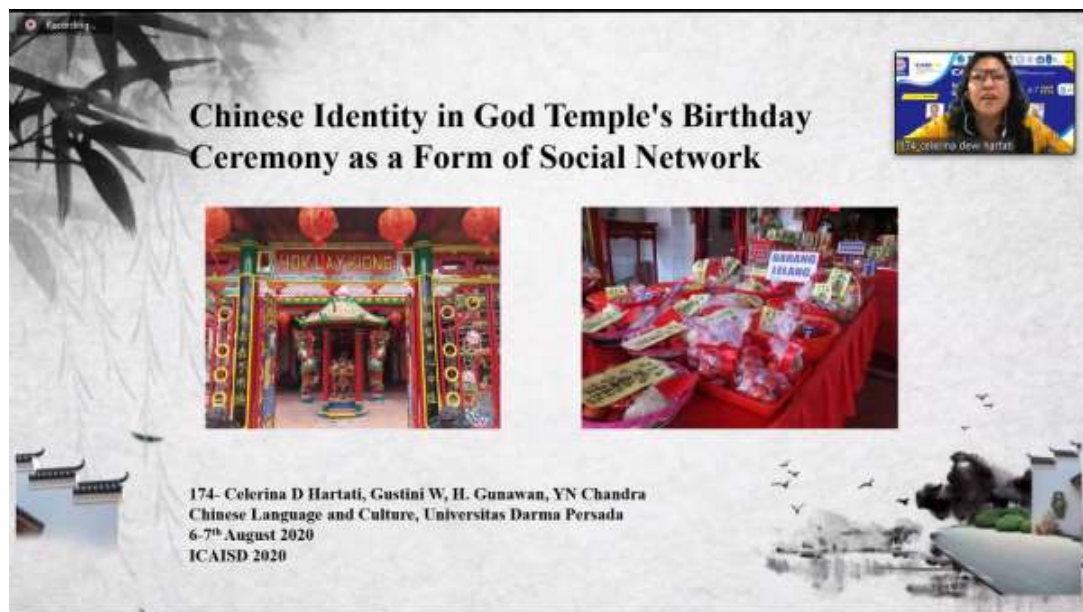


Figure 17. The Material delivered by One of the Participants in Room 10

- **The technology needed to deliver the meeting successfully.**

The Zoom Meeting application can support the ICAISD seminar to run smoothly due to travel restrictions by the Government due to the Covid-19 pandemic, so that meetings involving many people cannot be held. The zoom meeting application makes it easy to meet virtually without limiting certain areas so that the ICAISD seminar can run smoothly.

- **Any technical difficulties?**

Technical obstacles in the implementation of the ICAISD-2020 conference were usually problems from participants who cannot display the presentation file, but because participants have sent / uploaded the presentation file (ppt/ pptx) previously via the icaisd.info page, the committee can help display the presentation files of the seminar participants.

- **Any drawbacks in the delivery of the conference virtually, e.g. impact on the community?**

The positive side of the implementation of seminars is that participants and keynote speakers can deliver seminar material without holding a meeting because the Covid-19 pandemic will make it easier for participants far away from Bekasi, West Java, Indonesia. Therefore, that it can be efficient in terms of time and travel.

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Furthermore, based on the provisions of the seminar committee meeting, the articles received are those that have a score of 0 to 3 with the number of articles 148 which will then be camera ready by uploading the revised article on the icaisd.info. Meanwhile, articles with a score of -3 to -1 were rejected with a total of 63 articles.

Conference submission management system: Conference Management System used is easychair

☐ **Number of submissions received: 213**

☐ **Number of submissions sent for review: 211**

Number of submissions accepted: Numbers of accepted articles are 148 however, 3 authors do not do the presentation of their articles.

☐ **Acceptance Rate (Number of Submissions Accepted / Number of Submissions Received X 100): 69,48**

Average number of reviews per paper: Each article is on average reviewed by 2 reviewers, if one reviewer accepts and one reviewer rejects, we will give it to the third reviewer to take into consideration whether the article is accepted or rejected.

Total number of reviewers involved: Total numbers of reviewers involved are 22 persons

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document and its presentation document via the <http://icaisd.info/icaisd/login.aspx> page to be presented again on 6-7 August 2020 via Zoom

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PAPER • OPEN ACCESS

Swietenia Mahagoni Wood Defects Segmentation Using YIQ Color Space and Thresholding

To cite this article: Sri Rahayu *et al* 2020 *J. Phys.: Conf. Ser.* **1641** 012071

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Swietenia Mahagoni Wood Defects Segmentation Using YIQ Color Space and Thresholding

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Abstract. The biggest income from Southeast Asian countries came from timber production export activities. The potential for timber exports in Indonesia continued to increase every year. This skyrocketing potential needed to be improved by maintaining quality so that trust and good cooperation continued to be established. The quality of wood has closely related to wood defects, the faster detection of wood defects would be the faster also determines the quality of wood. Current technology has being developing rapidly to help productive human activities, image processing has being a breakthrough to be able to detect wood defects. This study aims to detect wood defects by segmenting Swietenia Mahagoni wood images by using the YIQ color space and Thresholding has resulted in a fairly good segmentation that is successful in segmenting the types of bark grown wood defects on bontos and defects in healthy knot on the body of wood with each percentage of 83.3%.

1. Introduction

The tropical rain forests in Southeast Asia had more than 15,000 different plant species, which comprise around 3000 categories of wood species. The biggest income from Southeast Asian countries came from timber production export activities [1]. Based on WITS (World Integrated Trade Solution) data in 2018, Indonesia's wood exports were spread in 191 partner countries. Among Indonesia's top wood export partner countries including China with a selling value of \$ 3,170,496.63 (26.83%), Japan with a selling value of \$ 1,375,878.33 (11.64%), the United States with a selling value of \$ 838 865, 3 (7.10%), the Republic of Korea with a selling value of \$ 753,413.46 (6.38%), and India with a selling value of \$ 524,449.63 (4.44%). While the other 43.61% is about 186 other partner countries with a selling value of \$ 5,152,764.85[2]. Swietenia Mahagoni (King Swietenia macrophylla) is a species that was known throughout the world and most important is economical because of the inherent characteristics of wood, such as easily formed, while mechanical resistance, high dimensional stability and interesting aesthetic aspects[3][4].

So there is no doubt that Swietenia Mahagoni wood or which is called with mahogany is included in wood that has exported by Indonesia with increasing value. This potential needs to be continuously improved while maintaining quality so that trust and cooperation continue to be well established. The quality of wood products is very dependent on the strength of wood. Defects in wood, especially knots might reduce the strength of wood[5]. Currently the determination of wood quality based on existing defects has still done manually by wood testers



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without any tools. This research aims to convey a technology-based solution by creating an image processing system to segment the defects of switenia mahagoni wood which often occurs as an initial step to detect wood defects to determine the quality of the wood.

Image processing research on wood defects is not the first, before researchers have written various studies, An improved binarization algorithm of wood image defect segmentation based on non-uniform background by [7] has segmenting wood defects using the proposed method namely image binarization optimization algorithm based on local threshold shows that it can improve segmentation for wood defect images on complex backgrounds. An improved Otsu method using the weighted object variance for defect detection by [8] proposed an increase in the otsu method, called Weighted Object Variance (WOV) to segment surface defects, was developed from the otsu threshold, previously mentioned segmentation with thresholding separating the background from the object[9]. From these various sources, the authors feel compelled to conduct research on wood defects using datasets taken from Indonesia's Forests by segmenting defects in mahogany wood that often occur and have a major influence on quality with segmentation techniques using thresholding which were previously converted to the YIQ color space (Luminance, Inphase, Quadrature).

2. Method

The research method carried out by the author to realize the technological solutions discussed earlier is as illustrated in the following figure :

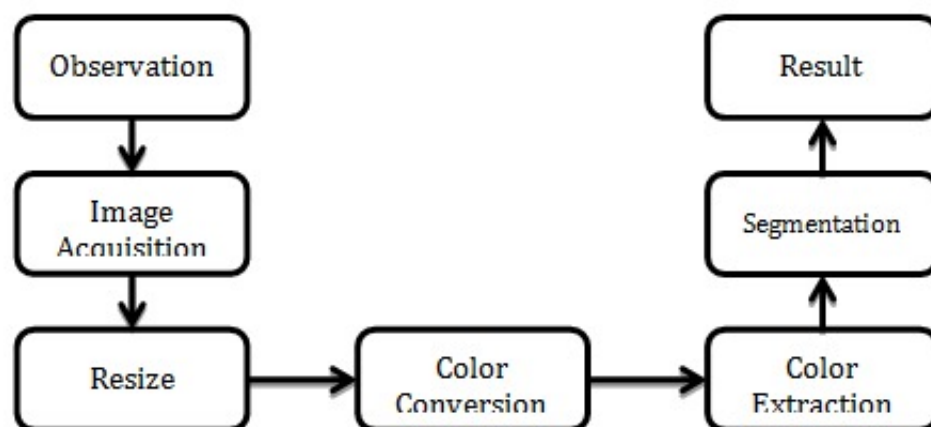


Figure 1. Research Method

2.1. Observation

The data that will be processed was taken from observations to a TPK (Wood Storage Area) in West Java by digging information directly from a team of wood testers who have proven competent by Ministry of Environment and Forestry.

2.2. Image Acquisition

Data collection is done by taking your own image using an Handphone Realme 3 whose camera size is 13 MP with a distance of the object and the camera is about 30 centimeters in solar lighting around 12 noon West Indonesia Time.

2.3. *Resize*

Image taken manually, generally can not be directly processed because the image size is too large, then change the image size from 4160 x 1968 pixels to 416 x 197 pixels and change the image format .jpg to. Bmp so that the image becomes easier to use.

2.4. *Color Conversion*

Before segmentation, the initial image with RGB (Red Green Blue) color space is converted to YIQ color space. The YIQ color space is defined by the NTSC (National Television System Committee), Y represents lighting or image intensity, while I and Q (in-phase and quadrature) represent chroma or color information, Q also shows the color depth in the image[10][11].

2.5. *Color Extraction*

Images that are already in the YIQ color space are extracted every component of Y, I and Q to find out the lighting chroma, color patterns and intensity or color depth in the image. Each color composition of the histogram was raised, so that the color tendency can be seen. A histogram in image processing is a graphical representation for the color distribution of a digital image or illustrates the spread of pixel intensity values of an image or certain parts of the image. From a histogram relative frequency of occurrence of intensity in the image, brightness, and contas of an image can be seen [12][13].

2.6. *Segmentation*

The result of extraction from the YIQ color, the Q value representing the intensity or depth of the color is then carried out Thresholding with a value of 0.5. The threshold value also important when image will be classified[14]. Binary images are digital images that have only two possible pixel values, namely black and white. Binary images are also referred to as B&W (Black and White) or monochrome images[15][16]. With so visible disability area, then clarified again by doing a conversion to the RGB color space and added yellow coloring to the defects area.




3. **Result and Discussion**

From the various stages of the research method conducted using matlab2015, it produces a good segmentation of mahogany wood defects, in this study the authors focus on 3 types of defects, namely bark grown on bontos, healthy knot and rotten defects on the body. If in previous studies [7] optimizing binary images from the local threshold can be segmented on 2 types of defects, black spherical vertex defects and creeping cracks, then this study segmented 3 different types of wood defects that have almost the same texture color not as prominent as the knot defects in the previous case, then the last stage carried out in the previous study produced a binary image that shows the position of the defect area while in this study the image is returned to the RGB color space as the original image with a yellow mark on the disability area so that users know in real terms from the original image. Almost the same as [7], research [8] proposes an increase in the otsu method of the otsu threshold also segmenting surface defects with the final result in the form of binary images, as well as [9] using thresholding to separate the background from the object.

3.1. *Original Image*

The original image obtained from the image acquisition and then collected it, pre-processed so that it is ready for image processing. The following is an example of the original image of wood defects based on their class:






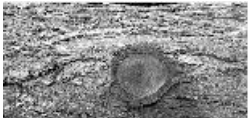






Table 1. Image of Wood Defects

Types of Wood Defects	Example Image	
Bark Grown defects		
Healthy knot defects		
Rotten knot defects		

3.2. Color Conversion

The image processing technique that was first performed was by converting an RGB image into a YIQ color space by pouring it on each composition Y, I and Q.

Table 2. Image Conversion RGB to YIQ

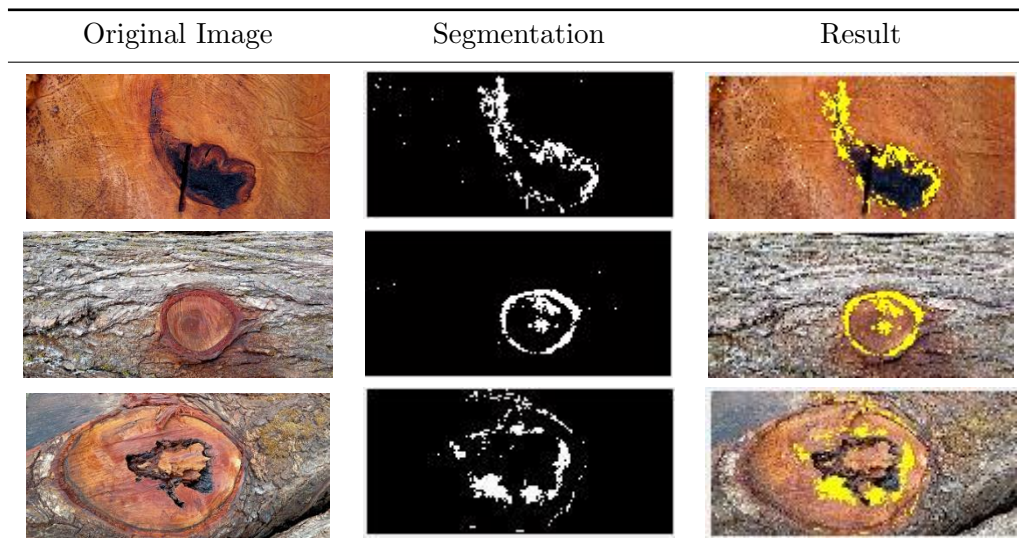
Original Image	Y Image	I Image	Q Image
			
			
			

3.3. Defect Segmentation

Wood defect segmentation is done by using Thresholding from Q layer of image that has been converted to YIQ space, after segmenting, image segmentation is clarified in yellow by returning the color space to RGB again.

3.4. Success Rate of Segmentation

This segmentation experiment conducted on self-captured images results in the following success rates:

Table 3. Wood Defects Segmentation**Table 4.** Success of Segmentation

Type of Wood Defects	Samples	Segmented Image	Percentage
Type 1	18	15	83.3%
Type 2	18	15	83.3%
Type 3	18	11	61.1%

In Table 4, we can see that the segmentation was successfully done on the Bark Grown Defects there were 15, in Healthy Knot Defects there were 15 and in the Rotten Knot Defects there were 11, one of the factors that caused the less successful segmentation of the Rotten Knot Defects on the body Mahogany wood is because the disability is not merely circular as in Healthy Knot Defects so it is rather difficult to segment.

4. Conclusion

Given Indonesia's potential for its abundant timber output, the quality of wood must be maintained. Based on the problems that occur in the field that the sorting of wood quality can be seen from how many defects that occur and in which part of the occurrence that is done manually, it's so long time and a high level of accuracy, it is indeed necessary to have technological assistance that can detect defects wood so that it is faster, accurate and efficient. Image processing carried out using the YIQ color space and Thresholding turned out to be able to segment well, that is, successfully detecting wood defects that often occur in Swietenia mahagoni wood including bark grown on bontos that were detected as many as 15 images from 18 images of wood defects (83.3%), healthy knot defect on bodies that were successfully detected as many as 15 images from 18 defective wood images (83.3%) and rotten knot defect on the body that was detected as many as 11 images out of 18 defective wood images (61.1%). Judging from the level of success, which is segmented very well is the type of bark grown defects and healthy

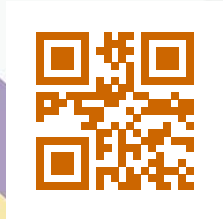
knot defect, while other defects still need to be improved for further research.

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